

# **INTERNATIONAL FEDERATION FOR INFORMATION PROCESSING**

**ANNUAL REPORT 2019 / 2020**



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## 2. Introduction

(Max Bramer, Honorary Secretary)

This is the third in a regular series of annual reports issued by IFIP, the International Federation for Information Processing, based on papers prepared for our annual General Assemblies. This report covers the period from October 2019 up to the General Assembly in September 2020.

IFIP is a global non-profit federation of societies of ICT professionals. It aims to achieve the worldwide professional and socially responsible development and application of information and communication technologies. The Federation's membership comprises 39 national and international ICT societies in six continents. Together its member societies represent over half a million ICT specialists worldwide. The Federation was founded under the auspices of UNESCO in 1960, so 2020 marks the important milestone of its sixtieth anniversary year.

As all readers will know, the period from February/March 2020 onwards was blighted by a worldwide pandemic of the Covid-19 virus which has affected the lives of everyone on our planet and (in some parts of the world at least) still shows little sign of coming to an end. IFIP has member societies and is responsible for events worldwide and has inevitably been affected by this. In my view this annual report is an impressive record of achievement under seriously adverse conditions.

One of the many effects of the pandemic was that our annual Board and General Assembly meetings in 2020 were both held by videoconference not face-to-face. Most regrettably, the 'sixtieth Jubilee' celebrations planned to commemorate the Federation's foundation in 1960 had to be abandoned, although it is hoped that replacement events of some kind will be organised in the second half of 2021.

As well as its member societies, IFIP has thirteen Technical Committees (TCs) covering all areas of ICT from Foundations of Computer Science through Artificial Intelligence to ICT and Society. The TCs have approximately 100 Working Groups which comprise around 3,500 international ICT specialists. Together they organise, sponsor or co-sponsor around 100 events each year, bringing together skilled professionals and thought leaders from ICT industry, research and policy to enable the sharing of knowledge and development of professional standards. Proceedings are published in major technical publications such as the Springer Lecture Notes in Computer Science series. Copies of many papers are also made available free of charge in the IFIP Digital Library.

IFIP also has four Domain Committees, established to strengthen inter-disciplinary work, specifically in application domains where ICT is increasingly being deployed. There are currently Domain Committees on Cloud Computing, IT in Disaster Risk Reduction, Health Informatics and Internet of Things.

As part of its commitment to professionalism, IFIP has established IP3, the International Professional Practice Partnership, which is developing an infrastructure to encourage and support the development of both ICT practitioners and employer organizations, recognise those who meet and maintain the required standards for knowledge, experience, competence and integrity, and define international standards of professionalism in ICT. It currently has members in 14 countries.

IFIP pays special attention to the needs of developing countries and assists them in obtaining optimum benefit from information technology through its standing committee

on Digital Equity and otherwise. The Federation's main flagship event is the World Computer Congress (WCC), which has run approximately every two years since 1959 and includes exhibitions of computer systems and services, world-class technical events, symposia and workshops. The twenty-fourth WCC was held in Poznan, Poland in September 2018.

This document contains reports on all areas of the Federation's activity. Further information is available from the committees, societies etc represented here or from the General Secretary, Eduard Dundler, at [eduard.dundler@ifip.org](mailto:eduard.dundler@ifip.org). Up to date news is also available from our free monthly publication, IFIP Insights, circulated by email, which contains news from IFIP member societies, Technical Committees etc around the world. A free subscription is available from [http://www.ifip.org/insights\\_register/](http://www.ifip.org/insights_register/) . Recent articles can be seen at <http://insights.ifipnews.org/> .

### **3. President's Report**

(Mike Hinchey, IFIP President)

Online meeting, 24 September 2020

#### **Covid-19**

Clearly the biggest issue for most people this year has been the current pandemic. Following, in many cases, several weeks of lockdown — and even some re-lockdowns — institutions, businesses and facilities are re-opened albeit with reduced capacity. However, travel is still uncertain and problematic (with required quarantines, limited flights, etc.) and as a result a number of activities are rescheduled or cancelled. Even our own Board meeting was delayed (cancelled in Nanjing, moved to Berlin, rescheduled and ultimately cancelled) and was ultimately held online. Therefore, the decision was made to hold our GA online. I will update on other issues that are changed in the rest of this report.

#### **General Assembly 2020**

As reported above, the General Assembly was moved to be an online only event, with 2 sessions planned for 3 hours on 24th and 25th September. All participants have been asked to prepare their written report in a timely fashion and upload to the restricted area. The GA will focus on items that need voting, etc., on the first day, with items that do not require voting on Day 2.

#### **UNESCO**

We had planned to host an event to celebrate our 60th anniversary/jubilee at Maison de l'UNESCO on 28 September 2020. Because of the current situation we have decided to postpone this event. UNESCO are fully supportive of rescheduling the event, but we do not yet have a specific date. We have specifically requested that the event is moved for a full year (to 28 September 2021) so that it will still coincide with UNESCO's International Day for Universal Access to Information and mark the end of our 60th anniversary year. We do not, as yet, have confirmation that this requested date will be possible.

It is likely that we will have a small number of smaller events in the meantime, possibly online or a mixture of online and physical. Such events could include the launch of the Jubilee books (cf. PC report) and the launch of an IFIP Code of Ethics, among others. We have also agreed with Springer to make these books available on an open access basis via the IFIP DL at no cost to IFIP.

#### **UNCTAD**

Following a successful IFIP "side event" at UNCTAD last year, the intention was to have a presence this year in Geneva. Due to the pandemic, the event was postponed by 6 weeks and ultimately run online as 3 x 1.5 hour sessions, 10-12 June. We have recently been asked to contribute some expertise to a new UNCTAD report.

A side event at the UN General Assembly on how ICT contributes to achieving the SDGs is planned for 1st October and will be run virtually. Mike Hinchey, Moira de Roche, and A Min Tjoa will participate.

#### **WSIS**

WSIS was also postponed and ultimately it was decided to run it as multiple events over multiple weeks, following a consultation process on 28 May. Moira de Roche was IFIP's main representative and events have been run on Ethics, Disaster Risk Reduction and Education. IFIP visibility was high during the events and the logo was very obvious in closing videos for each event.

### **AI for Good**

AI for Good has also been transferred to an online event, with activities spread out over a number of months.

### **Ethics**

TC9 has been leading a development of an IFIP Code of Ethics based on, and expanding upon, the ACM Code of Ethics. A complete version is available for GA's consideration in advance of layout and printing. A budget for printing and distribution is also requested.

### **InterYIT**

InterYIT has held a number of activities. This includes 2 online events related to the use of AI and related technologies in addressing the pandemic. All events had good attendance and promoted the IFIP brand.

### **AI Forum**

As reported at the last Board meeting, and at the GA, at the request of BMVIT, we organized an event on the topic of AI at the Ministry in Vienna in May 2109. Sir Roger Penrose and Stephen Ibaraki were keynote speakers. Eunika Mercier-Laurent organized several other speakers and panels and is considering this event as a model for an event in France in September 2020. BMVIT has asked that we have a repeat event in 2021, although that will depend on the situation in 2021.

### **Membership**

Over the past 2 years we have spoken with potential new members: Botswana Computer Society, Thai Association of IT Professionals, Bangladesh Computer Society, IT Commission of the United Republic of Tanzania. IP3, and Moira de Roche in particular, have been helping to progress issues with Botswana and Tanzania, and Moira is assisting Botswana with a forthcoming event.

Unfortunately, we have lost John von Neumann Computer Society (Hungary). CSSL (Sri Lanka) have renewed their membership.

Sweden had concerns about continuing their membership. I was asked to attend their Board meeting in Stockholm, which became online only. They decided to deal only with coronavirus-related issues at that meeting and I have been asked to attend a future meeting instead. In the meantime, they have renewed their membership.

### **Finance**

Naturally the financial situation for the coming months (and years) is uncertain. Income for 2020 is mostly received. 2021 and beyond are more uncertain as particular member societies suffer from loss of income. Also, cancelled events and events running online only will impact the income we receive from event fees and (to a lesser degree) royalties.

Time is allocated on the schedule to discuss budgets and finance.

## **4. Honorary Secretary's Report**

(Max Bramer, IFIP Honorary Secretary)

This is my first report since taking on the role of Honorary Secretary at the end of the 2019 General Assembly in Kiev. Since then, I have regularly communicated with Mr. Eduard Dundler, the IFIP General Secretary and the head of the IFIP Secretariat on management and administrative matters and have found him an invaluable source of information and support. I have had much less interaction with Mr. Dundler's colleagues in the Secretariat, Brigitte Brauneis and Marion Smith, but have invariably found them positive and helpful. The Federation is fortunate to have such a strong central secretariat, especially in these difficult times.

Apart from 'standard' office work, the Secretariat's work since the last General Assembly has included preparing a report to the Austrian government about the use of its grant for 2018/2019, preparation of a successful application to the Austrian government for a grant for 2020/2021 (the result of excellent personal communication and cooperation with the ministry), renewal of the Federation's IT Infrastructure in connection with Windows 10 and preparation of a report on the use of a UNESCO grant for a TC8 conference in Africa (10.000 USD)

I was concerned to learn that one of the Secretariat's regular commitments is the substantial work involved in processing files and metadata relating to event proceedings as preparation for the inclusion of papers in the IFIP Digital Library. Whatever the benefits of this work, it is a significant ongoing time commitment for the Secretariat and takes up staff time that might usefully be devoted to other matters especially providing additional support and information to the Federation's member societies, Technical Committees, and event organisers. In my opinion this use of Secretariat time needs to be reviewed.

### **Membership**

At the time of writing the Federation's membership is as follows

Country Representative Members: 36

International Members at Large: 2

National Member at Large: 1

Associate Members: 4

Honorary Members: 7

Ex-Officio Members: 7

Membership issues will be discussed further under the Membership and Marketing Committee Report agenda item for this meeting.

### **Executive Committee**

Since the last General Assembly, the Executive Committee has had two teleconference meetings: on January 30th, 2020 and May 8th 2020. The minutes of these meetings are given in the Executive Committee report elsewhere on the agenda for this meeting.

### **Finance Committee and Technical Assembly Chairs**

Franz Rammig and Michael Goedicke have left the General Assembly and so under our Statutes and Bylaws are no longer eligible to serve as Finance Committee and Technical Assembly Chairs, respectively. The President has appointed Raimundo Macêdo as the Acting Chair of the Finance Committee and Philippe Palanque as the Chair of the Technical Assembly.



## **Annual Report**

My experience of discussion with senior members of one of our member societies strongly suggests that the production of a printed annual report adds considerably to the Federation's external credibility. The 2018/19 Annual Report has now appeared and, in my view, gives a very good impression of the wide range of valuable work being done by the Federation's constituent parts.

## **Experimental Board Meeting**

As an experiment an additional meeting of the Board was held in Kiev shortly before the 2019 meeting of the General Assembly. This experiment was certainly not an unqualified success. There were strongly expressed views – mistaken but understandable – that the intention was to conceal important information from the non-Board members of the General Assembly and in my view any small benefit gained from the additional meeting was more than outweighed by the time it took away from the GA meeting itself and the negative atmosphere that it inadvertently created. I am pleased to report that at the Board meeting in June it was decided not to continue this experiment.

## **Covid-19 Problems**

Since approximately February the work of the Federation and much of the rest of the world has been severely disrupted by the Covid-19 pandemic. It is fortunate that the layout and size of the headquarters building in Laxenburg has enabled the Secretariat to continue working there whilst maintaining safe 'social distancing'. Most of the Federation's events have been postponed to later this year or to 2021. Some of them have been organized as 'virtual conferences'. So far only a few have been cancelled altogether.

At the time of writing, it is still impossible to estimate the effect on IFIP – an organization that operates on a worldwide scale - and its member societies. The virus seems to have been almost eliminated in some countries but is still spreading almost uncontrolled in others. All countries are potentially vulnerable to a 'second wave' of the virus later this year or next and it is unlikely that it will be eliminated worldwide for many years.

However, it is easy to predict that many conferences, both IFIP 'sponsored' events and member societies' own events, having changed to a virtual mode of presentation will remain that way with significantly lower fees, that many organisations will go out of business, possibly including some Universities and even some airlines, and that world-wide travel is likely to be severely constrained for safety reasons for several years at least. The economic implications of imposing lockdowns in many countries are likely to lead to major budget cuts in several countries and may cause severe financial problems or even existential problems for some of our member societies.

The overall effect of all this on the Federation's finances, probably for a long time and possibly permanently, can only be significantly negative. It would certainly be foolish to imagine that if we wait a few more months the problem will simply go away and everything will go back to normal. Far more likely the world will have to adjust to a 'new normal' and this may not be easy or pleasant to do.

Even before the CoronaVirus crisis hit the world, the Federation had been spending considerably more than it brings in every year, relying on income from the 'Investment Fund' to make up the deficit. However, that investment income is now itself under threat as the Honorary Treasurer will no doubt explain, and continuing to spend far more than we earn is likely to be the route to extinction. The Federation urgently needs a new financial model.

I draw the Board's attention to Minute 2(b) of the Executive Committee meeting on May 8th, where it was agreed that 'the Finance Committee [will] draw up a strategy for bringing the Federation's annual income and expenditure (excluding any investment income) into balance within three years' and that Mr Milan Ftacnik, Honorary Treasurer-elect, 'will work together with Mr Brady [outgoing Honorary Treasurer] on a proposal for a finance strategy to be discussed with the Finance Committee before being put to the GA for approval'. I see this as a most important initiative. Drawing up a new financial model involves a thorough examination of the way we are currently working. We must be prepared to look for new sources of income and at the same time must avoid assuming that any of our current expenditure is sacrosanct.

## 5. Honorary Treasurer's Report

(Declan Brady, IFIP Honorary Treasurer)

### FINANCIAL STATEMENTS FOR THE 2019 CALENDAR YEAR

The accounts have been maintained during 2019 by the Secretariat, monitored by the Treasurer, and have been audited by CONSULTATIO Wirtschaftsprüfung GmbH & Co KG.

### SUMMARY OF FINANCIAL STATEMENTS, 2019

The 2019 financial year ended much as anticipated in my report to GA in Kiev, 2019. Income of €310,660 for 2019 was a par with previous years, though the mix shifted slightly; a little stronger than budget due to better royalties from publications and proceeds from activities. Fee income continues to be weak; this is due to members availing of discount, and the need to write off uncollectable income.

Expenses – at €450,224 – are below budget; higher than expected Secretariat costs (larger salary costs) are offset by considerably lower Technical Committee expenses and the budget for additional staff remaining unspent.

IFIP budgeted to return an operating loss (i.e. excluding portfolio performance) in 2019 of €227k, but some €112k has been saved, leading to an operating loss of €139k.

A second bright spot in this financial gloom is that the realisation of the portfolio forced upon us by UBS (when they ended their relationship with us) created an exceptional €213k return on the portfolio investment, all but reversing the previous year's investment loss. While this (after allowing for TC fund provision and Portfolio management fees) means we end the year with a surplus (before Financing Projects from Portfolio) of €49k, it again illustrates the exceptional and dramatic effect that the portfolio performance, which we cannot influence, has on our finances, variously either flattering them, or damning them. I said last year that this merits some further thought, and it bears repeating.

### OBSERVATIONS ON FINANCES

Concerning membership dues: 2018 was the first year where a discount was offered to member societies for early payment, and this was still available in 2019; there has been deductions in the accounts amounting to ~€4.6k where this has been taken advantage of. This source of income continues to be weak (i.e. under budget).

Concerning Projects: per the decision of the Board, the establishment costs of the Digital Library, and the costs of the Marketing contract, have been financed from the portfolio (as an investment, totalling €27,296).

Concerning the Portfolio: See section 4 below.

Concerning durability of IFIP finances: Please see Treasurer Report GA 2020 part 3. Auditors Opinion – it is (mostly, but not always) comforting when the auditors have essentially no opinion to offer on the accounts.

### 4 PORTFOLIO OF INVESTMENTS

The portfolio of investments was managed on IFIP's behalf until December 2019 by UBS in London. Our portfolio was managed as a "balanced" investment, with costs compatible with expectations.

During 2019, UBS gave us notice that they were terminating their relationship with us. This arose from a number of factors:

1. UBS was itself undergoing a reorganisation, and the office in London was no longer taking on the management of funds from clients in our category
2. The size of our portfolio (~€2m) fell below UBS' (increased to €5m) threshold for fund sizes

While we did engage with UBS to attempt to transfer the portfolio to a different UBS office (Vienna), it transpired that this office was unable to take our business on due to a policy restriction on management of funds where any of the "beneficial owners" is a US passport holder. (For financial governance and reporting purposes, "beneficial owners" are either exactly that (they natural persons who own the assets) or those natural persons that control the funds – in our case, the members of the Board).

Communications with other banks in Germany, Austria and Ireland concluded similarly, leaving us with a conundrum. For the time being, the funds are on deposit with Raffeisenbank Mödling (Austria), our day-to-day bankers.

#### SUMMARY CONCLUSIONS

IFIP's financial performance always represents a somewhat mixed view of IFIP. The exceptional nature of the losses and profits emanating from the former portfolio investment is too much outside of IFIP's control to be budgeted reliably. Factoring out the effect of the portfolio, the size of IFIP's expenses exceeds the size of IFIP's income. This would be fine, if this was as a result of a series of planned expenditures (either investments, or public goods), but in truth it is systemic, and has been for a number of years. IFIP is a small, but ambitious, organisation, and is not in immediate danger.

Nevertheless, some important "repairs" need to be undertaken while we have the capacity to do so (some thoughts on this. The events of 2020 represent both a crisis (not to be wasted) and an opportunity to be leveraged (as many previously held assumptions prove groundless).

#### BUDGET CONSIDERATIONS, 2021 CALENDAR YEAR

The Honorary Treasurer required by the statutes and bylaws to prepare a budget for IFIP each year, according to procedures and principles laid down in the standing orders, for approval at GA. A considerable part of this process requires taking input from budget holders, as their combined budgets comprise the large part of the overall expenses of IFIP.

This year, together with the Treasurer Elect, the Treasurer has been tasked to try to establish a course to obtaining a balanced budget that does not rely on being able to subsidise expenditure from IFIP reserves. This is no simple challenge. For several years now, IFIP's income has lagged its budgeted expenditure. The effect of this is a gradual diminution in the size of IFIP's reserves.

This budget is an attempt to start the process of achieving sustainability, while balancing the need to be prudent in these times of great uncertainty.

The annual budget proposition is based on a number of inputs:

- Considered requests and submissions from IFIP budget holders. These have generally been slow to come by, with limited detail, with some TCs failing to provide any input.
- Analysis of budgetary patterns from previous years. This has been the primary method of budget analysis.
- Decisions from General Assembly

- Analysis of projected operational costs

It is also affected by various constraints:

- The need to achieve balance in the budget (eventually, net of investments)
- Where considered requests are not received, budget cannot be proposed

2020 has been a very difficult year, as the world has been gripped by the COVID 19 pandemic caused by the SARS-COV-2 virus, which emerged in late 2019. The impact on IFIP has been that many of the events that had been planned have been unable to take place, or have taken place in quite different circumstances; curtailment of travel has had the effect of reducing many items of IFIP cost, but also has had an impact on projected income. To try to understand how this might play on into 2021 is effectively to gaze into a crystal ball, and yet a budget must be proposed.

To assist with the task of budget preparation for 2021, we solicited input from all the budget holders regarding their foresight on circumstances in 2021, and also concerning their ideas and suggestions on what might be useful to consider in terms of making changes to how IFIP works and is funded and financed; unfortunately only a small minority of budget holders provided any kind of response; this means that while the exercise will need to be repeated over the coming months, there was insufficient material to be able to provide any real input into this year's budget considerations.

## **6. IFIP Historian's Report**

(Roger Johnson, IFIP Historian)

### **Celebrating IFIP's 60<sup>th</sup> Anniversary in 2020**

#### **Diamond Jubilee Commemorative Book**

Over the past 12 months work has proceeded on the production of a book to mark IFIP's 60<sup>th</sup> anniversary. Leon Strous and I with significant help from leading historians, David Alan Grier and Doron Swade, have assembled a series of short essays highlighting many of the key issues facing the contemporary ICT community.

On behalf of IFIP I would like to put on record our thanks to all those who have contributed chapters to the book which we believe will provide thought provoking reading when it is published as AICT 555 by Springer. The text is now almost completed, and the book will be published very soon.

## **7. International Professional Practice Programme (IP3)**

(Maira de Roche, Chair IP3)

### **Governance**

The International Professional Practice Partnership (IP3) was founded by the International Federation for Information Processing (IFIP) in partnership with several leading professional ICT organizations from around the world. IFIP was founded under the auspices of the United Nations Educational Scientific Organization (UNESCO) in 1960 and now has over 56 country member bodies and affiliates representing over 90 countries. IFIP is a consultative body for IT for the United Nations Educational Scientific Cultural Organization, Sector Member for the International Telecommunications Union (ITU) and Scientific Associate Member of the International Council for Science (ICSU).

### **IFIP IP3 Mission**

Our mission is to be a global partnership that will strengthen the global IT profession and contribute to the development of strong international economies by:

- defining international standards of professionalism in IT;
- creating an infrastructure that will encourage and support the development of both IT practitioners and employer organizations and give recognition to those who meet and maintain the required standards for knowledge, experience, competence and integrity;
- working closely with our member bodies and partners who share our commitment to creating a sound global IT profession.

IFIP IP3 also participates in the UN supported, ITU hosted World Summit for Information Society (WSIS) including formal recognition by ITU as a "Contributing Partner" (IFIP). Our work aligns to WSIS and the Sustainable Development Goals (SDGs). Representatives from the IFIP IP3 executive have led WSIS forums and high-level events in Geneva and Paris since 2012, they were invited to participate at the United Nations in New York and have made submissions to the UN General Assembly's overall review of the implementation of WSIS outcomes in 2015.

### **IP3 Vision**

A vigorous program to promote professionalism in the IT profession equal to the older and longer established professions; define international standards and create a global infrastructure that will encourage and support the development of both practitioners and employer organizations in the developed and developing world through the creation of a worldwide set of professional certification schemes recognized as the hallmark of true IT professionalism, delivered through independent national member societies and supported by development frameworks for both individuals and organizations.

### **IDOCED**

IP3 launched the IFIP Duty of Care in Everything Digital Campaign in November 2016. This campaign aims to promote Trust in Digital, and the Duty of Care that everyone including Governments; Organisations, Providers and Consumers have in keeping themselves safe in a Digital World, especially in the reality of the Cyber-physical world that has come with the Fourth Industrial Revolution. IP3 promote this message at every opportunity, and actively seek to "partner for Trust in Digital".

### **Chairman's Report (Maira de Roche)**

2020 has seen us work and live in an unprecedented way because of the global impact of the COVID-19 pandemic. The shift to digital has been – as predicted at WEF 2016, when Dr Klaus Schwab launched the Fourth Industrial Revolution – exponential, but it

took this pandemic for the shift to happen. Trust has never been more important, and IP3 continues to promote Trust and the Duty of Care in Digital at every opportunity.

IP3 has always held Board Meetings on a virtual platform. We hold face-to-face planning sessions every year, usually just before IFIP General Assembly (GA). The planning session was held in Kiev in 2019 – I joined by Zoom because I was unable to travel to Kiev due to visa problems. The session focused on the “Digital Skills for Everyone, everywhere” project covered later in this report. As is tradition, we also held the IP3 AGM within the GA schedule.

The lockdown in my country (South Africa), which kept us at home for an extended period and restricted anything but essential local travel, has resulted in my having no speaking engagements in 2020, other than those discussed in the WSIS section of this report.

Pretty well everyone I know is suffering from “Zoom” fatigue. It is great that we have been able to continue with business-as-usual over this time, but there is no doubt that meetings held on Zoom and other virtual platforms are very tiring. Is it because we must concentrate so hard on the words, because we cannot rely on visual cues such as body language – a face on video is not the same? Several hardworking C-level executives have remarked that they have never been so busy!

One thing is for sure. The pandemic has impacted the world in a similar way to the World Wars in the last century. I think we will slowly get back to a new normal. I much prefer learning online but do miss face to face meetings and conferences. The highlights of my year follow.

### **David O’Leary Award**

IP3 was keen to present an award to recognise an individual or organisation that has promoted and demonstrated Professionalism (Professional Practice), has worked as an Ethics Evangelist, and/or has made strides in fostering diversity among ICT practitioners. The award was called the David O’Leary in honour of a man who made a significant contribution to the IFIP Global Industry Council. David was a role model and had all the qualities of a true Professional. I made a proposal for funding to the Kay Family Foundation for sponsorship, asking for sufficient funding to award the winner with USD1000, and pay their expenses to IFIP General Assembly (GA) to receive the award. The proposal was successful.

Deputy CEO of the Irish Computer Society (ICS), Mary Cleary won the inaugural David O’Leary Award in recognition of her ethical and professional leadership over many years. She is a driving force in the accomplishments of the EU in their work on the Professional Practice e-CF frameworks and standards. Her work with the ICS foundation has promoted digital inclusion, education, and e-health.

On receiving her award at the IFIP GA in Kiev, Ukraine, in October 2019, Mary expressed surprise and delight to be honoured in this way. “My work in the area of IT professionalism pales in comparison to the achievements of the late David O’Leary, who was known internationally for his work promoting professional practice in so many domains – government, academia, industry, and innovation. In times when we try to promote professional practice, we could not have had a better role model for all the qualities of a true Professional than David,” she said. “This award is a great honour but I must acknowledge my working context, the great mentors I have learned from, Mike Hinchey and Declan Brady and the whole Team ICS, who have facilitated my engagement with IT professionalism in Ireland and across Europe.” Read the full story about Mary’s amazing accomplishments.





Pictured above (left to right): Anthony Wong, Mary Cleary, Mike Hinchey

Sadly, I was unable to travel to Kiev in 2019, and thank Anthony Wong, IP3 Deputy Chair for representing IP3 at the award presentation.

We planned to call for new nominations around mid-2020 but decided not to present the award in 2020 once we knew that GA would be held virtually, because part of the award includes travel to the location where GA is held. We will call for nominations early in 2021, but if anyone has someone in mind, we will always welcome nominations.

### **IP3 Chair visits Botswana**

I met delegates from Computer Society Botswana (CSB) at GA 2018, in Poznan.

I first visited the Chairman Audrey Mazikana and her colleagues in the Society in August 2019. I used this time to talk about IFIP and IP3, and the benefits of belonging to IFIP. As CSB Members are predominantly academics, we also discussed the role of Educators in producing ICT Professionals.

I was invited back in November to keynote at the Computer Society Botswana's annual Symposium. My address covered the requirements for an ICT Professional and what skills they need to take them into the future. The presentation can be found here.

I stayed on to attend the CSB AGM later that day, and used the opportunity to encourage membership of CSB, and once again explained the benefits of CSB joining IFIP. We also shared tactics for growing membership.

### **IFIP Code of Ethics Task & Finish Team**

IP3 Director Margaret Havey (representing MSA), Don Gotterbarn, and Moira de Roche worked on the Task & Finish Team, under the leadership of TC9's David Kreps.

The work commenced after GA 2019, when the General Assembly agreed that a code should be produced as the IFIP Code of Ethics exemplar. This code, which uses the excellent ACM Code of Ethics as a basis, will allow IFIP Member Societies to create or revise their own codes to align with best practice.

The IFIP Code of Ethics is now complete and will be presented to GA 2020 for final approval.

Don Gotterbarn has made his services available to IP3 and has been co-opted as an IP3 Director. We are delighted to have him on the IP3 board, as he will be invaluable when we work to evangelise the code globally.

### **World Summit for Information Society**

The forum was postponed from April to August 2020 due to the outbreak of COVID-19 but was later cancelled and replaced with a virtual event, staged over a six-week period. The opening Ceremony was held on 22 June 2020, followed by three Thematic Workshops scheduled each day.

As before, IFIP joined as a supporting partner. The forum included a Virtual Exhibition, with IFIP information and a link to the YouTube video. Partner privileges allowed IFIP to present at two High-Level sessions. I represented IFIP on both occasions.

#### *High-Level Policy Session*

IFIP participated in the High-Level Policy Session: Ethical Dimensions of Information and Knowledge Societies held on Tuesday 28 July 2020 from 14:00 to 15:00 (CET). Click [here](#) for more information about this High-Level session and for a link to the recording. In answer to the question “What support does IFIP provide to governments, organizations and the information society to help them promote and ensure ethical behaviour?”, we positioned IFIP’s role and interest in ethical behaviour, saying “We all agree that for Information and Knowledge Societies to use Digital products, they must Trust in the product. What is Trust based on – well surely it is heavily reliant on Ethics? We have all seen how Technology and other organizations suffer reputational damage, in some cases never to recover, because of a failure of ethics. Would you trust someone who is unethical? “ I also explained that to support our goal of Ethical behaviour, and Professionalism in IT, we are finalizing the IFIP Code of Ethics, as an exemplar, which will be published digitally in September 2020, and in book format in 2021. I added that whilst we do not believe it is easy to regulate ethical behaviour, governments can and should set the example. In closing, we advised that IFIP also contends that there is an ethical imperative to “leave nobody behind”, and that to this end IFIP IP3 is rolling out a project “Digital Skills for everyone, everywhere”.

IP3 Thematic Workshop “Living the standard – how can the Information and Knowledge Society live to an ethical and FAIR Standard and leave nobody behind?”

The panel explored:

1. What role do Codes of Ethics play?
2. The role of Law and Regulation in complementing Codes of Ethics to improve the public’s trust in goods and services that use technologies including AI.
3. How can we create Trust in Digital?
4. Does a digitally skilled citizenry drive economic growth in all countries?

The Digital Skills Everywhere for Everyone project was introduced.

The workshop was held on 15 July 2020 from 12:00 to 13:00. The Session recording can be found [here](https://www.ipthree.org/newsroom/ip3-at-world-summit-for-information-society-2020/). The presentations are available for download on the IP3 website <https://www.ipthree.org/newsroom/ip3-at-world-summit-for-information-society-2020/>.

### **Digital Skills for Everyone, Everywhere project**

The project is led by IP3 Director Liesbeth Ruoff (KNVI & CEN)

It uses OECD 2015 report “The future of productivity report”, as well as the ITU Digital Skills Assessment Guidebook as resources.

The goals and deliverables set in the proposal are:

- to make a repository of best practices, frameworks, and use cases worldwide around the development and the usage of frontline digital technology
- to offer practical recommendations based on findings
- to start a platform of experts based on the inventory of best practices and use cases around the development of the ICT profession

The goals will be revised and expanded as we interact with partners.

Looking for partners

- Bring leaders from the ICT world (IFIP) and leaders in profit and non-profit organizations (e.g. Rotary) together to cooperate and exchange knowledge.
- Contact was made with Rotary in the Netherlands, and the reaction was positive. We will work toward applying for Global Grant
- Staying in touch with CSTD (this project was originally inspired by the presentation by Shamika Sirimanne of CSTD, at WCC2018, Poznan). We are also pleased to enjoy the advice and guidance of IFIP’s A Min Tjoa, who is also vice chair of CSTD.

First activities

- Aim to apply for a global grant - create digital capacity and prevent a “digital divide” – what is the need?
- Explain to potential partners that we mean to build a capacity that is not dependent on the commitment and goodwill of (one of) the “big 5 tech” companies.
- Emphasis on “implementing”, which costs time and money
- Implementation must match needs with a starting position of a community, region, or country
- Possible pilots in Botswana, Rwanda, and Tanzania, leveraging the contacts IFIP already has in these regions
- A successful program called Maxim Nyansa, set up in Ghana, could possibly be replicated and extended to meet our goals. Liesbeth and I are connecting with the head of this organisation (who is also a member of KNVi).
- Desk research.

Current situation

- Working with Dr Audrey Masizana (CSB & University of Botswana) to use Botswana as a pilot project.
- In a speech by the incoming Rotary chairman worldwide Holger Knaack, he acknowledged that “The digital revolution has affected us much harder than we anticipated, because of the impact of COVID-19: Rotary cannot look away”. We are engaging with Rotary with a view to collaborating on this project.

### **IFIP 60th Anniversary Celebration Book**

Authors Adrian Schofield, Anthony Wong, Liesbeth Ruoff, and I, wrote a chapter for the book on “Professionalism in IT”. We thank Leon Strous for his work in refining the chapter and helping us navigate a template that most of us were unfamiliar with.

### **Deputy Chair Report (IP3 Vice Chair A.Wong)**

Since our IP3 meeting with David Kreps, IFIP TC9 Chair and Don Gotterbarn, chair of SIG 9.2.2 Ethical Frameworks at WCC2018 and IFIP GA in Poland in 2018, TC9 has agreed to sponsor an IFIP Code of Ethics that would further support and strengthen the IP3 work on professionalism more broadly. During IFIP GA in Kiev in 2019, various

meetings were held with David Kreps and Don Gotterbarn, and it was agreed that the project would proceed with David as chair of the IFIP Ethics Task and Finish Group, with representation from IP3 - Moira de Roche; MSA - Margaret Havey and Don Gotterbarn, Chair SIG 9.2.2.

The matter has been on the Agenda of IP3 for several years and it is a milestone that the proposed IFIP Code of Ethics will be tabled and voted at the coming virtual IFIP GA 2020 in September.

In my report in 2019, I summarized some of the world-wide initiatives resonating with the IP3 2019 Action Plan – Ethics in Professional Practice – “Giving voice to values”. Over the last few years, we have seen the intensification of debate on Ethics with the publication of various AI Ethics Principles and Frameworks. When I reviewed AI ethical frameworks in 2019, there were more than 70 in existence. The number continues to grow and jurisdictions including Australia and the EU published their frameworks, adding to the lists of contributors including the OECD Principles on Artificial Intelligence, the World Economic Forum AI Governance: A Holistic Approach To Implement Ethics Into AI and the Singapore Model AI Governance Framework.

The debates have matured significantly, beyond ethical principles to more detailed guidelines on how such principles can be operationalised in the design and implementation to minimise risks and negative outcomes. I am currently assisting a multi-disciplinary group of 54 technology law experts from 16 countries to update the ITechLaw Global Policy Framework for Responsible AI.

The challenge has always been putting principles into practice. Since the proliferation of AI Ethics Principles and Frameworks, there are now renewed calls for broader regulation of AI, autonomous and intelligent systems.

How much autonomy should AI and robots have to make decisions on our behalf and about us in our life, work, and play? How do we ensure they can be trusted, and that they are transparent, reliable, accountable, and well designed? Previously, technologies have been deployed more like tools, but as autonomy and self-learning capabilities increase, robots and intelligent AI systems will feel less and less like machines and tools. There is now a significant difference, because machine learning AI systems have the ability to learn, adapt their performances and ‘make decisions’ from data and ‘life experiences’.

How should regulators manage the complexity and challenges arising from the design, development and deployment of robots and autonomous systems? What legal and social responsibilities should we give to algorithms shielded behind statistically data-derived ‘impartiality’? There is much debate as to who amongst the various players and actors across the design, development and deployment lifecycle of AI and autonomous systems should be responsible and liable to account for any damages that might be caused. Or should the producer or programmer foresee the potential loss or damage even when it may be difficult to anticipate—particularly in unusual circumstances, the actions of an autonomous system? These questions will become more critical as more and more autonomous decisions are made by AI systems. Regulators around the world are wrestling with these questions.

The need to address AI and autonomous system challenges has increased in urgency as the adverse potential impact could be significant in specific critical domains. If not appropriately addressed, human trust will suffer, impacting on adoption and oversight and in some cases posing significant risks to humanity and societal values.

ICT professionals understand better than most in relation to the trends and trajectories of technologies and their potential impact on the economic, safety and social constructs of the workplace and society. Is it incumbent on ICT professionals and professional societies to raise these issues and ensure they are widely debated, so that appropriate and intelligent decisions can be made for the changes, risks and challenges ahead? ICT professionals are well placed to address some of the risks and challenges during the design and lifecycle of AI-enabled systems. It would be beneficial to society for ICT professionals to assist government, legislators, regulators and policy formulators with their unique understanding of the strengths and limitations of the technology and its effects.

I would like to thank Leon Strous, IFIP Past President and the IFIP 60th Anniversary Celebration Book Committee for their invitation to contribute a chapter on “The Laws and Regulation of AI and autonomous systems”. The 60th Anniversary Celebration Book looks at the societal oriented effects of ICT developments on society. The chapter provides brief insights on some of the current debates and topical developments in our regulatory systems on the use of AI, autonomous and intelligent systems.

I am also delighted to contribute to the IP3 chapter on “Professionalism in IT”.

Over the course of the year, I presented on the following relevant activities:

- Revisiting Active Ageing in the Digital Economy: How should we incorporate appropriate ethical design into systems and solutions to support the needs and autonomy of the ageing sector and society? – College of Law, Sydney, 25 October 2019.
- Panel on “AI and its social impact” – University Technology Sydney (UTS), 2nd December 2019 with panellists, Professor Jie Lu, UTS Associate Dean Research Excellence and Centre Director of Artificial Intelligence and IFIP President, Professor Mike Hinchey. A video of the presentation and panel is available [here](#).
- Living the standard – how can the Information and Knowledge Society live to an ethical and FAIR Standard and leave nobody behind? – WSIS Thematic Workshop, Geneva, 15 July 2020 with Moira de Roche, Jan Lucas Ket, A Min Tjoa, Don Gotterbarn and Liesbeth Ruoff.

### **VC Standards and Accreditation (A.Schofield)**

Adrian Schofield from the Institute of Information Technology Professionals South Africa (IITPSA) has completed his sixth year as convener of the Standards and Accreditation Council (SAC).

The role and function of the SAC is to:

1. Establish and maintain standards, policies, and procedures for the accreditation function
2. Manage the accreditation function, including the recruitment, appointment, and training of assessors
3. Ensure compliance with the standards, policies and procedures and ensure consistency of decisions by assessment panels, including an audit function if required
4. Provide an assistance service to IP3 members in planning for accreditation provided that such assistance service does not compromise standards or the integrity and independence of the assessment process
5. Establish a working relationship with the Seoul Accord.

We have reviewed the need to include Cybersecurity specialism into accredited schemes, as has been done by the Australian Computer Society and is being planned by IITPSA in South Africa. Documentation for this will be issued for comment in line with the ACS re-accreditation.

We have not needed to recruit any additional assessors, nor have there been any assessment activities requiring audit.

We are pleased to report that CIPS has completed the submission of their application for re-accreditation. This application is unique for two reasons – it is the first for a scheme operated by a “virtual” society and it is the first to be assessed remotely. CIPS is a federal society, coordinated from a “virtual” national office, and the impact of COVID-19 on travel and work practices means that the assessors will not visit Canada. We expect to complete the assessment during Q3 of 2020.

We note that the ACS accreditation was due for renewal at the end of 2019, but the submission of the application has been postponed, pending the finalisation of the restructuring processes at ACS.

The IITPSA accreditation is due for renewal in 2020 and we are pleased to report that the submission of the application for re-accreditation of the Professional Member scheme and the accreditation of the Professional CIO scheme was completed at the end of July. The assessment will be carried out remotely (as with CIPS) and should be completed in Q3 of 2020.

There is no other progress to report from other societies. We accept that the road to accreditation is a long one and that there will be periods of no visible activity while preparations proceed behind the scenes.

The IP3 Guide to Accreditation was launched in Geneva in June 2017, providing IFIP member societies with an overview of the processes as they consider the resources required for accreditation. The 2020 edition of the full IP3 accreditation guidelines (Version 8) provides the detailed template for all societies interested in being accredited and is available on request. IP3 assessors are available to consult with societies who seek guidance on how to meet the IP3 compliance standards for their professional grades of membership and in the compilation of their applications for accreditation.

### **VC Strategic Relations & Global Industry Council (Stephen Ibaraki)**

The work by Vice-Chair Stephen Ibaraki provides unique and broad opportunities to position IFIP and IP3 with many diverse audiences to grow recognition, brand, and membership. Stephen contributes globally “daily” as Chairman, Founder, Board member, Speaker across: Business, investments, venture capital; serial Entrepreneurship/startups; no.1 global computing Science organizations; UN innovation programs; top CEO/Industry-organizations/think tanks, no.1 Summits (acronym BE-SUN-CIS). 300+ global engagements annually impacting \$100+ Trillion in sustainable investments.

Due to the extent of these activities only a small sampling is listed in summary and point form:

- Notable for 2020--Stephen interviewed IP3 Chair Moira de Roche which appeared in several non-profit channels such as the ACM including the widely read ACM Education Centre Bulletin.
- VIDEO INTERVIEW: A Chat with Moira de Roche: IITPSA Director; Director of IFIP IP3; Director on the Global Industry Council of IFIP
- For 2020, Stephen is invited to the regular global leaders’ meetings held by the WHO leadership where the WHO seeks input and collaboration on global

healthcare and to address the COVID challenge. Most recently, the WHO was seeking SMEs for a focus group, to be nominated with final curation by the WHO and IP3 Chair Moira de Roche was nominated by Stephen.

- In 2019, this announcement appeared: <https://www.ifipnews.org/ip3-wins-funding-david-oleary-award/--> The IFIP IP3 David O'Leary award for outstanding ICT professionalism (cash prize and travel to IFIP General Assembly <http://www.cips.ca/node/3548>) from REDDS Capital (Stephen is Chairman) with funding from the Kay Family Foundation (foundation also funds ITU AI for Good). The prize is in honour of David O'Leary, IFIP Global Industry Council Director, whose tremendous contributions are captured in this article with IT World <https://www.itworldcanada.com/blog/david-oleary-canadian-and-global-education-business-computing-leader/406773>. The first recipient of the award was given out at the 2019 IFIP General Assembly to ICS Deputy CEO Mary Cleary and captured in this news: <https://www.blockchainprofessionals.ie/news/mary-cleary-awarded-david-oleary-award> . Nominations are again sought.
- Stephen contributed many articles for Cognitive World, Forbes, IT World (Canada). A recent example on Digital Transformation spotlights IFIP's international member ACM and Stephen's interview with John Hennessy, Shriram Family Director Knight-Hennessy Scholars Program, ACM A.M. Turing Awardee, Chair Board Alphabet and 2000-2016 President Stanford: <https://www.itworldcanada.com/blog/digital-transformation-accelerated-in-a-post-covid-world/430863> Stephen contributes daily to posts within LinkedIn where he has been at the maximum allowed contacts of 30K for many years.
- The ACM is the No.1 computer science research, innovation, educational organization in the world and an international member of IFIP. Stephen is ACM Practitioner Board member and immediate past chair 2018-2020.
- The IEEE is the No.1 computer engineering organization and Stephen contributes in business development and most recently beginning in July 2020 with ongoing interviews. His inaugural interview is with Doug Wilson, Founder and Chairman of the CEO Leadership Alliance Orange County which brings together the largest companies. Doug is currently leading an initiative to build a global center of excellence AI ecosystem centered in Southern California and Orange County. Doug's interview can be found with IEEE TEMS (under Interview series by Stephen Ibaraki): <https://www.ieee-tems.org/> .
- Stephen is supporting six CEO clusters globally. An example is the YPO European Impact Summit Oct 19-21 2020 where Stephen is the founding chair of the advisory board <https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20201019/Pages/default.aspx> . YPO is the largest non-profit notable CEO organization: 28K CEOs, \$ 9 Trillion annual revenue, across 130 countries.
- Stephen as founder, AI for Good, <https://aiforgood.itu.int/> , is continuing to provide active support. Plus, with related programs such as the WHO/ITU Focus Group AI for Health where he is vice-chair <https://www.itu.int/en/ITU-T/focusgroups/ai4h/Pages/default.aspx> .

- Stephen conducts 50+ interviews annually that appear with IFIP in support of IFIP or IP3 specifically. Examples are found here with IFIP IP3 Founder CIPS: [http://www.stephenibaraki.com/cips/cips\\_interviewslist.htm](http://www.stephenibaraki.com/cips/cips_interviewslist.htm)



## 8. Standing Committee Reports

### 8.1 Publications Committee

(Chair of Publications Committee Kai Rannenberg)

#### Accomplishments since the 2019 GA and important facts:

##### Open Access to IFIP Publications in general

Open Access to IFIP Publications is currently realized via three channels, as documented on

[www.ifip.org/index.php?option=com\\_content&task=view&id=219&Itemid=564](http://www.ifip.org/index.php?option=com_content&task=view&id=219&Itemid=564)

- 1) The new IFIP Digital Library (<https://hal.inria.fr/IFIP/>), which currently makes available the author's files of IFIP Springer publications (AICT, LNCS, LNBIP) from 2017 (as applicable) back to 2010. It also includes the references to such publications up to and including 2019.
- 2) Springer Link (<https://link.springer.com>) for IFIP Springer publications (AICT, LNCS, LNBIP) with free access for all articles 4 years old and older, almost complete backwards till 2005 and additionally many publications backwards till 1995, when Kluwer Academic Publishers (KAP) became the official IFIP publisher. NB: Not the "books" are free, but the individual articles. So don't get confused by the fact that there is a lock on the book download. Just move on to the table of contents and download the articles individually.
- 3) IFIP Select: Selected papers from IFIP proceedings, selected to be of interest to a more mainstream audience, especially member societies' members, so that member societies can distribute this compendium as a service to their members. Papers are more overview papers than very special ones and in any case each accompanied by "cover paper" of 2-3 pages that describes the related scientific paper and its relevance for a more mainstream audience.
- 4) The previous IFIP Digital Library (dl.ifip.org/) for some non-Springer publications and also Springer publications between 2005 and 2012.

Combined, (almost) all IFIP works published with Springer from ca. 2005 to 3 years old are available for open and free access (one way or the other). In addition many proceedings back till 1995 when KAP became the official IFIP publisher are available (NB: KAP, the then official IFIP publisher, was merged into Springer in 2004).

##### Revision and update of the IFIP Digital Library

The implementation of the new IFIP DL provided as a professional service by Inria is progressing further. The current status can be viewed at <https://hal.inria.fr/IFIP>.

##### Uploaded content and offerings to readers

Per 20<sup>th</sup> September 2020 there were 15864 full text documents uploaded (14903 in October 2019).

All IFIP publications by Springer from 2010 through 2018 and most of 2019 are in the DL. We also have the first three eCollection (non-Springer publication) volumes in the DL. One can see the eCollection from the DL home page now. Each eCollection is also in the collection for its TC and events.

Several options for search are implemented and also a function "Cited literature" to extract bibliographies from articles automatically.

For all downloadable papers the numbers of record views and document downloads are given. <https://hal.inria.fr/IFIP-AICT-362/hal-00669799> also documents an example of the interface to Altmetric coverage with e.g. Mendeley and News references.

For the most recent Springer publications (for which Springer has the exclusive publication and embargo rights for three years except for author copies on authors' home pages) the tables of contents are given. There is a link to the author manuscript and a link to the paper in SpringerLink. So the author manuscript can be obtained by clicking on its link, and the publication copy of the paper can be obtained by clicking on its link (designated "DOI"). The publication version link will be active as soon as the proceedings volume is added to the DL, so the paper will be accessible to those with a subscription to SpringerLink, and then it will be accessible to the public four years after publication. The author manuscript link will not be active until three years after publication.

### **Upload procedures and conditions**

The eCollection workflow procedures are now agreed with the IFIP Secretariat and Inria. So we are now inviting regular IFIP eCollections. The price is 10 EUR per paper upload (with the front matter counting as one paper also). Interested events are invited to contact the IFIP Secretariat.

Moreover the PC progressed on the concept to use the DL also as a repository for "other" IFIP documents that are not reviewed research conference/workshop papers but are relevant and not documented elsewhere, such as the Algol 68 book. To avoid misunderstandings: this repository should not be called a "Series", but to give it a title other than "other" the term "ePublications" and the use of individual identifiers beyond URLs was agreed to ease stable referencing. The pricing will match that of volumes in the eCollection series.

### **Downloads and reception**

In the period from 1<sup>st</sup> September 2019 till 1<sup>st</sup> September 2020 monthly views and downloads were between 50000 and 75000 with a peak in June 2020 and typical seasonal changes (i.e. rather smaller figures in December, January, February, July, August). Ca. 75% of the accesses are actual downloads, the others just views of the metadata.

More detailed figures are expected from Inria, and we are also negotiating with Inria to focus delivery of statistics on views and downloads. Inria has been developing Kibana as a tool for gaining advanced and first uses are being tested, including statistics to understand from where papers are downloaded (with probably the IP address identifying the origin of the access) and from where which papers are downloaded.

### **The previous IFIP Digital Library**

At the same time with thanks to the volunteer efforts of TC 6 and especially Aiko Pras we continue to have many IFIP publications (mainly proceedings from 2005 till 2012) available for free access at <http://dl.ifip.org/>. This is not limited to TC 6 publications and holds for publications three years old and older. However this library has collected more proceedings than agreed and made announcements, that the links to those proceedings would be preserved, even when dl.ifip.org will be rerouted to the new IFIP DL. Therefore the transfer effort is larger than expected and the degree of rerouting is being clarified.

### **Publications agreement with Springer**

The current contract with Springer is valid since January 01, 2020 and until December 31, 2024. Please let the PC know any issues that you see, so that they can be discussed and considered in the work with Springer and for future negotiations.

### **Publication lines with Springer**

IFIP's flagship line of publications is IFIP Advances in Information and Communication Technology (IFIP AICT, <http://www.springer.com/series/6102>). Besides the main line IFIP AICT currently has two active sub-lines: Surveys and Tutorials. In addition several IFIP publications are published as part of LNBIP and LNCS.

### **Publication figures and income**

In 2018 altogether 45 volumes were published (after 48 in 2017 and 49 in 2016). Income for 2018 had been 50001 EUR after 60938 EUR for 2017 and 51942 EUR for 2016. So for 2018 the positive trend from 2017 (increase by 17.3 % in EUR) could not be upheld, but a decrease by 17.95 % in EUR occurred. However 2019 showed a positive development with 56 published volumes and an income of 69244 EUR. Compared to 2018 this is a raise of more than 24.4 % in published volumes and more than 38.4 % in EUR.

### **Linkage from Springer publications to IFIP and its events**

As of 2017 Springer has started inserting society logos on the SpringerLink pages of proceedings resulting from their cooperation with societies. Therefore the IFIP-logo is being displayed on the bottom of the sections "About these proceedings" (Bibliographic information) and "About this paper" of all IFIP AICT, IFIP LNCS and IFIP LNBIP volumes.

The relation between the IFIP AICT Editorial Board members (one per IFIP TC) and the respective TCs is made explicit both on the Springer IFIP AICT website and the AICT book front matter. The IFIP AICT website also links to detailed information about the 13 series editors organized by the sequences of IFIP TCs.

Authors and editors can now add their ORCID (Open Researcher and Contributor ID) to their name in all IFIP-AICT proceedings papers.

### **Access to IFIP publications with Springer**

Access to IFIP publications with Springer (AICT, LNBIP, and LNCS) is as follows:

- 1) All IFIP publications in SpringerLink are becoming cost-free accessible four years after publication. This holds for as long as IFIP has a contract with Springer. It covers the publications since the contract between IFIP and Chapman and Hall (and later Kluwer) back in 1996. So many more of the earlier IFIP publications are now available for free as long as this contract holds. (NB: This is not to be confused with the embargo period for the IFIP Digital Library. After 3 years IFIP can put the author's versions of IFIP publications published with Springer into the IFIP Digital Library.)
- 2) "Retrodigitized" proceedings are opened after 3 years instead of 4 years. As Springer had retrodigitized many of the older proceedings in 2013, almost all became available during 2016.
- 3) Publications published under the current and the previous contract (i.e. from 2015 till 2019 and from 2020 till end of 2024) will be accessible cost-free also after the end of any contract with Springer.
- 4) Springer now offers to IFIP a special tariff structure for IFIP events going for immediate open access publications with Springer. If a complete whole volume is made open access the normal net fees are 34 EUR/page; for the first 2 proceedings per year this fee is reduced to net 30 EUR/page, for further ones on the same year to net 28 EUR/page. If single articles are made open access the net price is 42 EU/page.

### **Quality assurance and other IFIP procedures**

The interaction between a proceedings editor and Springer is subject to all procedures established by IFIP for all IFIP publications. In particular, this includes any quality assurance mechanisms established by IFIP. There is a high degree of agreement on quality assurance between Springer and IFIP, although some elements in IFIP's policy had needed explanation. To operationally ease the process of quality assurance the members of the AICT Editorial Board are being informed every time, when Springer has accepted to start the process of publishing proceedings from an event of "their" TC.

### **Rights for IFIP events to gain proceedings and related conditions**

An IFIP event whose proceedings are published by Springer can receive up to 50 printed copies of the proceedings free of charge except for shipping costs.

However, it should be noted, that Springer is moving to the option of temporary, normally two weeks prior and two weeks following the event, free access to the publication on SpringerLink instead of this option. So at some point in the future there may be only the option to receive temporary free access to the proceedings in SpringerLink.

Springer indeed reduced the default number of complimentary copies to 25; the other 25 copies need to be requested explicitly. This option was only this summer included into the standard information on terms handed to editors (the terms for bulk purchases of conference proceedings) after an explicit request by IFIP.

Moreover Springer will provide free printed copies for post-conference proceedings only, if the files are sent within 9 months after the conference. Otherwise only temporary free online access is offered. New events in their first two instances are exempted from this restriction.

Springer is currently offering the free use of the iThenticate tool for plagiarism check as a part of the Springer proceedings publication package. The tool is offered on demand to all events publishing with Springer, but as it has costs, Springer does not publicize this widely (also, 90% of the events seem to not really need this). The software checks everything registered at CrossRef (whatever has a DOI – so all serious publications) plus a lot of cites on the web. The tool is not perfect, but to Springer's knowledge the best available.

### **General trends in Springer's interests and offerings**

There are also general trends in Springer's interests and offerings that are worthwhile to note:

- Springer is more interested in topically targeted publications than in publications that cover the whole of informatics or computer science, as topically targeted publications seem to sell better.
- Publications on SpringerLink have moved from pdf to an html/e-book compatible format.
- All printing is via "print on demand".
- For institutions who purchased one or more eBook collections from Springer and their people there is a lower quality, black-white only printing option, called "MyCopy" for £24.99 / \$24.99 / € 24.99 / ¥2999 (depending on shipping address) per copy including shipping & handling excluding local VAT/Sales tax where applicable. Details including a list of the ca. 30 countries, where this service is available, can be found on <https://www.springernature.com/gp/librarians/products/ebooks/my-copy> .

### **IFIP Select: An “e-journal” comprising “best” papers from IFIP proceedings**

The purpose of IFIP Select is to obtain a better outreach and diffusion of some of the excellent research done in within IFIP TCs and WGs. By doing that and adding some information & discussion on the practice contribution we make the research produced within IFIP available to a much larger audience of national computer societies. IFIP Select is to be a more or less regular compendium of papers from IFIP proceedings that could be of interest to an audience, especially member societies, who could distribute that compendium and see value in it justifying the IFIP membership fee. “Best” is “Best for member societies”, i.e. more overview papers than very special ones.

The concept especially includes asking the authors of the selected papers to produce a “cover paper” of 2-3 pages that describes the related scientific paper and its relevance for a more mainstream audience, especially for practitioners and other “typical” members of member societies.

IFIP Select is accessible under [www.ifip.org/select](http://www.ifip.org/select) and via the IFIP home page. It contains the “cover papers” and links to the full original papers in the IFIP DL or Springer Link or copies of the full papers, if they are not published elsewhere.

A preliminary agreement was reached with Springer that existing papers from Springer Link can be linked in a way enabling cost-free access. These papers are available for 12 months to cover for 2 issues per year.

### **Editorial process**

The TC Chairs once a year appoint two published papers from the last 18 months as the best from their TC.

The Editor-in-Chief contacts the authors and asks them to write and add a 2-3 page “How can I apply this? – The practice contribution” aimed at the thousands of members of national and regional Computer Societies (that are members of IFIP).

When received this new addition is reviewed by a small Editorial Board (currently 2 people) appointed by IFIP Publications Committee consisting of representatives from National Societies with a reasonable command of research.

### **Logistics**

The journal is being published electronically 2-3 times a year. In each issue of the journal there are to be 5-7 papers. This means that each TC on average will have 1.5 best papers published per year.

### **Operations till now**

Jan Pries-Heje – former Chair of TC 8 – is Editor-in-Chief for the first 3 years. Elizabeth Eastwood has agreed to review the “cover papers” from the perspective of a national computer society representative.

The first 2 issues with a total of 10 papers were published in February and December 2019

([https://www.ifip.org/index.php?option=com\\_content&task=view&id=262&Itemid=674](https://www.ifip.org/index.php?option=com_content&task=view&id=262&Itemid=674))

. They contain papers from TCs 3, 8 (6 papers), 9, and 13 (2 papers).

### **IFIP TC journals**

Three TCs have journals:

- 1) TC-3 Education and Information Technologies, with Springer, <https://link.springer.com/journal/10639>
- 2) TC-11 Computers & Security (COSE, <https://www.journals.elsevier.com/computers-and-security/>) and the International Journal for Critical Infrastructure Protection (IJCIP, <https://www.journals.elsevier.com/international-journal-of-critical-infrastructure-protection/>) with Elsevier.
- 3) TC-14 Entertainment Computing, with Elsevier. <https://www.journals.elsevier.com/entertainment-computing>

### **Work in progress and plans**

#### **Continued development of the IFIP DL and the “IFIP eCollection” series**

Aiming for an “IFIP eCollection” series as the primary series for proceedings not published by Springer a process is being developed to integrate the respective articles (including proceedings with an IFIP ISBN) into the IFIP DL. Several publications are being used for test runs. Tools are needed to support the editors of non-Springer proceedings for those tasks that for Springer proceedings are executed by Springer. This holds especially for the transfer of files out of paper reviewing systems and the production of the metadata needed for the DL. One option is the Sciencesconf conference management system that Inria provides. However, at least four different systems are being used by the several organizers of TC-6 conferences. A related step is to transfer the e-only proceedings that are currently in Aiko Pras’ library into the new IFIP DL.

Moreover it is planned to redirect dl.ifip.org to the new IFIP DL. This requires that the links to the proceedings in the previous IFIP DL will be preserved or redirected. As this library has collected more proceedings than agreed and made announcements, that the links to those proceedings would be preserved, even when dl.ifip.org will be rerouted to the new IFIP DL the transfer effort will be larger than expected.

In view of restricted resources in Inria the opening of the IFIP DL towards non-Springer proceedings has got priority over the bibliographic processing of Springer IFIP proceedings older than 2010.

The concept of “ePublications” is to be implemented: Using the DL also as a repository for “other” IFIP documents that are not reviewed research conference/workshop papers but are relevant and not documented elsewhere, such as the Algol 68 book. “ePublications” will be a new section in the DL. Documents will get individual identifiers beyond URLs to ease stable referencing. The pricing will match that of volumes in the eCollection series.

There are also some open questions being clarified with regard to IFIP’s possibilities and impossibilities for (usually old) papers where the copyright is not clear.

#### **Quality assurance for IFIP publications**

Work is underway to implement quality assurance for all IFIP publications by an IFIP editorial board. Feedback from the Technical Assembly on the proposal



for regular quality assurance process (that had originally been developed within the Technical Assembly) was mixed. Some TCs like the process. A few TCs don't see any need for any formalized process, as one should trust the well-chosen Programme Committee chairs. Some TCs are insecure about the effort for the process. One TC is now trialling the proposed process reporting good experiences.

For the "IFIP eCollection" series quality assurance will also need to cover those aspects that with Springer publications Springer is taking care of (e.g. compliance with the IFIP templates and proper lists of references). The respective requirements procedures are now being discussed with the IFIP TA.

### **Development of IFIP AICT**

The intention remains to involve the AICT Editorial Board, along with the PC, in considering how to make AICT a stronger series, using sub-lines to distinguish between different types of events and publications. A new sub-line "Festschriften" (honouring individual researchers and their scientific work or their institutions or fields) will be established. The first two issues are planned on the occasion of IFIP's 60th anniversary. One issue is AICT 600, a collection of papers focussing on the technical/scientific output of the TCs and their WGs. The second issue is an IFIP "history" book.

### **IFIP Select: An "e-journal" comprising "best" papers from IFIP proceedings**

Since the publication of the first issue IFIP Select is being publicised together with Springer.

The first issue of the second volume is under preparation to be published this autumn. Deadline for TCs was 2020-09-10. So far TCs have delivered papers.

### **The UNESCO Software Heritage initiative**

The UNESCO Software Heritage initiative has asked for IFIP support. This can have a wide spectrum, e.g.:

- 1) IFIP recommending for IFIP publications the archive/reference/cite guidelines that are detailed in the article "Archiving and Referencing Source Code using Software Heritage" published by International Congress on Mathematical Software (ICMS, Springer open access at [https://link.springer.com/chapter/10.1007%2F978-3-030-52200-1\\_36](https://link.springer.com/chapter/10.1007%2F978-3-030-52200-1_36));
- 2) An official IFIP commitment to the initiative;
- 3) An expansion of our DL to archive software (NB: the guidelines mention HAL (the basis for our DL) as an existing infrastructure for archiving software).

Many things can be imagined. For the moment the PC is assessing the paper referenced with regard to:

- 1) The usefulness of the guidelines to be added to our guidelines for editors and authors;
- 2) Possible competing or parallel initiatives we should also consider;
- 3) Advice to IFIP EC or Board or GA on this topic;
- 4) The idea of expanding our DL with software archiving;
- 5) Possible related issues of relevance.

## 8.2 Digital Equity Committee

(Gabriela Marin-Raventos, Chair of the Digital Equity Committee)

Conformation of the Digital Equity Committee:

- Gabriela Marín-Raventós (CR), Chair of DEC and IFIP Vice-president
- Ramon Puigjaner (ES), former DEC Chair and former IFIP Vice-president
- Raymond Morel (CH), Switzerland representative to the IFIP GA and member of TC3
- Yuko Murayama (JP), IFIP Vice-president, TC11 Chair (finished) and Japanese representative to the IFIP GA
- Lalit Sawhney (IN), Member Secretary, IFIP WITFOR 2012, New Delhi and former IFIP Vice-President
- Leon Strous (NL), IFIP Past President and one of WITFOR creators
- David Kreps(UK), Chair TC9 on ICT and Society
- Lawrence Gudza (ZW), Zimbabwean representative at the IFIP General Assembly
- A Min Tjoa (AT), IFIP Honorary Secretary
- Robert Davison(HK), Chair of WG9.4 on Social Implications of Computers in Developing Countries
- Don Passey (UK), Chair of TC3, in substitution of Sindre Rosvik (NO)

2019

DEC had a 2019 budget of 12.000 euros. During the first two calls, I-2019 and II-2019, 13.500 euros were allocated. Since towards the end of the year, we already knew some activities would not be able to invest the funds received (only 9.910 euros were reimbursed), an additional call has distributed. For the III-2019 call, an additional 3.000 euros funding was approved, but its execution has moved to the 2020 budget (since OCCE 2020 was to be held on January 2020).

2020

DEC had a 2020 budget of 12.000 euros. During the first call (I-2020), 11.500 euros were allocated. No additional call has been done during this year due to three factors:

(1) all the budget has already been assigned if the 500 euros reimbursed for the OCCE 2020 event are included,

(2) the events with allocated funding would occur towards the end of the year, and therefore no real estimate of reimbursement has possible in August, and (3) COVID has caused many events to cancel or move to online versions, not requiring travel funds.

### **Request 0 (from III-2019) OCCE 2020**

Event: OCCE 2020 “Empowering teaching for digital equity and agency” - 6th to 8th January, 2020, Tata Institute of Social Sciences, Mumbai, India [www.occe2020.tiss.ed](http://www.occe2020.tiss.ed)  
Amount requested: 3.000 euros.

Rationale: To cover traveling expenses Ph.D. students from developing countries and keynote speakers.

Request sent by: Sindre Røsvik (TC 3 Chair)

### **Request 1 HCC14**

Event: IFIP 14th TC9 Human Choice and Computers Conference ‘Human-Centric Computing in a Data-Driven Society’, Tokyo, September 2020.

Amount requested: 3.000 €



Rationale: They would particularly like to invite participation from early career scholars (PhD students and post-doctoral researchers) from developing countries.

Request sent by: David Kreps, Gopal Tadepalli, Taro Komukai, Kaori Ishii – Conference Chairs approved by David Kreps TC 9 Chair)

### **Request 2 IFIPjwc2020**

Event: Joint Conference IFIP Working Groups 8.2 (Information Systems and Organization), 9.1 (ICT and Work) and 9.4 (Social Implications of Computers in Developing Countries) on the theme of ‘The future of digital work: The challenge of inequality’ to be held in Hyderabad, India on December 10-11, 2020 <https://www.ifipnews.org/future-digital-work-challenge-inequality/>

Amount requested: 4.000 €

Rationale: They would particularly like to invite participation from early career scholars (PhD students and post-doctoral researchers) from developing countries. They plan to distribute 4000 Euros (1000 euros per working group plus 1000 euros for the mature researcher) to support 3-4 students and one mature researcher from developing countries to attend the conference.

Request sent by: Eija Karsten, Shirin Madon, Divya Sharma (approved by David Kreps TC 9 Chair, Isabel Ramos TC 8 Chair)

### **Request 3 TFC2020 ---WG5.4**

Event: TFC2020 - Cluj - Romania (<https://tfc20.eu/>) 14-16 October 2020. Funds requested by WG5.4.

Amount requested: 1500€ for reimbursing 2-3 PhD travel expenses from developing countries.

Rationale: They would like to encourage Ph.D. students and young researchers not having sufficient funds to participate to the conference in person. Ex-USSR countries and Northern-Center-Africa do have contribution in the field but rarely show-up at TFC. They would like to encourage them to come in funding the flights.

Request sent by: Denis Cavallucci (Head of WG5.4 Computer Aided Innovation) and Stelian Brad (Chairman of the conference) (approval from Tadeusz Czachórski, TC5 Chair).

### **Request 4 IFIP Summer School**

Event: 15th International IFIP Summer School on Privacy and Identity Management in Brno, Czechia — 17-21 August, 2020 (<https://www.ifip-summernschool.org/>). IFIP groups involved: IFIP Working Groups 9.2, 9.6/11.7, 11.6, Special Interest Group 9.2.2

Amount requested: 3000 €

Rationale: for travels (not stays or registrations fees) of PhD students from emerging economies with an accepted paper to present it and have it discussed. The IFIP Summer School on Privacy and Identity Management encourages not only interdisciplinarity but also broader diversity and has a tradition of more than 25 years. They hope to support the best two or three papers from PhD students of emerging economies.

Request sent by: Vashek Matyas, Stephan Krenn, Michael Friedewald, Gloria Gonzalez Fuster, Stefan Schiffner, Simone Fischer-Hübner, Kai Rannenber, Diane Whitehouse (approved by Steven Furnell, TC 11 Chair, and endorsed by David Kreps, TC 9 Chair)

Funding execution for 2020

DEC allocates funding for IFIP events with the objective of covering travel expenses for keynote speakers on developing countries and for Ph.D. students from developing countries attending IFIP conferences. Due to Covid-19, traveling around the world became very difficult and dangerous. As a result, most conferences and academic events were postponed or migrated their activities to a virtual/remote online version.

In April, DEC met virtually and decided that the allocated funds could be used to cover registration fees for Ph.D. students from developing countries for events being held virtually. This possibility was communicated to events with allocated funding. In the next table, the execution of funding is summarized. So far only 500 euros have been reimbursed to OCCE 2020.

HCC14 has cancelled and postponed to 2021, the IFIP Summer School will not use its allocated funding, and IFIPjwc2020 and TFC2020 will use probably less funds than the ones allocated for covering reduced registration fees of young researchers and PhD students participating actively (presenting papers) from developing countries.

### **Activities during 2020**

Chapter written for the IFIP Jubilee Book on “Digital equity, sustainable development and the ICT professional” by Leon Strous, Robert M. Davison and Gabriela Marín-Raventós. It describes some major UN initiatives and reflects on the options for ICT professionals and professional societies to contribute to achieving digital equity and sustainable development. These options are illustrated by a few examples of what has been done so far. Some efforts to contribute meet challenges and impediments are listed. Finally, suggestions are made to address the challenges and to increase the impact and long term effect of efforts.

### **8.3 Finance Committee**

(Franz Rammig, Chair of the Finance Committee)

#### **General Comments from FC**

The COVID-19 pandemic brought to IFIP new finance uncertainties for 2020 and coming years as member societies losses of income, cancelled events and/or events running online only will certainly affect IFIP's income for the related period.

Therefore, IFIP's expenditures should be carefully executed for the coming years, adapting budgeted expenses with actual incomes.

Concerning its charter FC has the following duties:

- To formulate policies for the sound management of IFIP finances and to propose such policies to the appropriate IFIP body for approval. Policy areas of interest include, but are not limited to, the following:
  - dues, royalties and conference surpluses
  - grants and loans
  - investments
  - cash management

Comments: The present policies are considered by FC to be adequate and useful.

No alternations are proposed by FC.

- To issue guidelines and/or to establish procedures as necessary to carry out approved policies.

Comments: FC considers the present guidelines and procedures to be adequate and useful.

At the moment, no alterations are proposed by FC. FC emphatically asks all budget holders to provide the necessary data in a strict timely manner.

- To analyze and evaluate IFIP's financial condition as necessary to ensure that policies are being followed, and to propose changes in policy when appropriate.

Following are the FC evaluation and related observations concerning IFIP's financial condition.

#### **Evaluation of 2019 and 2020**

We have received the tables Treas 3 and Treas 4 from Mr. Eduard Dundler. They give a good overview of the financial situation of IFIP from 2016 to 2020. We have also received the auditors' report as well as the Treasurer's report for fiscal year 2019.

The overall finance situation of IFIP improved in 2019 with a € 77K gain in comparison with € 290K loss for 2018. Excluding the amount of € 27K of Financing Projects from Portfolio (Digital Library and Marketing), the net result for 2019 is actually a positive balance of €49k. This improvement is, however, mainly due to an extraordinary return from portfolio. As reported by the IFIP treasurer, Mr. Declan Brady, in a direct communication with FC, such an extraordinary return was originated from the requirement to liquidise the portfolio to end our investment relationship with UBS. Thus, the structural financial problem of IFIP remains as it is currently unable to cover its expenses from regular income (excluding the portfolio), with an operating deficit of €139K in 2019, as we further comment below.

Income for 2019 is similar to the three previous years, and approximately € 30K higher than budgeted. It can be observed that the income of membership dues is lower than

budgeted by an amount of € 26K approximately, while income of royalties from publications and proceeds from activities, altogether, is € 97K higher than budgeted, which results in a small decrease by € 3K of total income in comparison to 2018. At the same time, total expenses were € 58K lower than budgeted, which was mainly due to TC funded expenses that were € 37K lower than budgeted. The resulting operating loss of about €139K is lower than budgeted by € 87K, but with an increase of € 25K compared with 2018's operating loss.

2020 has been an atypical year for IFIP finances. Though the data available for 2020 is partial, it can already be observed some consequences of the pandemic such as a decrease in proceeds from activities, € 36K lower than budgeted, and possibly a decrease of dues from members that are € 26K lower than budgeted in the partial data.

On the other hand, these negative results of events' proceeds and membership dues should be compensated by royalties from publications, which is € 42K higher than budgeted, and by expenses that were postponed to 2021 due to COVID-19. The total budgeted expenses for 2020 is € 631K, which is € 184K higher than the actual expenditure of 2019, with an operating loss of € 353K and grand total deficit of € 149K.

This large difference in budget is mainly due to new expenses such as additional staff in secretary and IFIP 60th anniversary. These expenses should, however, not be realized due to the pandemic, resulting in an expected lower operating loss than the originally budgeted (€ 353K).

### **Budget for 2021**

The Treasurer presented the report concerning the budget for 2021. He informed that, together with the Treasurer Elect, the Treasurer has been tasked to try to obtain a balanced budget that does not rely on being able to subsidise expenditure from IFIP reserves. FC completely endorses and supports this initiative as the structural finance problem of IFIP may end up compromising its existence in the future - reserves tend to disappear if actions to balance the budget are not taken.

The Treasurer pointed out some difficulties to establish a proper budget because some IFIP budget holders are failing to provide the required inputs. He also mentioned the difficulties in anticipating the effects of the COVID-19 pandemic on IFIP finances.

Nonetheless, considering all uncertainties and some expectations for 2021 such as a lower expenditure with travels, and by adopting a conservative estimation approach, a budget for 2021 has been proposed with total expenses of € 492K and total income of € 249K, with an operating loss of € 243K - such an operating loss for 2021 is € 109K lower than the operating loss budgeted for 2020.

The budgeted total loss for 2021, with a pessimistic return from portfolio, is € 201K, € 52K higher than the budgeted grand loss for 2020. Additionally, in his report for the 2021 budget, the Treasurer raised concerns on the financial IFIP structure that are shared by the FC. We highlight here the most significant ones.

Portfolio returns have been essential to sustain IFIP activities. As IFIP funds are no longer invested with UBS, a firm providing financial services, they must not be allowed to be idle in the near future, aimed at investment funds that can sustainably produce finance returns.

TCs, in general, fail to generate sufficient income to cover the portion of secretariat activity that is required to support them. This represents a large part of the drain on IFIP resources, and needs to be tackled by the Technical Assembly.

Expenditure for 2021 is budgeted at € 492K, with the largest part of it being made up of expenses related to the operation of the Secretariat in Vienna. The cost of the Secretariat (€ 319K) only represents, approximately, 65% of the costs of IFIP and exceeds the total budgeted income.

During the meeting at cyberspace (zoom) on September the 22nd at 2 p.m. Vienna Time (GMT+2), after discussing items of the above proposed budget for 2021, FC raised new concerns about the high operating loss, and asked the Treasurer to achieve a cut of around 30% in the requested expenditure from TCs – possibly applying a graded reduction across all TC expenditures to favour fairness.

The Treasurer, then, produced a new budget with a reduction of nearly 12% of total expenses. Moreover, he proposed to create a “TC Support Pool” of €6k (funded by the task on creating additional income from reserves), which might be used by TCs to cover some justified expenditure. In the new presented budget, the total income, total expenses, operating loss, and grand total loss are, respectively, € 259K, € 436K, € 177K, and € 143K.

Based on the above considerations, FC makes the recommendation to GA that:

- GA discharges the Treasurer and the EC for fiscal year 2019
- GA accepts the Auditors' report for 2019
- FC recommends GA to adopt the 2021 budget presented.

To encourage and facilitate the use of external financing support for IFIP activities.  
Comments: No concrete plans concerning this aspect have been discussed by FC.

To review IFIP's dues structure at no less than 3-year intervals, and to propose changes in a timely manner for General Assembly approval.

Comments: FC makes the proposal to GA to keep the fee structure as installed by GA 2017, which includes a periodic realignment of rates. Such realignment should, however, be realized only after analysing and better understanding the impact of COVID-19 on IFIP finances, possibly in 2021.

To propose the amount to be set aside each year for the IFIP Development Fund.

Comments: As already mentioned above, we have a structural financial problem; our income is not enough to cover our costs without help from our portfolio. Ideally we would be growing our portfolio above inflation, we are not quite up to that at present. FC recognizes that under the present condition on the financial market satisfactory interests cannot be achieved when following a conservative investment policy. FC supports the Treasurer's strategy to continue with such a conservative strategy.

## **8.4 Membership and Marketing Committee**

(Chair of the Membership and Marketing Committee, Max Bramer)

After a number of reminders to the Tunisian member society concerning unpaid membership fees its membership has been terminated. The Danish member society has also terminated its membership. Attempts to obtain a new member society for Denmark have been unsuccessful. The number of member societies, including Members at Large, is now 39.

Late payment of membership fees by several societies is a perennial problem. As recorded in the minutes of the Executive Committee meeting on May 8<sup>th</sup> 2020, the member society from Brazil has been allowed two years to pay its membership fee for 2020 because of financial difficulties. It is to be hoped that other member societies do not use this as a precedent.

As I stated in my 2019 report to the Board, 'overall the Federation's membership remains in long-term decline, even though there are far more people involved in the Information Processing field than ever before and despite the introduction of a new category of membership, Member at Large'.

Interviews for a Membership Co-ordination Officer were held at the Federation's headquarters in Laxenburg in January but the interview panel's deliberations proved inconclusive. Following discussion by members of the Executive Committee it was decided not to proceed with an appointment at this time. Shortly afterwards this matter was overtaken by events, in the form of a worldwide pandemic which has led to lockdowns in many countries, drastic reductions or bans on international travel, cancellation of face-to-face events and financial consequences for both IFIP and our member societies that are unpredictable but plainly negative and quite possibly substantially so.

The Federation is already spending considerably more than it brings in each year, relying on substantial income from its investment Fund to make up the difference. However, the future of our investment income is itself in doubt as the Honorary Treasurer will no doubt report. Any further discussion of staffing needs to wait until a new financial model to match the circumstances of the post-Covid-19 world is in place.

Following a series of presentations on the subject of University Affiliates at the 2018 General Assembly in Poznan, a considerable number of discussions in Kiev before and during the 2019 General Assembly and extensive consultation between the two GA meetings, a proposal to amend the Statutes and Bylaws in order to introduce the University Affiliate scheme was brought to the last General Assembly. It became clear during the meeting that there was significant opposition from some of the member society representatives and several of the Technical Committee chairs and the proposal was withdrawn.

In my view, this outcome is deeply regrettable. I believe that it is essential for the future of our Federation that we diversify our membership by bringing in a wider range of national and international bodies, plus major companies and other organisations and – not least – leading universities. This needs to be done without undermining the position of our national and international member societies and, with goodwill on all sides, this should be achievable. The opposition from some of the Technical Committee chairs was particularly surprising since the only effect of the proposal on TCs would be to give them access to an enhanced pool of technical experts to serve on Working Groups. I see it more as an indication of the growing disconnect between the TC Chairs and the rest of IFIP which has been evident in recent GA meetings.

Although not directly a membership issue this disconnect threatens the cohesion of the Federation and needs serious attention.

Despite repeated requests from both myself and Immediate Past President Leon Strous for GA members to suggest potential new member societies, especially National Members at Large, that the Federation can approach proactively and for help in preparing promotional materials, no suggestions or offers of help have so far been received and the number of national Members at Large remains at only one. It is to be hoped that GA members will take a more positive approach to future proposals to tackle the problem of our long-term declining membership, including proposals for other new types of membership.

## **8.5 IFIP Elections**

**Mr Bramer** reported that Mr Milan Ftacnik will start after this General Assembly his first term as IFIP Honorary Treasurer.

Mr Bramer explained General Assembly the voting procedure within the given situation of a virtual meeting.

### Vice President:

There was one vacation and three nominations for Vice President, each of the nominees presented themselves to the General Assembly:

**Mr Jan Gulliksen (Sweden) elected (2020-2023)**

### Councillor:

There were two vacancies for Councillor position to be nominated by the GA. Nominations Committee received three nominations.

**Mr David Kreps (TC 9) elected (2020-2023)**

**Mr Rainer Malaka (TC14) elected (2020-2023)**

The President congratulated the new officers and wished them successful work as IFIP officers.



## 8.7 Statutes and Bylaws Committee

(Chair of the S&B Committee, Max Bramer)

Bramer presented proposals for changes / clarifications in IFIP's Statutes and Bylaws.

**Bylaw 6.1.1** (Overview of voting rights of GA members): To correct an inconsistency with Statute 8.1. / To correct long-standing drafting error.

The proposal was **ACCEPTED** (For – Abstain – Against) 39 - 1 – 0

**New Bylaw 6.1.2:** To resolve conflicts in the Bylaws.

The proposal was **ACCEPTED** (For – Abstain – Against) 39 - 1 – 0

**Bylaw 2.9** (Liability for Dues): To make a more substantial sanction for nonpayment of dues

The proposal was **ACCEPTED** (For – Abstain – Against) 39 - 2 – 0

The President proposed a complete replacement for **Bylaw 5.4**, concerning IFIP Fellowships. In accordance with Statute 9 this was circulated to all members of the General Assembly 40 days before the start of the meeting. Bylaw changes require a two-thirds majority of all Members present or represented by proxy who have the right to vote on the topics concerned.

Shortly before the meeting several proposals for amendments were presented by Mr. Rannenber (Germany) to a deadline specified by the Honorary Secretary. The text of the three proposed amendments is given at the end of this minute. They were all seconded by Mr. Neuhold (Austria).

The Honorary Secretary clarified the procedure to be followed. Proposal 1 had been accepted by the President and so was deemed to be incorporated into his proposal without a vote. The other two proposals would be put to the vote and each required an absolute majority to go forward.

Proposal 2 was then put to the vote. There were 39 votes in favour, 1 against and 2 abstentions. The majority in favour met the 'absolute majority' criterion and so the amendment was carried.

Next, Proposal 3 was put to the vote. There were 30 votes in favour, 6 against and 5 abstentions. The majority in favour met the 'absolute majority' criterion and so the amendment was carried.

Finally, the revised motion as amended by the successful Amendments 1, 2 and 3 was put to the vote. There were 38 votes in favour, none against and 3 abstentions. The majority in favour met the 'two thirds majority' criterion and so the revision to **Bylaw 5.4 was carried**.

## 9. Domain Committee Reports

### 9.1 Domain Committee on Internet of Things

(Chair of the IFIP Domain Committee on the Internet of Things, Leon Strous)

#### Membership

Since the report to GA 2019 the membership has not changed. The Domain Committee is still interested in expanding the membership to the Technical Committees that are not yet represented. See annex 1 for the current members and TCs involved.

#### Position paper

The draft position paper is included in the open access proceedings (AICT 548) of the first working conference during WCC 2018. A revised version was accepted by the Board 2019 and the position paper has been published and distributed. Upon publication a number of reactions have been received. These were included in the report to GA 2019 with the intention to discuss how to proceed. This discussion however did not take place. With the GA 2020 taking place as a virtual meeting, there is little opportunity to have the discussion in this GA. The DC will prepare a proposal for finalizing the position paper. An option could be to include the position paper in the book that is being planned by the DC, see end of this report.

#### Conferences

The second conference took place on 31 October and 1 November in Tampa, Florida, USA. Thanks to a lot of efforts by the local team, under the guidance of general co-chair Srinivas Katkoori, and the speakers and participants the event was a success with 30-40 participants for each session during two very full days of sessions. See IFIP Newsletter of December 2019 [https://www.ifip.org/images/stories/ifip/public/Newsletter/2019to2020/news\\_dec\\_2019.pdf](https://www.ifip.org/images/stories/ifip/public/Newsletter/2019to2020/news_dec_2019.pdf) and the DC IoT website <http://ifip-iotconference.org/archive-2019/index.html>.

The proceedings "*Internet of Things. A Confluence of Many Disciplines*" are available as IFIP AICT 574. You can find information at <https://www.springer.com/978-3-030-43604-9>

The third edition was scheduled to take place on 5 and 6 November 2020 in Amsterdam. Unfortunately, this edition had to be postponed and will now take place on 4 and 5 November 2021, in Amsterdam. In order not to lose momentum, on 5 and 6 November 2020 a virtual event will be held with invited speakers. The program is currently being developed.

#### Book

The DC is working on an idea for a state-of-the-art book that will include chapters on various aspects of IoT. The planning for the book would be to publish it in Q2 or Q3 2021.

## 10. Member Societies Assembly

(Erich Neuhold, Chair of the Member Societies Assembly)

### Members and Attendance:

- ACM. Gerrit van der Meer [gerrit@acm.org](mailto:gerrit@acm.org)
- Austria: Erich Neuhold [erich.neuhold@univie.ac.at](mailto:erich.neuhold@univie.ac.at)
- Brasil: Raimundo José de Araújo Macedo [macedo@ufba.br](mailto:macedo@ufba.br)
- Guest: Wagner Meira Jr. [meira@dcc.ufmg.br](mailto:meira@dcc.ufmg.br)
- Canada: Margaret Havey [margaret.havey@canada.ca](mailto:margaret.havey@canada.ca)
- Germany: Kai Rannenberg [Kai.Rannenberg@m-chair.de](mailto:Kai.Rannenberg@m-chair.de)
- France Jaques Sakarovitch [sakarovitch@enst.fr](mailto:sakarovitch@enst.fr)
- Japan: Hitoshi Aida [aida@ee.t.u-tokyo.ac.jp](mailto:aida@ee.t.u-tokyo.ac.jp)
- Korea: Jee-In Kim [Jee-In Kim jeeink@gmail.com](mailto:Jee-In Kim jeeink@gmail.com)
- New Zealand: Elizabeth Eastwood [elizabeth.eastwood@iitp.org.nz](mailto:elizabeth.eastwood@iitp.org.nz)
- South Africa Rossouw Von Solms [Rossouw.VonSolms@nmmu.ac.za](mailto:Rossouw.VonSolms@nmmu.ac.za)

One important action item from our last meeting was to complete our membership to the planned 12 members. I, with the help of Eduard Dundler, have asked for nominations. We have received only one from Korea **Jee-In Kim** [jeeink@gmail.com](mailto:jeeink@gmail.com). Jee-In was herewith appointed (see above). There remains one open position.

All the member reports now are in the Secure Area of the IFIP Web page (18 of them). However, as nobody has raised any objections to have them moved to the open part of the IFIP Web page, this will be done soon by the IFIP Secretariat.

### Fellowship Selection By-laws

There was a lengthy discussion about the proposed changes to the By-Law for the selection of Fellows. The MSA then voted for the following proposal:

- Votes should be cast for each and every candidate approved by the Selection Committee, i.e. not the whole group. A list of candidates is handed out for the vote, i.e. one voting process.
- For each candidate an absolute majority should be required, excluding abstentions.

In summary, the MSA supports the German amendments, with the above clarification, on the voting

### Key Items for the GA 2020 – 2021

- **Lack of action to acquire new Members**
  - Budget has prevented the appointment of a dedicated resource
  - Tasks to attract new Member Societies needs to be actioned by a **dedicated resource** employed in Secretariat's office
- **Lack of Positioning Statements**
  - IFIP and the TCs need a process to ensure that IFIP provides a **positioning statement** on hot topics like:
    - Drone delivery, Autonomous vehicles and robots, eWaste,
    - IT Education in Schools, Misuse and misunderstanding of technology
    - Note that the **Country Member reports** are a source of position statements, so these should be considered a valuable resource.
    -

### Other Issues Raised (AOB)

- **MSA Public Website** – The Website is not being maintained, and Country Reports should appear in the OPEN Web-Page. The IFIP Secretariat promised to update the Web page.
- **Electronic Voting** system - (and by-laws) - need to be updated to allow (and enable) electronic voting across the organisation. Note that TC1 use an electronic voting system.  
The voting system used for the Elections (e-mails to the General Secretary) should be improved. There exist a number of systems that could be easily adopted.
- **How can Member Societies** communicate better?  
There is quite a large number of information possibilities that already exist but the feeling of MSA is that the members of our member societies do not really benefit from them. How can we reach those people? After some discussion it was decided:
  - MSA members will each assist by engaging a **small group** of (less-active) Members directly.
- The ACM member Gerrit van der Meer briefly presented the ACM/IEEE Education Report and he will ask the IFIP General Assembly to endorse that report.

## 11. Technical Assembly

(Michael Goedicke, Chair of the Technical Assembly)

Mr Palanque explained to General Assembly the composition and role of Technical Committees within the structure of IFIP. He said that the 13 Technical Committees have in total with their National Representatives, Working Group chairs, Expert members, Officers currently 336 members. The committees are split into 118 Working Groups with 5826 members (officers, members, observers). In total Technical Assembly represents about 6000 people. These people are responsible for organizing about 100 events, like conferences, workshops, summer schools, per year. These events generate income for IFIP, which is together with royalties for publication is used for funding the Technical Committees.

The funds of the Technical Committees are used for:

- Management of the TC
  - One or two physical meetings a year
  - Website
  - Chair travel to GA
- Support of the Working Groups
  - Seed money for setting events
  - Incentives for having events within IFIP
- Support the development of the field
  - Grants to attend events
  - Provide additional money for travels of participants to events

Mr Palanque presented the report of Technical Assembly to General Assembly:

- Computing Curricula 2020 (CC2020): Technical Assembly expressed its support to ACM CC 2020 and offered its help (proposed a task force)
- Modifications of Working Groups:
  - Creation of WG 12.11 on "AI for Energy and Sustainability"
  - Change name of WG 9.4 previous name "The Social Implications of Computing in Developing Countries" -> new name "The Implications of Information and Digital Technologies for Development"
  - Creation of WG 5.15. "Information Technology in Disaster Risk Reduction (ITDRR)"
- Relationship with other societies
  - Informatics for all society (Led by Don Passey TC 3 chair)
    - No fee for IFIP
    - Participation agreed unanimously for one year
    - Propose 2 people to join (TC3 chair and Mary Webb (leader of task force on curriculum)
  - Participation of IFIP within Association for Information Systems <https://aisnet.org/> (led by Isabel Ramos TC 8 chair)
    - Strong interest from at least 3 TCs: TC8, TC9 and TC13 (with already contacts in place)
    - Decided to have a task force on that led by Isabel
    - Have a proposal for next meeting (second week of December 2020)
- Issue of representation of Technical Assembly in IFIP top level management (brought by Michael Goedicke former TA chair (July 2020)
  - Issues to tiling with previous knowledge (Past TA chair could remain within TA for a while e.g. one year)

- Have TA chair a member of the Executive Committee (even more salient after the budget processing from day before)
- More included in TC funds management
- Functioning of the Technical Assembly
  - More meetings (we go to 4 per year) to be more agile
  - Precise description of the roles
  - Systematic storage of information for later use (organizational learning)

Mr Palanque announced that Technical Assembly will come up with a proposal of a set of modifications with rationale for next IFIP Board.

## **.12. Member Society Report: International Member at Large**

### **12.1 Association for Computing Machinery (ACM)**

(Gerrit C. van der Veer, GA Representative ACM)

This report is based on the ACM Annual Report for Fiscal Year 2017 (July 1, 2019 - June 30, 2020), by Cherri M. Pancake, ACM President.

ACM, the Association for Computing Machinery, is an international scientific and educational organization dedicated to advancing the arts, sciences, and applications of information technology

#### **ACM**

##### **Association for Computing Machinery**

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<https://www.acm.org>

#### **Letter from the President**

“ACM’s mission hinges on creating a community that encompasses *all* who work in the computing and technology arena”

It’s been quite an eventful year for ACM. While this annual exercise allows us a moment to celebrate some of the many successes and achievements the Association has realized over the past year, it is also an opportunity to focus on new and innovative ways to ensure ACM remains a vibrant global resource for the computing community.

ACM’s mission hinges on creating a community that encompasses *all* who work in the computing and technology arena. This year, ACM established a new Diversity and Inclusion Council to identify ways to create environments that are welcoming to new perspectives and will attract an even broader membership from around the world. The Council is tasked with identifying best practices, devising plans-of-action, and seeking strategic partnerships to help us advance diversity, both within ACM and across the broader community.

For decades, ACM has been a leading force in keeping the computing field, policymakers, and the general public informed about the impact of technological advances. As technology advances, so do the issues faced as a society. Headlines reflect that data breaches, election compromises, and threats to privacy are occurring on a global scale. To strengthen and expand on the efforts of our existing policy committees in the U.S. and Europe, ACM has established a worldwide Technology Policy Council. TPC brings together leading policy experts to develop a global perspective on the issues and challenges posed by evolving technology.

Education has always been at the foundation of ACM, as reflected in two recent curriculum efforts. First, the ACM Task Force on Data Science issued “Computing Competencies for Undergraduate Data Science Curricula.”

The guidelines lay out the computing-specific competencies that should be included when other

academic departments offer programs in data science at the undergraduate level. Second, building on the success of our recent guidelines for 4-year cybersecurity curricula, the ACM Committee for Computing Education in Community Colleges created a related curriculum targeted at two-year programs, “Cybersecurity Curricular Guidance for Associate-Degree Programs.”

The following pages offer a sampling of the many ACM events and accomplishments that occurred over the past fiscal year, none of which would have been possible without the exhaustive efforts of our generous and energetic volunteers from around the world. ACM is grateful for your resolve and commitment.

In the coming year, there is much to do and more to explore. As I write this letter, ACM just debuted a total transformation of its Digital Library, complete with new functionality and an array of enhanced search features and tools. The move to this new platform offers members a contextualized, responsive resource providing an exceptional reading experience on a variety of devices. I wish you happy hunting in the new DL ([dl.acm.org](http://dl.acm.org)) and all the best for the year ahead.

Cherri M. Pancake  
*ACM President*, July 2018–June 2020

### **Publications Portfolio**

“The Publications Board seeks to maintain and strengthen ACM’s position as the preferred publisher of computing research and to extend our reach to become a leading provider of advanced level content and services for the broader computing industry” (*Jack W. Davidson and Joseph A. Konstan, Co-chairs, ACM Publication Board*)

### **ACM’s Publications Portfolio**

- 54 Journals and Transactions
- 7 Magazines
- 31 newsletters

Publications remain one of ACM’s principle activities and pivotal lines of business. The ACM Publications Board is charged with overseeing a rich portfolio, including research journals, magazines, books, and conference/workshop proceedings (in tandem with ACM SIGs and through the International Conference Proceedings Series, ICPS). The Board also oversees publication policies, ethics and plagiarism cases, author rights as well as guides the ongoing development of the diamond of ACM’s publications offerings—the ACM Digital Library.

FY19 was a fruitful year in terms of publication activities and achievements. One of the major efforts was the migration of the ACM’s Digital Library from its longstanding in-house platform to Atypon’s comprehensive publishing platform, Literatum. This migration offers a wide range of features, including data and code-first objects, user interface enhancements, and preprint server. In addition to reviewing the migration progress, the Publications Board continues to look forward on issues of code storage, replicability, and broader DL services. The Board played a key role in garnering community feedback from a beta version of the new DL, and those comments were taken into account during the migration phase.



In FY19, over 34,000 full-text articles were added to the Digital Library, bringing the total DL holdings to 516,000 articles. ACM's *Guide to Computing Literature* is also integrated within the DL. More than 95,000 works were added to the bibliographic database in FY19, bringing the total *Guide* coverage to more than 2.90 million works.

During the year, ACM added 671 volumes of conference and related workshop proceedings to its portfolio, including 282 volumes added to ACM's ICPS, a 14% increase over FY18.

ACM magazines continue to generate an enormous number of downloads from the ACM Digital Library. *Communications of the ACM* counted over 2.4 million article downloads. Moreover, traffic to the flagship magazine's website this year resulted in 3.6 million pageviews and 1.05 million unique users. *Ubiquity*, *eLearn*, and *Interactions* magazines also garner article annual downloads and/or website traffic in the six figures.

ACM Books, launched in 2014, continues to thrive. FY19 has seen the completion of ACM Books Collection I (25 titles) and the start of Collection II. The series published six new titles in FY19 and signed publishing agreements for six additional titles.

ACM's Publications Board also approved the *ACM Transactions in Quantum Computing* and the *ACM Transactions in Evolutionary Learning and Optimization*.

- 18.3 MILLION full-text downloads in FY19
- 6.3 MILLION DL users from over 160 countries
- 30,000 individual DL subscribers
- 2,850 institutional DL subscribers from 90 countries

## Education

"Computer education is so important that everyone wants some of it. Computer education is so important that even small parts of it are valuable and useful." (**Mark Guzdial**, in *ACM Inroads*, December 2018)

ACM leads the computer science education community through the work of its ACM Education Board, the ACM Education Council, ACM SIGCSE, Computer Science Teachers Association (CSTA), and ACM Education Policy Committee.

The Education Board's highly anticipated report *Retention in Computer Science Undergraduate Programs in the U.S.: Data Challenges and Promising Interventions* was released. This comprehensive study outlined the challenges and promising interventions to improve engagement and retention of all students, particularly women and underrepresented minorities.

The final draft of the curricular guidelines for the Cybersecurity Curricular Guidance for Associate Degree Programs (Cyber2yr) was released for global public comment. ABET CSAB is developing criteria for accrediting two-year programs in cybersecurity based on the Cyber2yr guidelines - a first for CSAB.

The Data Science Curriculum taskforce seeks to define what the computing/computational contributions are to the field of data science in order to provide guidance for CS or similar departments offering data science programs at the undergraduate level. In FY19, the taskforce released a first draft of computing discipline-specific competencies.

The 6th Annual ACM Conference on Learning@Scale was held in Chicago, with students representing almost 44% of the total attendees.

### **Professional development**

“No longer does it seem possible to learn for a while, earn for a while, and then retire. Careers may extend over periods of six decades or more during which time technology will have changed society and its needs dramatically.” (**Vinton G. Cerf**, 2004 ACM A.M. Turing Award co-recipient, with Robert Kahn)

Chapter developments in FY 2019:

167 New Chapters:

- 5 US based new professional chapters
- 25 new professional chapters outside the US
- 45 US based new student chapters
- 92 new student chapters outside the US

The Practitioners Board and Professional Development Committee (PDC) directed many new products and initiatives designed for computing professionals and managers. In FY19, the Board created and expanded a rich set of activities.

The PDC’s successful webinar series TechTalks (formerly known as Learning Webinars) continue to be some of the most exciting programs from ACM Learning. Highlights in FY19 include talks from leaders in AI, machine learning, and deep learning. Indeed, a webinar on adversarial machine learning broke all records (both live and on demand).

*Queue*, ACM’s bimonthly online magazine for practicing software engineers, continues to attract content from industry leaders as well as record over two million article downloads per year. In the last year, the practitioners Board realized its promise to mount a case study program to focus on the practice of software development. As a result, three case studies were published in *Queue* in FY19, with another trio under development.

FY 19 was the year ACM’s Committee on Professional Ethics shared the recently updated Code of Ethics and Professional Conduct with the world. The Code was translated into Spanish and Chinese; it was presented at conferences in Poland; and board members consulted with ethics groups in Australia, Italy, New Zealand, and the U.K.

The SIGSOFT webinar series had a very busy year, producing 12 webinars on such topics as gender-inclusive software engineering, the role of programmers in the age of AI, intelligent software engineering, and successful expert software designers.

### **Public Policy**

“Technology, developed and deployed around the globe, is at the heart of some of the most pressing issues we face as a society.” (**Cherri M. Pancake**, ACM President)

The fiscal year opened with new names for two existing policy councils and the creation of an overarching council for addressing tech policy matters on a global scale. Effective July 2018, the ACM Technology Policy Council (TPC) was chartered to set the agenda for ACM's international policy activities. The Association's U.S. Technology Policy Committee (USTPC, formerly USACM) remains the hub for ACM's interaction with U.S. government organizations, the computing community, and the public on matters of public policy and technology. EUACM, also renamed to the Europe Technology Committee (Europe TPC), continues to inform technology and computing policy issues with the European Commission and other governmental bodies in Europe, and the informatics and computing communities. Both committees will work closely with each other and with the ACM TPC to extend the impact of its work around the world.

There were many policy issues addressed by USTPC in FY19, one of the most public was the detailed statement the committee sent to the U.S. Senate with recommendations for enacting consumer privacy protections in the wake of the Facebook/Cambridge Analytica controversy. Legislators were urged to limit data collection, bar use of unlawfully collected data, and assure public understanding of how data is used, among other safeguards. In addition, USTPC's comments to the U.S. Election Assistance Commission called for a ban on all Internet connectivity in voting and voting related processes.

Europe TPC continues to address policy issues related to the importance of technology in boosting jobs, economic growth, competition, investment, research and development, education, inclusive social development, and innovation in the European Union. Members of Europe TPC spoke at the 40th Anniversary Conference of Data Protection and Privacy Commissioners as well as the annual AI Summit, both held in Brussels.

The ACM Committee on Computers and Public Policy (CCPP) is celebrating its 35th year. The primary entities of CCPP include the "ACM Forum on Risks to the Public," founded in 1985 and heralded as a pioneering chronicler of potential dangers to public safety in the use of computers (<https://www.acm.org/about-acm/risks-forum>). A long-standing offshoot of this forum is the "Inside Risks" column that has appeared in *Communications of the ACM* since 1990.

## **Students**

"ACM has the potential to set the standard for what it means to be an organization committed to solving issues of gender diversity in computing. It may even be possible that a day will come with ACM-W will no longer need to exist." (**Jodi L. Tims, Chair, ACM-W**)

The 2019 ACM Student Research Competition offers a unique forum for undergraduate and graduate students to present their original research before a panel of judges and attendees at ACM conferences. This year's competition, sponsored by Microsoft, drew over 360 computer science students who presented research projects at 26 participating ACM conferences.

Undergraduate students from around the world took part in the Computing4Change Competition co-located with SC18 in Dallas, TX. The annual event, launched by SIGHPC, introduces students to the potential of computing to create positive change in our society. Students work in teams, applying data analysis and computational thinking to a social challenge while experiencing the latest tools and techniques from computing and data science.

The global phenomenon known as the Hour of Code is held every December to celebrate computer science and generate excitement among young people about programming and technology. This annual event also sparks excitement among dozens and dozens of ACM student chapters worldwide who volunteer to organize games, tutorials, and other events to inspire and demystify code in young students at local schools.

SIGOPs newly created summer school—SIGOPS Summer School on Advanced Topics in Systems—was held in August 2018 in Norway. The three-day summer, which sold out in short order, was attended by Ph.D. students, junior faculty, and engineers. The next installment is planned for 2020.

ACM SIGs continue to support student participation in ACM conferences and workshops by providing travel grants. These grants provide funding for students to help cover the cost of registration, travel and lodging for SIG-sponsored conferences. Over the last year, most SIGs increased their grant programs to extend these opportunities to more students.

### **ACM Europe Council**

“I see ACM as a continual work in progress as computing and our community evolves. In the future, I believe ACM will need to constantly reassess priorities and activities to ensure we remain vital to the global computing community.” (*Vicki L. Hanson, ACM Executive Director and CEO*)

ACM Europe is a strategic player in Informatics for All, a coalition that aims to join academia, industry, government, and society together to influence education policy throughout Europe. At a workshop last March, the Rome Declaration was formulated, which called upon all European national and international institutions to “exercise their moral suasion power so that the principles of informatics are included as part of school curricula at all levels.” One of the first action items was to establish a website for this cause. A first version of the site went live in May (<https://www.informaticsforall.org/>).

The Second ACM Europe Summer School on Data Science offered 60 young CS researchers, professionals, and Master’s/Ph.D. candidates from across Europe the opportunity to spend a week in Athens developing skills, knowledge, and expertise in the area of Big Data and data science.

WomENCourage brings together women in the computing profession and related technical fields throughout Europe to exchange knowledge and experience and provide special support for women who are pursuing their academic degrees and starting their careers in computing. This year, the annual womENCourage conference was held in Belgrade, Serbia, thus expanding its presence in Eastern Europe. Moreover, nine ACM-W celebrations were held in Europe this year, ranging from community celebrations to workshops in areas such as robotics and maker activities.

The Committee of European Chapter Leaders (CECL) promotes expansion and sustainability of ACM chapters in Europe and increase ACM’s visibility among young people in Europe, particularly practitioners aiming to attract/sustain younger people and overall members of ACM. This year CECL performed a qualitative study on a substantial amount of knowledge gleaned from regional chapters regarding their needs, best practices, and mentoring experiences.

### **ACM India Council**

ACM India’s Annual Event 2019 was held at Rajagiri School of Engineering and Technology in Kerala, India. The popular conference focuses on trends in science and

technology as well as celebrates ACM's scholarly spirit and India's accomplishments in computing.

Co-located with ACM India's Annual Event is the Inter-Research-Institute Student Seminar in computer science. IRISS provides a forum for CS researchers in India to showcase their work to a conclave of fellow researchers and potential employers. IRISS 2019 was expanded to a two-day event, with a special emphasis on networking and career advice.

Microsoft Research, in partnership with ACM and the Robert Bosch Centre for Data Science and AI, hosted the fourth MSR-ACM India Academic Research Summit 2019 in Madras. The theme of this summit was data science and AI and the event drew AI researchers striving to create intelligence machines that complement human reasoning and enrich human experiences and capabilities.

CSpashshala, ACM India's national education initiative, organized the first Bebras computational thinking challenge comprised of short problems created to get young students enthused about computational thinking. The event was offered in four languages and saw participation from 1.4 million students from over 50 countries.

ACM-W India (ACM-WI) was extremely busy this year. Among the organization's activities in the region were the ACM India Summer School on Information Security and Forensics (for Women), which took place in Bengaluru, and the third National Level ACM Women Hackathon, and the Grace Hopper Celebration of India.

### **ACM China Council**

Established a decade ago as a thriving ACM hub, ACM China has established more than 20 city-based chapters and 10 SIG China chapters in its tenure. Among the SIGs with active China chapters are SIGCSE, SIGAI, SIGMOD, SIGCOMM, SIGMOBILE, SIGBIO, SIGMM, SIGAPP, SIGCHI, and SIGOPs, hosting many workshops and tutorials each year for practitioners and researchers in the region.

China Council's flagship event—ACM Turing Award Celebration Conference in China (ACM TURC)—took place in Chengdu last May, drawing over 1,500 ACM China members. The theme was “Interconnected, Inspired, Intelligent” and included talks from many Turing Laureates as well as some of the world's tech leaders in industry and academia.

ACM SIGCSE held the first ACM Global Computer Education Conference in China, co-located with ACM TURC, drawing over 150 attendees.

### **Conferences**

“In today's world, computer security is one of the most vital concerns, for individuals, for companies, and for entire nations.” (*Mohammad Mannan, ACM CCS 2018 General co-chair*)

ACM's Federated Computing Research Conference - held only once every four years—assembled a spectrum of 13 affiliated research conferences and workshops in Phoenix, AZ, USA last June. The FCRC model allows both a strong research focus within each represented subdiscipline of computing while also facilitating communication among researchers in different fields of computer science and engineering. This year's attendance exceeded 2,700.

ACM's Turing laureates and 200 ACM-sponsored students were on hand for the fifth annual Heidelberg Laureate Forum. This high-profile weeklong event allows selected

students to meet industry icons and prestigious award recipients and to share scientific inspiration.

ACM SIGSAC celebrated its 25th anniversary with record-breaking attendance at its annual conference on computer and communications security. CCS 2018, held in Toronto, Canada, presented scientific innovations in all practical and theoretical aspects of computer security and privacy.

### **Recognition**

“If we have science without humanities to help guide the political process, then we are all in trouble.” (**Geoffrey Hinton**, *Co-recipient, with Yann LeCun and Yoshua Bengio, of the 2018 ACM A.M. Turing Award*)

The inaugural ACM Charles P. “Chuck” Thacker Breakthrough in Computing Award was awarded this year recognizing individuals or groups with Thacker’s out-of-the-box thinking and can-do approach to problem solving.

ACM also named 49 Distinguished Members for outstanding contributions to the computing field. These innovators have influenced a wide range of technical areas including algorithms, artificial intelligence, computer architecture, computer science education, cybersecurity, graphics, human-computer interaction, and networking.

The Distinguished Speakers Program Committee finished a stellar year, posting 150 lectures (up 9% from FY18) in 41 countries. India was the clear hotspot with 47 lectures, followed by the U.S. with 31 and the European Union with 28.

The ACM History Committee spearheaded the first workshop to preserve the histories of ACM myriad Special Interest Groups. The SIG Heritage Project will launch a website with tools and resources to provide support and training for SIG historians to document and preserve the activities, artifacts, and archives of their groups.

### **ACM AWARD RECIPIENTS**

#### **2018 ACM A.M. Turing Award**

Yoshua Bengio  
Geoffrey Hinton  
Yann LeCun

#### **ACM Prize in Computing**

Shwetak Patel

#### **ACM Charles P. “Chuck” Thacker Breakthrough in Computing Award**

Mendel Rosenblum

#### **ACM-AAAI Allen Newell Award**

Henry Kautz

#### **Grace Murray Hopper Award**

Constantinos Dashalakis  
Michael J. Freedman

#### **Software System Award**

Gerald C. Combs, Wireshark

#### **Karl V. Karlstrom Outstanding Educator Award**

Robert Sedgewick

#### **Paris Kanellakis Theory and Practice Award**

Pavel Pevzner

#### **Eugene L. Lawler Award for Humanitarian Contributions within Computer Science and Informatics**

Meenaskshi Balakrishnan

#### **Distinguished Service Award**

Victor Bahl  
**ACM-W Athena Lecturer Award**  
Elisa Bertino  
**Outstanding Contribution to ACM Award**  
Chris Stephenson  
**2018 ACM-IEEE CS Eckert-Mauchly Award**  
Mark Hill  
**2018 ACM-IEEE CS Ken Kennedy Award**  
Sarita Adve  
**Gordon Bell Prize**  
Oak Ridge National Laboratory  
Lawrence Berkeley National Laboratory  
**ACM-IEEE CS George Michel Memorial Fellowships**  
Linda Gesenhues  
Markus Hohnerbach  
**SIAM-ACM Prize in Computational Science and Engineering**  
Jack Dongarra  
**IPSJ/ACM Award for Early Career Contributions to Global Research**  
Yasutaka Kamei  
**Doctoral Dissertation Award**  
Chelsea Finn  
**Honorable Mention**  
Ryan Beckett  
Tengyu Ma  
**ACM India Doctoral Dissertation Award**  
Keerti Choudhary  
**Honorable Mention**  
Deepash Data  
**ACM China Doctoral Dissertation Award**  
Ding Wang  
Wenguan Wang  
**ACM China Rising Star Award**  
Yang Yang  
Haipeng Dai  
**ACM/CSTA Cutler-Bell Prize in High School Computing**  
Naveen Durvasula  
Isha Puri  
Eshika Saxena  
Varun Shenoy

#### **ACM COUNCIL**

**President**  
Cherri M. Pancake  
**Vice President**  
Elizabeth Churchill  
**Secretary/Treasurer**  
Yannis Ioannidis  
**Past President**  
Alexander L. Wolf  
**SIG Governing Board Chair**  
Jeff Joiner  
**Publications Board Co-Chairs**  
Jack Davidson, Joseph A. Konstan  
**Members-at-Large**

Gabriele Kotsis; Susan Dumais; Renée McCauley; Claudia Bauzer Mederios; Elizabeth D. Mynatt; Pamela Samuelson; Theo Schlossnagle; Eugene H. Spafford

**SGB Council Representatives**

Sarita Adve and Jeanna Neefe Matthews

**Council Chairs**

*ACM Europe:* Chris Hankin

*ACM India:* Abhiram Ranade

*ACM China:* Wenguang Chen

*ACM-W:* Jodie Tims

*USACM:* James Hendler

*Education Board:* Jane Chu Prey and Chris Stephenson

*Practitioners Board:* Terry J. Coatta

**ACM HEADQUARTERS**

**Executive Director and Chief Executive Officer**

Vicki L. Hanson

**Deputy Executive Director and Chief Operating Officer**

Patricia M. Ryan

**Financial Statements**

**Statement of Activities: Year ended June 30, 2019 (in Thousands)**

<b>REVENUE</b>	<b>Without Donor Restrictions</b>	<b>With Donor Restrictions</b>	<b>Total</b>
Membership dues	\$7,176		\$7,176
Publications	23,609		23,609
Conferences and other meetings	40,102		40,102
Interests and dividends	3,440		3,440
Net appreciation of investments	2,618		2,618
Contributions and grants	8,793	\$613	9,406
Other revenue	817		817
Net assets released from restrictions	1,104	(1,104)	0
<b>Total Revenue</b>	<b>87,659</b>	<b>(491)</b>	<b>87,168</b>
<b>EXPENSES</b>			
<b>Program:</b>			
Membership processing and services	740		740



Publications	9,616		9,616
Conferences and other meetings	36,029		36,029
Program support and other	14,020		14,020*
<b>Total Program Expenses</b>	<b>60,405</b>		<b>60,405</b>
<b>Support services:</b>			
General administration	12,092		12,092*
Membership Development	1,193		1,193
<b>Total Support Services Expenses</b>	<b>13,285</b>		<b>13,285</b>
<b>Total expenses</b>	<b>73,690</b>		<b>73,690</b>
Increase (decrease) in net assets	13,969	(491)	13,478
Net assets at beginning of the year	115,949	7,340	123,289
<b>Net assets at end of the year</b>	<b>\$129,918</b>	<b>\$6,849</b>	<b>136,767**</b>

\* Includes publications-related expenses.

\*\* Includes SIG Fund balance of \$58,652.

**Balance Sheet: June 30, 2019 (in Thousands)**

<b>ASSETS</b>	
Cash and cash equivalents	\$38,910
Investments	124,692
Accounts receivable and other current assets	8,451
Deferred conference expenses and other assets	11,314
Fixed assets, net of accumulated	1,574

depreciation and amortization	
<b>Total Assets</b>	<b>\$184,941</b>
<b>LIABILITIES AND NET ASSETS</b>	
<b>Liabilities:</b>	
Accounts payable, accrued expenses, and other liabilities	\$16,854
Unearned conference, membership, and subscription revenue	31,320
<b>Total liabilities</b>	<b>\$48,174</b>
<b>Net assets:</b>	
Without Donor Restrictions	129,918
With Donor Restrictions	6,849
<b>Total net assets</b>	<b>136,767</b>
<b>Total liabilities and net assets</b>	<b>\$184,941</b>
<b>OPTIONAL CONTRIBUTIONS FUND — Program Expense (in thousands)</b>	\$95
Education Board accreditation	
USACM Committee	20
<b>Total expenses</b>	<b>\$115</b>

### ACM's Special Interest Groups

**SIGACCESS** Special Interest Group on Accessibility and Computing

**SIGACT** Special Interest Group on Algorithms & Computation Theory

**SIGAI** Special Interest Group on Artificial Intelligence

**SIGAPP** Special Interest Group on Applied Computing

**SIGARCH** Special Interest Group on Computer Architecture

**SIGAda** Special Interest Group on Ada Programming Language

**SIGBED** Special Interest Group on Embedded Systems

**SIGBio** Special Interest Group on Bioinformatics, Computational Biology

**SIGCAS** Special Interest Group on Computers and Society

**SIGCHI** Special Interest Group on Computer-Human Interaction

**SIGCOMM** Special Interest Group on Data Communication

**SIGCSE** Special Interest Group on Computer Science Education  
**SIGDA** Special Interest Group on Design Automation  
**SIGDOC** Special Interest Group on Design of Communication  
**SIGECOM** Special Interest Group on Electronic Commerce  
**SIGEVO** Special Interest Group on Genetic and Evolutionary Computation  
**SIGGRAPH** Special Interest Group on Computer Graphics  
**SIGHPC** Special Interest Group on High Performance Computing  
**SIGIR** Special Interest Group on Information Retrieval  
**SIGITE** Special Interest Group on Information Technology Education  
**SIGKDD** Special Interest Group on Knowledge Discovery in Data  
**SIGLOG** Special Interest Group on Logic and Computation  
**SIGMETRICS** Special Interest Group on Measurement and Evaluation  
**SIGMICRO** Special Interest Group on Microarchitecture  
**SIGMIS** Special Interest Group on Management Information Systems  
**SIGMM** Special Interest Group on Multimedia Systems  
**SIGMOBILE** Special Interest Group on Mobility of Systems, Users, Data and Computing  
**SIGMOD** Special Interest Group on Management of Data  
**SIGOPS** Special Interest Group on Operating Systems  
**SIGPLAN** Special Interest Group on Programming Languages  
**SIGSAC** Special Interest Group on Security, Audit and Control  
**SIGSAM** Special Interest Group on Symbolic & Algebraic Manipulation  
**SIGSIM** Special Interest Group on Simulation  
**SIGSOFT** Special Interest Group on Software Engineering  
**SIGSPATIAL** Special Interest Group on Spatial Information  
**SIGUCCS** Special Interest Group on University & College Computing Services  
**SIGWEB** Special Interest Group on Hypertext, Hypermedia and Web

## **13. Member Society Reports: Country Representative Members**

### **13.1 Austrian Computer Society (OCG)**

(Erich Neuhold, GA Representative Austria)

#### **Society's vision/mission statement**

Aim of the association:

The aim of the OCG is the comprehensive and interdisciplinary promotion of informatics and communication technology with due regard to their interaction with people and society.

Measures to realise the association's aim:

They include in particular:

- Collecting and forwarding information about the development of information and communication technology and of certifications
- Education and training as well as certification in the area of information and communication technology
- Promotion of further training in the area of information procession and its economic, social and human implications
- Targeted promotion of certain groups of our society in order to enhance access to ICT technology for all (e.g. people with special needs, the elderly)
- Co-operation with relevant private and public institutions in accordance with the aim of the association
- Individual service and counselling for members in accordance with the aim of the association
- Certification of persons in the area of information technology (e.g. ECDL and OCG certificates)
- Education, training and certification of trainers and examiners for the certification of persons
- Issuing of nationally and internationally recognised certificates upon successful completion of tests for personal certification
- Securing the adherence to the existing quality criteria set by the ECDL foundation or other licensers
- Development and approbation of teaching and learning material, content development and approbation of electronic test systems
- Continuous adaption and further development of the certification principles, syllabi and examination questions
- Development and operation of automatic test systems for personal certification and/or for testing skills and knowledge
- Certification of companies and other organisations according to European and/or other national and international standards
- Conducting research and development projects, preferably interdisciplinary projects
- Representation of Austria in relevant international organisations
- Organisation of information events, congresses, conferences, meetings and seminars in accordance with the aim of the association

- Dissemination of relevant knowledge and Austrian best practices in other countries, especially in neighbouring countries and throughout Europe
- Operation and service of electronic information platforms on the Internet to disseminate information in accordance with the aim of the association
- Establishment and operation of working groups, forums, branches, affiliated associations and research institutes

**Link to Website:**

<https://www.ocg.at/>

**Which Technical Committee Working Groups do your members participate in?**

The IFIP Bulletin Information is mostly correct and up to date. OCG participates in all Technical Committees and in most of the working groups that are related to groups inside of the OCG working on related subjects.

**Key activities this year**

○ **Events:**

Overall OCG sponsored and/ or organized close to 100 events a year. The Covid 19 situation in Austria, like everywhere, has had a strong influence on the OCG sponsored events this year. Practically all of them, that have not been cancelled, have been held virtual. The Calendar of Events (also for earlier years) can be found at <http://blog.ocg.at/veranstaltungen>

○ **Projects:**

- Overview see: <http://www.ocg.at/projekte>
- EDLRIS (European Driving License for Robots and Intelligent Systems) in cooperation with University of Technology Graz.
- Testing Software: The OCG has developed testing software, which identifies specific needs for computer training of employees or applicants and also allows ECDL testing in an automatic and objective way.

○ **Social Responsibility**

- WIZIK - Vienna School of Magic for Informatic is a project of the Austrian Computer Society (OCG). WIZIK introduces computational thinking to kids. Without computers children solve tasks in teamwork. The keyword is playing!
- Certified IT training for visually impaired and blind people. The project IT4Blind makes qualified training and further education of IT trainers for the blind and visually impaired possible. The initiative was started to create a standardized qualification which guarantees a top-quality professional standard. The project partners worked out the syllabus with the relevant examination topics.

- Energy Informatics: Efficient energy systems of the future will be based on renewable energy sources and will use enabling technology like information and communication technology. They are the basis for technological and economic interconnectedness and thus support an independent, safe and sustainable energy supply in Europe. In order to safeguard Europe's energy supply with the aim to reduce the dependence on imports and to reduce CO<sup>2</sup> emission, radical changes of the current energy system are necessary. The creation of an international network is the key to identify and solve the involved challenges.  
For that aim a co-operation between Germany, Austria and Switzerland (D-A-CH) has been initiated which will work out joint solutions for the more active integration of these players into the energy system (Smart Grids). An internationally acting Scientific Community in the German-speaking area for the topic ICT based energy systems will be created.
  - **Thought leadership**
    - Digital competences among all citizens – supporting activities from the government (BMDW and BMBWF)
    - Becoming a IKT Think Tank in Austria for IT related topics
  - **Government engagement/projects**
    - ICT Research Map for Austria (BMVIT)
    - Digicomp (BMBWF)
    - Energy informatics Working group (BMVIT)

## **13.2 Brazilian Computer Society (SBC)**

(Raimundo Macedo, GA Representative Brazil)

In this report, SBC presents the set of actions carried out from July 2019 to September 2020.

### **An Overview of SBC**

Founded in 1978, SBC has played a relevant role in establishing computing as a science and profession in Brazil and Latin America. It is represented in several government institutions and maintains a strong influence in adopted curricula for computing careers in Brazil. The society is organized over 27 special commissions virtually covering all fields of computer science and ICT, with related technical conferences. SBC maintains an open digital library, OpenLib (SOL), whose main objective is to enable access to specialized information in Computing Science. The collection consists of event proceedings, journals with national and international visibility, books and chapters that concentrate the scientific production resulting from research and discussions in the area. SBC has 25 regional chapters located in all the states of Brazil: 4 in the Central-West region, 4 in the North region, 9 in the Northeast region, 3 in the South region and 5 in the Southeast region. Only in a few states in the northern region SBC do not have one chapter per state due to the smaller number of associates in this region and the only state that has two chapters is São Paulo. In these 25 regional chapters, there are 165 institutional representations from education and research institutions.

### **SBC's Vision/Mission Statement**

SBC is a non-profit scientific society, founded on July 24, 1978, whose individual members are students, professors, professionals, researchers, and computing and ICT enthusiasts from all over Brazil. SBC aims at promoting access to information and culture through information and communication technologies, promoting digital inclusion, encouraging research and teaching on computing in Brazil, and at contributing to the education of responsible professionals with social responsibility.

### **Brazilian Participation in IFIP General Assembly Representative**

Raimundo José de Araújo Macêdo

### **Technical Committees (TC) and Working Groups (WG)**

#### **TC 1 - Foundations of Computer Science**

- Leila Ribeiro, TC Brazilian member
- WG 1.3: Leila Ribeiro
- WG 1.5: Pedro P.B. de Oliveira, chair

#### **TC 2 – Software: Theory and Practice**

- Julio Leite, TC Brazilian member
- WG 2.6: Sylvio Barbon
- WG 2.7: Simone Diniz Junqueira Barbosa
- WG 2.9: Julio Caesar S. Leite
- WG 2.13: Fábio Kon
- WG 2.16: Roberto Ierusalimschy

#### **TC 3 - Education**

- Ig Ibert Bittencourt, TC Brazilian member

#### **TC 5 - Information Technology Applications**

- Vice-Chair of WG 5.5: Ricardo J. Rabelo
- WG 5.1: Eduardo de Senzi Zancul
- WG 5.4: Marco Aurelio de Carvalho
- WG 5.7: Joao Mendes Dos Reis, Irenilza de Alencar Nääs and Ricardo Jose Rabelo
- WG 5.8: João Paulo Almeida

#### **TC 6 - Communication Systems**

- Jose Neuman de Sousa, TC Brazilian member
- WG 6.2: Otto Carlos M. Duarte and Jose Neuman de Souza
- WG 6.3: Luis Felipe M. de Moraes and Edmundo de Souza e Silva
- WG 6.6: Jose Neuman de Souza, José Marcos S. Nogueira and Carlos Becker Westphall
- WG 6.8: Claudia Barenco Abbas and Otto Duarte
- WG 6.9: Neumann de Souza
- WG 6.11: Americo N. Amorim and Manuel J. Mendes

#### **TC 7 - System Modeling and Optimization**

- Edmundo de Souza e Silva, TC Brazilian member
- WG 7.3: Virgilio Almeida and Edmundo de Souza e Silva
- WG 7.4: Antonio Leitão

#### **TC 8 - Information Systems**

- WG 8.1 Jaelson Castro and Giancarlo Guizzardi
- WG 8.2: Eduardo Morgado
- WG 8.3: Andreia Carneiro T. D. Pereira and Alecsandra Alves V. Ventura
- WG 8.5: Renata Araujo, Luiz Antonio Joia, Beatriz Lanza, Gabriel Marcuzzo, and Nicolau Reinhard
- WG 8.9: Rogerio Atem de Carvalho

#### **TC 9 - ICT and Society**

- WG 9.4: Luiz Antonio Joia and Renata Lèbre La Rovere

#### **TC 10 - Computer Systems Technology**

- WG 10.2: Luigi Carro, Marco Wehrmeister, Marcelo Götz, Marcio Kreutz, Carlos E. Pereira and Flavio R. Wagner
- WG 10.3: Siang Wun Song
- WG 10.4: Eliane Martins
- WG 10.5: Flávio Rech Wagner and Ricardo Reis

#### **TC 11 - Security and Privacy Protection in Information Processing Systems**

- WG 11.8: Ricardo Dahab and Roberto Gallo

#### **TC 12 - Artificial Intelligence**

- Marcilio Carlos Pereira de Souto, Brazilian member
- Vice-Chair of Working Group 12.3: Jaime Sichman
- WG 12.3: Rafael Bordini

#### **TC 13 - Human-Computer Interaction**

- Vice-chair of TC 13, Simone D. Junqueira Barbosa
- Lara S. G. Piccolo, TC Brazilian member
- WG 13.3: André Freire
- WG 13.4: Simone Diniz Junqueira Barbosa



- WG 13.7: Simone Diniz Junqueira Barbosa

#### TC 14 - Entertainment Computing

- Esteban W.G. Clua, TC Brazilian member
- Chair of Working Group 14.10: Rodrigo Schramm
- WG 14.3: Suely Fragoso
- WG 14.10: Marcelo Johann

#### Key Activities from July 2019 to September 2020 Events

In the reported period, SBC promoted 37 events, co-promoted 4 events and supported 39 events, involving more than 10.000 participants in the technical events, and more than 100.000 participants in competitions. The events included symposia, workshops, schools and competitions. Such a large number of people involved in the events demonstrates the success of SBC in promoting knowledge and disseminating science, which are among the main goals of our society.

Besides its technical events, SBC holds an annual congress to discuss emergent societal and multidisciplinary issues. The 2019 edition of SBC's congress took place in July 2019, in Belém city, in the Amazon region, around the theme “computing and social-environmental responsibility”. During the congress, a newly elected board took over, led by professors Raimundo Macêdo (president) and André Leon (vice-president) - photo below.



The 2020 SBC's congress, which will occur entirely online on November 16-20, was planned to be held in the city of Cuiabá [<http://www2.sbc.org.br/csbc2020/>]. Located in the pantanal region, in the center of Brazil, Cuiabá is the entrance to one of the main touristic regions of the country. In this edition, the central theme of the congress will be “Artificially human or Humanly artificial? Challenges for the Society 5.0”. The main goal of Society 5.0 is to use new technologies based on artificial intelligence, big data, internet of things and robotics to meet the needs of each individual. Thus, this theme stresses the importance of conciliating scientific and technological advances with the concern for a human-centered society.

## Events Promoted, Co-promoted, or Supported by SBC

### Technical Symposia and Conferences - Promoted Events

XXV Brazilian Symposium on Multimedia and Web (WEBMEDIA 2019) n VIII Congresso Brasileiro de Informática na Educação (CBIE 2019) n XVIII Simpósio Brasileiro de Games e Entretenimento Digital (SBGames 2019) n 32nd Conference on Graphics, Patterns and Images (SIBGRAPI 2019) n 21st Symposium on Virtual and Augmented Reality (SVR 2019) n IX Simpósio Brasileiro de Engenharia de Sistemas Computacionais (SBESC 2019) n 7th Brazilian Symposium of Robotics and 16th Latin American Robotics Symposium 2019 (SBR/LARS/WRE/CTDR) n XXXVII Brazilian Symposium on Computer Networks and Distributed Systems (SBRC 2019) n XXXIX Congresso da Sociedade Brasileira de Computação (CSBC 2019) n 31st International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2019) n XIX Simpósio Brasileiro de Computação Aplicada à Saúde (SBCAS 2019) n XVIII Simpósio Brasileiro de Qualidade de Software (SBQS 2019) n 17th Brazilian Symposium on Computer Music (SBCM 2019) n Chip in Sampa 2019 (32nd SBCCI, 34th SBMicro, 19th SFORUM, 9th WCAS, 4th INSCIT) n XV Simpósio Brasileiro de Sistemas de Informação (SBSI 2019) n XIX Simpósio Brasileiro de Segurança da Informação e de Sistemas Computacionais (SBSeg 2019) n XXII Brazilian Symposium on Formal Methods (SBMF2019) n X Brazilian Conference on Software: Practice and Theory (CBSoft 2019) n XVIII Simpósio Brasileiro sobre Fatores Humanos em Sistemas Computacionais (IHC 2019) n XV Simpósio Brasileiro de Sistemas Colaborativos (SBSC 2019) n IX Latin-American Symposium on Dependable Computing (LADC 2019) n VIII Brazilian Conference on Intelligent Systems (BRACIS 2019) n XII Brazilian Symposium on Bioinformatics (BSB 2019) n XXXIX Simpósio Brasileiro de Bancos de Dados (SBBD 2019) n II Workshop on advanced virtual environments and education (WAVEA<sup>2</sup> 2019) n XXIII Brazilian Symposium on Formal Methods (SBMF 2020) n XX Simpósio Brasileiro de Computação Aplicada à Saúde (SBCAS 2020) n XXXVIII Brazilian Symposium on Computer Networks and Distributed Systems (SBRC 2020) n XL Congresso da Sociedade Brasileira de Computação (CSBC 2020) n IX Brazilian Conference on Intelligent Systems (BRACIS 2020) n XVI Simpósio Brasileiro de Sistemas de Informação (SBSI 2020) n Chip in the Fields 2020 (33rd SBCCI, 35th SBMicro, 20th SFORUM, 910h WCAS, 5th INSCIT) n XIII Brazilian Symposium on Bioinformatics (BSB 2020) n XIX Simpósio Brasileiro de Qualidade de Software (SBQS 2020) n XXI Simpósio em Sistemas Computacionais de Alto Desempenho (WSCAD 2020) n IX Congresso Brasileiro de Informática na Educação (CBIE 2020) n XI Brazilian Conference on Software: Practice and Theory (CBSoft 2020) n XIX Simpósio Brasileiro sobre Fatores Humanos em Sistemas Computacionais (IHC 2020) n X Brazilian Symposium on Computing Systems Engineering (SBESC 2020) n XXVI Brazilian Symposium on Multimedia and Web (WEBMEDIA 2020) n XX Simpósio Brasileiro de Segurança da Informação e de Sistemas Computacionais (SBSeg 2020) n XIX Simpósio Brasileiro de Games e Entretenimento Digital (SBGames 2020) n 33th Conference on Graphics, Patterns and Images (SIBGRAPI 2020) n 22nd Symposium on Virtual and Augmented Reality (SVR 2020) n XXXV Simpósio Brasileiro de Bancos de Dados (SBBD 2020) n 8th Brazilian Symposium of Robotics and 17th Latin American Robotics Symposium 2020 (SBR/LARS).

### Regional Schools

II Escola Regional de Computação Aplicada a Saúde (ERCASPI 2019) n VII Escola Regional de Computação Ceará, Maranhão, Piauí (ERCEMAPI 2019) n VII Escola Regional de Informática de Goiás 2019 (ERI-GO, ERAD-CO e ERSI-GO 2019) n V Escola Regional de Alto Desempenho do Rio de Janeiro (ERAD-RJ 2019) n XIX

Escola Regional de Computação Bahia - Alagoas - Sergipe (ERBASE 2019) n III Escola Regional de Engenharia de Software (ERES 2019) n XVII Escola Regional de Redes de Computadores (ERRC 2019) n VI Escola Regional de Sistemas de Informação (ERSI-RJ 2019) n III Escola Regional de Informática (ERI - RJ 2019) n XIX Escola Regional de Alto Desempenho do Rio Grande do Sul (ERAD-RS 2019) n XV Escola Regional de Banco de Dados (ERBD 2019) n X Escola Regional de Informática de Mato Grosso (ERI-MT 2019) e Simpósio IC n XXI Escola de Microeletrônica Sul (EMICRO 2019) e XXXIV Simpósio Sul de Microeletrônica (SIM 2019) n X Escola Regional de Alto Desempenho de São Paulo (ERAD-SP 2019) n XI Escola Regional de Alto Desempenho de São Paulo (ERAD-SP 2020) n I Escola Regional de Aprendizado de Máquina e Inteligência Artificial de São Paulo (ERAMIA-SP 2020) n VI Escola Regional de Alto Desempenho do Rio de Janeiro (ERAD-RJ 2020) n Escola Regional de Computação (ERTINS 2020) n XX Escola Regional de Computação Bahia - Alagoas - Sergipe (ERBASE 2020) n III Escola Regional de Alto Desempenho da Região Centro-Oeste (ERAD-CO 2020) n XVIII Escola Regional de Redes de Computadores (ERRC 2020) n VIII Escola Regional de Informática de Goiás (ERI-GO 2020) n IV Escola Regional de Sistema de Informação e (ERSI-GO 2020) n Escola Regional de Computação do Rio Grande do Sul (ERCOMP-RS 2020) n VIII Escola Regional de Computação Ceará, Maranhão, Piauí (ERCEMAPI 2020) n XX Escola Regional de Alto Desempenho da Região Sul (ERAD/RS 2020) n IV Escola Regional de Engenharia de Software (ERES 2020).

### Scientific Competitions

Escola de Inverno da Maratona SBC de Programação 2019 n Maratona SBC de Programação (Maratona 2019) n Brazilian ICPC Summer School 2019 n Final Maratona SBC de Programação n Brazilian ICPC Summer School 2020 n Maratona SBC de Programação (Maratona 2020).

### Co-promoted Events

Colóquio 30 anos do Instituto de Informática da UFRGS n DiGI - Diplomatura en Gobernanza de Internet n XIII Workshop de Tecnologia da Informação e Comunicação das Instituições Federais de Ensino Superior (WTICIFES 2019) e IV Encontro dos Escritório de Processos (EEP 2019) n IX Latin-American Network Operations and Management Symposium (LANOMS 2019) n 1st International Summer School in Research Methods for HCI/CSCW (By Invitation Only) n X Latin & American Algorithms, Graphs and Optimization Symposium (LAGOS 2019) n 19th New Interfaces for Musical Expression (NIME 2019) n 38th International Conference on Conceptual Modeling (ER 2019) n 33rd IEEE International Parallel and Distributed Processing Symposium (IPDPS 2019) n 3rd IEEE Seasonal School on Digital Processing of Visual Signals and Applications (IEEE SPS 2019).

### Supported Events

Encontro de Pesquisa da FIPP /Unoeste (EPFIPP 2019) n II Jornada de Tecnologia da Informação da UFRA n 11º Congresso Acadêmico de Tecnologia e Informática e 12ª Semana Acadêmica de Computação (CATI e SEACOMP 2019) n IV Seminário em Tecnologia da Informação Inteligente (SeTII 2019) n XV Simpósio de Informática do Centro Universitário Franciscano do SIRC 2019 n II Congresso de Tecnologia da Informação do IFSUL de Passo Fundo n 19th International Conference on Advanced Robotics (ICAR 2019) n V Workshop Escola de Informática Teórica (WEIT 2019) n 15º Workshop de Visão Computacional (WVC 2019) n III Simpósio de Computação do Oeste do Pará - Empreender e Inovar: Desafios para o Desenvolvimento Tecnológico na Amazônia (SCOOP 2019) n 6º Code Race 2019 n

X Computer on the Beach 2019 n 31º Congresso Iniciação Científica do Inatel (INCITEL 2019) n XXI Congresso de Computação e Sistemas de Informação (ENCOINFO 2019) n XXVII Seminário de Computação - SEMINCO 2019 n 3º Congresso Anual de Informática do Sul do Piauí (CAIS TECH 2019) n 13th Empirical Software Engineering International Week (ESEIW 2019) n X Encontro Anual de Tecnologia da Informação - EATI 2019 n II Simpósio de Tecnologia e Informação do Colégio Técnico de Floriano n International Conference on Systems, Signals and Image Processing (IWSSIP 2020) n VI Seminário Nacional de Inclusão Digital (SENID 2020) n XI Computer on the Beach 2020 n 32º Congresso Iniciação Científica do Inatel (INCITEL 2020) n V Congresso sobre Tecnologias na Educação (Ctrl+E 2020) n Workshop Brasileiro de Lógica (WBL 2020) n XV Encontro Anual de Computação (EnAComp 2020) n XVII Congresso Brasileiro de Informática em Saúde (CBIS 2020) n XI Encontro Regional de Computação e Sistemas de Informação (ENCOSIS 2020) n XXII Congresso de Computação e Sistemas de Informação (ENCOINFO 2020) n II Workshop de Ensino de Tecnologia da Informação (WETI 2020).

### 13.3 Bulgarian Academy of Sciences

(Prof. Julian REVALSKI, GA Representative Brazil)

#### *Overview of Society*

- **Society's vision/mission statement:** The Bulgarian Academy of Sciences is the leading scientific and expert center of Bulgaria. It conducts research, training and activities of national and international importance and solves problems related to the development of Bulgarian society and state.

The Bulgarian Academy of Sciences conducts scientific research in accordance with universal values, national traditions and interests. It participates in the development of world science and helps to multiply the spiritual and material wealth of the nation.

The Academy has a consistent policy for the development of science and innovation as a condition for economic progress in the country. It is an active participant in the European Research Area. Nowadays BAS includes a total of 42 scientific institutes and several specialized units. At present, about 3,000 scientists work at the Bulgarian Academy of Sciences, representing about 15% of the staff engaged in science in Bulgaria. The Academy provides more than half of the scientific output in the country.

The mission of the Bulgarian Academy of Sciences is to conduct scientific research in accordance with universal values, national traditions and interests, to participate in the development of world science, to study and to multiply the material and intangible cultural and historical heritage of the nation.

- **Link to Website:** [www.bas.bg](http://www.bas.bg)

#### *Key activities this year*

- **Events**

Another successful participation of Bulgaria in the 37th annual edition of the Research Science Institute (RSI) - one of the most famous in the world today international summer research schools for students with outstanding research abilities in natural sciences, mathematics, engineering and technology. The school is organized by the American Center of Excellence (CEE - <http://www.cee.org/>) and is traditionally held at the Massachusetts Institute of Technology (MIT) with high school students from around the world. RSI 2020 is the first edition to be held online. 86 students from North America, Europe, Asia and Australia participated. Again world-famous scientists, including two Nobel laureates were among the lecturers and mentors of the students.

The Bulgarian representatives of Bulgaria in RSI, Viktor Kolev and Nikola Staykov, were chosen among the holders of excellent diplomas in the Winter Conference of UchIMI after an interview conducted by a specialized jury at IMI-BAS.

Within the framework of RSI, Nikola Staykov developed a mathematical project related to the size of the union of circles on final fields, under the guidance of Elia Portnoy, a doctoral student at the Massachusetts Institute of Technology. His research made an impression with an original interpretation and visualization of abstract mathematical concepts. Viktor Kolev's project "Towards Abstract Logical Thinking in Neural Networks" ranked among the top 10 oral presentations and the top 5 written papers, which will be published in full as representative for RSI 2020 in the compendium of the publication. Victor was working on his project under the guidance of Dr. Svetlin Penkov from Sciro research and Dimitar Vassilev from Microsoft. His double success is

exceptional and was achieved only by three people before him in the 20-year existence of UchIMI - Antoni Rangachev (RSI'04), Kalina Petrova (RSI'12) and Rumen Dangovski (RSI'13).

With great personal and professional satisfaction we would like to note the essential role of the Bulgarian academic community for the realisation of the school in the extraordinary circumstances of the pandemic crisis.

Tutor of the participants from Europe, Asia and Australia (26 people) was Dr. Evgenia Sendova, who participated in the organization of the School for the 23rd time. She also assisted in recruiting mentors (research supervisors) for research projects.

The following scientists (both established and just beginning their scientific careers) on a voluntary basis responded to her call:

Corr. Mem. Stefan Radev, IMech-BAS; Prof. Svetoslav Markov, IMI-BAS and Assist. Meglena Lazarova, TU-Sofia; Assoc. Prof. Ivan Derjanski and Olena Siryuk Ph.D., IMI-BAS; Assoc. Prof. Stanislav Harizanov, ICT-BAS; Katerina Velcheva Ph.D., Stanford; Svetlin Penkov Ph.D., Sciro research and Dimitar Vasilev, Microsoft; Konstantin Delchev, IMI-BAS and Jordan Tsvetkov, Edinburgh University; Ivaylo Jeleu, University of Groningen; Petar Gaydarov, Cambridge; Todor Markov, OpenAI; Rumen Dangovski, MIT; Alex Atanasov, Harvard.

These mentors helped not only Bulgarian participants in RSI, but also representatives of Sweden, Switzerland, Indonesia, China, Singapore, USA, Korea, Lebanon and Turkey to take their first steps in science!

In the final phase of editing and evaluation of the projects the following researchers also took part:

Stanislav Atanasov, Colombia University; Rafael Rafailov, Stanford; Kalina Petrova, Zurich; Dimitar Chakarov, Princeton.

An international conference "International Conference on Information Systems and Grid Technologies" is organized every two years.

From 22 to 26 July 2019, the Rectorate of Sofia University hosted one of the most prestigious international conferences in the field of reliable and secure information systems: The 19th IEEE International Conference on Software Quality, Reliability, and Security. The National Research Programme Information and Communication Technologies for Unified Digital Market in Science, Education and Security was the main sponsor and co-organizer, covering the costs of participation in the conference of students and young Bulgarian scientists, providing students for the student competition, providing 10 volunteers for the daily organization of the event, and for all other activities related to the organization. As a result of this long-term activity, free participation of Bulgarian scientists in the work of the conference was guaranteed (otherwise their participation would have cost over 600 USD per person).

### ○ **Projects**

Assisting the Ministry of transport, information technology and Communications in the implementation of the project: "Upgrading the existing and building new central e-government systems with a view to improving the information and communication environment for better administrative services to citizens and businesses" by providing expertise and implementation of two separate positions within this project:



- Lot N1: “Providing technical expertise for activities: E-validation of electronic documents and printouts of electronic documents, E-service of electronic documents, Updating of the Bulgarian National Framework for Interoperability of Information Systems in the Executive Power. Publication for official access of registers of the state administration and connection of sectoral information systems of the state administration with the registers published for official access. Completion of the instrumental environment of the electronic government of the Republic of Bulgaria. Subsequent development and improvement of a unified portal. Completion of the Control and Technical Center of Electronic Government to the Data Center of the Central Administration. Upgrading the system for electronic payments to the central and local administration by developing a single entry point for using the available payment instruments in the Republic of Bulgaria and developing a service for time verification”;
- Lot N2: “Performing assessment and quality control”.

Assisting the Ministry of transport, information technology and Communications in the implementation of the project "Development of electronic administrative services" through the implementation of the following activities:

- Activity 1 - Analysis, identification and entry of primary data controllers and their services in the registers of the unified portal
- Activity 2 - Analysis and selection of specific services for the electronic implementation
- Activity 3 - Implementation of priority administrative services
- Activity 4 - Development of a reference model of architecture for central administrations and municipal administrations
- Activity 5 - Improvement of the portal and completion of the e-government system
- Activity 6 - Information and communication activities
- Activity 7 - Accompanying trainings for the administrations
- Activity 8 - Purchase of hardware and software within 10% of the eligible costs
- Activity 9 - Project audit

- **Government engagement/projects**

Consultations, audit and certification of voting machines, elections for members of the European Parliament from the Republic of Bulgaria, 2019

Implementation of an additional task to National Research Programme Information and Communication Technologies for Unified Digital Market in Science, Education and Security "Building an information system and a register of the approved programmes for professional development of teachers", as a result of which an information system for monitoring the processes related to professional development of teachers was built and implemented in the Ministry of Education and Science

**13.4 Canadian Information Processing Society (CIPS)**  
(Margaret Havey, Canada’s Country Member Representative to IFIP)



Canada’s Country Member is the Canadian Information Processing Society (CIPS). CIPS is a federation of Provincial Societies and is Canada’s Association for IT Professionals.

*Overview of Society*

Vision

To be the professional association providing leadership in information systems and technologies.

Mission

- To advance the Information Technology profession in Canada by
- Determining, developing and maintaining the integrity and competence of individuals active in Information Technology;
  - Advancing the theory and practice of Information Technology;
  - Promoting the free interchange of information about the theory and practice of Information Technology; and,
  - Establishing public awareness of the potential impact of Information Technology and protecting the public and individuals against the misuse of Information Technology.

Website                      [www.cips.ca](http://www.cips.ca)

**IFIP Technical Committee Working Group Participation**

Canada participates in the following IFIP Technical Committee Working Groups:

TC	WORKING GROUPS
TC 1	1.2, 1.3, 1.5, 1.6, 1.8, 1.10
TC 2	2.1, 2.3, 2.4, 2.5, 2.7 (13.4), 2.9, 2.10, 2.11, 2.16      Chair of 2.10 and 2.11
TC 3	3.1, 3.3
TC 5	5.1, 5.5, 5.11, 5.12, 5.14
TC 6	6.1, 6.2, 6.3, 6.6, 6.8, 6.9, 6.10
TC 7	7.2, 7.3, 7.5, 7.6, 7.8
TC 8	8.1, 8.2, 8.3, 8.5, 8.6, 8.9, 8.11 (11.3)      Secretary of 8.11
TC 9	9.1, 9.2, 9.3, 9.4, 9.7, 9.9, 9.10



TC 10	10.2, 10.3, 10.4, 10.5	Vice-Chair 10.4
TC 11	11.3, 11.5, 11.10, 11.11, 11.12, 11.13 (8.11), 11.14	Chair of 11.11
TC 12	12.2	
TC 13	13.4 (2.7), 13.5, 13.6, 13.7, 13.9, 13.10	
TC 14	14.3, 14.4, 14.5, 14.8, 14.9	

## Key Activities This Year

### Nationally, CIPS is focusing on both building and renewal.

- As part of the CIPS renewal plan initiated in 2019 the National Society began funding renewal project proposals submitted by the Provincial Societies. The first to be approved was a CIPS marketing project submitted by CIPS Saskatchewan. Working with a professional marketing firm, CIPS Saskatchewan has produced a Communications Strategy that is available for adoption by the other Provincial Societies. That project will now move on to its next steps and new proposals will be reviewed for funding.
- CIPS has re-established the Executive Council of the National Board which is now meeting monthly while the National Board of Directors' meetings have moved from monthly to quarterly. This change will allow the National Board to focus on strategic direction while the Executive Council looks after the day-to day business of the National Society.
- A Provincial Agreement Taskforce was created to review and update the existing federal-provincial services agreement and a set of guiding principles were presented to the Provincial Societies in March. The new agreement will include an expansion to National's common services available to Provincial Societies, including an opportunity for Provincial Societies to transfer more of their administrative functions to National. As most of the provincial societies are run entirely by volunteers, this will enable them to focus on their strategic activities and programs. CIPS Alberta recently became the first Provincial Society to take advantage of this new opportunity.
- The CIPS College Accreditation Council (ISTAC) completed revisions to their accreditation criteria to better align it with the criteria used by the CIPS University Accreditation Council (CSAC) and the Seoul Accord. The revised criteria were presented to the Provincial Societies for input in June and will be presented to the National Board approval in September, with implementation planned for January 2021.
- Membership growth continues to be concentrated in CIPS Saskatchewan, where the provincial government requires CIPS certification as part of the immigration process for designated ICT national occupational codes. CIPS Nova Scotia has started the work to become the second provincial society to have its certifications used to qualify prospective new Canadians.

- To respond to challenges created by Covid-19, CIPS meetings, presentations and conferences have become virtual. This has created opportunities for CIPS members to access events no matter where they are held and has opened up a huge pool of potential attendees for presenters. To support individual CIPS members who may be facing financial challenges due to Covid impacts, the timeframes for payment of member dues and receipt of recertification forms have been extended.
- The CIPS Accreditation program, which accredits college and university ICT programs using onsite visits to review the programs being accredited, is experiencing delivery challenges due to Covid restrictions. Previously scheduled accreditation visits have had to be cancelled and going forward the Accreditation Councils may need to find new ways to conduct accreditation reviews.

**Internationally, CIPS continues to participate in various programs and initiatives.**

- CIPS has recently joined the SFIA Council and through that has an opportunity to be an active participant in the development of SFIA version eight. As the SFIA documentation is available in Canadian French it is an ideal standard for Canadian ICT professional certifications and a means for increasing common ground between CIPS and ActionTI, its Quebec counterpart.
- CIPS' IP3 re-accreditation documentation has been submitted to the IP3 Standards and Accreditation Council and recommended revisions are in progress. Once accreditation has been granted two new certifications will be available for adoption by CIPS, a cyber security specialty certification and a CIO certification (SFIA level 7).
- CIPS' representative to the Federation of Enterprise Architecture Professional Organizations (FEAPO), Sandra Hoskins, I.S.P., ITCP, has been appointed President of FEAPO.
- The CIPS IFIP representative is a member of the Code of Ethics Task and Finish Group and continues to participate in IP3, the MSA, and as a member of the IFIP GA.

### 13.5 Czech Society for Cybernetics and Informatics (CSKI)

(Prof. Jaroslav Pokorný, GA Representative of the Czech Republic)

#### Overview of Society

- Society's vision/mission statement: The Czech Society for Cybernetics and Informatics (CSKI) was founded in 1966 as the Czechoslovak Society for Cybernetics. It has currently about 300 members. The society objectives centre on support and promotion of cybernetics, informatics and related fields, advancing the professional standing of its members, providing services to its members, and support of conferences, seminars and other activities. Members have the opportunity to participate actively in local and international technical and social activities. They may join any of the 8 working groups. One of them is the Committee for IFIP managed by Jaroslav Pokorný. The Committee was founded after reorganization of committees managed directly by Czech Academy of Sciences in 2016.

The society is currently a member of ECDL Foundation, CEPIS, IAPR, IFAC, EurAI, IFIP, and IT STAR. CSKI cooperates with ÖCG (Austrian Computer Society) and the Czech society of biomedical engineering and medical informatics. Some members of CSKI also work in societies not allowing collective membership, like IEEE, SIAM, International Semiotic Institute (Imatra, Finland), Deutsche Gesellschaft für Semiotik, International Speech Communication Association, and Association for Computational Linguistics.

- Link to Website: <http://www.cski.cz/>
- Czech Republic has members in IFIP Technical Committees in all TCs (except of TC5, TC9) and in working groups WG 1.2, WG 1.5, WG 1.8, WG 1.10, WG 2.2, WG 3.1, WG 3.3, WG 5.7, WG 5.11, WG 5.13, WG 6.2, WG 6.8, WG 7.7, WG 8.9, WG9.6/11.7, WG 11.8, WG 12.5, and WG 14.2.

#### Key activities this year

- Events
  - CSKI supports annually several international conferences and seminars. In 2019, the events have included EUSFLAT - The 11th Conference of the European Society for Fuzzy Logic and Technology, Medsoft 2019, and 2 colloquiums – 44<sup>th</sup> Pattern Recognition and Computer Vision Colloquium and 45<sup>th</sup> Pattern Recognition and Computer Vision Colloquium. The Czech-Slovak Conf. Data a Znalosti & WIKT 2019 was also supported.
  - CSKI supports the prizes for the winners of the Mathematical Olympiad 2020 in the programming category.
  - Int. Conference CONFENIS 2019 providing an international forum for Enterprise Information System (EIS) was organized by WG 8.9 in Prague at Dec. 16<sup>th</sup> – 17<sup>th</sup>, 2019, University of Economics, Prague, CZ.
  - IFIP Summer School on Privacy and Identity Management was organized by WG11.6 in Brno, CZ (IFIP Supported Event not confirmed yet).

- Projects
  - The CSKI within its fundamental scope, which is besides the development of cybernetics and informatics in the Czech Republic, participates also on pedagogical activities and on advertising the scientific results of the related fields, announces the national competition for the Antonín Svoboda's Best Thesis Award every year. The award ceremony for the year 2019 took place on June 11, 2020, within the framework of the General Assembly of CSKI.
  - An important continuing activity of CSKI is a warranty of ECDL (European Computer Driving Licence) in Czech Republic. ECDL Foundation is an international organisation dedicated to raising digital competence standards in the workforce, education and society. In Czech Republic, a realization of the project is accomplished by cooperation of CSKI as expert level guarantee and several commercial subjects accredited as test centres.
  - Government engagement/projects: Since January 2017 CSKI is a member of the DigiKoalice (Digital Skills and Jobs Coalition) national group. DigiKoalice is an open group of representatives of state institutions, IT companies, ICT sector, educational institutions, academic communities, non-profit organizations, founders of schools and school facilities and other entities wishing to contribute to increasing the digital literacy of Czech citizens to increase their chances of succeeding in the labour market and thus to achieve the competitiveness of the Czech economy. DigiKoalice is a member of the international Digital Skills and Jobs Coalition platform.

## 13.6 French Informatics Society (SiF)

(Jacques Sakarovitch, GA Representative France)

### *Overview of Society*

The French Informatics Society (Société informatique de France, SiF) was founded in 1984, first under the name of SPECIF. Its purpose is to promote and foster Informatics as a science and a technology in the French society, especially in the French educational system, in order to give the ability for every citizen to understand the new digital world of the 21<sup>st</sup> century.

SiF has over 500 individual members, 123 institutional members (such as associations, University CS research lab or University CS departments). SiF runs a number of scientific events every year. SiF is becoming a key influence on French decision-makers in its mission to promote Informatics in education and in the French society.

Web-site: <http://www.societe-informatique-de-france.fr>

### The “IFIP-France Consortium”

SIF is the IFIP French Member in the framework of the “IFIP-France Consortium” established in 2015, and which gathers the 5 main actors of Informatics in France:

- CNRS – the National Center for Scientific Research, a public organization under the responsibility of the French Ministry of Education and Research.
- INRIA – the French National Institute for computer science and applied mathematics, promotes “scientific excellence for technology transfer and society”. Graduates from the world’s top universities, Inria’s 2,700 employees rise to the challenges of digital sciences.
- IMT – the Mines-Telecom-Institute, is a public institution dedicated to higher education, research and innovation in engineering and digital technologies. The institution is under the authority of the Minister for Industry and Electronic Communication.
- SEE – Société de l’Électricité, de l’Électronique et des Technologies de l’Information et de la Communication - is a nonprofit, state-approved, scientific and technical association, active in France and in French speaking countries.
- SiF – Société informatique de France, which is the official French IFIP member.

### Representation

Since April 15<sup>th</sup>, 2020, SIF and the IFIP-France Consortium are represented at the IFIP GA by Jacques Sakarovitch, former TC1 Chair (2013-2018). He replaces Florence Sedes who was the French representative since January 1<sup>st</sup>, 2019. All IFIP TCs have French representatives. Two of them (TC12 and TC13) are chaired by their French representative. Most of WGs have French members.

### *Key activities this year*

#### Meetings organised by SiF

High school video contest for promoting informatics as a science (<https://www.societe-informatique-de-france.fr/2019/09/octet-video-concours-video-2019>).

50 years of Internet: on the occasion of the 50th anniversary of the first message exchanged between computers, SiF organized on October 29<sup>th</sup> 2019, a workshop with French Internet pioneers L. Pouzin and G. Lelann, historian V. Schafer and Web pioneer J.-F. Abramatics (<https://www.societe-informatique-de-france.fr/50-ans-internet>).

2020 Annual Congress of SiF: Lyon, February 4<sup>th</sup> & 5<sup>th</sup>. This year theme was “Digital and Ecological Transitions”, with half a day dedicated to industry—students exchange on the subject (<https://congres.societe-informatique-de-france.fr>).

The annual day dedicated to teaching informatics was replaced by 4 webinars on “the SIF-Thursdays”, about informatics option in high school and after in university” (<https://www.societe-informatique-de-france.fr/les-journees-sif/la-specialite-nsi-et-les-formations-post-bac>).

### Edition and Publications

SiF edits a journal, called “1024”, and the “Binaire blog” (hosted by the famous newspaper “Le Monde”).

### Society

New research funding law. SiF has been active in the preparation and discussion in France of a new law about funding research (*la Loi de Programmation Pluriannuelle de la Recherche (LPPR)*). It opened webinars with persons involved in research, (<https://www.societe-informatique-de-france.fr/recherche/loi-de-programmation-pluriannuelle-de-la-recherche-lppr>). Informatics option. A main topic in the French educational system presently is the implementation of a new Informatics option in Higher Secondary School (Lycées) and the creation of new competitive examination for the recruitment of teachers (CAPES) for that option. SiF has been active in the preparation and discussion of the program of the option and of the examination.

### *The IFIP Digital Library*

Inria has been chosen by IFIP four years ago for implementing its Digital Library. Since then Inria stores IFIP publications in HAL, the French repository for scientific publications, compliant with the OAI-PMH protocol.

There are two kinds of papers in the collection. First there are the older papers, going back to 2009-2010. These are clearly past the embargo period and are available immediately. Second there are the current papers. These are uploaded to HAL immediately, as they become available, and then HAL's embargo facility is used to prevent access to the full paper for three years. The metadata, however, is available immediately. There are also papers that were never published by Springer, that become available immediately. These are in the eCollection Series.

The workflow is that the IFIP Secretariat gets the manuscripts from Springer, verifies its coherence, and adds metadata such as the name of the involved TC. Inria then validates the authors and affiliations and uploads the data. Inria also detects duplications, as French authors might upload the paper in HAL as well.

From June 2019 to June 2020, 48 volumes of proceedings have been added to the DL which amount to 1537 uploaded articles. In total, IFIP DL gives access to more than 16 000 documents (essentially published since 2010). The statistics of access to the papers is quite good (roughly 60 thousands per month). More details are to be found in the Publication Report established by Kai Rannenber.

### *IFIP 60th anniversary*

The IFIP-France Committee and their members are fully committed to take part in the preparation of an IFIP event that should take place in Paris, organized by UNESCO to celebrate the IFIP 60<sup>th</sup> anniversary. Primarily scheduled for September 2020, the event is postponed now for 2021.

### *IFIP events in France*

IFIP events which took place in France during the period covered by this report:

<b>Event</b>	<b>Acronym</b>	<b>Date/Location</b>	<b>Org. Contact</b>	<b>Sponsored by</b>
IFIP Networking Conf.	<b>Networking</b>	23-25/06 2020 Paris, FR	<a href="mailto:aziza.lounis@dnac.org">aziza.lounis@dnac.org</a>	<b>IFIP Joint Event</b> IEEE ComSoc
WISTP Int. Conf. on Information Security Theory	<b>WISTP</b>	11-12/12 2019 Paris, FR	<a href="mailto:samia.bouzefrane@cnam.fr">samia.bouzefrane@cnam.fr</a>	<b>IFIP Event</b> IFIP WG11.2 IFIP TC11
Int. Conf. on Machine Learning for Networking	<b>MLN</b>	03-05/12 2019 Paris, FR	<a href="mailto:selma.boumerdassi@inria.fr">selma.boumerdassi@inria.fr</a>	<b>IFIP Event</b> CNAM, Télécom SudParis, ADDA
8th Int. Conf. on Performance Evaluation and Modeling in Wired and Wireless Networks	<b>PEMWN 2019</b>	26-28/11 2019 Paris, FR	<a href="mailto:leila.saidane@ensi-uma.tn">leila.saidane@ensi-uma.tn</a>	<b>IFIP Event</b> ENSI, Tunisia Inria, France
31st IFIP Int. Conf. on Testing Software and Systems	<b>IFIP-ICTSS 2019</b>	15-17/10 2019 Paris, FR	<a href="mailto:christophe.gaston@cea.fr">christophe.gaston@cea.fr</a>	<b>IFIP Event</b> CentraleSupélec
12th IFIP Wireless and Mobile Networking Conf.	<b>WMNC</b>	11-13/09 2019 Paris, FR	<a href="mailto:aziza.lounis@dnac.org">aziza.lounis@dnac.org</a>	<b>IFIP Event</b> IEEE ComSoc
Network Traffic Measurement and Analysis Conference 2019	<b>TMA 2019</b>	19-21/06 2019 Paris, FR	<a href="mailto:stefano.secci@cnam.fr">stefano.secci@cnam.fr</a>	<b>IFIP Sponsored Event</b> IEEE ComSoc and ACM SIGCOMM

## 13.7 Gesellschaft für Informatik e.V. (GI)

(Kai Rannenberg, Representative of Germany)

### Overview of Society

- Society's vision/mission statement:
  - Please confer <https://gi.de/ueber-uns>
  - Mission motto: "Enlighten, raise questions, co-shape, move ..." („Aufklären, Fragen stellen, mitgestalten, bewegen...“)
  - Mission headlines
    - "Informatics move, Informatics are future, we are Informatics" ("Informatik bewegt, Informatik ist Zukunft, wir sind Informatik")
    - "We are part of a lively network" („Wir sind Teil eines lebendigen Netzwerks")
    - "We follow up on current topics related to Informatics" („Wir verfolgen aktuelle Themen mit Informatikbezug")
    - "We build bridges to other disciplines" („Wir schlagen die Brücke zu anderen Disziplinen")
    - "We care for well-skilled and well-educated coming generations" („Wir sorgen für gut ausgebildeten Nachwuchs")
    - "To the public we provide a multi-faceted and differentiated perspective on Informatics" („Wir zeichnen ein differenziertes Bild der Informatik in der Öffentlichkeit")
    - "We contribute Informatics competence into societal debates" („Wir bringen unsere Fachkompetenz in gesellschaftliche Debatten ein")
- Link to Website: [www.gi.de](http://www.gi.de), <https://ifip.gi.de/>
- Which Technical Committee Working Groups do your members participate in?
  - All TCs (most matched by Special Interest Groups of GI and often ITG)
  - Almost all WGs (many matched by Special Interest Groups of GI and often ITG)

### Key activities this year

- **Events 2019/20**
  - Nov 28, 2019: Youth Internet Governance Forum in Berlin, <https://gi.de/meldung/internet-governance-forum-2019-100-internationale-jugendliche-erarbeiten-ihre-forderungen-an-politik-und-unternehmen>
  - Feb 12, 2020: New Year's reception and award ceremony for the ten most influential minds in German AI history
  - March 9-11, 2020: 15th International Conference on Business & Information Systems Engineering, <https://wi2020.de>
  - March 17-20, 2020: Security 2020 had to be cancelled due to the corona pandemic



- Sep 06-09, 2020: Mensch & Computer / Humans & Computers – Annual Conference of the HCI-department of the GI, <https://muc2020.mensch-und-computer.de>
- Sep 28/Oct 2, 2020: INFORMATIK 2020, Karlsruhe/virtual - "Back to the Future – 50. Jahrestagung der Gesellschaft für Informatik" "Back to the Future – 50<sup>th</sup> Annual Conference of Gesellschaft für Informatik", <https://informatik2020.de>
- Oct 2020: European Code Week
- **Events 2021**
  - March 8-12, 2021: BTW 2021: 19th Conference for "Database Systems for Business, Technology and Web, <https://gi.de/veranstaltung/19-fachtagung-fuer-datenbanksysteme-fuer-business-technologie-und-web>
  - March 9-11, 2021: 16th International Conference on Business & Information Systems Engineering <https://wi2021.de/en/home/>
  - Apr 2021: KI Camp 2021– The AI science convention for young researchers
  - June 10-12, 2020: European Dialogue on Internet Governance 2020 hosted by GI, <https://gi.de/meldung/die-gi-beim-european-dialogue-on-internet-governance-2020>
  - Sep 8-10,2021: INFO 2021 - 19. conference of the expert committee for informatics education in schools of the German Informatics Society, <https://infos2021.de>
  - Sep 28 – Oct 01, 2021: INFORMATIK 2021, Berlin
  - Further events see <https://gi.de/aktuelles/veranstaltungen/>
- **Projects**
  - **National Informatics Challenges** (<https://bwinf.de>): 3 Challenges of different level:
    - Informatik-Biber: Beaver for beginners
    - Jugendwettbewerb Informatik: Advanced students
    - Bundeswettbewerb Informatik: Expert pupils, also basis for the selection of German teams for the international Olympiads in Informatics, e.g. IOI
  - **girls@BWINF**: New project supports girls in computer science, <https://gi.de/meldung/girlsbwinf-neues-projekt-unterstuetzt-maedchen-bei-der-teilnahme-am-jugendwettbewerb-informatik>
  - **MINT@Home-Challenge**: The German Informatics Society opens social media classroom, <https://gi.de/meldung/mintathome-challenge-die-gesellschaft-fuer-informatik-eroeffnet-social-media-klassenzimmer>
  - **#HackTheSummer**: Creativity Competition for students using digital technologies for a sustainable future, <https://hack-the-summer.de>
  - **Youth4DigitalSustainability**: Youth Internet Governance Forum & Summit, <https://yigf.de>
  - **InViDas**: Interactive, visual data rooms for sovereign, data privacy decision making <https://invidas.gi.de>
  - **Kea-Mod**: Graphical modelling in university teaching: Cross-location e-assessment platform planned, <https://keamod.gi.de>

- **Digital Autonomy Hub:** Making confident use of technology is a competence centre that coordinates an interdisciplinary network of 43 institutes and organizations. The Hub will make visible what the partners are researching and what ideas they are developing to strengthen individual digital sovereignty, [www.digitalautonomy.net](http://www.digitalautonomy.net)
- **KI-Camp 2021** – The AI science convention for young researchers
- **NFDIXCS** will provide a national infrastructure for research data in computer science, <https://nfdixcs.org> (proposal stage / in preparation)
- **TrainDL:** Policy Experimentation on Teacher Training in Data Literacy and Computer Science (proposal stage / in preparation)
- **Social Responsibility**
  - Left Facebook, i.e. closed the central GI page there due to Facebook's repetitive ethical and technical failures in respecting or protecting the data of its users. More and a documentation of the long and intensive discussion on <https://gi.de/meldung/gi-zentrale-verlaesst-facebook/>
  - Working group on Gender & Diversity (<https://gi.de/meldung/hohe-resonanz-auf-gender-diversity-papiere-der-gi/>)
  - Work by GI Presidential Board "Data protection and IT Security" (<http://pak-datenschutz.gi.de/>)
  - Ethical guidelines (<https://gi.de/ueber-uns/organisation/unsere-ethischen-leitlinien>)
  - Position paper on informatics education in primary education (<https://gi.de/meldung/gi-veroeffentlicht-empfehlungen-zur-informatischen-bildung-im-primarbereich>)
  - Recommendations for university studies, education and continuous education in Informatics (<https://gi.de/service/publikationen/empfehlungen>)
  - **Common Frame of Reference for Computer Science Education (GeRRI)**  
The GI and the German Association for the Promotion of Mathematical (...) and Scientific Teaching) (MNU) have developed a Common Frame of Reference for Computer Science Education (GeRRI). This frame of reference, divided into the areas of digitalization, automation and Informatics systems, describes how the use, design and reflection of digital systems are interwoven with basic informatics concepts and what contribution they can make to general school education. The reference levels of GeRRI are structurally linked to the Common European Framework of Reference for Languages (CEFR). Levels A1 and A2 correspond to elementary informatics education, which can also be acquired in informal educational processes. Levels B1, B1+ and B2 are related to general computer science education, usually acquired in informatics lessons.
  - **Frankfurt-Dreieck (Frankfurt Triangle)**  
The GI has continued its discourse with scientific representatives of media education on informatics education. After the principles of an interdisciplinary approach to informatics education and media education were conceptualized in the joint Dagstuhl Declaration in 2016, this concept has now been continued with the publication of a further document (Frankfurt-Dreieck, 2019) as the result of a joint WG. Analysis, reflection, and design will be given to each object of this interdisciplinary approach. The perspectives for consideration are envisaged:

Technological-media perspective, social-cultural perspective, interaction perspective.

- **Charter on digital education** (<https://charta-digitale-bildung.de>)  
Based on the Dagstuhl (and Frankfurt) Triangle the GI initiated a charter to gain a common understanding on how a good education in a digitally connected world could look like. The charter was signed by more than 200 leaders from politics, academia and business/industry.
- **informatiCup 2020**: 15th student competition in Computer Science, <https://gi.de/meldung/team-der-dhbw-karlsruhe-gewinnt-informaticup-2020-der-gesellschaft-fuer-informatik>

#### ○ **Thought leadership**

- Sept 8, 2020: Register modernization law does not correspond to the state of the art, <https://gi.de/meldung/registermodernisierungsgesetz-entspricht-nicht-dem-stand-der-technik>
- Aug 14, 2020: Cyber security strategy: GI calls for strengthening user protection, <https://gi.de/meldung/cyber-sicherheitsstrategie-gi-fordert-staerkung-des-schutzes-der-nutzerinnen-und-nutzer>
- Aug 8, 2020: GI publishes statement on adaptation of copyright law, <https://gi.de/meldung/gi-veroeffentlicht-stellungnahme-zur-anpassung-des-urheberrechts>
- July 16, 2020: GI contributes to the European action plan for digital education, <https://gi.de/meldung/gi-bringt-sich-beim-europaeischen-aktionsplan-fuer-digitale-bildung-ein>
- June 26, 2020: Working Paper: Digital Education after Corona, <https://gi.de/meldung/arbeitspapier-digitale-bildung-nach-corona>
- June 19, 2020: Statement on the AI White Paper of the EU Commission adopted, <https://gi.de/meldung/cepis-stellungnahme-zum-ki-weissbuch-der-eu-kommission-verabschiedet>
- June 6, 2020: GI working group sees serious shortcomings in the Data Transparency Ordinance of the Federal Health Ministry, <https://gi.de/meldung/gi-arbeitskreis-sieht-grobe-maengel-in-der-datentransparenzverordnung-des-bmg>
- May 15, 2020: Recommendations for action for education policy: GI launches "Offensive Digital School Transformation", <https://gi.de/meldung/handlungsempfehlungen-fuer-die-bildungspolitik-gi-startet-offensive-digitale-schultransformation> & [www.offensive-digitale-schultransformation.de](http://www.offensive-digitale-schultransformation.de)
- Apr 30, 2020: GI publishes working paper on key aspects of digital sovereignty, <https://gi.de/meldung/gi-veroeffentlicht-arbeitspapier-zu-schlusseselaspekten-digitaler-souveraenitaet>
- Apr 24, 2020: Open letter: Planned corona app is highly problematic, <https://gi.de/meldung/offener-brief-geplante-corona-app-ist-hoechst-problematisch>
- Apr 23, 2020: GI supports international statement on corona tracing apps, <https://gi.de/meldung/gi-unterstuetzt-internationale-stellungnahme-zu-corona-tracing-apps>

- Apr 20, 2020: GI signs pan-European position paper on informatics research assessment, <https://gi.de/meldung/gi-unterzeichnet-pan-europaeisches-positionspapier-zur-informatischen-forschungsbewertung>
- Apr 09, 2020: GI criticizes "data donation app" of the Robert Koch Institute, <https://gi.de/meldung/gi-kritisiert-datenspende-app-des-robert-koch-instituts>
- Apr 07, 2020: GI supports App-Framework for the containment of the Corona-Virus, <https://gi.de/meldung/gi-unterstuetzt-pepp-pt-app-framework-zur-eindaemmung-des-corona-virus>
- Apr 04, 2020: GI and MNU publish common reference framework for computer science in general education, <https://gi.de/meldung/referenzrahmen-informatik-gerri-mindeststandards-fuer-die-auf-informatik-bezogene-bildung-vorgelegt>
- Apr 03, 2020: GI submits proposals for the federal government's data strategy, <https://gi.de/meldung/gi-unterbreitet-vorschlaege-zur-datenstrategie-der-bundesregierung>
- March 10, 2020: Statement of the GI-FB SECURITY on the anonymization of personal data, <https://gi.de/meldung/stellungnahme-des-gi-fb-sicherheit-zur-anonymisierung-persoenerlicher-daten>
- Feb 19, 2020: GI rejects face recognition in public space, <https://gi.de/meldung/gi-lehnt-gesichtserkennung-im-oeffentlichen-raum-ab>
- Feb 12, 2020: GI signs open letter to promote freedom of information and opinion on the Internet, <https://gi.de/meldung/gi-zeichnet-offenen-brief-zur-foerderung-der-informations-und-meinungsfreiheit-im-internet>
- Feb 12, 2020: GI honors Ten influential figures in German AI history honored, <https://gi.de/meldung/neujahrsempfang-von-gi-und-fraunhofer-verbund-iuk-technologie-zehn-koepfe-der-deutschen-ki-geschichte-geehrt>
- Feb 11, 2020: Working Paper on Strengthening Germany as a software location, <https://gi.de/meldung/den-software-standort-deutschland-staerken>
- Feb 06, 2020: GI adopts measures to promote equal opportunities and gender equality in computer science, <https://gi.de/meldung/gi-beschliesst-assnahmen-zur-foerderung-der-chancen-und-geschlechtergerechtigkeit-in-der-informatik>
- Jan 29, 2020: GI supports demand for right to encryption, <https://gi.de/meldung/gesellschaft-fuer-informatik-unterstuetzt-forderung-nach-recht-auf-verschluesselung>
- Jan 13, 2020: GI criticizes planned obligation to issue passwords, <https://gi.de/meldung/gi-kritisiert-geplante-pflicht-zur-passwort-herausgabe>
- Dec 23, 2019: GI publishes working paper on Data Science learning and training content, <https://gi.de/meldung/gi-veroeffentlicht-arbeitspapier-zu-data-science-lern-und-ausbildungsinhalten>
- Dec 22, 2019: CEPIS supports GI criticism of the E-Evidence Regulation, <https://gi.de/meldung/cepis-unterstuetzt-gi-kritik-an-der-e-evidence-verordnung>
- Dec 21, 2019: GI Department "Informatics and Society" supports Scientists for Future, <https://gi.de/meldung/gi-fachbereich-informatik-und-gesellschaft-unterstuetzt-scientists-for-future>
- **Government engagement/projects**
  - Federal Ministry of Education and Research: Project "Hack The Summer" is a creativity competition for Students: <https://hack-the-summer.de>

- Federal Ministry of Education and Research: Project “Turing-Bus – Quantum Computing” as a mobile offer to youth to discuss and experience the role of digitalisation and technology in work and society will be on the road in 2021 again: <https://turing-bus.de/>
- Federal Ministry of Education and Research: National Informatics Challenges (<https://bwinf.de>), cf. section “Social Responsibility”
- Federal Ministry of Economic Affairs and Energy: Youth4Digital Sustainability within the Internet Governance Forum & Summit, <https://yigf.de>
- Federal Ministry of Education and Research: Kea-Mod - Graphical modelling in university teaching: Cross-location e-assessment platform planned, <https://keamod.gi.de>
- Federal Ministry of Education and Research: Project KI-Camp 2021 – The AI science convention for young researchers
- Federal Ministry of Education and Research: InViDas - Interactive, visual data rooms for sovereign, data privacy decision making <https://invidas.gi.de>
- Federal Ministry of Education and Research: Digital Autonomy Hub -Making confident use of technology is a competence centre that coordinates an interdisciplinary network of 43 institutes and organizations. The Hub will make visible what the partners are researching and what ideas they are developing to strengthen individual digital sovereignty, [www.digitalautonomy.net](http://www.digitalautonomy.net)
- Federal Ministry of Education and Research: Project “NFDIxCS” will provide a national infrastructure for research data in computer science, <https://nfdixcs.org> (proposal stage / in preparation)
- European Commission: Erasmus+ project on Policy Experimentation on Teacher Training in Data Literacy and Computer Science (proposal stage / in preparation)

## 13.8 Information Processing Society of Japan (IPSJ) (Yuko Murayama, IFIP representative of Japan)



### Overview of Society

- Society's vision/mission statement  
IPSJ promotes development of the arts, sciences, industry, and humanity through conducting various activities about information processing with computers and communications and providing resources for discipline and opportunities of cooperation with sister societies to members.
- Link to Website: <http://www.ipsj.or.jp/english/index.html>
- Which Technical Committee Working Groups do your members participate in?  
We have the IPSJ representatives to all the Technical Committees as well as IP3.

### Key activities this year

- Overview  
Information Processing Society of Japan (IPSJ) was founded in 1960 and has 19,763 individual members and 275 corporate members as of March 2020. IPSJ has an objective to contribute to the development of science, culture and industry through the promotion of academic and technical activities in information processing with a focus on computers and communication.  
IPSJ has a broad range of activities including 40 SIGs in the domains of Computer Science, Information Environment and Media Informatics, annual national conventions, hosting of international conferences, contribution to international standards, and contribution to IT education. IPSJ publishes IPSJ Magazines, Journals of Information Processing (JIP), Transactions in 10 areas, Journals of Digital Practices and DP Reports.  
IPSJ aims to enhance its value by providing services to public society such as proposals to Japanese government, as well as extending collaboration with professionals in industry through the communities called IT forums, and the certification of high level IT Professionals called Certified IT Professional, CITP.  
IPSJ has a global relationship with IEEE-CS, ACM, KIISE, CCF, etc.  
Now that Internet of Things, Big Data and AI are popular issues in societies and IPSJ is leading those issues providing events and seminars. Moreover, we have made a great effort to keep the number of members in particular those in younger generation.
- Events
  - **IPSJ SIGs in 2018**
    - 40 SIGs (Special Interest Group) in five Domains
    - Registered Members : 19,763 (individual members) and 275 corporate members
    - SIG meetings: 128 times/year with attendees 6,112, and 14 additional online meetings,  
Technical reports 3,421

- SIG Conferences & Symposia  
22 times held, papers 1,961, attendees 4,898
- **Annual National Convention (March, 2020)**
  - National Convention in spring
  - Planned to be held from 5 to 7 March 2020 at Kanazawa Institute of Technology Ohgigaoka Campus, Ishikawa Prefecture, but changed to Zoom online meeting because of COVID-19.
  - 1,141 papers presented with 2,419 attendants
  - KISSE(Korea), CCF(China) and IEEE-CS representatives gave speech.
  - The event in the main hall was broadcasted by Niconico Internet Broadcasting.
- **Forum on Information Technology (September 2019)**
  - National Convention in autumn
  - Held jointly with IEICE for 3days
  - Forum on Information Technology (FIT2019)
  - 3-5 September 2019 at Okayama University Tsushima Campus
  - 529 papers presented with 1,336 attendants
- **International Conferences in 2019-2020**  
**[technical co-sponsored]**
  - **COMPSAC2020**  
The 44th Annual IEEE International Computers, Software, and Applications Conference  
13-17 July, 2020, Madrid, Spain
  - **COMPSAC2019**  
The 43rd Annual IEEE International Computers, Software, and Applications Conference  
July 15-19, 2019, Milwaukee, Wisconsin, USA
- [co-sponsored]**
  - **ICMU** **2020**  
The 13th International Conference on Mobile Computing and Ubiquitous Networking  
28-30 October, 2020, Tokyo, Japan ()
  - **IWSEC2020**  
The 15th International Workshop on Security  
2-4 September, 2020, Fukui, Japan
  - **HPCAsia2020**  
International Conference on High Performance Computing in Asia Pacific Region  
15-17 January, 2020, Fukuoka, Japan
  - **ICMU** **2019**  
The 12th International Conference on Mobile Computing and Ubiquitous Networking  
5-7 November, 2019, Kathmandu, Nepal ()
  - **CollabTech** **2019**  
The 11th International Conference on Collaboration Technologies and Social Computing  
Kyoto, Japan - September 4-6, 2019
  - **IWSEC2019**  
The 14th International Workshop on Security  
August 28-30, 2019, Tokyo, Japan
  - **ASP-DAC2019**  
24th Asia and South Pacific Design Automation Conference  
21-24 January, 2019, Tokyo, Japan

- **Global cooperation with societies in other countries**
  - IPSJ/IEEE-CS Young Computer Researcher Award
  - IPSJ/ACM Award for Early Career Contributions to Global Research
  - Asia Pacific Conference on robot IoT System Development and Platform 2019 (APRIS2019) in Pattaya, Thailand.
  - CJK Joit Technical Forum with CCF and KIISE at CNCC2019 (October).
  - Global relationship event at KIISE KSC2019 (December).
  
- Projects
  - Publication
    - IPSJ Magazine
      - Japanese / Monthly
      - 356 items / 1,324 pages per year
      - Published as paper magazine
    - Online Publication
      - Started online publishing in 2008 through IPSJ Digital library
      - Available at Apple AppStore
    - JIP (Journal of Information Processing)
      - Online English journal
      - IPSJ Digital Library Open and Free!
      - <http://www.istage.jst.go.jp/browse/ipsjip>
      - 71 papers per year / monthly
      - No.1 ICT English journal in Japan
    - Transactions (non periodical)
      - 10 transactions included 118 papers in 38 issues in this year.
      - Edited by each SIG in Japanese(J) and English(E)
        1. IPSJ Trans on ACS(J/E) Advanced Computing Systems
        2. IPSJ Trans on PRO(J/E) Programming
        3. IPSJ Trans on TOM(J/E) Mathematical Modelling and its Applications
        4. IPSJ Trans on TOD(J/E) Databases
        5. IPSJ Trans on CDS(J/E) Consumer Devices & Systems
        6. IPSJ Trans on CVA(E) Computer Vision and Applications
        7. IPSJ Trans on TSLDM(E) System LSI Design Methodology
        8. IPSJ Trans on TBIO(E) Bioinformatics
        9. IPSJ Trans on DCON(J/E) Digital Contents Creation
        10. IPSJ Trans on TCE(J/E) Computer and Education
    - IPSJ Journal
      - Published through IPSJ Digital Library / Monthly
      - Online Japanese journal / includes pre-prints of JIP



- 227 papers / 2,061 pages per year
- Ranked No.1 on Google Scholar “Top publications – Japanese”

<http://www.ipsj.or.jp/english/jip/index.html>

[http://scholar.google.co.jp/citations?view\\_op=top\\_venues&hl=ja&vq=ja](http://scholar.google.co.jp/citations?view_op=top_venues&hl=ja&vq=ja)

- Programming Contest SamurAI Coding
  - The aim is to offer training fields to younger generations.
  - Participants / Teams compete in programming skill, algorithm, and AI strategy.
  - IPSJ held 6th International “AI programming contest” SamurAI Coding 2019-2020. <http://samuraicoding.info>
  - 37 teams signed and fought for preliminary and World Final.
  - World final is changed to online due to COVID-19.

## Social Responsibility

- Contribution to ICT Education
  - Accreditation of Higher Education Programs
    - Follow-up of J17 university informatics curriculum.
    - Started writing text books for J17-GE general ICT education.
  - Contribution to ICT Education at High Schools
  - JABEE: Japan Accreditation Board for Engineering Education
    - ICT fields - Joint evaluation by IPSJ, IEICE\*, IEEJ\* and FMES
- Junior Membership
  - Students under 20 (including junior school students)
  - Free online magazine and free SIG participation
  - 1,927 members in 2019.
- Providing Services for Public
  - Proposals for Government
  - IPSJ Technology Road Map
- Extending Collaboration with Practitioners
  - IT Forum 2020, Feb, 2020
  - Four IT Forums : Service Science, Contact Center, Study Group and CITP(Certified IT professional)
- Contributions to International Standardization
- Extending Global Collaboration
- Thought leadership
  - CITP® accredited by IFIP IP3
    - Certified IT Professional
    - Certified by IPSJ
    - High level IT human resource having competence of ITSS\* level 4 or above
    - Equivalent to SFIA\* level 5 or above
    - 3-year validity period
    - **Purpose**

- Visualize high level IT professionals, and raise their social position (establish the profession)
- Develop IT professional community
- **Design policy**
  - Make full use of Japanese standards: ITSS and ITEE
  - To be accepted internationally: IFIP IP3 accreditation
- **Two Operation Methods**
  - Direct Method (from 2013)
    - IPSJ certifies professionals directly.
  - Indirect Method (from 2014)
    - IPSJ accredits a certification scheme of a company, then certifies professionals certified by the company indirectly.
- **Current Status**
  - 9,853 CITPs have been certified.
  - 9 internal certification systems of companies have been accredited.
  - CITP Community was established in 2014.

### Government engagement/projects

- Contribution to International Standardization
  - ITSCJ: Information Technology Standards Commission of Japan
    - One section of IPSJ for JTC1 standardization
  - Domestic
    - Number of Committees: 92
  - International
    - Number of Attending Meetings: 260 (per year)
    - Number of Japanese Delegates: 881
    - Number of Japanese Chairpersons: 4
    - Number of Japanese Secretariats: 5
    - Number of Meetings hosted by ITSCJ: 6
  - Membership: 64 Companies

### **13.9 Koninklijke Nederlandse Vereniging van Informatie-professionals (KNVI) (Royal Netherlands Association of Information Professionals)** (Wouter Brongeeest, IFIP representative of the Netherlands)

#### **Overview of Society**

The Royal Netherlands Association of Information Professionals (KNVI) is a professional association for individuals employed as information professionals or who are interested in this field in all its facets.



The Association has set the following objectives:

- a) Contributing to the professionalization of employees in the field in general and of its members in particular;
- b) Representing the interests of the professional field in the event of (domestic and European) policy changes and exercising control over policymaking;
- c) Liaising with key partners;
- d) Promoting domestic and international cooperation;
- e) Promoting interaction between the members;
- f) Raising awareness among members of their social responsibility;
- g) Providing opportunities for personal certification in accordance with the ISO 17024 standard within the information technology (IT) field.

The Association will attempt to achieve its mission in the following ways:

- a) Sharing knowledge, or facilitating such knowledge-sharing, through both face-to-face and virtual meetings (including conferences, workshops, field trips, etc.);
- b) Issuing, or facilitating the issuance of, publications relevant to the professional field;
- c) Promoting training and education;
- d) Collaboration with other domestic and international organisations;
- e) Establishing departments, Interest Groups (IGs) and Regions.

At the moment the board members are:

- Chair: Wouter Bronsgeest and Paul Baak (duo-chair)
- Treasurer: John Sudirman
- Secretary: Sandra de Waart
- Board members: Eric Kokke, Tom Dalderup, Marco Dumont, Tony Wildvank, Hilde Klein.

KNVI has 4000 members. Website: <https://www.knvi.nl/>

KNVI has four magazines for members to choose from. Non-members can also get these magazines, for a subscription fee.

- AG Connect (<https://www.agconnect.nl>)
- Informatie Professional (IP) (<https://informatieprofessional.nl>)
- Overheids Documentatie (OD) (<http://www.od-online.nl/>)
- IT-Infra newsletter (login members only)

These magazines also publish articles about KNVI and IFIP on a regular basis. Examples are (in Dutch only):

- <https://www.agconnect.nl/artikel/bedrijven-hebben-nu-te-maken-met-een-digitale-tsunami>, an interview with Stephen Ibaraki about the Digital Tsunami many organisations have to deal with.
- <https://www.agconnect.nl/artikel/ifip-awards-voor-aiko-pras-en-wil-van-der-aalst>, an article about the awards for IFIP awardees Aiko Pras and Wil van der Aalst.
- <https://www.agconnect.nl/blog/kleinere-wereld>, a report on the last GA (blog)
- <https://www.agconnect.nl/artikel/prominente-knviers-beantwoorden-vragen-uit-het-vak>, an introduction to the fellows of KNVI, among them many members whom are active in IFIP..

The KNVI has been founded more than 100 years ago. In the beginning of 2017 former Dutch IFIP member society NGI-NGN merged with the smaller KNVI and SOD.

The name KNVI has been chosen, because of two main reasons; First, the 'I' standing for 'Information professional'. This overarching description of the profession makes all member recognise the core of their profession and connects them to the goal of the KNVI-organisation. Second, the long history of information professionals, starting at the beginning of the last century. ICT did not exist yet, but information was the basis for all development in society.

Part of the legacy of KNVI is the Van Wijngaardenpenning, a prestigious award named after Prof. Dr. Ir Adriaan van Wijngaarden (1916 - 1987). He was the founder of the 'Mathematisch Centrum', now the Centrum voor Wiskunde en Informatica (CWI) and the Nederlands Rekenkundig Genootschap (NRMG), later Ngi, and then Ngi-NGN. He was also one of the founding fathers of IFIP and played an important role in developing the AGOL-60 and AGOL-68 computer language. The award was introduced in 1998 by the former Ngi, and approximately every five years the prize, a bronze statue made by artist Hanneke van den Bergh, is awarded.

Award winners are Willem van der Poel, Joep van Oosterom, Eckhart Wintzen, Ton Risseeuw (2001), Maarten Looijen (2001), Andrew Tanenbaum (2002), Theo Bemelmans (2005), Nancy Lynch and Persi Diaconis (2006), Éva Tardos and John Butcher (2011). In 2016 Sara van de Geer and Xavier Leroy were awarded during the 70th year anniversary of the Centrum Wiskunde & Informatica (CWI) in Amsterdam and celebration of the 100th birthday of Van Wijngaarden<sup>1</sup>.

### Key activities this year - events

KNVI has facilitated around **50 events** in the Netherlands in 2019/2020. Due to the Covid-19 restrictions KNVI has switched to online events via webinars starting April 2020, and liaisons with partners to make sure members have access to

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<sup>1</sup> <https://www.cwi.nl/news/2016/cwi-commemorates-100th-anniversary-of-computer-pioneer-van-wijngaarden-special-book-and-0>

interesting content. After the summer of 2020 some off-line events have started again.

Some of these events were relatively small scale or working groups of professionals getting together to discuss a specific theme. Other events were large, attracting up to almost 200 participants. The real big events (all events over 100 participants) have all been cancelled in 2020.

A small selection of our key events end 2019 and first half 2020 (key events in **bold**):

- Self Driving Challenge (17<sup>th</sup> of September 2019)
- Study trip to Strasburg - KNVI Juridical Information (18<sup>th</sup> of September 2019)
- **National AI Debate, (8<sup>th</sup> of October 2019)**
- **IT Infra Day of the Year, 10<sup>th</sup> of October 2019**
- Information security according to ISO/IEC 33020:2015 and the impact on the audit function (16<sup>th</sup> of October 2019)
- Networking day: Archives and sources of WW2 (24<sup>th</sup> of October 2019)
- To 5G and beyond - Future Tech & Impact (24<sup>th</sup> of October 2019)
- Improvement of IT decisions with Enterprise Architecture (29<sup>th</sup> of October 2019)
- Verification of software – complex but valuable for all! (31<sup>st</sup> of October 2019)
- Process Mining for technical processes (7<sup>th</sup> of November 2019)
- **Smart Humanity (14<sup>th</sup> of November 2019)**
- Modelling the Transitional Organization (18<sup>th</sup> of November 2019)
- What the (bio)hack: human or robot? (21<sup>th</sup> of November 2019)
- Introduction to Music Thinking (27<sup>th</sup> of November 2019)
- BREXIT in a data driven environment (28<sup>th</sup> of November 2019)
- Consultation of the New Legislation on Archiving (14<sup>th</sup> of January 2020)
- How we realize the future of our vital infrastructure (15<sup>th</sup> of January 2020)
- Business Architecture as enabler of digital transformation (21<sup>st</sup> of January 2020)
- TKP and the Cloud (21<sup>st</sup> of January 2020)
- Visiting the National Statistics Agency (23<sup>rd</sup> of January 2020)
- Common Nederland (27<sup>th</sup> of January 2020)
- 5G and IoT (28<sup>th</sup> of January 2020)
- **Next Level project management (30<sup>th</sup> of January 2020)**
- Personal data with Solid (12<sup>th</sup> of February 2020)
- Nine challenges for agile and good IT systems (10<sup>th</sup> of March 2020)
- Identity and Access management (12<sup>th</sup> of March 2020)
- Visiting the Breda University of Applied Sciences (13<sup>th</sup> of March 2020)
- **Test automation – webinar (13<sup>th</sup> of May 2020)**
- Common Nederland (2<sup>nd</sup> of June 2020)
- Data management: fuel for organisations (4<sup>th</sup> of June 2020)
- Tooling for procurement of software (10<sup>th</sup> of June 2020)
- **Online iPoort meeting on the topic of Digital & Education: KNVI (Gert Staal) presented during the meeting (18<sup>th</sup> of June 2020)**

- PostNL and the Cloud (30<sup>th</sup> of June)
- Corona and the IT Sector (7<sup>th</sup> of July 2020)
- (non-)distributed information (15<sup>th</sup> of July 2020)

Many members of KNVI play a part in agenda setting. In 2019 KNVI, in co-operation with First Life, organised two **National Debates**. One on the effects of *Blockchain* (14<sup>th</sup> of May 2019) and one on *Artificial Intelligence* (8<sup>th</sup> of October 2019), organised and co-hosted by our Interest Group IT & Law (Victor de Pous and Natascha van Duuren c.s.). The debates planned in 2020 have been postponed to 2021.

### **IFIP events in NL in 2019/2020**

For 2019/2020 one IFIP-event was scheduled to take place in the Netherlands: IFIP Internet of Things 2020 (IoT 2020), 5 – 6 November 2020. See: URL: <http://ifip-iotconference.org>  
Unfortunately due to COVID-19 this event had to be postponed and will now take place in November 2021.

Special attention has been paid to the IFIP jubilee year 2020, resulting in an extra effort of Dutch members of IFIP bodies to contribute to the IFIP 60<sup>th</sup> anniversary book.

Previous years: 2010 (3), 2011 (4), 2012 (6 incl. WCC), 2013 (2), 2014 (1), 2015 (3), 2016 (1), 2017 (0), 2018 (0), 2019 (1).

### **Key activities this year - partnerships**

Together with a group of other Dutch associations, KNVI is a member of **The International Federation of Library Associations and Institutions (IFLA)**. IFLA is the leading international body representing the interests of library and information services and their users. It is the global voice of the library and information profession. During the IFLA WLIC 2019 Closing Session, IFLA President Glòria Pérez-Salmerón officially announced the host location for the 87th IFLA World Library and Information Congress: Rotterdam. KNVI is very honoured to host the event, realizing that Corona can create a hurdle. The planning of the conferences is as follows: IFLA Rotterdam 2021 is going to be an online conference, and the conference in 2023 in Rotterdam will be an off-line conference, The IFLA 2022 conference in will also be an off-line conference .

KNVI is also participating in the **AI4Good organisation**. Our ambassador Frits Bussemaker is one of the founding fathers of this community, and helps organising international conferences on behalf of IA4Good. Relevant meetings:

- July 2nd I4ADA (Frits Bussemaker) hosted a webinar as part of ITU's AI4Good series. This webinar had the highest NPS to date in the webinar series.
- September 3rd/4th I4ADA was part of the ebooth of the Dutch ministry of Foreign affairs at the AI Expo in South Africa.

Furthermore, KNVI is active in the development of ecosystem around the **European e-Competence Framework (e-CF)**. KNVI is the official national

professional organisation within the Dutch mirror committee of NEN TC 428 and represents the Netherlands in the European CEN committee TC 428 Digital competences and ICT. the Interest Group of KNVI is active in organising the network and lobbying in Brussels (EU). Members of KNVI have been especially active in contacts about the e-CF framework.

Next to the contacts in Brussels, KNVI has been supporting the **ISO/NEN organisation**. Furthermore KNVI supports different working groups of the ISO-organisation in the Netherlands and in Europe, recently in the further development of ISO 38500.

KNVI is an active member of the **Council of European Professional Informatics Societies (CEPIS)**. KNVI-member Jos Timmermans is also a board member of CEPIS (term of office: 2017-2020). The main goal/target of CEPIS is to “Promote Best Practice for IT Professionals and Users Throughout Europe”. To achieve this goal, the activities of CEPIS are centred around 4 pillars.

1. High Standards for IT professionals
2. Growing the pool of future IT Professionals
3. Digital Competence for the Workforce
4. IT Good for Europe.

Within these 4 pillars workgroups and meetings are organized in which KNVI members participate.

In the European field, KNVI supports the **Declaration on IT Professionalism for Europe (ITPE)**. ITPE is a network of public a private sector experts from critical IT domains committed to the advancement of Europe’s IT Profession. Digital transformation of organisations needs enhanced digital competences, supported by a common skills framework, shared body of knowledge, education & training and professional standards and their implementation across Europe. Recognising that the world is being changed profoundly by new technologies and the digitalisation of industry, and that today’s working conditions and job dynamics are set to change significantly, the ITPE members believe that it is imperative that IT professionalism receives greater focus and priority in Europe as well as globally. KNVI-member Jos Timmermans is president of IT Professionalism Europe (ITPE).

See: <http://www.itprofessionalism.org/sign-the-declaration>

ITPE’s activities are; the Expert Groups, liaison with EU institutions and CEN/TC 428, briefings and Member/Region meetings.

KNVI participates in activities in the Netherlands for the **European Computer Driving Licence (ECDL)**. KNVI is the owner of the national licence for ECDL. In 2020 our talks with the ECDL foundation has led to another construction, partly also because ECDL is being developed in a more modern and extended version: iCDL (International Computer Driving Licence). The foundation will take care of the exams in Europe, and thus in the Netherlands. KNVI helps to extend the network to schools and institutions in the Netherlands.

KNVI participated in the 15th edition of the **WSIS Forum 2020** in the session of IFIP-IP3 during - "Living the standard – how can the Information and Knowledge Society live to an ethical and FAIR Standard without needing to refer to a Codes of Ethics". The World Summit on the Information Society (WSIS) Forum is a global United Nations (UN) multi-stakeholder platform facilitating the implementation of the WSIS Action Lines for advancing Sustainable Development Goals (SDGs). See also: <https://www.itu.int/net4/wsis/forum/2020>

The KNVI has regular talks with policy makers. A selection of initiatives:

- Involvement in the **Dutch Digital Delta (DDD)** of the Ministry of Economic Affairs. Part of this programme is the *Dutch Blockchain Coalition* and the *Human Capital Agenda (HCA)* of the Netherlands.
- Together with *Business University Nyenrode* we organise a **Master class Digital Leadership**. Twice for professionals and students in the profit sector, and twice for professionals and students in the public sector.
- For the *University of Twente* and *Vrije Universiteit Amsterdam* our members give special master classes ICT, Governance and Innovation.
- Support of the *National Legacy Coalition* (<https://www.nwo.nl/over-nwo/organisatie/nwo-onderdelen/ew/bijeenkomsten/legacy+coalitie+nl>)
- Support of the *Secure Software Development (SSD)* manifest of the Centrum Informatiebeveiliging en Privacybescherming (CIP)

In the Netherlands, KNVI tries to **liaison with other associations**. Different talks have been initiated to work together with other organisations in the Netherlands. These contacts resulted in joint events and the intention to work together. One example is the partnership of KNVI with the **Foundation for Responsible Robotics (FRR)**. The partnership will aid FRR to achieve its mission to shape the future design, development and use of robotics in a responsible way and widen its network of professional practitioners. In turn, FRR broadens KNVI's network into the robotics domain and provides insight into the newest digital transformations.

KNVI has a Memory of Understanding to formalise the partnership with the **Digisterker Foundation**, to be able to focus more on developing skills on the citizen side. This foundation runs a digital skills programme in all public libraries in the Netherlands, helping people to develop their digital skills.

Via our fellow Frits Bussemaker KNVI is also involved in the organisation of **INNOvember.nl**, a Dutch initiative for the public sector to discuss the impact of technology and innovation.

In 2020 KNVI and the national **Knowledge and Information Agenda (KIA)** of the Dutch National Archive signed a Memory of Understanding. This partnership allows both organisations to participate in each other's events, and allows members to use the respective knowledgebase of both organisations. Furthermore KNVI will work specifically on one of the themes of the KIA-Agenda: Innovation of Archives. Using the newest IT-solutions for archiving is a very important topic, especially to digitalise and open up information for the public.



In 2020 talks with the forum **De Gebruiker Centraal** have been initiated. This platform focusses on User Centered Design and Usability norms for both the public and profit sector.

In 2020 KNVI and the **IT4Handicapped** also joint forces. This organisation represents a group of different organisations in the west of the Netherlands, and works on inclusion for handicapped people. One of their leaders also joined the group of Fellows of KNVI to get this important message heard.

Together with the **EXIN Foundation** talks have been initiated, resulting in 2020 in an extra financial impulse for KNVI. With extra project budget KNVI can start two projects: one project is aiming to interest students of all ages in developing their skill set and improving their network. The other project is to develop a system where KNVI can give 'EP' points (Education Permanente) for the activities KNVI organises.

In 2020 KNVI and **FutureXL** (<https://www.futurexl.nl/>) signed a partnership agreement. Many webinars of the FutureXL organisation are now available to KNVI members. Furthermore, KNVI will contribute to a book about digital transformation, due in spring 2021.

Ethics is a topic KNVI is investing in. KNVI contributes to the Dutch "**Ethical Manifesto for Architects**". The Ethical manifesto is a Dutch national initiative of the professional associations KNVI, NAF and of Sogeti. In the EU, within **ITPE in the workgroup on Ethics** KNVI is also present, thus ameliorating one of the four pillars of IT-professionalism. In 2019, KNVI has adopted the first draft of the **IFIP Code of Ethics**. In 2020 the implementation of this code will start, after het General Assemblée of IFIP in September 2020.

KNVI has also published the '**IT manifest for Government**', an initiative to make government more aware of the importance of IT and the way IT-projects should and could be managed. As an answer to a governmental report by the 'Commissie Elias'- that investigated IT-projects in Dutch government, the KNVI published this short and concise manifest. The main focus points are (1) to choose organisational goals before IT-goals, (2) to co-create on basis of trust, not just in the basis of legal contracts, (3) to choose for smaller project and co-creation in value chains, (4) to put craftsmanship above reputation, and (5) to choose for change and agility above rigid planning processes.

### Key activities this year - books

KNVI published a number of **books** over the years:

- Rooyen, J. van, Geefhorst, D., Mersie, M. Testautomatisering wendbaar organiseren, July 2020
- Duuren, N. van, Pous, V. (ed.), Artificial Intelligence. January 2020.
- Smits, D., Bronsgeest, W.L. et al., Governance: De menselijke maat genomen.
- Duuren, N. van, Pous, V. (ed.), Multidisciplinary Aspects of Blockchain, deLex B.V.

- Duuren, N. van, Pous, V. (ed.), Multidisciplinaire aspecten van blockchain, deLex B.V.
- Op de Coul, J., Oosterhout, C. van, Werken in een digitale wereld - Het KNVI Competentie Model: Alles over functies, taken, rollen en competenties
- Bronsgeest, W.L., Wesseling, M., De Vries, E., Maes, R., Informatieprofessional 3.0, 2e geheel herziene druk.
- De Pous, V. (red.), Digitaal recht voor IT professionals
- Verhagen, E., Geheugentrommels, CWI
- Bronsgeest, W.L. (red.), Wegwijzer voor Evalueren van IT projecten, Van Haren Publishing.
- Driel, M., Gils, B., Oor, E., (ed.), Wegwijzer voor methoden bij enterprise-architectuur - 2de herziene druk

Soon to be published:

- Bronsgeest, W.L., De Waart, S. (ed.), Smart Humanity. Expected: november 2020
- Duuren, N. van, Pous, V. (ed.), Artificial Intelligence, english version. Expected 2021

### Key activities this year - prices and awards

KNVI participates with the Koninklijke Hollandsche Maatschappij der Wetenschappen (KHMW) for the **Young Talent Prices and Master thesis prices**.

*Young Talent Prices Informatics and technical information science in 2019 went to:*

- Tuhin Das (Technische Universiteit Delft – TUD)
- Younes Hamdoud (Universiteit van Amsterdam - UvA)
- Hongyu He (Vrije Universiteit Amsterdam - VU)
- Iris Kamsteeg (Rijksuniversiteit Groningen – RUG)
- Yevhen Khavrona (Universiteit Twente – UT)
- Tim van de Klundert (Technische Universiteit Eindhoven – TUE)
- Thomas de Mol (Universiteit Leiden – UL)
- Merijn Schepers (Universiteit Utrecht – UU)
- Alexander Wolters (Radboud Universiteit Nijmegen – RUN)

*Thesis prices went to:*

1st price:

Remi Brandt (Rijksuniversiteit Groningen – RUG)

Efficient Binocular Stereo Correspondence Matching with 1-D Max-Trees

2<sup>nd</sup> price:

Sophie Lathouwers (Universiteit Twente – UT)

Reasoning about the correctness of sanitizers

3<sup>rd</sup> price:

Hilde Weerts (Technische Universiteit Eindhoven – TUE)

Interpretable Machine Learning as Decision Support for Processing Fraud Alerts

KNVI has its own award for active members that help to develop KNVI as an organisation and support the board of KNVI in an exemplary way: the **Jan Boersprij**s.

Award winners are:

- 2019 Interest Group members responsible for SR-vision: Philippe Lardinois, Robert de Koning and Gerard de Jong
- 2017 C.P.M. Busker
- 2016 Lex Schampers
- 2015 Tjerk Terpstra
- 2014 Gert de Gruyter
- 2009 Paul Teeuwen
- 2008 Arend Warmels
- 2007 Carel Daams

### Smart Humanity

In 2018, KNVI inspires the profession of the information professional with a new annual theme: Smart Humanity. Smart Humanity emphasises the permanent and central position of humanity in our digital society. Smart Humanity was also the theme of the annual congress at the end of 2018, in Eye film museum in Amsterdam.

Five working groups of KNVI started to discover and define Smart Humanity in 2018, using these five different perspectives:

- Smart GLAM (Galleries, Libraries, Archives, Museums)
- Smart Me & Ethics
- Smart Mobility
- Smart Industries
- Smart Cities

In 2019 the perspectives our scholars and professionals are working on the following perspectives during the Smart Humanity event in the OBA (Public Library) of Amsterdam:

- Smart citizen (happy civilians and digital participation for all)
- Smart user (Users and usability, digital skills and inclusion)
- Smart ethics (Practical human, 'hectic' ethics for professionals)
- Smart data (The wise researcher and data-isme)
- Smart pro (powerful professionals, and working on competencies & lifelong learning)

In 2020 KNVI invited many fellows and scientists to reflect on the subject. With a group of practitioners and academics KNVI is ready to publish a book on the subject. Publication is planned for the end of November 2020, during an online event (Smart Humanity TV). The introduction of this book is written by Stephen Ibaraki. The chapters of the book are grouped according to the following themes:

- Smart Professional
- Smart Designers & Users
- Smart Citizen
- Smart Data
- Smart Ethics

What does KNVI mean by '**Smart Humanity**'? A short introduction:

Society is changing under the influence of digital technology, thereby altering the role and position of humanity itself. Opinions on these alterations, however, differ. Some people expect robots and algorithms to take over the world, others envision a beautiful amalgamation of humanity and cybernetics, while yet others imagine humanity using IT to restore polluted Earth to a state of biological balance. No matter which scenario will prevail, humanity is central in our information society and should remain central in all current and future changes.

The role of the information professional is important, but society cannot allow digitisation and these changes to happen without its involvement. Everyone has a responsibility, everyone will have to learn to position themselves relative to technological possibilities. 'Everyone has to develop an awareness of the issues that new technology, new business models and new ways of communication will entail.

The KNVI has put forward and elaborated on the concepts 'Information professional 3.0' and 'Digital transformation' in various policy papers and publications. 'The essence of the first, but especially the second disruptive wave of change has had an unprecedented impact on professionals and the organisations where these people work. The information professional 3.0 carries a great responsibility,' according to Wouter Bronsgeest, one of the two chairmen of KNVI.

Information professionals and KNVI play a vital role in promoting the awareness outside the information professions. It is a role that government and the private sector have not yet adopted and a subject that science has only recently begun to explore. Smart Humanity means people who are able to use digital developments in society. A society that uses technology in an ethically responsible manner. A society that knows how to balance Earth and its resources. A society which uses technology to stop pollution and depletion of Earth's resources. A society which uses innovation to combat injustices and to give all individuals, without exception, the chance to live a life in dignity.

### **IFIP, KNVI and Europe**

IFIP's IP3 is part of the European initiative IT Professionalism Europe ("ITPE"). This is a network of organisations who are interested in and committed to furthering IT professionalism in Europe and promoting best practice in managing IT staff. The European Competence Framework (e-CF) is a strong component of this and

represents the initial focus of ITPE. In the view of ITPE professionalism encompasses not only competence development, skills frameworks and standards but also key topics such as education and training (certification, qualifications, continuous professional development), professional ethics and bodies of knowledge.

The link between IP3 and ITPE is also a valuable connection to the European body of knowledge and the network of the European Commission.

In Europe, KNVI is a member of TC 428: CEN/TC 428 - Digital Competences and ICT professionalism. In this position, KNVI fulfils a key position between TC 428 CEN NEN and IP3/IFIP. Chair of the KNVI Interest Group Digital Skills Liesbeth Ruoff is liaison for IFIP, KNVI and ITPE.

TC 428 organises many expert group sessions, KNVI-members take part in the sessions.

- Bramjan Mulder as expert in the workgroup developing the ethic part of the e-CF standard ecosystem
- Paul Willockx as external expert in the workgroup looking at the user experience part of the e-CF standard ecosystem
- Anneke Hacquebard: external expert in the workgroups looking at education, assessment and curriculum development workgroups part of the e-CF standard ecosystem
- Liesbeth Ruoff, on behalf of KNVI and IP3: external expert within Datascience: Edison project, expert workgroups around Body of Knowledge, User experience and ICT curriculum guidelines
- KNVI also joins more informal working groups in order to do further research into themes like e-leadership, Digiframe, Women in ICT, EuroDig

### **Sustainable Development Goals (SDG's)**

KNVI has integrated three Sustainable Development Goals with the KNVI vision, mission and strategy:

- **SDG #4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all,  
Because we believe that the development of Information professionals needs quality education and lifelong learning
- **SDG #9:** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation  
Because we believe that digitalisation leads to innovation and a sustainable world
- **SDG #17:** Strengthen the means of implementation and revitalize the global partnership for sustainable development  
Because we believe we need partnerships to realise these goals.

We have a strategy plan that visualises the way KNVI's vision, mission and strategic goals are interlinked with the SDG's and Information professionals.

## SDG's and International initiatives

KNVI and its Interest Group International Liaisons works on two initiatives to help Information professionals worldwide:

- We have an active role in the NGO Climbing the Right Tree. This NGO supports ICT initiatives in Ghana, and recently helped to introduce Exin in Ghana
- We are researching how to get involved in supporting ICT-based projects in West Papua, the easternmost province of Indonesia, working together with SDSP, Foundation for Sustainable Development in West Papua.

## KNVI – representation in IFIP GA

In 2017 Leon Strous handed over the GA representation to Wouter Bronsgeest, chair of KNVI. During 2017 and 2018 they had bilateral meetings with a number of official TC representatives for the Netherlands. These meetings were very useful to learn first-hand what issues are keeping them busy. In 2018 these meetings were continued. The rich collection of comments and suggestions are not only useful for the KNVI in its relationship with the TC representatives but are also very useful for IFIP, both for the member societies and for the TC's.

Furthermore, the KNVI installed a new 'Special Interest Group'(SIG) in May 2018: SIG International Liaisons. Members are:

- Leon Strous (Chair)
- Klaas Brongers
- Frits Bussemaker
- Liesbeth Ruoff
- Jos Timmermans
- Perry Moree
- Wouter Bronsgeest (liaison to the KNVI-board)

This SIG has the objective to co-ordinate the international activities of KNVI, support other SIGs of KNVI with their international activities and advise the chairman of KNVI on a variety of international matters. Co-ordination is important, since next to the IFIP membership, KNVI is also member of CEPIS and represented in IFLA (International Federation of Library Associations and Institutions) and ECDL (European Computer Driving Licence). The ECDL is transforming into ICDL, focussing more on information and integration of digital skills.

Based upon the talks with the Dutch representatives, several topics were raised in our annual reports for the GA 2018 and GA2019. One of the topics was the link between IFIP and member societies. This issue has been taken care of the last few years. With the Communication Committee (Max Bramer), leaflets, promotional movie, new website and IFIP-newsletter, IFIP is more visible, at least to the Dutch members of KNVI. The back office of KNVI makes sure information of IFIP is distributed to all KNVI-members, and our magazine (AG Connect) regular publishes about IFIP activities, or publishes articles of academics involved in IFIP TC's and WG's. KNVI has also formed a group of '**Fellows of KNVI**'. Many fellows are also part of IFIP.

## **IFIP – KNVI members in Technical Committees and Working Groups**

KNVI is represented in many TCs, WGs and other bodies of IFIP. See the IFIP-website for full list.

### **IP 3 - the International Professional Practice Partnership**

Liesbeth Ruoff: Board member

Frits Bussemaker: Member of IFIP/IP3 Global Industry Council, founded by Stephen Ibaraki.

### **TC-1 Foundations of Computer Science**

Jos C. M. Baeten

Jan van Leeuwen

Grzegorz Rozenberg

### **TC-2 Software: Theory and Practice**

Johan Jeuring

### **TC 3 – Education**

-

### **TC5: Information Technology Applications**

Hamideh Afsarmanesh

### **TC6: Communication Systems**

Aiko Pras

### **TC7: System Modeling and Optimization**

Adrie J.M. Beulens

### **TC8: Information Systems**

Henk Sol

### **TC9: ICT and Society**

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### **TC10: Computer Systems Technology**

Henk J. Sips

### **TC11: Security and Privacy Protection in Information Processing Systems**

Abbas Shahim

### **TC12: Artificial Intelligence**

Joost Kok

### **TC13: Human-Computer Interaction**

Regina Bernhaupt

### **TC14: Entertainment Computing**

Matthias Rauterberg

## 13.10 IT Professionals New Zealand (ITP NZ)

(Liz Eastwood, IFIP representative of New Zealand)

### Overview of IT Professionals NZ

[www.itp.nz](http://www.itp.nz)

IT Professionals NZ (ITP NZ) is a community of professionals who work in the IT industry and care about professional practice, support professional development, set standards, and work hard to help other members get ahead. With a history spanning 60 years, ITP is the largest and most trusted tech body in New Zealand.

ITP NZ engages with government, the education sector, academia and the public at large to increase the education, professionalism and expertise of those working in the IT industry and advance education across the board in the interests of New Zealand.

ITP NZ also actively represents the profession and the sector on a range of education, policy and standards-setting boards across NZ, such as primary and secondary school curriculum re-development, immigration policy for IT Professionals and more.

ITP NZ offers tertiary degree accreditation aligned to the Seoul Accord (of which ITP is a provisional signatory) and member certification in the form of Chartered IT Professional NZ (CITPNZ) licensed from BCS, at SFIA Level 5 and Certified Technologist (CTech) at SFIA Level 3. In addition, ITP NZ promotes IT as a career choice in schools and offers a mentoring programme and many other initiatives.

Individual New Zealand academics at Auckland, Wellington and Waikato Universities actively participate in IFIP Technical Committees 8 and 11.

### Events this year

#### Local events:

118 local events and talks were organised during 2019, all around New Zealand, by the national team and 8 branch committees. Target audiences range from new entrants to senior management and government ministers. Most of these events were free to members. In addition, we ran many regular short courses to upskill members and non-members alike <https://itp.nz/courses/>.

After the outbreak of Covid-19 in February/March, all of our events and courses moved online.

During New Zealand's major Covid-19 lockdown we provided a host of online activities and events to enable our members to continue to engage. This included "Tech Chat Tuesdays", where members could come in via Zoom and break out into small group discussions, through to regular live webinars and various other formats.

We have continued to offer these online events, even with some of our in-person events resuming (with appropriate safeguards) and these have proven to be popular, with thousands of professionals regularly either participating live or watching the recording later.



## ITx:

ITx is the largest independent tech conference in New Zealand and attracts the best innovators, leaders and experts in our sector. **ITx Rutherford** is a spin-off of ITx, running in the year between the major biannual ITx conference.



ITx Rutherford brings IT professionals, decision-makers, leaders and academics together under one roof. This is where industry, academia and government come together to network, learn and engage.

With the outbreak of Covid-19 in March the Board decided to postpone the 2020 event until May 2021.

## Social Responsibility

ITP NZ engages with government, the education sector, academia and the public at large to increase the education, professionalism and expertise of those working in the IT industry and advance education across the board in the interests of New Zealand.

Examples of projects are provided in the following sections.

## Thought leadership

ITP NZ runs many events with senior thought leaders talking about all aspects of IT, including industry leaders, experts, politicians, senior government officials and others. ITP NZ also hosts technology political debates featuring the ICT spokespeople of all major political parties talking about their policies and direction in relation to information technology.

ITP NZ produces a weekly update to members and others about what's happening in the industry, plus produces the widely read ITP TechBlog (<https://techblog.nz/>).

ITP NZ also appears regularly in national and local media with appearances on TV news, a regular tech slot on radio and being quoted regularly in newspapers and various online news services (tech, business and general).

## Government engagement

ITP NZ continues to be at the forefront of sector representation to Government. For example, ITP NZ is a founding member of the *Digital Skills Forum* – a group of senior policymakers from a number of Government agencies and sector bodies working to align skills development initiatives across Government and the private sector. ITP NZ representatives also meet with Government Ministers and other Members of Parliament on a regular basis.

The majority of other engagement has been with the Ministry of Education and related agencies, the Ministry of Business Innovation and Employment (MBIE), Immigration NZ, the office of the Government CIO, Tertiary Education Commission, Department of Internal Affairs, Cyber Security Taskforce, Department of Prime Minister and Cabinet and various others.

## Key Projects

### Degree Accreditation

The Degree Accreditations Board continued to progress well this year. ITP NZ is a provisional member the Seoul Accord working towards full signatory status. The Accord has appointed reviewers to visit New Zealand and review our processes. This event has been postponed until 2021. The Accord will consider our application and the reviewers' report at the Seoul Accord meeting in June 2021.

### Qualifications Review

ITPNZ and the Government's NZ Qualifications Authority National Qualifications Service, as co-developers of sub-degree computing qualifications in New Zealand, have undertaken significant industry consultation and created additional Diploma-level qualifications in **Software Testing** and **Cybersecurity**. This year, we are reviewing all sub-degree IT-related qualifications to ensure they continue to meet industry needs.

### SFIA adoption

ITP NZ has supported and promoted the adoption of SFIA by both Government and Industry in New Zealand for a number of years. NZ Government's policy setting agencies have endorsed SFIA as the tool that Government agencies should use for the evaluation of tech skills.

ITP NZ is providing a service to our Corporate Partners to help establish SFIA-based professional development and career progression programmes within organisations, and is planning to implement SFIA self-assessment later this year or early 2021.

### Digital Technologies Curriculum in Schools

ITP NZ has led industry input into what has become a transformational change in the school curriculum in New Zealand, including Digital Technologies becoming a compulsory subject from Years 1 to 10 (Primary School, Intermediate School and early Secondary School).

### 123Tech Challenge in schools

ITP's TechHub CREST Challenge has now become the highly successful *Tahi Rua Toru Tech Challenge* recently winning the prestigious "engaging NZ in Technology award" at the CIO Awards. "Tahi Rua Toru" translates from New Zealand's indigenous Māori language (te reo māori) to "1 2 3". The name of the challenge was chosen as it represents the inclusive nature of the programme which is available in both English and te reo māori. 123Tech, which is jointly funded by the Ministry of Education and the IT industry, was created to support the introduction of the new Digital Technologies curriculum content which becomes compulsory in New Zealand schools at all levels of primary and high school from 2020.



The challenge takes two different forms, the first sees teams of primary school students undertake activities that teach computational thinking and

Digital design principles without the need for a computer. The other format involves students at senior Primary, right through to Senior high school working in teams of 3-4 to identify a problem in their local school or community and solve that with a digital technology solution which they research, design, develop and then test. Students present their work to a panel of judges to compete for regional and national titles.

Now in its third year, the programme currently has over 1,600 teachers and 8,000 students involved in the challenge along with over 200 IT Professionals working as mentors to the students and teachers.

### **Immigration Qualifications Assessment**

ITP provides a Qualifications Assessment for the NZ Government's Immigration authority. This means ITP undertakes assessments for those looking to work in New Zealand to determine whether their qualifications are sufficient. This is a significant project and growing.

ITP has also been successful in having international Seoul Accord-accredited degrees as well as those with CITPNZ (plus a degree) automatically recognised for immigration skills purposes.

### **Engagement with indigenous New Zealanders (Māori)**

ITP NZ has strengthened our engagement with the Māori (indigenous New Zealand) IT community by providing a mentoring programme and working to ensure the organisation, and the industry, was seen to be open and welcoming to people from all cultures and genders.

ITP NZ was honoured by being gifted a te reo Māori (indigenous) name *Te Pou Hangarau Ngaio* which we now use alongside our English name. This roughly translates as the organisation is a central support to its members who are IT specialists. ITP NZ is working on activities to promote the IT profession as a rewarding career option for Māori youth.

### 13.11 Polish Academy of Sciences (PAN)

(Jerzy Nawrocki, GA representative Poland)



<http://ki.pan.pl/index.php?lang=en>

#### General information

Committee on Informatics of the PAS exists since 1972. It is an autonomous representation of researchers working in Poland in the field of Informatics. Roughly speaking, the Committee consists of a few permanent members (they are full or corresponding members of PAS) and 30 members selected each 4 years in a nationwide election (voting rights are limited to those who earned their habilitation degree in Informatics – in the 2019 election it was about 400 researchers). The activities of the Committee are coordinated by Presidium which consists of the following people (term 2020-2023):

Wojciech Penczek – Chair  
Aleksander Byrski – Vice-Chair  
Jerzy Nawrocki – Vice-Chair  
Lech Madeyski – Member of the Presidium  
Sławomir Zadrozny – Member of the Presidium  
Szymon Jaroszewicz – Secretary

Cooperation with IFIP is coordinated by Jerzy Nawrocki.

#### Membership in IFIP Technical Committees and Working Groups

Information about representation of the Committee of Informatics in the IFIP Technical Committees is given below (it is not necessary to be a member of the Committee of Informatics to represent it in an IFIP body):

TC 1: 2 members + 5 members of working groups  
TC 2: 1 member + 4 members of working groups  
TC 3: 1 member + 6 members of working groups  
TC 5: 1 member + 4 members of working groups  
TC 6: 1 member + 8 members of working groups  
TC 7: 1 member + 10 members of working groups  
TC 8: 1 member + 5 members of working groups  
TC 9: 1 member + 3 members of working groups  
TC 10: 1 member + 1 member of working groups  
TC 11: 1 member + 1 member of working groups  
TC 12: 1 member + 4 members of working groups  
TC 13: 1 member  
TC 14: 1 member + 1 member of working groups

Moreover, Tadeusz Czachórski and Łukasz Stettner chair their Technical Committees, i.e. TC 5 and TC7, respectively.

#### Key activities

- The Committee of Informatics is responsible for the *Zdzisław Pawlak Award* for outstanding monograph in the field of Informatics published by an author working in Poland.
- Every year the Committee sponsors about 10 conferences in the field of Informatics.
- In June 2020 the Committee organized a 2-day internet workshop “*Anti-Covid: Informatics against Covid-19*” which was participated by over 100 people. Selected papers presented during the workshop will be published in the *Bulletin of the PAS: Technical Sciences* (JCR Impact Factor is 1.385).

- More technical activities are run by 9 sections of the Committee:
  - Collective Intelligence
  - Computational Science and Bioinformatics
  - Computer Networks and Distributed Systems
  - Foundations of Computing Science
  - Intelligent Decision Support and Granular Computing
  - Management of Data
  - Multimedia
  - Quantum Computing
  - Software Engineering

## 13.12 Slovak Society for Computer Science (SSCS)

(Igor Privara, IFIP Representative of Slovakia)

### Overview of Society

- The **mission of SSCS** is to contribute to favourable conditions for the development of informatics and information technologies in Slovakia. The imperative is the support of progressive information methods and technologies in all areas of Slovak economy. SSCS is constituted as the professional organisation covering all areas of informatics and information technologies, mainly theoretical and applied informatics, computer engineering, software engineering, information systems, communication systems and education. SSCS presents its statements and proposals to the state and public institutions and helps them in coordination and solution of the basic issues of the development of informatics and information technologies. SSCS enables the development of the young people in informatics supporting their participation in professional activities and organisation and support of informatics competitions.
- **Webpage** of SSCS is [www.informatika.sk](http://www.informatika.sk)

### Key activities this year

- The biggest **event** was the participation of SSCS on the special conference ITAPA 2020 (IT and Public Administration) held on-line because of COVID-19 pandemic in May where president of SSCS served as the moderator and the member of the panel on Smart Cities and Regions. SSCS also took active part in the conference of Slovak.AI, where the report on how to transfer the results in AI to industry has been presented together with the identification of AI research potential in Slovakia. After national elections in February SSCS participated in the discussions how to deliver the main goals in the area of informatics from the new Government proclamation. Events has been slowed by the lockdown during March, April and May where many of them were cancelled or moved on-line.
- There are two **projects** in which SSCS is actively involved. The first is the project Digital Skills for Life carried out in Nitra self-governing region. The project is funded by the budget of the region and provides in average four ECDL modules to 600 students of secondary schools in the region and 36 teachers in 16 schools. The project has got very positive response from the Headmasters and teachers from the schools involved mainly by very professional approach of Accredited Test Centre delivering the education of teachers and testing. Thanks to this the region is willing to continue with similar project next year. The second project is the national EU funded project IT Academia focused on secondary schools and university students with the goal to increase their interest in STEM and IT subjects. Part of the project in cooperation with SSCS provided digital skills with four ECDL modules until now for almost 2.000 students in all regions of Slovakia without Bratislava. The project will be prolonged until June 2021 and will include also the capital Bratislava providing the opportunity for more students to get certification of the acquired digital skills.
- The strongest example of **social responsibility** is the support for the Olympiad in Informatics starting from the local rounds, eight regional rounds

and National Olympiad. Slovak students usually score very successfully as proved by the gold, silver and bronze medals in last 25 years. SSCS supports the Olympiad by the organisation activities of its members and also financially.

- SSCS has active cooperation with the **Government**, especially with the Office of Deputy Prime Minister responsible for Investment and Informatics which has recently transformed itself into the Ministry of Investment, Regional Development and Informatics. The new ministry declared in the Government proclamation of the new government many topics and goals supported also by SSCS in the past. The ministry invited SSCS representatives to the working groups dealing with defined areas of informatics – they are very active in the working group Governance and working group Self-administration where they contributed to the Project of digital transformation of public administration. SSCS president is the member of the Government Advisory Body on the Digitalisation of Public Administration and Single Digital Market where all the important documents in informatics must be approved.

### 13.13 Dataföreningen I Sverige (The Swedish Computer Society)

(Jan Gulliksen, IFIP representative of Sweden)

#### Overview of Society

- Society's vision/mission statement
  - A digitalization that empowers people, businesses and society
- Link to Website
  - <https://dfs.se/>
- Which Technical Committee Working Groups do your members participate in?
  - Swedish member of the IFIP GA, General Assembly – Jan Gulliksen
  - TC 1, Foundation of Computer Science – No representative
  - TC 2, Software Theory and Practice – Ivica Crnkovic
  - TC 3, Education – Arnold Pears
  - TC 5, Information Technology Applications – Jad El-Khoury
  - TC 6, Communication Systems – Gunnar Karlsson
  - TC 7, System Modelling and Optimization – No representative
  - TC 8, Information Systems – Anna Ståhlbröst
  - TC 9, Relationship between Computers and Society – Christina Mörtberg
  - TC 10, Computer Systems Technology – Jan Torin
  - TC 11, Security and Protection in IP Systems – Simone Fischer-Huebner
  - TC 12, Artificial Intelligence – Amy Loutfi
  - TC 13 Human Computer Interaction – Jan Gulliksen
  - TC 14 Entertainment Computing – Annika Wærn

#### Key activities this year

- Events
  - The Swedish Computer Society organizes over 250 events yearly (group meetings, conferences, training programs and certifications) on inspiring and trending topics
  - To meet new requirements in relation to the ongoing pandemic, the society launched a shift during the spring from physical meetings to digital and blended meetings – enabling a continuous exchange and sharing of ideas and experiences within the industry
- Projects
  - Digitala lyftet (“The Digital Lift”) for increasing work force digital skills and facilitating career shifts into digital professions
  - DF Tube is a video platform containing recorded seminars to increase the accessibility and allow to see things after the actual broadcasting



- DF Diversity In Tech focusing on diversity and inclusion in the digital area, by developing policies, workshops, mentoring programs and match making events etc.
- DF Annual Security Cruise – a European event where cyber security thought leaders gather during 48 hours to address burning security issues
- Social Responsibility
  - The Swedish Computer Society participates in nation-wide campaigns to highlight public awareness of cyber threats, in partnership MSB (The Swedish Civil Contingencies Agency) and The Swedish Police Authority
- Thought leadership
  - The Swedish Computer Society is a major player on the Swedish market for lifelong learning among ITC professionals
- Government engagement/projects
  - The Swedish Computer Society is engaged in the EU initiative Digital Skills and Jobs Coalition and the CEPIS Digital Skills Task Force
  - Within the project “Digital Destination Sweden” the Computer Society has focused on implementing its vision for Digitalisation 2025. The mission of the Computer Society is to develop digitalisation by bringing people together and promoting learning together. To achieve this vision, the Computer Society acts as an independent platform for shaping and influencing the development and direction of digitalisation and for developing the skills of individuals. The Computer Society is now changing from an association for only IT professionals to a platform where everyone involved in the digital transformation of Sweden can be involved and influence.

## 13.14 Institute of Information Technology Professionals South Africa (IITPSA)

(Rossouw von Solms, IFIP representative of South Africa)

### Overview of Society / Institute (IITPSA)

IITPSA is a South African Qualifications Authority recognised professional body, and our professional designation (PMIITPSA) is registered on the National Qualifications Framework. Established in 1957, and registered on 01 April 1958, IITPSA aims to represent the interests of all ICT professionals in South Africa, fostering professional relationships with other like-minded organisations and setting standards of practice, conduct and ethics for the ICT profession. Memoranda of Understanding have been signed with ISACA (SA Chapter), ISC<sup>2</sup> (Gauteng Chapter), the South African Institute of Electrical Engineers, etc.

Our total membership count, consisting almost entirely of individual practitioners, currently sits at a little over the 10 000 mark, with members found throughout the Republic of South Africa, as well as some neighbouring territories (albeit in quite small numbers) – e.g. Namibia, Botswana, Zimbabwe and Swaziland. Our main Chapters (or branches) are found in Johannesburg (Gauteng) and Cape Town (Western Cape), with smaller concentrations in Durban (KwaZulu-Natal) and Port Elizabeth (Eastern Cape).

The impact of the COVID-19 pandemic and extended lockdown periods in South Africa from the 26<sup>th</sup> March 2020 have, unfortunately seen a negative impact on membership numbers (both renewal and new applications).

### Society / Institute's vision/mission statement

**Vision:** To be the best at building and sustaining a professional ICT community.

**Mission:** Being the authoritative voice of the ICT professional community in South Africa, that leads professional development and good practice in ICT.

### Society / Institute's Website

Our Institute's main website is [www.iitpsa.org.za](http://www.iitpsa.org.za)

We also run a Women in IT Forum at [www.womeninit.org.za](http://www.womeninit.org.za)

### Technical Committee Involvement

IITPSA has appointed country representative in: TCs 2, 3, 6, 8, 9, 11, 12, 13 and 14.

### Key activities this year

#### *Events*

IITPSA hosts numerous Chapter and Special Interest Group events throughout the year, with our flagship event being the Annual President's Awards held in November. The awards aim to recognise excellence in the management, usage and practice of ICTs in South Africa.

On the 14<sup>th</sup> August 2019, IITPSA launched our new professional designation for Chief Information Officers (Pr.CIO™) which was positively received by the senior professional community.

In September 2019, IITPSA participated for the first time in the Gartner Symposium and ITXpo which was held in Cape Town. This event attracts more than 1 000 CIOs and senior ICT executives. The IITPSA booth was actively visited by just under 250 Symposium delegates over the three days, with our new Professional CIO designation generating a fair amount of interest.

With the 26 March 2020 onwards lockdown situation in South Africa impacting on the mobility of citizens and their ability to attend physical events, IITPSA moved into the virtual realm, hosting a number of topical events as webinars, including ones focusing on Artificial Intelligence, Blockchain and Bitcoin and Cybersecurity (particularly in the case of remote working). These webinars have been well received by the membership base and the broader ICT community.

### *Projects*

IITPSA continues with its drive to improve gender equality in our profession through its Women in IT Forum, which operates under our umbrella as a Chapter and is geared towards growing awareness and encouraging women to join (and remain in) the ICT profession. In August 2019 (women's month), events focusing on the female component of the ICT community were held by IITPSA in some of our major centres, each attracting a number of women currently practising in the field.

We also continue to work on activities and initiatives to grow the base of holders of our both our existing professional designation (PMIITPSA), as well as the new Pr.CIO designation.

IITPSA again collaborated with the Joburg Centre for Software Engineering at Wits University (JCSE) on an Annual ICT Skills Survey in the country, which is very well regarded and is seen as the 'go to' resource in respect of digital skills in the country.

### **Social Responsibility**

In Jan 2017 IITPSA awarded its first ever full bursary to a young black woman studying first year computer science at the University of the Witwatersrand. During 2018, a second bursary award was made to another young black women studying for a Bachelor of Commerce degree in Information Systems at the University of Cape Town. No award was made during 2019 whilst the Institute re-examined its processes to identify and assist bursars. At the start of 2020, one of our successful female scholarship holders (see next paragraph) was awarded financial assistance towards her tertiary studies in ICT at a private college.

IITPSA also supports approximately ten to twelve learners each year at secondary education level by enabling them to study the subject Information Technology online as their schools do not offer IT as a subject.

For the last three years, IITPSA has been a contributing sponsor to the annual South African Computer Lecturers Association Conference (SACLA).

The Institute is also a major sponsor of the annual Computer Applications Olympiad. Both the Computer Applications Olympiad and the Computer Programming Olympiad are run as projects of IITPSA.

In May 2020, IITPSA made a significant donation to the South African Solidarity Fund, which was established to provide food and other relief to the millions of citizens negatively impacted by the COVID-19 pandemic.

### **Government engagement/projects**

IITPSA has nominated representation on the Broad-Based Black Economic Empowerment ICT Sector Council (until early 2020), the South African Bureau of Standards Technical Committees and the Media, Advertising, Information and Communications Technology Sector Education Training Authority (MICT SETA) (until end March 2020). As a recognised professional body, IITPSA also engages with the South African Qualifications Authority, the Department of Home Affairs, the Department of Science, Technology and Innovation, the Department of Higher Education and Training and the Department of Communications and Digital Technologies.

### 13.15 The Korean Institute of Information Scientists and Engineers (KIISE)

(Jee-In KIM, IFIP representative of Republic of Korea)

#### Overview of Society

Korean Institute of Information Scientists and Engineers (KIISE) was founded in 1973 to propagate technologies of computer and information sciences in Korea and to promote amity among the members of KIISE (<https://www.kiise.or.kr/academyEng/main/main.faEng>).

KIISE became a regular member of IFIP in 1977. Since then, it has been representing Korean scientists and engineers in computer and information sciences. It also established cooperative associations with many international organizations such as ACM, IEEE, IEEE Computer Society, IPSJ, CCF, IEICE-ISS and so on to promote international academic interchanges and collaborations.

KIISE publishes its research journals and periodicals 48 times in a year including “Journal of KIISE” that was registered and appraised as the best journal in Korea by National Research Foundation of Korea (NRF). It also publishes an international journal, “Journal of Computing Science and Engineering” (JCSE) (<http://jcse.kiise.org/main/default.asp>), which is a peer-reviewed quarterly journal that publishes high-quality papers on all aspects of computing science and engineering.

Several technical societies and committees are active in KIISE in the areas of databases, software engineering, information telecommunication, computer graphics, human computer interaction, artificial intelligence, computer systems, theories, programming languages, security, IoT, open source and so on.

KIISE holds regular and irregular academic conferences for over 60 times a year. Korea Computer Congress (KCC) and Korea Software Congress (KSC) are two major annual conferences of KIISE. It also holds international conferences such as International Conference on Big Data and Smart Computing (BigComp).

#### Key activities this year

- KCC (Korea Computer Congress) (<http://www.kiise.or.kr/conference/kcc/2020/>), which is the biggest annual conference hosted by KIISE, was virtually held from 2<sup>nd</sup> to 4<sup>th</sup> of July, 2020. The conference offers keynote speeches, tutorials, panels, workshops, and technical sessions for presenting research papers.
- KSC (Korea Software Congress) (<http://www.kiise.or.kr/conference/KSC/2020/>) is another annual conference hosted by KIISE in December. KCC and KSC are a pair of annual national conferences of KIISE. The goal is to provide the KIISE members with opportunities of exchanging academic information in the fields of software, computer science, information science and so on.
- BigComp (<http://www.bigcomputing.org/>) is an international conference hosted by KIISE and financially supported by IEEE Computer Society. The main topics are big data and smart computing. The first conference city was Bangkok, Thailand in 2014. It has been held in Jeju (2015), Hong Kong (2016), Jeju (2017), Shanghai (2018), Kyoto (2019) and Busan (2020). The next conference, BigComp 2021, will be held in Bangkok, Thailand.
- **SWCS (Software Convergence Symposium)** (<http://www.kiise.or.kr/conference/swcs/2020>) **focuses on concurrent trends and future directions of software technology and its applications. The goal of the symposium is to bridge various people**

**from academia, industry, government and society in the various fields of software and its application areas. It was also virtually held from 19<sup>th</sup> to 23<sup>rd</sup> of August, 2020.**

- iTIP (information Technology and Industry Prospects) (<http://www.kiise.or.kr/conference/iTIP/2020/>) aims to discuss current important issues and seek their solutions in the software industry. The goal is to find practical helps for the researchers, developers and entrepreneurs from the software industry in Korea.

### 13.16 Schweizer Informatik Gesellschaft (SI)

(Raymond Morel, IFIP representative of Switzerland)

#### 1. Preliminary and Generalities : The SI (Swiss Informatics Society), the Swiss IFIP Member

Very active in IFIP since its creation in 1960 and although not part of the European Community, **Switzerland** has not only been a founder of IFIP but has continued to contribute towards its objectives and activities without interruption through the personal involvement of its representatives:

- active presence in the Executive Board and the Council and 3 Presidents covering a period of 12 years.
- R.Morel, Swiss representative to the IFIP GA since 1999, has been Board Member and Councillor from 2004 to 2010.
- Strong and active Swiss presence in the Technical Committees and Working Groups dealing with matters of interest to Switzerland.

Today, **near 80 specialists** from Swiss Academia and industry are participating in **11 TC's** and **39 WG's**.

The TC representatives are appointed by SI, the Swiss Member of IFIP since 2011. The WG members are individual specialists accepted by the WG's for their expertise (there is no country limitation on their number).

The personal involvement and the efforts of these specialists contribute, through their international contacts with leading experts, to acquiring and bringing to Switzerland knowledge on new technology developments and strategies discussed within IFIP Working Groups. They are the ambassadors of Switzerland to the TC's and WG's and contribute to the maintenance and improvement of the Swiss international image. This is especially true in areas such as Education, Communications (infrastructure, access, etc..), Security, Software, Human aspects, etc.. which present important interest and potential for Switzerland.

Support for these international activities is therefore very important to allow the continuation of an active Swiss participation in the international IFIP activities in all areas of ICT.

#### **The Swiss delegates and Current Delegates to IFIP (GA and TC's)**

are appointed for a period of 4 years renewable by periods of 2 years. The names of the Swiss TC and Working Groups representatives are published on the SI Web site.

The main functions of a Swiss IFIP TC representative are :

- to assure the both ways communications between Switzerland and his TC (information to the Technical Committee about latest developments and concerns in Switzerland and information to the interested parties in Switzerland about the TC activities),
- organise TC meetings and events in Switzerland when feasible, etc..

#### **For more information:**

- **Tasks** : <http://www.ict-21.ch/SIC/IMG/docx/SIC-task.docx>
- **Rules** : <http://www.ict-21.ch/SIC/IMG/docx/SIC-rules.docx>

**The Swiss IFIP Committee (SIC)** is (since September 2011) one of the Working Groups of the SI (Swiss Informatics Society) which is since then the new Swiss Member of IFIP.

**SIC members** are the Swiss delegates to the IFIP General Assembly and to the IFIP Technical Committees.

It meets once a year to discuss the annual reports of the TC rep's, past and future activities, participation in Swiss associations and events, issues with IFIP and its TC's, etc..

This begin of this report describes briefly the IFIP Federation and its various bodies, various aspects of the Swiss participation and contributions to IFIP, the associated amount of efforts and tries to emphasise the value for Switzerland of this participation For more info contact the actual SIC President [Raymond.Morel@gmail.com](mailto:Raymond.Morel@gmail.com)

## **2. Activities in and around the TC3 / GA in 2019/2020 at the international and national level**

After the SIC annual meeting for 2019 activities, 15 times during year 2019/2020 SIC members and a large collection of interested people received a very valuable information through the SI channel with my monthly contributions for the SI News.

### **Some monthly events/records/reports/... to keep in mind from 15 months**

My contributions for the SI news of JUNE 2019 (51 pages)  
<https://sisr.swissinformatics.org/v35-for-the-next-si-news-june-2019/>

My contributions for the SI news of JULY 2019 ( 64 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2019/08/V25-For-the-next-SI-News-July-201914.docx>

My contributions for the SI news of AUGUST 2019 (77 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2019/08/V34-For-the-next-SI-News-August-2019141.docx>

My contributions for the SI news of SEPTEMBRE 2019 (90 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2019/09/V27-For-the-next-SI-News-September-2019141.docx>

My contributions for the SI news of OCTOBER 2019 (98 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2019/10/V25-For-the-next-SI-News-October-2019.docx>

My contributions for the SI news of NOVEMBER 2019 (13+14 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2019/12/v22-100images-My-contributions-for-the-SI-News-of-November-2019-part-1.pdf>  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2019/12/V22-100images-My-contributions-for-the-next-SI-News-November-2019-part-2.pdf>

My contributions for the SI news of DECEMBRE 2019 (44 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2019/12/V15-For-the-next-SI-News-December-2019.pdf>

My contributions for the SI news of JANUARY 2020 (68 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2019/12/V16-For-the-next-SI-News-January-2020.pdf>

My contributions for the SI news of FEBRUARY 2020 (57 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/02/V30-For-the-next-SI-News-FEBRUARY-2020-2.pdf>

My contributions for the SI news of MARCH 2020 (57 pages)



<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/02/V69-For-the-next-SI-News-MARCH-2020.pdf>

mes contributions pour les SI news de APRIL 2020 (52 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/09/V57-For-the-next-SI-News-April-2019.pdf>

mes contributions pour les SI news de MAY 2020 (30 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/09/V39-For-the-next-SI-News-May-2020.pdf>

My contributions for the SI news of JUNE 2020 (50 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/06/V52-For-the-next-SI-News-June-2020.pdf>

My contributions for the SI news of JULY 2020 (70 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/07/V68-For-the-next-SI-News-July-2020.pdf>

My contributions for the SI news of AUGUST 2020 (77 pages)  
<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/08/V83-For-the-next-SI-News-August-2020.pdf>

### **3. Some permanent problematics to keep in mind**

**Les nouvelles technologies : révolution culturelle et cognitive de Michel Serres**  
« Les nouvelles technologies nous ont condamnés à devenir intelligents ! »

More info :

<http://www.ict-21.ch/l4d/pg/file/read/914384/les-nouvellestechnologies-revolution-culturelle-et-cognitive-de-michelserres-les-nouvelles-technologies-nous-ont-condamnsdevenir-intelligents->

**Les 50 innovations qui vont bouleverser notre vie d'ici 2050 - Eric de Riedmatten**  
– (the 50 innovations which will change our life till 2050)

More info :

<http://www.ict-21.ch/l4d/pg/file/read/880679/les-50-innovations-qui-vont-bouleverser-notre-vie-dici-2050-eric-de-riedmatten>

**10 Values You Shoul Criteria and procedures for developing codes of ethics or of conduct IFIP WG 9.2 under Jacques Berleur chairmanship 2004**

More info :

<http://www.ict-21.ch/l4d/pg/file/read/881658/ifip-framework-on-ethics>

**Le mythe de la courbe de l'adoption des technologies**

More info :

<http://www.ict-21.ch/l4d/pg/file/read/914700/le-mythe-de-la-courbe-de-ladoption-des-technologies>

**The 48 laws of Power by Robert Green**

More info :

<http://www.ict-21.ch/l4d/pg/file/read/914704/the-48-laws-of-power-by-robert-green>

## More info

<http://www.ict-21.ch/l4d/pg/file/read/915981/scientific-american-issue-septembre-2018-humans-why-weare-unlike-any-other-species-on-the-planet>

## ACM code of ethics and professional conduct - 2018 affirming our obligation to use our skills to benefit society

### More info :

<http://www.ict-21.ch/l4d/pg/file/read/916013/acm-code-of-ethics-and-professional-conduct-2018-affirming-our-obligation-to-use-our-skills-to-benefit-society>

## Comment vivrons-nous ? 20 questions pour 2050. Rapport Vigie 2018

### More info :

<http://www.ict-21.ch/l4d/pg/file/read/919307/comment-vivrons-nous-20-questions-pour-2050-rapport-vigie-2018>

## 4. Some references & Miscellanous of last minutes and / or activities in action

## Revue « Intelligence Artificielle et Transhumanisme » extracts each month (example between 1st to 31st of July 2020

<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/07/Revue-«-Intelligence-Artificielle-et-Transhumanisme-»-entre-le-1er-et-le-31-juillet-2020.pdf>

## 1999-Edgar Morin -Les sept-savoirs nécessaires à l'éducation du futur



<http://www.ict-21.ch/l4d/pg/file/read/922412/1999edgar-morin-les-septsavoirs-necessaires-a-leducation-du-futur>

## Revue « InternetActu » extracts each month (example between 1st to 30st of June 2020

<http://www.ict-21.ch/l4d/pg/file/read/922486/extract-from-internetactunet-du-1-juin-au-30-juin-2020>

## Le Devoir-27.12.2019-Saut quantique, 5G, vie privée... les enjeux technologiques en 2020

<https://sisr.swissinformatics.org/wp-content/uploads/sites/28/2020/05/Le-Devoir-27.12.2019-Saut-quantique-5G-vie-privee...-les-enjeux-technologiques-en-2020.pdf>

**From KDMK (KIDIMAKE)**

**KIDIMAKE in April 20 ==> postponed because COVID-19**

<http://www.ict-21.ch/l4d/pg/file/read/922101/kidimake-3132-la-magie-du-mouvement-retours-sur-les-activits-de-fvrier-2020-du-1er-fvrier-et-du-22-fvrier>  
**KIDIMAKE in April 20 ==> postponed because COVID-19**

**KIDIMAKE 31-32 -La magie du mouvement - Retours sur les activités de février 2020 (du 1er février et du 22 février)**

<http://www.ict-21.ch/l4d/pg/file/read/922101/kidimake-3132-la-magie-du-mouvement-retours-sur-les-activits-de-fvrier-2020-du-1er-fvrier-et-du-22-fvrier>

**La magie du mouvement – KIDIMAKE - 1er et 22 février 2020**

<http://www.ict-21.ch/l4d/pg/file/read/921903/la-magie-du-mouvement-kidimake-1er-et-22-fevrier-2020>

**FROM KIDIMAKE activités La magie du mouvement 1st and 22th of February 2020**

<http://www.ict-21.ch/l4d/pg/file/read/921680/from-kidimake-activits-la-magie-du-mouvement-1st-and-22th-of-february-2020>

<http://www.ict-21.ch/l4d/pg/file/read/923896/minutes-of-the-virtual-si-board-meeting-june-29th-2020-via-zoom>

**Call for contributions - Some milestones to the ZANZIBAR DECLARATION (ZB) - Sustainable ICT, Education and Learning**

<http://www.ict-21.ch/l4d/pg/file/read/921838/call-for-contributions-some-milestones-to-the-zanzibar-declaration-zb-sustainable-ict-education-and-learning>

### **13.17 British Computer Society (BCS)**

(Andrew McGettrick, IFIP representative of UK)

#### **Overview of Society**

To quote from the Institute's Annual Report and Consolidated Financial Statements, dated 31<sup>st</sup> August 2019:

The Institute is incorporated by Royal Charter and is a registered Charity [..]. Its objectives are prescribed by the Royal Charter and the main objective is 'to promote the study and practice of computing and to advance the knowledge and education therein for the benefit of the public'. It serves three main constituencies: IT professionals, employers of IT professionals and society at large. Its governing documents are the Royal Charter, Bye-Laws and Regulations.

The Society operates through a number of Boards/Committees, each normally chaired by a one of the Vice-Presidents: the BCS Academy of Computing, the Community Board, Board, the Organisation and Employers Board, the Society Board (established in August 2017), the Registration and Standards Committee, the Risk Audit and Finances Committee, and the BCS Council represents the members and comments on the direction of the Society. The overall purpose is seen as 'making IT good for society' with an increasing emphasis on being more outward facing.

The number of members in 2019 was 60,902.

**BCS website** [www.bcs.org](http://www.bcs.org)

#### **Key activities this year**

##### **Events**

The BCS President, Michael Grant, gave presentations across many countries and identified diversity and inclusion within the profession as well as ethics, including the ethics of AI, education and health informatics as key areas.

There was the launch of an agreement with the College of Healthcare Information Management Executive, and the establishment of the National Centre for Computing Education with their partners STEM Learning and the raspberry Pi Foundation.

During the year the Institute through its member groups ran many events on a vast range of topics.

##### **Projects**

There are various projects to mention, all run under the BCS Academy of Computing, and indeed the Computing At School initiative (CAS) within the Academy:

- **CAS membership:** CAS is a major part of the Academy. Over 80% were schoolteachers, the remainder being academics or IT professionals. There were now 240 local CAS hubs where teachers meet regularly and there are over 4,200 resources available.
- **NCCE:** The NCCE (National Centre for Computing Education) is a new initiative whose purpose is to ensure that every child has access to education in computing; within the consortium BCS leads on academic standards (including certification) and engagement with industry.
- **BCS Teaching Scholarships:** This DfE (Department for Education) grant is to run teaching scholarships to the BCS for trainee computing teachers for the period 2018-21, each scholarship being worth £28,000 and being tax-free.

- Barefoot Computing           Funded by the DfE (£1m grant) this is to demonstrate how learning in English, Mathematics, Science and History can be improved through the teaching of computer science. Barefoot Computing in Scotland is an extension of the above that operated in Scotland
- Quantum: 'tests worth teaching to'   This is funding (£250k grant) to CAS from Microsoft, Google and ARM so that teachers can develop and refine classroom teaching materials.
- BCS Shadbolt review           This government initiated review of Computer Science degree accreditation has resulted in the BCS piloting a new accreditation scheme for placement students at the University of Bath.

### **Social Responsibility**

The Institute continues to issue the Chartered Engineering (CEng) and Chartered IT Professional (CITP) designations to members who are suitably qualified. Part of the role of the Chartered status is to provide the public with the confidence that individuals possess the competence necessary to practice.

The Community Board has responsibility for dealing with all aspects of membership including recruitment, retention, member benefits and communication.

The Registration and Standards Committee maintains oversight of the Chartered IT Professional status and Registered IT Technician as well as policies regarding membership of the Institute.

The Organisation and Employers Board had a remit to 'champion the involvement of the IT profession and promote the value, innovation, excellence, rigour and creativity of IT for the benefit of society as a whole'.

The new Society Board has taken on responsibility to 'ensure societal activities are effective, impactful and strategic, and champion BCS in civil society'.

### **Future of the Institute**

To support the future of the Institute, its work can be summarised as

- Supporting careers by providing professional development pathways and opportunities
- Sharing expertise through collaboration
- Improving education by empowering people of all ages with appropriate skills
- Influencing practice by working with industry and shaping policy and practice, and
- driving standards of professionalism and performance

### **Government engagement/projects**

BCS Health & Care continues to have an impact with the launch of the Federation for Informatics Professionals (Fed-IP) in Health and Social Care working with other professional institutions and the National Health Service.

The Institute was involved in a review on what could be done to tackle the shortage of AI practitioners.

It was also involved in giving evidence to House of Commons Select Committees on the possible impact of BREXIT

## **Explanatory Note**

The information contained herein relies very heavily on the BCS Annual Report and Consolidated Financial Statements for the year ended 31<sup>st</sup> August 2019.

## 14. Technical Committee Reports

### 14.1 TC1: Foundations of Computer Science

(Luis Soares Barbosa, Chair of TC1)

#### 1. Introduction

Established as Special Group (SG14) in 1989 and approved as a Technical Committee in 1996, TC1 aims at supporting the development of Theoretical Computer Science as a fundamental science, and its engineering, as well as the design of bridges with other sciences and their applications.

This annual activity report, covering essentially the period from 1 July 2019 { 1 July 2020, will be presented to the IFIP General Assembly, to take place virtually from 24 to 25 September, 2020.

#### 2. Organisation of TC1 and Membership

Although all TC1 Working Groups were active during the period reported here, the Technical Committee itself was limited to the usual administrative duties, due, to a large extent, to the effects of Covid-19 and its consequences in academic life worldwide. A Business Meeting scheduled for ETAPS'2020 was cancelled when ETAPS itself was postponed.

The next Business Meeting will take place virtually in October 2020. The pertinence of three concerns shared by several TC1 members was increased along this period and will certainly be part of its agenda:

- The place and (future) impact of technology mediated events (conferences, WG meetings, etc) in the TC1 agenda. Some of the WGs conferences/workshops were run virtually along 2020, and in other cases replaced by a formal publication. Although prompted by a Public Health emergency, this is an important debate that may go further beyond the present context.
- The move from formal publishers to open publication
- The role of TC1 as the IFIP "branch" on foundations of Computer Science, and the question of how to make it more effective, with increased relevance and visibility.

TC1 contributed with two chapter submissions to the coming AICT 600 book, under preparation on the occasion of IFIP 60th anniversary.

#### 3. Working Group administration and dynamics

The scientific activity of TC1 takes places in its Working Groups. All of them have either their own flagship conferences and/or are deeply involved in the organisation of conferences with which they collocate their own workshops and business meetings. It is TC1 intention (and currently a topic under discussion) that each WG promotes a specific IFIP event recognised as a flagship conference in the corresponding scientific domain.

The WG activity reports, collected on their web pages, give a good account of both their internal dynamics, and the scientific subjects that their communities are currently tackling.

The following changes in the WG coordination took place:

- In July 2020, Martin Kutrib, from Universit at Giessen, Germany, was re-elected for a second term as chair of WG 1.02.
- In July 2020, Lutz Schröder stepped down as chair of WG 1.03 to assume the role of vice-chair, and the previous vice-chair Markus Roggenbach, from Swansea University, Wales, UK, became chair, following a rota agreed in the WG in 2018.

The list of Working Groups of TC1, with their chairs, vice-chairs and secretaries as of the date of writing, is thus established as follows.

<u>WG</u>	<u>Chair</u>	<u>Secretary</u>
1.02 Descriptive Complexity	Martin Kutrib Rogerio Reis (Vice)	Andreas Malcher
1.03 Foundations of System Specification	Markus Roggenbach Lutz Schröder (Vice)	
1.05 Cellular Automata and Discrete Complex Systems	Pedro Balbi de Oliveira Nazim Fates (Vice)	Katsunobu Imai
1.06 Rewriting	Georg Moser	Martin Avanzini
1.07 Theoretical Foundations of Security Analysis and Design	Sebastian Mödersheim Veronique Cortier (Vice)	Luca Vigano
1.08 Concurrency Theory	Ilaria Castellani Mohammad Reza Mousavi (Vice)	
1.09 Verified Software	Jean-Christophe Filliatre Jim Woodcock (Vice)	Natarajan Shankar
1.10 String Algorithmics & Applications	Jan Holub	

The up-to-date member lists for each WG are available at the corresponding web pages (accessible from the TC1 web page at [ifip-tc1.org](http://ifip-tc1.org)). IFIP web page: [www.ifip.org/bulletin/bulltcs/memtc01.htm](http://www.ifip.org/bulletin/bulltcs/memtc01.htm) gives the member list for every Working Group as well.



## 14.2 TC2: Software: Theory and Practice

(Ina Schaefer, Chair of TC2)

### IFIP TC2 officers, elected in 2019 and approved subsequently by IFIP

Chair: Prof. Ina Schaefer, Technische Universität Braunschweig, Informatikzentrum Mühlenpfordtstr. 23 38106 Braunschweig, Germany.

Vice-Chair: Prof. Michael Goedicke, University of Duisburg-Essen, D-45127 Essen, Germany and Stefan Biffel, Technische Universität Wien, Favoritenstr. 9/194-1, A-1040 Wien Austria

Secretary: Dr. Julia Lawall, Inria/Sorbonne University/LIP6, FR-75012 Paris, France.

### New chairmen of working groups.

The TC2 Chair appointed, upon the recommendation of TC2, the following persons as the new Chair of a working group: **WG 2.1:** Peter Höfner (Australian National University), **WG 2.3:** K Rustan M Leino (Amazon Web Services), **WG 2.6:** Robert Wrembel (Poznan University of Technology), **WG 2.15:** Jim Woodcock, temporary (University of York).

### New members of working groups.

TC2 Chair appointed, as approved by TC2, 11 new members of working groups. **WG 2.1:** Matija Pretnar (SI), **WG 2.2:** Rob van Glabbeek (AU), **WG 2.3:** Alberto Griggio (IT), **WG 2.4:** Eric Bodden (DE), Maria Christakis (DE), **WG 2.8:** Ron Garcia (CA), Andrew Kennedy (UK), **WG 2.11:** Geoffrey Mainland (US), Vadim Zaytsev (BE), **WG 2.16:** John Hughes (SE), Andreas Rossberg (DE).

### Removed members of working groups.

12 people have been removed from TC2 working groups. **WG 2.5:** Brian Smith, Mike Heroux, Tim Hopkins, Ulrich Kulisch, W Morven Gentleman, Pieter W Hemker, Françoise Chatelin, **WG 2.11:** Emilie Balland, Jeremy Siek, William Cook, **WG 2.16:** Mads Torgersen, Sophia Drossopoulou.

### Conversion to emeritus membership.

1 member of a TC2 working group has become an emeritus member. **WG 2.8:** Jack Dennis.

### IFIP Awards.

Robert Wrembel received an IFIP service award for his work in organizing the WCC in Poznan.

### IFIP World Computer Congress.

None.

**Recent TC2 conferences:** OSS was held virtually on May 13-14, 2020, managed from Kazan, Russia.

**Next TC2 meeting:** Plans will be made in January 2021. The meeting may be virtual or may be co-located with a conference.

**Manfred Paul Award:** Will Tracz will contact working group chairs seeking nominations for 2020.

### 14.3 TC3: Education

(Don Passey, Chair TC3)

#### *TC3 Annual General Meeting held since the last report*

The annual general meeting (AGM) was held 8-9 January 2020, Mumbai, India following the TC3 conference “Empowering Teaching for Digital Equity and Agency” - <http://www.occe2020.tiss.edu/>. At the AGM, Sindre Røsvik completed his sixth year as chair, and Don Passey started his initial term of office as chair.

An executive committee (EC) has held Skype and Zoom meetings during the year, discussing business and strategic issues, as well as upcoming events.

#### *Next TC3 Annual General Meeting*

The next AGM was planned to take place in Hiroshima, Japan in August 2021, but as the WCCE that was to run prior to the meeting has been postponed due to the coronavirus pandemic, the AGM will be rescheduled as a virtual AGM, coinciding with a smaller virtual event to be established during the coming months. No new country representatives are known to be attending this future AGM.

#### *In brief: TC3 Events*

**2017:** WCCE 2017, 3<sup>rd</sup> to 6<sup>th</sup> July 2017, Dublin, Ireland: *Tomorrows Learning: Involving Everyone*

**2018:** OCCE 2018, 25<sup>th</sup> to 28<sup>th</sup> June 2018, Linz, Austria: *Empowering Learners for Life in the Digital Age*

**2019:** SUZA 2019, 25<sup>th</sup> to 27<sup>th</sup> April 2019, Zanzibar, Tanzania: **Sustainable ICT, Education and Learning**

**2020:** OCCE 2020, 6<sup>th</sup> to 8<sup>th</sup> January 2020, Mumbai, India: *Empowering Teaching for Digital Equity and Agency*

**2021:** TBA

**2022:** WCCE 2022, August 2022, Hiroshima, Japan: TBA

#### *In brief: TC3 publications*

TC3 has produced a book of selected peer-reviewed papers following each of its conferences. Recently, these have been published by Springer:

Tatnall, A. and Webb, M. (Eds.). (2017). *Tomorrow's Learning: Involving Everyone - Learning with and about Technologies and Computing*. Heidelberg, Germany: Springer

Passey, D., Bottino, R., Lewin, C. and Sanchez, E. (Eds.) (2019). *Empowering Learners for Life in the Digital Age*. Cham, Switzerland: Springer.

Tatnall, A. and Mavengere, N. (2019). *Sustainable ICT, Education and Learning*. Cham, Switzerland: Springer.

Brinda, T., Passey, D. and Keane, T. (In preparation). *Empowering Teaching for Digital Equity and Agency*.

## *OCCE 2020*

TC3 ran its second conference labelled OCCE in Mumbai in India 6-8 January 2020: Empowering Teaching for Digital Equity and Agency – a very well-organised conference led by the Tata Institute of Social Sciences and supported by the India Didactics Association. TC3 offered a workshop for teachers and educators the day before the actual conference in which some 70 educators were involved. The sessions for practitioners worked well and there was very good feedback from the teachers and educators who attended. Workshop leaders, who were also teacher educators, found running the teacher sessions a rewarding experience.

Overall, there were 115 participants in the OCCE 2020 conference, including those who attended for the practitioner workshop. Across the period of the conference, there were 51 presentations and three keynote speeches. It had not been possible to organise a doctoral consortium; organising this for future conferences is to be considered again as a priority.

In addition to conference proceedings which were made accessible online, a post-conference book to be published by Springer, taking the title of the conference, is in preparation.

## *Working groups of TC3*

WG 3.1 - Informatics and Digital Technologies in School Education

WG 3.3 - Research into Educational Applications of Information Technology

WG 3.4 - Professional and Vocational Education in ICT

WG 3.7 - Information Technology in Educational Management (ITEM)

TC3 members are deeply involved in computer science, informatics and not least in ICT in education (broadly speaking). Several members are involved in activities run and organised by UNESCO, EDUsumMIT, IOI (International Olympics in Informatics), and ISES (Information Security Education & Solidarity), as well as activities focusing on developing computer science, etc. One of TC3's main aims is to continue to develop further relations with UNESCO, IOI and EDUsumMIT.

In addition to the working groups of TC3, a Task Force has been established, to explore the introduction of the computing curriculum in schools internationally, which has been a focus of development in many countries worldwide over the past 4 years.

TC3 wishes to continue to emphasise and increase focus on doctoral student attendance by including doctoral consortiums at our events as far as is possible, with special attention given to students from developing countries. For many years, we have gratefully received DCSC grants for our events to support students from developing countries.

## *Liaison with UNESCO and other international bodies*

TC3 has permanent connections with UNESCO, through the good offices of a UNESCO representative to TC3, Zeynep Varoglu, and the involvement of Davide

Storti in conferences and in the Task Force. Since January 2020, the TC3 chair has taken responsibility for liaison and networking regarding cooperation initiatives with UNESCO.

There has been an invitation to IFIP TC3 to join the “Informatics For All” (I4All) Coalition as a coalition partner. This has been discussed with TC3 members, the EC, the TA and with I4All, and a kind offer has been made by I4All to have two members from TC3 to join on a trial for a year from July 2020, without further obligation. TC3 has signed their Rome Declaration of I4All (<https://www.informaticsforall.org/rome-declaration/>).

### *The EAIT Journal*

Education and Information Technologies (EAIT) is the TC3 academic journal, published by Springer. The Editor in Chief is Arthur Tatnall (Australia), with Associate Editors Bill Davey, Therese Keane and Andrew Fluck. The journal is highly successful, attracts large numbers of submissions, has a high rejection rate, and has needed to increase its reviewer pool recently, so that it is possible to review all articles in time to publish at least six times a year, initially online and then in hardcopy print format. From January 2019 to June 2020, there were 1,224 articles submitted, 383 were accepted, and 659 were rejected.

## 14.4 TC5: Information Technology Applications

(Tadeusz Czachórski, Chair of TC5)

### Last TC5 Full meeting

59<sup>th</sup> IFIP TC5 Full Meeting: 6<sup>th</sup> December 2019, Vienna

### Next TC5 Full meeting

planned in November 2020

### TC5 Officers:

Chair: Prof. Dr Tadeusz CZACHÓRSKI, Poland, second term

Vice-Chair for IFIP/TC5 rewards , Prof. Dr. Erich J. Neuhold. Germany

Vice-Chair for New Activities and Interdisciplinary Cooperation; Prof. Dr. Dimiter Velev, Bulgaria

Communications, Publications & Events Officer: Dr Peter Hehenberger, Austria

Secretary: Dr. Philippe DALLEMAGNE, Switzerland

### Changes since GA in Kiev

#### New TC5 officers

1. new Communications, Publications & Events Officer :

Dr Peter Hehenberger, profesor at School of Engineering, Wels, Austria, head of SMART MECHATRONICS ENGINEERING Lab

tel. [+43 5 0804 43265](tel:+435080443265)

Mail: [Peter.Hehenberger@fh-wels.at](mailto:Peter.Hehenberger@fh-wels.at)

<https://research.fh-ooe.at/de/staff/47384?tab=1>

Dr Hehenberger replaces former Communications Officer : Dr. Ronald WAXMAN, US and former Publications & Events Officer: Prof. Gaetano CASCINI, Italy

2. Vice-Chair: Dr. György L. KOVACS, Hungary, ended his mandate

#### New national member of TC5:

**Japan: Prof. Yuko MURAYAMA**, Tsuda College, Department of Computer Science, 2-1-1 Tsuda-machi, Kodaira-shi, JP-TOKYO 187-8577, Japan

#### new TC5 working group

WG 5.15. Information Technology in Disaster Risk Reduction (ITDRR)

**Chair: Prof. Yuko MURAYAMA**

Vice-Chairs:

Ms. Diane WHITEHOUSE, UK

Prof. Erich Neuhold, DE

Dr. Plamena ZLATEVA, BG

Secretary : Prof. Dr. Dimiter VELEV, BG

#### Change of WG5.7 chairmanship:

New chairman Gregor von CIEMINSKI, ZF HUNGÁRIA KFT replaces prof. Dimitris KIRITSIS

New WG 5.7 officers

Vice-Chairs

for

Prof. Paolo GAIARDELLI, Università degli studi di Bergamo, Europe: Italy

for

America:

Dr.Thorsten WUEST, West Virginia University, USA  
 for Asia-Pacific  
 Dr. Ilkeyong MOON, Seoul National University, Korea Republic  
 Secretary  
 Prof. David ROMERO  
 Tecnológico de Monterrey University, Mexico

### **TC5 Working Groups and their chaires**

WG 5.1: Global Product Development for the Whole Life-Cycle, Abdelaziz Bouras

WG 5.4: Computer Aided Innovation, Denis Cavallucci

WG 5.5: Cooperation infrastructure for Virtual Enterprises and electronic business (COVE), Hamideh Afsarmanesh

WG 5.7: Advances in Production Management Systems, Gregor von Cieminski

WG 5.8: Enterprise Interoperability, Georg Weichhart

WG 5.10: Computer Graphics and Virtual Worlds, Andres Iglesias

WG 5.11: Computers and Environment, Ioannis Athanasiadis

WG 5.12: Architectures for Enterprise Integration, Peter Bernus

WG 5.13: Bioinformatics and its Applications, Kamal Raj Pardasani

WG 5.14: Advanced Information Processing for Agriculture, Daoliang Li

WG 5.15: Information Technology in Disaster Risk Reduction, Yuko Murayama

### **Approved TC5 events, organized after Kiev GA 2019 or to be held by the end of 2020**

**Number of events: 15 (approved: 15, rejected: 0, undecided: 0)**

1. IFIP International Conference on Product Lifecycle Management, **IC PLM 2020 WG5.1**, TC5, 06/07-08/07 2020, Rapperswil, CH on-line, Felix Nyffenegger, <http://www.plm-conference.org/plm20/>

*Topics of primary interest at PLM 2020 were :*

*Conception and implementation processes, Infrastructure (SaaS, digital services, cloud-based services), Best practices, Emerging standards, End-to-end PLM and enterprise IT, Semantics and knowledge management, Interoperability and security issues, Collaboration and concurrent engineering, Usability / user-centric approaches for PLM, Metrics and maturity, Education and training approaches, Organizational and cultural change, Building information modelling (BIM), Building lifecycle management (BLM), Asset lifecycle management (ALM), Computer aided x (CAD, CAE, CAM, CAP, CAx), Internet of things (IoT, IIoT), Digital transformation, Digital/smart factory, Digital ecosystems, Cyber physical systems, Product service systems, Model based definition, Model based systems engineering, Engineering design models, Models for manufacturing, Simulation (physics and data driven), Digital twins, Augmented reality / virtual reality, Artificial intelligence.*

2. ETRIA World Conference TRIZ Future 2020, **TFC2020**  
 WG5.4, TC5 14/10-16/10 2020, Cluj-Napoca, RO, Prof. Stelian Brad, [www.ipas-seminar.com](http://www.ipas-seminar.com)  
*The 20th edition of ETRIA World Conference "TRIZ Future" invites original papers and best practices that combine systematic invention generation, design and creative thinking, digital technologies and open innovation frameworks to solve complex problems in any field of human activity. The Conference aims at linking industrial companies, research centres, educational organizations and individuals to share their experience on systematic innovation and promote TRIZ-based tools worldwide. It will provide an international forum for exchanging new ideas on knowledge-based innovation, presenting recent achievements in this area and enabling further advances and collaboration also between the academic and industrial communities.*
  
3. TRIZ Future 2019, **TFC2019**, WG5.4, TC5, 09/10-11/10 2019  
 Marrakech, MAR, Rachid Bemoussa  
*See the ICF2020 description*
  
4. 9th International Precision Assembly Seminar , **IPAS 2020** WG 5.5, 13/12-15/12 2020, Kitzbuhel, AT, Nancy Martin, [www.ipas-seminar.com](http://www.ipas-seminar.com)  
*The 9th edition of the seminar will have a specific focus on informatics, AI and smart technologies for precision assembly. Originally conceived by the micro-assembly community, the seminar has now grown to include a wide scope of assembly processes and applications from micro products to large aerostructures where precision, cost-efficiency and quality are of critical importance.*
  
5. Doctoral Conference on Computing, Electrical and Industrial Systems, **DoCEIS`20**  
 WG5.5, TC5, 01/07-03/07 2020, Caparica (Lisbon), PT, Pedro Miguel Ribeiro Pereira, <http://doceis.dee.fct.unl.pt/>  
*The Advanced Doctoral Conference on Computing, Electrical and Industrial Systems is celebrating its 11th edition (DoCEIS 2020) with a focus on Technological Innovation for Life Improvement. Nowadays, life improvement has become a trending topic across different areas due to technological advancements that focus on human wellbeing. Different scientific areas, such as electronics, telecommunications, computing and energy, are innovating and changing their paradigm to promote a digital world with tools and concepts such as Virtual and Augmented Reality, Artificial Intelligence, Machine Learning, Big Data, Internet of Things, and Collaborative Networks, to provide a better and sustainable future with high quality of life. The impacts of these technological developments enhance health, environment, transportation and communication systems across the globe, through new products and services. Thus, the transition of these concepts to real-world solutions has a huge potential to face existing challenges, and increase knowledge, wellbeing, quality of life and collaboration among companies, organizations, people, and systems.*
  
6. 21st IFIP / Socolnet Working Conference on Virtual Enterprises, **PRO-VE 2020**  
 WG 5.5, TC5 23/11-25/11 2020, on-line, Valencia, ES, Luis M. Camarinha-Matos, <https://www.pro-ve.org/>



Research and development is now beginning to address **Collaborative Networks 4.0**, for which some of the main distinctive features include hybridization (networks consisting of organizations, people, machines and intelligent systems), collaboration between humans and intelligent autonomous systems, distributed cognitive systems, accountability, ethics and coping with risks and disruptions, handling large amounts of data, monetization of collaboration, creation of a collaboration culture, collaboration creativity, mass collaboration, and new business models focusing on collaborative value creation, among others. PRO-VE 2020 aims at addressing diverse viewpoints on such timely challenges. It will provide a forum for sharing experiences, discussing trends, and identifying opportunities, thus introducing innovative solutions for the new generation of collaborative networks in the era of digital transformation. Contributions are invited from multiple and diverse areas and disciplines, including: computer science, manufacturing, industrial, electrical and computing engineering, social sciences, organization science, and technologies, among others, which are well tuned to both the interdisciplinary nature of the research and development on CN 4.0, as well as the spirit of the PRO-VE Working Conferences.

7. 4th IFAC Workshop on Maintenance Engineering, Services and Technologies, **AMEST 2020**, WG5.7, TC5, 10/09-11/09 2020, Cambridge, GB Ajith Kumar Parlikad, <https://www.amest2020.eng.cam.ac.uk/>  
*We are living in a digital era. It is evident that the practice of maintenance and asset management has the potential to be one of the biggest beneficiaries of this digital revolution. Concepts such as Industrial Internet of Things, Cyber Physical Systems and Digital Twins are now seen as major opportunities for companies in the manufacturing and infrastructure sectors to improve their products, processes and services. The linkage between the real world and the virtual world enabled by these emerging technologies - supported by new data analytics and innovative machine learning techniques - allow optimised maintenance of industrial systems. The 4th IFAC AMEST'20 Workshop will bring together experts from academia and industry to discuss the latest advances in digital technologies and their impact on reliability, maintenance and asset management. The workshop will cover a broad range of research and application topics exploring the role of data-driven maintenance and asset management within the domains of manufacturing and infrastructure.*
  
8. Advances in Production Management Systems, **APMS**, WG5.7, TC5, 30/08-02/09 2020, Novi Sad, RS Ugljesa Marjanovic, <https://www.apms-conference.org/>  
*APMS 2020 in Novi Sad, Serbia brings together leading international experts from academia, Industry, and government in the area of production systems to discuss globally pressing issues in smart manufacturing, operations management, supply chain management, and Industry 4.0. The conference features several sessions filled with original, high-impact academic contributions, which will be published in the Springer Series ACIT and indexed on SCOPUS and Web of Science. Industrial viewpoints and insights will be shared through industry keynotes by world renown industry leaders. High quality papers will be fast tracked to several peer reviewed archival journals, including Production Planning & Control (PPC) and International Journal of Production Research (IJPR). The conference is supported by the International Federation of Information Processing (IFIP) and is organized by the IFIP Working Group 5.7 on Advances in Production*



Management Systems which was established 1978.

9. 14th OTM/IFAC/IFIP International Workshop on Enterprise Integration, Interoperability and Networking, **EI2N 2019**, WG5.8, 23/10-24/10 2019, Rhodos, GR, Georg Weichhart, <https://www.ifac-control.org/events/enterprise-integration-interoperability-and-networking-ei2n-2019>

*Today's enterprises have to become S<sup>3</sup> Enterprises: Smart, Sensing and Sustainable Enterprises. These system-of-systems have to adapt in order to be sustainable not only along the environmental but also along economic dimensions. Systems must be able to sense their environment using heterogeneous technologies. The sensed information has to be transferred into knowledge to support smart decisions of systems to adapt. In this context, are enterprise integration, interoperability and networking major disciplines that study how enterprise system-of-systems collaborate, communicate, and coordinate in the most effective way. Enterprise Integration aims at improving synergy within the enterprise so that sustainability is achieved in a more productive and efficient way. Enterprise Interoperability and Networking aims at more adaptability within and across multiple collaborating enterprises. Smartness is required to meet the resulting complexity. Enterprise modelling, architecture, knowledge management and semantic knowledge formalisation methods (like ontologies) are pillars supporting the S<sup>3</sup> Enterprise.*

10. International Conference on Interoperability for Enterprise Systems and Applications **I-ESA2020**, WG5.8, TC5 17/11-19/11 2020, Tarbes, FR, Bernard Archimede, <https://iesa2020.enit.fr/>

*This edition of I-ESA has the subtitle “**Interoperability in the era of Artificial Intelligence**“. Establishing efficient and relevant collaborations requires management of interoperability in a dynamic, evolving production network: a relevant and efficient collaboration of organizations requires continual adaptation to remain in line with potentially changing objectives, potentially evolving resources, unexpected events, etc. This specific aspect of interoperability will be the keystone of I-ESA 2020.*

*Furthermore, the topics of I-ESA 2020 are aligned with the vision presented in the framework program **Horizon 2020** regarding interoperability: Enterprise interoperability and Innovation, Interoperability strategies for Digital and Sensing Enterprise, System Interoperability in Internet of everything ; Collaborative manufacturing and logistics.*

11. International Symposium on Environmental Software Systems 2020 **ISESS 2020**, WG 5.11, 05/02-07/02 2020, Wageningen, NL, Ioannis Athanasiadis, <http://www.isess.net/>

*ISESS, the International Symposium on Environmental Software Systems, was initiated in 1995 as a forum to present and discuss research fundamentals and state-of-the-art applications in environmental informatics. Over the years, it has also evolved into an important networking event for academics and industry experts, specializing in software engineering, data science and environmental sciences.*

*The 13th International Symposium on Environmental Software Systems (ISESS'2020) theme is Data Science in Action, and aims to serve as a forum to present primary research in data science research and applications in the in the social, environmental and green life sciences.*

12. International Conference on Intelligent Agriculture **ICIA**, WG5.14, 18/10-21/10 2019, Beijing, CN, Daoliang Li, <http://www.nercita.org.cn/icia/>

*The development of information and communication technology (ICT) has profoundly affected and promoted the production, operation, management and service of agriculture. Agricultural information technology has become an important means for the development of modern agriculture.*

*Since 2015, agricultural Internet of Things, agricultural big data, agricultural robots, precision agriculture and other technologies have entered the stage of in-depth application. Artificial intelligence has gradually penetrated into the agricultural field, promoting agriculture to "information perception, quantitative decision-making, intelligent control, precise investment, and personalized services. The development of intelligent agriculture characterized by " In order to exchange and share the latest research progress and application practices of intelligent agricultural information technology, since 2017, the International Conference on Intelligent Agricultural Information Technology (ISIITA) and the International Conference on Computer and Computing Technology in Agriculture (CCTA) have been merged into The "ICIA International Conference on Intelligent Agriculture" is held every two years (odd years), and the organizer and venue of the conference will also be held in rotation around the world according to the application.*

13. 5th IFIP Conference on Information Technology in Disaster Risk Reduction , **ITDRR-2020**, WG 5.15, TC5, 03/12-04/12 2020 Sofia, BG; Dimiter G. Velev, <http://itdr.unwe.bg/>

*The effects of disasters are very serious and the destruction caused may take a very long time to recover. Related damage is severe and it may cause relief expenses of billions of euros. With the increase of natural disasters that have occurred in the past years, it is expected their frequency will continue to increase in the coming years. Due to disaster risk reductions multidisciplinary nature, people from various backgrounds, such as industry, diverse geographical and global settings, not-for-profit organization backgrounds, agriculture, marine life, welfare, risk management, safety engineering and social networking services will be included. At present, at global and national levels, a wide range of multiple scientific and scientific-applied research activity in the area of disaster risk reduction concerning individual types of disasters is conducted. Modern information and communication technologies can facilitate significantly the decision-making processes from the point of view of disaster risk reduction. ITDRR-2020 provides an international forum for researchers and practitioners to present their latest R&D findings and innovations. The conference is especially focused on the various IT aspects and challenges of copying with disaster risk reduction. ITDDR-2020 invites experts, researchers, academicians and all other who are interested to disseminate their work. The conference establishes an academic environment that fosters the dialogue and exchange of ideas between different levels of academic, research, business and public communities.*

14. 4th IFIP Conference on Information Technology in Disaster Risk Reduction **ITDRR-2019** WG 5.15 (at the moment of the conference IFIP Domain Committee on IT in Disaster Risk Reduction), TC5, 09/10-10/10 2019, Kyiv, UA, Dimiter G. Velev, <http://itdr.unwe.bg/past-conferences/default.html>  
See the **ITDRR 2020** description

15. International Conference on Application of Information and Communication Technology and Statistics in Economy and Education, **ICAICTSEE 2019**, WG5.15, (at the moment of the conference IFIP Domain Committee on IT in Disaster Risk Reduction) TC5, 24/10-26/10 2019, Sofia, BG, Dimiter G. Velev, <http://icaictsee.unwe.bg/past-conferences/ICAICTSEE-2019.pdf>  
*The conference aims were conducting analysis of the current problems and presenting results of the ICT application in different areas of economy, education and related areas of scientific knowledge; outlining the existing possibilities for the application of modern ICT tools, methods, methodologies and information systems in economy and education; discussing advanced and emerging research trends with a long-term importance in the field of ICT application in economy and education.*

**Some other events are in preparation but did not yet apply, e.g.**

10<sup>th</sup> Anniversary International Conference on Application of Information and Communication Technology and Statistics in Economy and Education, **ICAICTSEE-2020**, 27-28.11.2020, Dimiter Velev, <http://icaictsee.unwe.bg/>

IFIP International Conference on Product Lifecycle Management, **IC PLM 2021**, WG5.1. TC5, 11-14 July 2021, Curitiba, Brazil, <https://www.plm-conference.org/>

Interdisciplinary Aspects of Information Technology Application **IDAITA**, Dimiter Velev.

## **14.5 TC6: Communication Systems**

(Burkhard Stiller, Chair of TC6)

This report summarizes major TC6-related topics that are considered relevant for the on-line IFIP GA in 2020. Additionally, it does provide key details regarding the organization of conferences, since these determine the flagship events of IFIP TC6 and key Working Groups.

The major publicly available information of TC6 is technically maintained at the following URL by the University of Hamburg: <https://ifip.informatik.uni-hamburg.de/ifip/tc/6> and received input from all TC6 officers as well as national representatives, who own a personal log-in. Major IFIP TC6 events – including the IFIP Networking flagship event – and related information are available there besides a welcome to all active TC6 Working Groups:

- Working Group 6.1: Architectures and Protocols for Distributed Systems
- Working Group 6.2: Network and Internetwork Architectures
- Working Group 6.3: Performance of Communication Systems
- Working Group 6.6: Management of Networks and Distributed Systems
- Working Group 6.8: Mobile and Wireless Communications
- Working Group 6.9: Communications Systems for Developing Countries
- Working Group 6.10: Photonic Networking
- Working Group 6.11: Communication Aspects of the E-World
- Working Group 6.12: Services-Oriented Systems

Relevant events, officers, and members are listed and made available in their main function as well as with important details on the events themselves.

Note that due to retirements of past TC6 members within the last 20 months a number of changes within the organization of TC6 have continued to be implemented, which includes the set-up of new mailing lists with certain groups of people, the clearing of member lists of Working Groups, and the formal confirmation of roles held of people involved within TC6. This procedure is not yet completed.

### **Major TC6 Conferences**

As indicated, the TC6 Web site does list all events from TC6 and relevant details may be accessed there.

The TC6 flagship conference “IFIP Networking” was planned to take place in Paris, France, June 22-25, 2020 with the General Co-chairs Raouf Boutaba and Guy Pujolle. However, as a consequence of the COVID-19 pandemic, IFIP Networking 2020 went all on-line, based on a discussion between the event organizers and its Steering Committee. Thus, the IFIP Networking 2020 event did see 3 Workshops within one keynote each and 5 IFIP Networking event keynotes from industry and academia on “Learning Network Protocols”, “Transport Slicing – Ongoing Work at IETF with a Personal View”, “HTTP/3 is Coming”, “What else is new in 5G?”, “New Directions to Research Infrastructure in Digital Sciences”, “Future of Network and Service Automation”, “The Afterthought of 5G and a Peek at 6G”, “Network Verification – When Clarke Meets Cerf”, and “The Long and Winding Road to Self-driving Networks” complemented with a little program this year within three tracks and with overall 26 paper sessions, 3 demo sessions, and 3 poster sessions. A panel – moderated by Filip De Turck – on “Networking Challenges for the Next Decade: Just a Few or too Many?!” concluded the 4 days on-line event, which was attended by more than 200 people.

While the general information on the IFIP Networking series of the past is accessible at the URL <https://networking.ifip.org/>, all further details on IFIP Networking 2020 are available at the URL: <http://networking.ifip.org/2020/>.

Additionally, the newly instantiated IFIP Networking Steering Committee Chair Andrea Passarella, IIT-CNR, Pisa, Italy, who was welcomed cordially during the 2019 IFIP TC6 Meeting, collocated with IFIP Networking 2019 in May 2019 in Warsaw, had been facing a turbulent first year in office, mainly due to the pandemic-related changes in plans, uncertainties, adaptations of plans, and his quite as well as strong path to moderate different opinions and viewpoints raised.

### **IFIP TC6 Open Access Digital Library**

In view of the past 2018 and 2019 reports of TC6 no dedicated news have to be added to those past statements made with respect to the IFIP TC6 Open Digital Library (accessible at the URL: <http://dl.ifip.org/>). By all means, it is still of crucial importance for TC6 as well as most likely for IFIP as a whole.

The current DL remains to be a very important source of research papers and research findings, which mainly contains and maintains TC6 papers, but is – as usual – open to other IFIP TC events. Unfortunately, no complete progress had been communicated yet to make the migration of **all** existing data and material to the new INRIA-HAL library possible. The former IFIP TC6 Chair Aiko Pras still operates the inclusion of new proceedings to the IFIP TC6 DL within a few hours (highly efficient). All this happens with an e-mail sent to him – including the conference data, PDF papers, and a minimal, easy to be set-up meta data set – and the inclusion is enabled effectively. This is incomparable fast and very reliable.

### **General Observations**

While TC6 reported observations and general perspectives during the past years within its annual TC reports, the dedicated feedback on certain details was only received from within TC6, not really on the basis on a broader IFIP view.

The early 2020 COVID-19 pandemic impact on IFIP events and conferences from TC6 is significant and very visible. While the negative consequences will be briefly discussed below, the very interesting and positive impact is visible in “going on-line”, partially called “virtual”. While the latter reads a bit surprising – the definition of the term virtual reads as “not physically existing as such but made by software to appear to do so” – an on-line event may happen in the on-line world, but it is “physically existing” (very well in full contrast to the term’s definition) as an event fully distributed, but not fully decentralized, since the control of sessions, with session or keynote chairs, still requires a strong centralized control to meet timing, time zone, and technical requirements! And all attendees do physically exist, they are not just “made up”. Anyhow, the chance to run such an on-line event was externally fostered. No pandemic, no real on-line event would have happened. Interestingly enough, the tools and technology in place varies and the strengths as well as weaknesses of these vary in turn.

As the key concern for on-line events the lacking chance of meeting people in person has to be stated at first. This basically refers not only to the attendance inside a session and the presentation given – although for the speaker body language feedback is important to be read and reacted on – but it refers to the missed-out chance of talking to the presenter in person after the session. No “formalized” break-out session room in any technology can replace that since people disappear in on-line spaces easier than on an on-site event. Furthermore, group-based ad-hoc discussions cannot really

start, since the attendance level of an official on-line event program means that in such rooms all attendees can hear. While this is in principle not a problem as such, sometimes personal interactions with a smaller team of “known” attendees can address research discussions as well as new directions more effectively in person. The productive coffee break of an on-site event will never see a fully comparable conversion in an on-line setting ... the coffee’s water will taste differently in two different countries!

In addition to the COVID-19 impact and not surprising as well, the past year’s trend of smaller participations of TC6 supported events – as seen with many other societies’ events, too – had not stopped. While the quality argument of events being agreed upon helps to reach quality-wise good or excellent proceedings, thus, attendance driven by the program published to attract attendance, still travel funding restrictions of TC6 representatives may be considered as an important reason for that situation. As reported in 2019 a vast amount of competitive and key-word-driven, short-termed pop-up events are happening, too, which do not care that much about any society labeling and branding. As of now not only IFIP TC6 events are affected by that, it seems to show a much broader outline.

Although, reported in 2019, too, a general IFIP view on an additional service for IFIP Events, such that a financial support may be granted, has not seen any measurable responses. For a more detailed paragraph on this situation, please refer to the IFIP TC6 2019 report.

Furthermore, the 2019 TC6 report indicated the case of reduced IFIP member states, leading to the problem of officers from now “non-member” states of existing and filled positions to be replaced by people due to end of term elections.

Lastly, and as reported last year, too, the role of National Representatives as defined within the IFIP Bylaws seems to lead to more “quiet participations” than active ones.

### **General Perspective**

The future for TC6 as a technical committee with those working groups listed above can be considered for the next years as still reliable and most likely successful, since a core of WG officers and National Representatives show dedication, support, and interest. Thus, these persons shall be addressed within this annual report for TC6 with a wholehearted “Thank You”! We all know that next steps and future ideas’ implementations only work, if, after a discussion, someone actively takes the proposal and implements it.

A selected sub-set of WGs may face challenges in terms of content as well as personnel changes already happening. TC6 is aware of that, but can only take actions as well as countermeasures in case people, experts, and researchers joining newly will take up tasks and activities. This leads directly to the involvement of new, young members, and professionals, however, such a general approach and path still needs to see a continued action. Thus, only if young members do see the advantages of a TC, a Working Group, or IFIP as a whole, they can live in that spirit and dedicate some of their time to that type of community work. Therefore, learning on how to attract and win new members in the future is one piece of a larger puzzle IFIP has to address actively.

## **14.6 TC7: System Modelling and Optimization**

(Łukasz Stettner, Chair of TC7)

Biannual general conferences on System Modeling and Optimization is the main activity of TC7. The last one 28th IFIP TC7 Conference on System Modeling and Optimization was held in Essen, Germany, July 23-27, 2018. The next one was scheduled in Quito, Ecuador on August 29th - September 2nd, 2020. Due to coronavirus it was postponed. Therefore 29th IFIP TC7 Conference on System Modeling and Optimization is planned in Quito, Ecuador, on August 31st - September 4th, 2021. Covid-19 pandemic had a strong impact on the activities of TC7 in the period September 2019 - August 2020. Practically only events scheduled in January and February 2020 were not postponed.

The chair of TC7 has prepared IFIP-TC7 Historical Note (which is part of the IFIP jubilee book) which contains historical background and more information about past activities TC7. (see <http://ifip-tc7.impan.pl/other/IFIP-TC7%20Historical%20Note.pdf> )

Detailed info concerning workgroups of TC7 in the period the period September 2019 - August 2020 is presented below:

### **Working Group 7.1 Modeling and Simulation**

Established in 1972. Activities temporarily suspended (since 2018).

### **Working Group 7.2 Computational Techniques in Distributed Systems**

Established in 1973. Chaired by Dietmar Hoemberg. No activities reported. TC7 have nominated a new chair Lorena Bociu (<https://lorenabociu.wordpress.ncsu.edu/> ) already known for her work in organization of 27th IFIP TC 7 Conference in Sophia Antipolis in 2015. This movement should improve activity of this important (not only historically) working group.

### **Working Group 7.3 Computer System Modeling**

Established in 1973. Chaired by Mark S Squillante.

Working group is organizing virtually the conference PERFORMANCE 2020 : 38th International Symposium on Computer Performance, Modeling, Measurement and Evaluation on Nov 2, 2020 - Nov 6, 2020 which originally was planned to be held in Milan, Italy. More details about the conference can be read on the page <https://www.performance2020.deib.polimi.it>

The proceedings of the conference will be published by Springer.

### **Working Group 7.4 Inverse Problems and Imaging**

Established in 2014. Chaired by Christian Clason

The Group recruited new members, increasing the size of the group by about 25%.

Together with the new WG 7.8 they held a small IFIP Workshop on "Inverse Problems, Imaging, and Optimization" in Essen on January 6-8, 2020; see <https://www.uni-due.de/mathematik/agclason/ifip2020> . Further joint activities are planned, with the principal organization alternating between the two WGs.

### **Working Group 7.5 Reliability and Optimization of Structural Systems**

Established in 1986. Chaired by Junho Song

The main activity of the Group is in the form of biannual conferences. The last one 19th working conference of the IFIP Working Group 7.5 on Reliability and Optimization of Structural Systems (IFIP 2018) was held at ETH Zurich (Switzerland), June 26-29, 2018 (see <https://ifip2018.ethz.ch/> ).

The Group was planning to organize in 2020 "20th Working Conference for the IFIP Working Group 7.5 on Reliability and Optimization of Structural Systems (IFIP WG 7.5 2020)". Because of pandemic they decided to postpone the IFIP WG7.5 conference to

16-19th June 2021, in the same city, Kyoto, Japan (see <http://infra.kuciv.kyoto-u.ac.jp/ifip/> ).

#### **Working Group 7.6 Optimization-Based Computer Aided Modelling and Design**

Established in 1989. Revised in 1999. Chaired by Janusz Granat. No report obtained. In the near future some changes in this working group are planned.

#### **Working Group 7.7 Stochastic Control and Optimization**

Established in 1989. Chaired by Jan Palczewski

The group (in particular Tiziano De Angelis) organized a winter school:

Theory and Practice of Optimal Stopping and Free Boundary Problems

Leeds 13th - 17th of January 2020 (see <https://conferences.leeds.ac.uk/osfbp/> )

A number of sessions were submitted from the group to the (canceled - postponed) TC7 conference in Quito: Harry Zhang, Recent development in dynamic optimization, deep reinforcement learning, and applications; Sören Christensen, Ernesto Mordecki, Optimal stopping and related problems; Jan Palczewski, Lukasz Stettner, Stochastic modeling and control.

There is a number of new members. Since the group has increased its size it is expected to be rather active in the near future.

#### **Working Group 7.8 Nonlinear Optimization**

Established in 2018. Chaired by Radu Ioan Bot

The only activity was a joint conference "Inverse Problems, Imaging, and Optimization" which was organized jointly with WG 7.4 in January 2020 and reported above.



## 14.7 TC8: Information Systems

(Isabel Ramos, Chair of TC8)

The 51<sup>st</sup> meeting of the National Representatives of Technical Committee 8 took place online, September 17-18, 2020. In the meeting, the various action-items defined in the 50<sup>th</sup> meeting were discussed by the attending members. The main acumens from the discussions are:

- The TC8 working groups reported about their activities as usual. They all are active in implementing annual conferences and workshops. COVID-19 forced the postponement of conferences or the change to the virtual format. The updated information on Officers and approved events for 2021 is included in Appendix I. Depending on the evolution of the pandemic, these events may return to the face-to-face format or remain virtual events.
- The last TC8 Summer School took place in Acra, Ghana, on June 19-20, 2019, at University of Ghana. It was held in conjunction with the WG8.6 working conference “ICT unbounded, Social Impact of Bright ICT Adoption”. The report is included in Appendix IV.
- A liaison with the Association for Information Systems (AIS) is being sought, with a particular interest in co-location of events.
- It was mentioned that it would be useful for IFIP to support the holding of online events, namely by providing a platform and technical support for the organization of events.
- The Vice-Chair Alta announced the decision to leave her duties due to the impossibility of making it compatible with the remaining professional demands. An online election for the position and term 2021-2023 will take place in the coming weeks.
- To avoid confusion in the interpretation of terms of appointments, the need to adopt the rule for each term starting in January and ending in December was reinforced.
- TC8 nominated Amany Elbana and Frada Burstein for the IFIP Service Awards in 2020. Nomination form in Appendix II.
- Pending budget approval, the following were adopted as continuing initiatives for the upcoming year
  - 3000 € for continued improvements and operations for the TC 8 Website.
  - 1000 € for the hosting the WGs websites.
  - 2000 € online summer program for PhD students at universities in developing countries.
  - 2000 € for WGs trying new conference formats, including more sophisticated virtual environments for conferences.

## 14.8 TC9: ICT and Society

(David Kreps, Chair of TC9)

### Overview

- More WG activity than in many years, with groups re-formed that had been dormant in the past.
- Code of Ethics Task & Finish Group – to virtual GA 2020
- HCC14 Tokyo – conference cancelled, proceedings go ahead
- WG9.4 on ICT4D regional conference in UK
- Contributions to IFIP Jubilee Books
- WG9.7 leading a project to create a TC9 Jubilee book
- Many people involved in TC9 continue to be in demand for working collaboratively with other events/associations e.g., ETHICOMP, ICT4S, and AIS events outside of IFIP.

### Activities upcoming 2020-2021

- Continued development of TC9 website
- Publish Code of Ethics and launch it
- Many working groups have other planned events/activities in the agenda already for 2020-2021

### National Societies and International Members at Large

- Written reports received from BCS, ACM, France and Italy
- Verbal reports from other National Representatives made at the 27th July 2020 TC9 meeting: Finland, South Africa, Portugal

### Working groups and SIG

- Written reports received from WG 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8 and 9.10
- Verbal reports for WG made at TC9 Meeting 27/7/20: 9.3

### TC9 Activities October 2019 - September 2020

- Code of Ethics Task & Finish Group – to virtual GA 2020
- WG9.4 on ICT4D Regional Workshop Summer 20
- HCC14 Tokyo – conference cancelled, proceedings go ahead

### IFIP Code of Ethics Task and Finish Group.

The Code of Ethics Task and Finish Group comprised David Kreps, Chair of TC9, who proposed the Group at GA in Kiev in October 2019, and Chaired the Group; Moira de Roche, Chair of IP3; Don Gotterbarn, Chair of SIG9.2.2; and Margaret Havey, a representative from the Member Societies Assembly.

The Group used Zoom to conduct meetings on 20/11/19; 29/1/20; 10/3/20; 7/4/20; 5/5/20; 11/6/20 and 7/7/20.

A formal consultation on the Code of Ethics was undertaken with the Member Societies during late January and February, and then with the Executive Committee, and the Group complied with all the comments we received from the Executive Committee.

A Prologue was co-authored by the Group, and three exemplary Case Studies. The latter were, in July, kept back to become part of the eventual website to support the Code. The Prologue, after some further editing resulting from comments from the IFIP Board, went forward, with the Code, for final consultation to GA Members, awaiting any final comments by 1<sup>st</sup> September.

Vote at GA to be held on formal adoption.

## **HCC14 Tokyo – conference cancelled, proceedings go ahead**

### **14th IFIP Human Choice and Computers Conference – Human-Centric Computing in a Data-Driven Society, 9th-11th September 2020** [www.hcc14.net](http://www.hcc14.net)

Conference Chairs Taro KOMUKAI, Gopal TADEPALLI, David KREPS and Kaori ISHII, with Main Editor of Proceedings, David KREPS.

Four TC9 Working Groups planned to hold WG Workshops alongside HCC14, in Tokyo

- 9.1
- 9.2
- 9.5
- 9.8

Due to the COVID-19 situation, when the Tokyo Olympics were cancelled the decision was taken by the Chairs to also cancel the HCC conference. It was decided at the same time that the Proceedings would nonetheless go ahead, and these will be published in September 2020.

### **Virtual TC9 Meeting**

The TC9 Annual Meeting for 2020 due to take place on 8<sup>th</sup> September - the morning before the main conference - in Tokyo, was instead convened on Microsoft Teams. 18 members attended this meeting – the highest number of attendees at a TC9 Meeting in many, many, years. In 2019 a small number of members had attended virtually, one by one, over Skype, but this was the first time the entire meeting had been undertaken virtually. The decision was taken at the meeting that in future hybrid meetings – where some people were gathered for a physical meeting, but others attended in a virtual manner via video-conferencing software – should be the norm. This will help to ensure greater attendance, whilst enabling the richer experience of physical meetings to continue.

### **Working Group Activities**

*Verbal reports made at TC9 meeting July 2020 incorporated here.*

- **9.1** Jungwo LEE, Chair, proves still to be poor at communicating with TC9 – no WG Report received for annual TC9 Meeting and no apologies for non-attendance. A Track Description for papers at HCC14 was received in Autumn 2019 and included, but then no more communication thereafter. After the meeting, however, following further communication from the TC Chair, to all 9.1 officers, a report was finally received, from the Vice-Chair, and arrangements made to pay the IFIP fee for the event held by the Working Group in Munich in 2019. 67 paying delegates @ €5 per delegate. It is to be hoped that WG9.1 Officers will in future ensure that they use the formal IFIP Event approval process and engage properly with the TC.

- **9.2 Social Accountability and Computing:** Jani KOSKINEN completes first year as Chair.
- **9.2.2 SIG framework for the ethics of computing:** Don GOTTERBARN, Chair, has been busy working with TC9 Chair in the IFIP Code of Ethics Task and Finish Group.
- **9.4 Social Implications of Computers in Developing Countries:** Robert DAVISON, Chair, made a verbal report at the July 2020 TC9 Meeting.
- **9.5 Name Change to “Our Digital Lives”** successfully put through GA at Kyiv, October 2019. Group provided Track for HCC14.

#### Working groups either dormant or in the process of revival

- **9.3 Computers and Home. Relaunched 2019/20 as Intelligent Communities.** David KREPS (TC9 Chair) and Oliver BURMEISTER (Australia Rep on TC9) have been working to relaunch WG9.3. Name change to “Intelligent Communities” successfully put through GA at Kyiv, October 2019. Small group focussed on Care Robots has come together – with article on IFIP News to celebrate the work. <https://www.ifipnews.org/tc9-launches-reformed-working-group-intelligent-communities/>
- **9.9 Sustainability and ICT.** Maja van der VELDEN has been silent since completion of the E-Waste Position Paper May 2019 and this Working Group may now be not just dormant, but, arguably, redundant. The TC discussed the possibility of folding this group and instead incorporating Sustainability as part of the Scope of ALL other WGs. However, following the TC9 Meeting Dr Per Fors, of Uppsala University, stepped forward, at the request of the TC Chair, to take on the Chairing of this WG and attempt to revive it, with his own network of contacts in the field.

#### Status of WG chairs

- **TC9: Chair began first term 1.1.18.** Vice-Chair appointed Jan 2018. Secretary appointed September 2018. Second term beginning 1.1.21.
- **9.1: Chair began second term 1.1.19** Jungwo LEE Chair since 1.1.16 (appointed Dec 2015). New Chair required from 1.1.22
- **9.2: New Chair began first term 1.1.20.** Jani KOSKINEN (appointed June 2019)
- **9.3: Chair began first term 1.1.19** David KREPS
- **9.4: Chair began first term 1.1.18.** Robert DAVISON (appointed May 2017)
- **9.5: Chair began first term 1.1.19.** Petros CHAMAKIOTIS, Vice-Chair Brad McKENNA, Secretary Kathrin BEDNAR
- **9.6: Chair began first term 1.1.18.** Kai RANNENBERG
- **9.7: Chair began first term 1.1.18.** Chris LESLIE
- **9.8: Chair began first term 1.1.19.** Sisse FINKEN, with VC Johanna SEFYRIN and Secretary Charles ESS leading the relaunch of this WG.
- **9.9: New Chair to begin first term 1.1.21.** Per FORS
- **9.10: Chair began first term 1.1.20.** Brett van NIEKERK (appointed June 2019)

#### National computing societies and International Members at Large

Some national representatives have expressed interest in the past in being more involved and to feed their countries' input into the upcoming trends and directions. There have been some changes in representation, and some countries that had representation have yet to propose new representatives. TC9 Chair trying to encourage this.

- New Representative for France, Dominique DESBOIS, in good contact with TC9, including addition of many relevant publications to TC9 website, and activities in CREIS <http://www.lecreis.org/>

*Verbal reports made at TC9 meeting July 2020 incorporated here; full written reports added in Annex 2.*

- Kai Kimppa– FIPA (Finnish Information Processing Association).
- Jackie Phahlamohlaka – South Africa.
- Anthonio Moniz – Portugal

## Proposed upcoming activities: September 2020 - September 2021

**Continuation of TC9 Reboot Initiative** - David KREPS (then Chair of WG 9.5 Virtuality and Society) began leading a general TC9-reboot initiative in 2016. Members of TC9 (who attended the 7 September 2016 TC9 meeting and since) have been assisting. Using HCC13 as the vehicle, interest was stirred for a relaunch of several TC9 WGs. This success of this initiative, over time, has been mixed, but overall impressive.

- **WG 9.3** – Intelligent Communities – new Chair, David KREPS, and Vice-Chair, Oliver BURMEISTER, formally appointed from 1.1.19
  - Name change agreed at TA Meeting in Kiev, October 2019
  - New group formed and working on Care Robot project
- **WG 9.5** – Our Digital Lives – new Chair Petros CHAMAKIOTIS Vice-Chair Brad MCKENNA, formally appointed from 1.1.19
  - Name change agreed at TA Meeting in Kiev, October 2019
  - Planned a Workshop in Tokyo alongside HCC14
- **WG 9.8** - Gender, Diversity and ICTs - new Chair, Vice-Chair and Secretary of WG9.8 formally appointed from 1.1.19
  - Revival underway with new members
  - Planned a Workshop in Tokyo alongside HCC14
  - Workshop to take place at Linkoping, Denmark, April 2021
- **WG 9.9** - ICT and Sustainability - new Chair formally appointed from 1.1.21
  - Vigorous activity from Chair Maja van der VELDEN and from Per FORS, member, towards the finalising of the Position Paper on E-Waste – many thanks to both Maja and Per for their input.
  - No activity since.
  - Per FORS contributed to Jubilee Book Chapter on E-Waste, co-authoring with David KREPS
  - Per FORS now to take on Chair role to try to revive the Group.

## Continued development of TC9 website

- TC9's IFIP 60<sup>th</sup> Anniversary marking will unfold in two strands
  1. TC9 book – led by WG9.7
  2. Development of TC9 Alumni section of Website: a growing series of potted biographies – photos, achievements – about current and past TC9 Chairs, WG Chairs, and high-achievers. This project will unfold from Jan 2021. The first of these has been a Tribute to Jacques

BERLEUR. <http://ifiptc9.org/blog/2020/07/07/a-tribute-to-jacques-berleur/>

*Upcoming activities of active TC9 Working Groups*

- **WG 9.1** Joint conference with 9.4 and 8.2 in Hyderabad alongside ICIS, Dec 2020.
- **WG 9.2** continues to hold meetings and activities, as does the **SIG 9.2.2**
- **WG 9.4** continues to go from strength to strength and is now planning their May 2021 conference in Lima
- **WG 9.6/11.7** continues to run its annual Summer School Early preparatory plans for 2020 summer school underway.
- **WG 9.7** Leading the TC9 Jubilee book project, and a workshop in China in 2021

## 14.9 TC11: Security and Privacy Protection in Information Processing Systems

(Steven Furnell, Chair of TC11)

### a. Meetings held and scheduled

- The last TC-11 meeting was held on Monday 24 June in Lisbon, Portugal, preceding the SEC 2019 conference.
- The next annual TC meeting is scheduled for 20 September 2020, and will take place online. It was originally planned for 25 May 2020 in Maribor, Slovenia preceding the SEC 2020 conference, but was rescheduled (along with the conference) as a result of COVID-19.
- The 2021 meeting will be held directly prior to SEC 2021 in Oslo, Norway.

### b. Changes in membership and officers since GA 2019 (only TC members)

#### Changes in officers

Marcus Belder	2 <sup>nd</sup> Australian representative
Yuko Murayama	2 <sup>nd</sup> Japanese representative
Lynn Fitcher	2 <sup>nd</sup> South African representative
Javier Lopez	Status changed to "Nominated by TC11 committee"

#### TC membership changes

Currently TC-11 is missing representatives of the IFIP full member societies from the following countries or member societies (list of August 2020: Brazil, China, Cyprus, Iran, Croatia, India, Ireland, Lithuania, Serbia, Slovakia, Slovak Republic, Sri Lanka, Ukraine, and the United Arab Emirates).

### c. Working groups

The fact sheets for all TC-11 working groups are included on our website; see [www.ifiptc11.org](http://www.ifiptc11.org) under the button for the working groups.

	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9			11.10	11.11	11.12	11.13	11.14
Submitted factsheet (2019)	✓	✓	✓	✓	✓	✓	✓	✓						✓	✓	
Submitted report (2019)	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓	✓	
Submitted factsheet (2020)	✓	✓	✓	✓	✓	✓	✓	✓						✓	✓	✓
Submitted report (2020)	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓

#### 1. WG 11.1 Information Security Management

Chair: Karin Hedström, Örebro University, Sweden (2nd term, 2020 - 2023)

Vice-Chair: Dan Kim, University of Queensland, Australia (1st term, 2020 - 2023)

- Secretary: Paul Haskell-Dowland, Edith Cowan University, Australia (6th term, 2020 - 2023)
2. WG 11.2 Pervasive Systems Security  
 Chair: Damien Sauveron, University of Limoges, France (2nd term, 2018 – 2021)  
 Vice-Chair: Konstantinos Markantonakis, Royal Holloway University of London, UK (2nd term, 2018 - 2021)  
 Secretary: Raja Naeem Akram, Royal Holloway University of London, UK (2nd term, 2018 - 2021)
3. WG 11.3 Data and Application Security and Privacy  
 Chair: Sara Foresti, Università degli Studi di Milano, Italy (1st term, 2019 - 2022)  
 Vice-Chair: Jaideep Vaidya, Rutgers University (1st term, 2019 - 2022)  
 Secretary: Giovanni Livraga, Università degli Studi di Milano (1st term, 2019 - 2022)
4. WG 11.4 Network & Distributed Systems Security  
 Chair: Dogan Kesdogan, University of Regensburg, Germany (2nd term, 2018 - 2021)  
 Vice-Chair: Vacant  
 Secretary: Vinh Pham, University of Regensburg, Germany (2nd term, 2018 - 2021)
5. WG 11.5 IT Assurance and Audit  
 Chair: Stef Schinagl, UWV ,Vrije Universiteit Amsterdam (1st term, 2020-2023)  
 Vice-Chair: Vacant  
 Secretary: Abbas Shahim, VU University Amsterdam, Atos Consulting & Technology Services, The Netherlands (1st term, 2020-2023)
6. WG 11.6 Identity Management  
 Chair: Stephan Krenn, Austrian Institute of Technology (AIT), Austria (1st term, 2020 - 2023)  
 Vice-Chair: Denis Royer, Ostfalia University of Applied Sciences, Germany (1st term, 2020 - 2023)  
 Secretary: Henrich C. Pöhls, University of Passau, Germany (1st term, 2020 - 2023)
7. WG 9.6 / 11.7 Information Technology: Misuse and the Law  
 Chair: Kai Rannenber, Gothe University Frankfurt, Germany (2nd term, 2020 - 2023)  
 Vice Chair: Vacant  
 Secretary: Vacant
8. WG 11.8 Information Security Education (ELECTION IN OCTOBER)  
 Chair: Lynn Fitcher, Nelson Mandela Metropolitan University, South Africa (2nd term, 2017 - 2020)



- Vice-Chairs: Natalia Miloslavskaya, National Research Nuclear University  
MEPHI, Russia (2nd term, 2017 - 2020)  
Erik Moore, Regis University, USA (2nd term, 2017 - 2020)
- Secretary: Matt Bishop, University of California, Davis, USA (2nd term, 2017  
- 2020)
9. WG 11.9 Digital Forensics
- Chair: Kam-Pui Chow, University of Hong Kong, Hong Kong (1st term,  
2020 - 2023)
- Vice Chair: Gaurav Gupta, Indian Ministry of Electronics and Information  
Technology, India (1st term, 2020 - 2023)
- Secretary: Sujeet Sheno, University of Tulsa, USA (1st term, 2020 - 2023)
10. WG 11.10 Critical Infrastructure Protection
- Chair: Richard George, Johns Hopkins University Applied Physics  
Laboratory, USA (1st term, 2020 - 2023)
- Vice-Chair: Raymond Chan, Singapore Institute of Technology, Singapore  
(1st term, 2020 – 2023)
- Secretary: Sujeet Sheno, University of Tulsa, USA (3rd term, 2020 - 2023)
11. WG 11.11 Trust Management (OFFICER ELECTIONS EOY)
- Chair: Stephen Marsh, University of Ontario Institute of Technology,  
Canada (2nd term, 2018 - 2021)
- Vice-Chairs: Christian Jensen, Technical University of Denmark (DTU),  
Denmark (2nd term, 2017 - 2020)  
Nurit Gal-Oz, Sapir Academic College, Israel (1st term, 2017 -  
2020)
- Secretary: Anirban Basu, KDDI R&D Laboratories, Japan (1st term, 2017 -  
2020)
12. WG 11.12 Human Aspects of Information Security and Assurance
- Chair: Kerry-Lynn Thomson, Nelson Mandela University, South Africa  
(1st term, 2019 - 2022)
- Vice-Chair: Adele Da Veiga, University of South Africa (1st term, 2019 - 2022)  
Paul Stephens, Canterbury Christ Church University, UK (1st  
term, 2019 - 2022)
- Secretary: Malcolm Pattinson, The University of Adelaide, Australia (2nd  
term, 2019 - 2022)
13. WG 8.11/11.13 Information Systems Security Research
- Chair: Allen C. Johnston, University of Alabama at Birmingham, US (1st  
term, 2018 - 2021)
- Vice-Chair: Manish Agrawal, US (1st term, 2018 - 2021)
- Secretary: Tejaswini Herath, Brock University, Canada (3rd term, 2018 -  
2021)
14. WG 11.14 Secure Engineering
- Chair: Jorge Cuellar, University of Passau, Germany (1st term, 2020 –  
2023)

Vice-chairs: Alessandro Aldini (1st term, 2020 – 2023)  
 Haris Mouratidis (1st term, 2020 – 2023)  
 Secretary: Carmen Gago, University of Malaga (1st term, 2020 – 2023)

The planned and past events of the working groups can be found in Annex 3 to this report.

#### d. Events

Past events: see Annex 3 for an overview of the events since GA 2019.

Planned events: see Annex 3 for an overview of the planned events.

#### e. Publications

Proceedings: see Annex 3 for an overview of the published proceedings for events in the reporting period.

Other publications:

- The journal **Computers & Security (COSE)** started in January 1982. It is published by Elsevier and is the official journal of TC-11 since November 1983. Prof. Bart de Decker, KU Leuven, Belgium and TC-11 Vice-Chair has been the TC-11 Editor since June 2014, but will step down from the role and a successor identified during or following the 2020 TC meeting. Prof. Eugene H. Spafford, CERIAS, Purdue University, USA is the Editor. Prof. Dr. Dimitris Gritzalis, Athens University of Economics and Business, Greece is the Academic Editor. For more details see [www.elsevier.com/locate/cose](http://www.elsevier.com/locate/cose).
- TC-11 launched **The International Journal on Critical Infrastructure Protection (IJCIP)** in 2008. It is the official journal of WG11.10, and IFIP past-president Leon Strous is the current Editor-in-Chief. The journal is published by Elsevier. For more details see [www.elsevier.com/locate/ijcip](http://www.elsevier.com/locate/ijcip).

TC-11 maintains a mailing list (see <https://dlist.server.uni-frankfurt.de/mailman/listinfo/ifip-tc11> ).

Date	Subscribers	Growth
5 August 2020	534	0
15 August 2019	534	2%
29 August 2018	524	2%
15 August 2017	515	3%
29 August 2016	502	13%
14 September 2015	446	14%
15 August 2014	391	12%
28 August 2013	349	15%
7 September 2012	304	11%
11 August 2011	273	15%
September 2010	238	

#### f. Progress and status

TC-11 continues to run its flagship IFIP SEC conference, with the last event having been in Lisbon in June 2019. SEC 2020 has been rescheduled from May to September due to COVID-19, and will take place online. 161 papers

were received, with 29 papers accepted, acceptance rate 18%. The WG11.8 conference on security education (WISE 13) is also scheduled in parallel.

Several other TC-11 Working Groups also continue to run successful events, and the TC is additionally linked to two successful journals (i.e. *Computer & Security* and *Journal for Critical Infrastructure Protection*). As such, in overall terms the TC is doing well, maintaining a useful presence that adds value to several topic communities within cyber security.

An additional activity has been the development of a series of thematic briefing papers addressing a range of topical cybersecurity issues. The intention is for these to be published individually and collectively, with a view to further increasing both the visibility and contribution of TC-11 in the international context. At the time of writing three papers (addressing digital transformation, IoT security, and cyber skills) have been finalised and await release, and several further ideas are in varying stages of development.

TC-11 is also contributing a chapter to the AICT 600 book, which will be a collection of materials from across the breadth of IFIP TCs and WGs. The TC-11 chapter is entitled “Information Security and Privacy – Challenges and Outlook”, and is based upon inputs from across the set of our Working Groups.

#### **g. Any other items**

The Kristian Beckman Award was established in 1992 by TC-11 to commemorate the first chair of the committee. The objective of the award is to publicly recognize an individual who has significantly contributed to the development of information security, especially achievements with an international perspective.

In 2020, the Kristian Beckman Award will be awarded to Elisa Bertino, Samuel D. Conte Professor of Computer Science, Purdue University, USA (see <https://www.cs.purdue.edu/people/faculty/bertino>), to recognise and honour her significant contributions to the field of Information security and privacy. The full motivation for the award was as follows:

- She has made a significant and long-term contribution to the field of information security and privacy, via activities in research, education and promotion.
- She has made various pioneering contributions in the field, including:
  - introduction of temporal and location context into access control mechanisms, and the definition of P-RBAC, a privacy-aware access control model designed to meet privacy regulation requirements
  - design of the Trust-X trust negotiation management system, including innovative features for recovery, anonymity, and disclosure policies.
  - contribution to the security and privacy of cellular networks, through the design of the LTEInspector framework to test security properties of cellular networks.
- She has made significant contributions to the professional cybersecurity community, including her prior role as chair of ACM SIGSAC, co-founder of the ACM Conference on Data and Application Security and Privacy

(CODASPY) in 2011, and Editor-in-Chief of the IEEE Transactions on Dependable and Secure Computing.

- She has been a strong role model for Women in Cyber Security, including her role as co-founder of Cyber-W (Cyber Security Women in Research).

A list of all the awardees to date can be found in Annex 4.

#### **h. Website**

The main website of TC-11 ([www.ifiptc11.org/](http://www.ifiptc11.org/)) continues to be hosted by Goethe University Frankfurt (Germany), Deutsche Telekom Chair of Mobile Business and Multilateral Security, with support from Sascha Loebner as webmaster.

Gurpreet Dhillon continues as the TC-11 Publicity Officer, and is responsible for running the [www.ifipsec.org](http://www.ifipsec.org) website and coordinating the spending efforts to advertise the site on major search engines.

#### *Annex. Events and publications*

##### **TC-11 activities since report for GA 2019**

<b>WHEN</b>	<b>WHO</b>	<b>WHAT</b>	<b>WHERE</b>	<b>URL</b>
	WG 11.5	<p><i>Two workshops were delivered at the VU University Amsterdam on "IT Audit in the Digital Era"</i></p> <p><i>A one-day workshop on Digital Auditing was delivered to the Internal Audit Department of MN (a Dutch pension fund) on their annual staff meeting.</i></p>		

15-17 July 2019	WG 11.3	<i>33rd Annual IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSec 2019)</i>	South Carolina, USA	<a href="https://dbsec2019.cse.sc.edu/">https://dbsec2019.cse.sc.edu/</a>
15-17 July 2019	WG 11.12	<i>13th Human Aspects of Information Security &amp; Assurance</i>	Nicosia, Cyprus	<a href="https://www.haisa.org/">https://www.haisa.org/</a>
19-23 August 2019	WG 11.6/11.7	<i>14th International IFIP Summer School on Privacy and Identity Management – Data for Better Living: AI and Privacy</i>	Brugg/Windisch, Switzerland.	<a href="https://2019edition.ifip-summer-school.org/">https://2019edition.ifip-summer-school.org/</a>
5 October 2019	WG 11.13/8.11	<i>Dewald Roode Workshop on Information Systems Security Research</i>	Bossier City, Louisiana, USA	<a href="https://ifip.byu.edu/ifip2019.html">https://ifip.byu.edu/ifip2019.html</a>
11-12 December 2019	WG 11.2	<i>13th WISTP International Conference on Information Security Theory and Practice (WISTP'2019)</i>	Paris, France	<a href="http://wistp2019.wistp.org/">http://wistp2019.wistp.org/</a>
6-8 January 2020	WG 11.9	<i>Sixteenth Annual IFIP Working Group 11.9 International Conference on Digital Forensics</i>	New Delhi, India	<a href="http://www.ifip119.org/Conferences/">http://www.ifip119.org/Conferences/</a>

16-17 March 2020	WG 11.10	<i>Fourteenth Annual IFIP Working Group 11.10 International Conference on Critical Infrastructure Protection</i>	Arlington, USA	<a href="http://www.ifip1110.org/Conferences/">http://www.ifip1110.org/Conferences/</a>
25-26 June 2020 <b>Virtual event</b>	WG 11.3	<i>34th IFIP WG11.3 Conference on Data and Applications Security and Privacy</i>	Regensburg, Germany	<a href="https://dbsec2020.ur.de/">https://dbsec2020.ur.de/</a>
8-10 July 2020 <b>Virtual event</b>	WG 11.12	<i>14th Human Aspects of Information Security &amp; Assurance</i>		<a href="https://www.haisa.org/">https://www.haisa.org/</a>
21-23 September 2020 (re-scheduled) <b>Virtual event</b>	TC11	<i>SEC 2020: 35<sup>th</sup> IFIP International Information Security Conference</i>	Maribor, Slovenia	<a href="https://sec2020.um.si/">https://sec2020.um.si/</a>
21-23 September 2020 (re-scheduled) <b>Virtual event</b>	WG 11.8	<i>13th World Conference on Information Security Education (WISE13)</i>	Maribor, Slovenia	<a href="https://www.ifiptc11.org/wq118-events/wise13">https://www.ifiptc11.org/wq118-events/wise13</a>
20-23 September 2020 <b>Virtual event</b>	WG 11.6/11.7	<i>15th International IFIP Summer School on Privacy and Identity Management</i>	Maribor, Slovenia	<a href="https://www.ifip-summer-school.org/">https://www.ifip-summer-school.org/</a>

#### TC-11 activities planned

WHEN	WHO	WHAT	WHERE	URL
2-3 October 2020 Virtual event	WG 11.13.8.11	<i>Dewald Roode Workshop on Information Systems Security Research</i>	Ames, Iowa, USA	<a href="https://www.ivybusiness.iastate.edu/events/the-2020-dewald-roode-workshop-on-information-systems-security-research/">https://www.ivybusiness.iastate.edu/events/the-2020-dewald-roode-workshop-on-information-systems-security-research/</a>

TBC 2021	WG 11.2	<i>14th WISTP International Conference on Information Security Theory and Practice (WISTP'2021)</i>	TBC	
1-2 February 2021	WG 11.9	<i>Seventeenth Annual IFIP Working Group 11.9 International Conference on Digital Forensics</i>	Arlington, USA	<a href="http://www.ifip119.org/Conferences/WG11-9-CFP-2021.pdf">http://www.ifip119.org/Conferences/WG11-9-CFP-2021.pdf</a>
15-16 March 2021	WG 11.10	<i>Fifteenth Annual IFIP Working Group 11.10 International Conference on Critical Infrastructure Protection</i>	Arlington, USA	
June 2021	TC11	<i>SEC 2021: 36<sup>th</sup> IFIP International Information Security Conference</i>	Oslo, Norway	
June 2021	WG 11.4	<i>iNetSec2021</i>	Oslo, Norway	
7-9 July 2021	WG 11.12	<i>15th Human Aspects of Information Security &amp; Assurance</i>	Lesvos, Greece	<a href="https://www.haisa.org/">https://www.haisa.org/</a>
July 2021	WG 11.3	<i>35th IFIP WG11.3 Conference on Data and Applications Security and Privacy</i>	North America	

## **14.10 TC12: Artificial Intelligence** (Eunika Mercier-Laurent, Chair of TC12)

Chair Eunika Mercier-Laurent,  
Vice-Chair Nenad Stefanović, [nenad@pmf.kg.ac.rs](mailto:nenad@pmf.kg.ac.rs)  
Secretary Elize Ehlers, [emehlers@uj.ac.za](mailto:emehlers@uj.ac.za)

*Country representatives (active):*  
Austria – Andreas Holzinger  
Australia – Simeon Simoff  
Italy – Giovanni Adorni, UNIGE – plan for AI Forum

### **EVENTS**

Two AI Forums were planned in 2020 including 2<sup>nd</sup> in Vienna.  
Due to Covid pandemic, the AI Forum France in Montpellier will be composed of several events beginning by round table OccitanIA@AI Forum, September 23<sup>rd</sup>. and followed by research day, application day and final event in September 2021.  
We began to work on the organization of the 2nd AI IFIP Forum, Vienna, Austria.

### **Reports of Working Groups**

#### **- WG12.1 Knowledge Representation and Reasoning**

Chair Matthias Timm, University of Koblenz-Landau, Germany  
- WG12.1 organised the third workshop on Systems and Applications of formal argumentation (SAFA, <http://safa2020.argumentationcompetition.org>), we have 9 accepted papers and have 31 registered participants.  
The workshop takes place Sep 9, online.  
The proceedings of SAFA'20 are published <http://ceur-ws.org/Vol-2672/>

- WG12.1 currently organises the fourth International Competition on Computational Models of Argumentation for 2021 (ICCMa'21, <http://argumentationcompetition.org>)

- WG12.1 will hold its bi-annual working group meeting on Oct 1 (online).

#### **WG12.2 Machine Learning and Data Mining – no report provided**

Chair: Prof. Xin Yao, University of Birmingham, UK, [xiny@sustc.edu.cn](mailto:xiny@sustc.edu.cn)  
Vice-Chair Prof. A. Aamodt, NUST, N-7491 Trondheim, Norway, retired.  
Secretary: Prof. Sunil Vadera, School of Computing, Science & Engineering, University of Salford, M5 4WT, UK, is no more active, supporting IIP conference.  
IIP 2020 was organized and Proceedings were published (Springer AICT)  
To follow up

#### **WG12.3 Intelligent Agents – no report provided**

Chair Professor Paulo Novias, Universidade do Minho, Escola de Engenharia, Departamento de Informática / Centro ALGORITMI, Campus de Gualtar, 4710-057 Braga, PORTUGAL, email: [pjon@di.uminho.pt](mailto:pjon@di.uminho.pt)  
Vice-Chair Professor Jaime Sichman, Universidade de São Paulo, Escola Politécnica, Depto. Eng. Computação e Sistemas Digitais (PCS), Av Prof. Luciano Gualberto, 158 travessa 3, BR-05508-970 SAO PAULO Brasil, e-mail: [jaime.sichman@poli.usp.br](mailto:jaime.sichman@poli.usp.br)

#### **WG12.4 – Semantic Web shut down**



### **WG12.5 AI Applications**

Chair Dr. Ilias Maglogiannis, Greek Computer Society (GCS), Greece, email: [imaglo@unipi.gr](mailto:imaglo@unipi.gr)

Secretary : Lazaros Iliadis

16<sup>th</sup> IFIP Artificial Intelligence Applications and Innovations Workshop (AIAI2020) - Held on line due to the COVID-19 pandemic

<http://www.aiai2020.eu/>

Over 100 participants

Proceedings published by Springer AICT

### **WG12.6 Artificial Intelligence for Knowledge Management**

Chair Eunika Mercier-Laurent, University of Reims Champagne Ardenne, France

Vice Chair Mieczyslaw Lech Owoc, University of Economics, Wroclaw, Poland

Secretary Gulgun Kayakutlu, ITU (Technical Institut of Istanbul), Istanbul, Turkey

Planned 8th AI4KM on IJCAI 20 was postponed to 2021, January 6<sup>th</sup> and will be probably hold online.

Extended papers from 6th AI4KM on IJCAI 18, Stockholm, published in Springer AICT 588.

Two board meetings were organized in November 2019 Wroclaw University of Economics and online in July.

Two new members were accepted.

Planned Special issue in Intelligent Systems in Accounting, Finance and Management, managed by Prof Mieczyslaw L. Owoc.

### **WG12.7 Social Networking, Semantics and Collective Intelligence** - no report provided

Chair: Dr. Pieter De Leenheer, VU University Amsterdam, De Boelelaan 1081a, NL-1081 HV AMSTERDAM, The Netherlands, email: [pieterdeleenheer@acm.org](mailto:pieterdeleenheer@acm.org)

Vice-Chair Dr. John Breslin, NUI Galway, Galway City, Ireland, email: [john.breslin@nuigalway.ie](mailto:john.breslin@nuigalway.ie)

Secretary :Christophe Debruyne, Vrije Universiteit Brussel, Pleinlaan 2, BE-1050 Brussels, Belgium, email: [chrdebru@vub.ac.be](mailto:chrdebru@vub.ac.be)

Christophe Debruyne said: Most members of the group have moved on and I'm currently in the middle of moving on as well. The group is only sporadically active with the last activities dating from late 2016 and early 2017.

### **WG 12.8 Intelligent Bioinformatics** shut down

### **WG 12.9 Computational Intelligence**

Chair Dr Vasile Palade, Coventry University, UK, e-mail: [ab5839@coventry.ac.uk](mailto:ab5839@coventry.ac.uk)

Vice-Chairs: Prof. Elizabeth Chang, Curtin University, Perth, Australia e-mail:

[elizabeth.chang@cbs.curtin.edu.au](mailto:elizabeth.chang@cbs.curtin.edu.au)

Dr. Masoud Nikravesh, University of California Berkeley, CA, e-mail:

[nikraveshucb@gmail.com](mailto:nikraveshucb@gmail.com)

Secretary Dr. Kit Yan Chan, Curtin University, Perth, Australia e-mail:

[Kit.Chan@curtin.edu.au](mailto:Kit.Chan@curtin.edu.au)

Chair asks if it is possible to have 3 Vice-chairs, he wants to add Andreas Holzinger.

1	Date:	Some members met at ICMLA2019 in Boca Raton, December 2019 Also meeting needed to be done at CD-MAKE 2020 in August 2020 but the conference was postponed for January 2021	
	Place:	Boca Raton, Florida, 19 December 2020	
	Number of WG members present at the meeting:	4	
	Number of WG observers present at the	3	
	Remarks:	Annual IFIP TC12 Meeting	
To be held next year	Date	Possibly December 2020, at IEEE ICMLA 2020, USA	
	Date	January 2021 at CD-MAKE2021 in Dublin	
	Date	We also consider to make meetings online	

This WG has 37 members.

### Events organized or proposed to be organized by your WG activities

- V. Palade, S. Wermter, A Ruiz-Garcia, A. Braga, C.C. Took, Guest Editors for special issue on “Deep Representation and Transfer Learning for Smart and Connected Health”, *IEEE Trans. on Neural Networks and Learning Systems* (in final stages, papers have been reviewed and accepted), to be published in 2021, ([https://cis.ieee.org/images/files/Publications/TNNLS/special-issues/CFP\\_IEEE\\_TNNLS\\_SpecialIssue\\_RTLforSCH.pdf](https://cis.ieee.org/images/files/Publications/TNNLS/special-issues/CFP_IEEE_TNNLS_SpecialIssue_RTLforSCH.pdf))
- A Ruiz-Garcia, J. Schmidhuber, V. Palade, C.C. Took, D. Mandic, Guest Editors for special issue on “Deep Neural Network Representation and Generative Adversarial Learning”, *Neural Networks*, in final stages, to be published in 2021  
(<https://www.journals.elsevier.com/neural-networks/call-for-papers/special-issue-on-deep-neural-network-representation>)
- Elizabeth Chang, Kit Yan Chan, Ponnice Clark, Vidy Potdar, Guest Editors for special issue “Blockchain and AI Enabled 5G Mobile Edge Computing”, *IEEE Trans. In Ind. Informatics* 16(11): 7067-7069 (2020).
- A.Wani, V. Palade, Organizing a special session on Deep Learning at IEEE Int. Conf. on Machine Learning and Applications, Boca-Raton, Florida, Dec 2019
- Taghi Koshgoftaar organized and chaired IEEE Int. Conf. on Machine Learning and Applications, Boca-Raton, Florida, Dec 2019
- A.Wani, T. Khosghoftaar, V. Palade, edited the book “Deep Learning Applications” with extensions of selected papers from ICMLA 2019, Springer, in print 2020
- A.Ruiz Garcia, V. Palade, C.C. Took, Organizing a special session on Generative Adversarial Networks at the IEEE Int. Joint Conf. on Neural Networks, Glasgow -UK, July 2020
- A.Holzinger et al., Organizing [CD-MAKE](#)/Cross Domain Conference for

Machine Learning and Knowledge Extraction, Dublin 2020, postponed and to be held in January 2021 because of Coronavirus outbreak

- Members of the groups, (i.e., A. Holzinger, V. Palade, etc.) are editors (and founders) of a journal in his 2nd-3rd year now: *MAKE - Machine Learning and Knowledge Extraction*, MDPI.  
<https://www.mdpi.com/journal/make>
- V. Palade is guest co-editor to the special issue “Artificial Intelligence for Connected and Autonomous Vehicles”, Applied Sciences, paper submission deadline November 2020  
[https://www.mdpi.com/journal/applsci/special\\_issues/Applications\\_of\\_Artificial\\_Intelligence\\_for\\_Connected](https://www.mdpi.com/journal/applsci/special_issues/Applications_of_Artificial_Intelligence_for_Connected)
- The group members will also be involved in organizing IEEE ICMLA 2021, IEEE IJCNN 2021, among other events, etc.

## **WG 12.10 AI and Cognitive Science**

### Chairs

Dr Maria Vasardani, Senior Lecturer & VC Research Fellow, Department of Geospatial Science, RMIT University, Australia, [mvasardani@rmit.edu.au](mailto:mvasardani@rmit.edu.au)

Dr.-Ing. Kai-Florian Richter, Associate Professor, Department of Computing Science, Umea University, Sweden, [kai-florian.richter@umu.se](mailto:kai-florian.richter@umu.se)

### 1 Activities of the last year

The Artificial Intelligence & Cognitive Science working group (WG) is still a fairly new working group of TC12. It was formally established at the Technical Assembly in 2018. So far, we have managed to establish a workshop series on ‘Spatial Cognition and Artificial Intelligence,’ with two events so far. We had the 3rd workshop in the series accepted for GIScience, originally to be held in September 2020 in Poznan, Poland. However, for well-known reasons and as many other events the conference did not actually happen, but has been postponed until next year. Because our workshops rely on a high level of interaction between the participants (including small group work), we decided to postpone our workshop as well. Thus, so far there have been no (physical) meetings of the working group this year.

On a positive note, we have established a web presence for the working group. It can be found here: <http://aicogsci.net>. We have also recruited several members, such that we are in fact a group now. To further promote the working group, we have submitted a short description of it to the German AI journal ‘KI’ (on request of one of the editors), which is yet to be published.

### 2 Future plans

Assuming that life will go back (more or less) to normal next year, we plan the following activities, partly to catch up for this year, partly as new initiatives.

**Internal**, i.e., activities to strengthen the working group and to foster collaboration between its members

We will continue and strengthen our efforts in recruiting members to the WG.

**External**, i.e., events and activities to further promote the importance of a strong collaboration between Artificial Intelligence and Cognitive Science

- We will continue the workshop series with a 3rd International Workshop on Spatial Cognition and Artificial Intelligence at GIScience 2021 (formerly GIScience 2020). We aim for a special issue in a relevant journal emerging from this workshop.
- We are considering submitting a proposal for a symposium on a topic relevant for the working group to next year's Annual Meeting of the Cognitive Science Society (end of July 2021 in Vienna, Austria). We believe this would increase the working group's visibility significantly in the cognitive science community, drawing more interest and potential new members from that community. (we had considered this for this year already).
- In the medium term, we plan to organize a Dagstuhl meeting or similar, which would offer more time and more possibilities to discuss and work on topics relevant to both the AI and Cognitive Science communities. For such a meeting we would invite members of the WG and relevant prominent scientists from outside the WG.

### Proposal of new Working Group

**AI for Energy and Sustainability** - expecting 50 members, Prof Gulgun Kayakutlu, ITU Turkey

Request attached

This group will aim to create the standards and disseminate the mindfulness about innovative and correct use of Artificial Intelligence (AI) approaches and Deep Learning techniques in managing every company in the energy supply chain. The energy suppliers need the correct decisions in energy loads under local regulations to make profit with consideration of sustainability. Energy distributors have to invest in research and development with the correct demand prediction while getting concerned in efficiency of the consumers. Energy service providers should learn knowledge management so that they can really help both investors of the renewable energy and heavy energy consuming industries. Regulators are to integrate with the European and Global networks for a sustainable future. Integrating power networks in Europe is introducing heavy use of data analytics, they are open to learn using deep learning for knowledge management. It is accepted by UN rules and EU memorandums that sustainable wealth and development is very much dependent on the predictions, researches and activities of the energy industry.

This group should cover network modelling, using a variety of machine learning (ML) techniques in energy generation, distribution and consumption systems and evaluate the big time series data. Load mix, scheduling, real time monitoring are some industrial applications leading for healthy decisions, hence, the need for deep learning and ensemble neural networks are to be discussed and clarified.

This group will start organising AI for Energy & Sustainability Workshop which will become an international conference in near future in order to disseminate

- a. The energy management activities for which artificial intelligence can be applied;
- b. AI use for sustainable development
- c. Deep Learning techniques used in
  - climate change mitigation and adaptation;
  - energy industry applications;
  - renewable energy and storage innovations;
  - mitigation of energy use in transportation.

d. Achieve a new creative opinion on the innovations and future of energy systems management in light of artificial intelligence improvements.

Recent request for new working group **AI for Health** – waiting proposal

### 14.11 TC13: Human-Computer Interaction

(Philippe Palanque, Chair of TC13)

This report has the purpose of showing the development within IFIP TC 13 on Human Computer Interaction during the last period (2019-2020) and the short-term plans for the future.

Among the important items to be reported, we highlight:

- Updates on the list of TC13 members.
- One business meetings :
  - **Meeting N. 48** held virtually/online due to Covid-19 pandemic, on June 22, 2020.
- **Election the TC13 chair:** Philippe Palanque was running unopposed and was unanimously approved for a second and final term as TC 13 chair.
- Updates on conferences and future events, including **HCSE 2020 conference**, **INTERACT 2021**, and the **business meeting N.49** planned for 2020.

#### TC 13 Members and officers

(M) Philippe Palanque, France, IFIP TC13 **chair** (2019-2022)

(M) Jan Gulliksen, Sweden, IFIP TC13 **vice-chair for Growth and Reach out**

(F) Paula Kotze, South Africa, IFIP TC13 **vice chair for Awards**

(F) Simone Barbosa, Brazil, IFIP TC13 **vice chair for Working Groups**

(F) Virpi Roto, Finland, IFIP TC 13 **vice chair for finances**

(F) Helen Petrie, UK, IFIP TC13 **vice chair for Communications**

(M) Marco Winckler, France, IFIP TC13 **Secretary**

(M) Anirudha Joshi, India, IFIP TC13 **chair of the INTERACT Steering Committee**

(M) Julio Abascal, Spain, IFIP TC13 **vice chair for Development and Equity**

#### Updates on TC13 members

- **Julio AbascalChair** (Universidad del País Vasco-Euskal Herriko Unibertsitatea, Spain) was appointed as vice-chair for **Development and Equity**
- **Bruno Dumas** (Belgium) <https://directory.unamur.be/staff/bdumas> was appointed as representative by the IMEC – Interuniversity Micro-Electronics Center.
- **Thilina Halloluwa** (Sri Lanka, University of Colombo), was appointed as representative by The Computer Society of Sri Lanka CSSL
- **Shengdong Zhao** (Singapore) was appointed as representative by the Singapore Computer Society.

#### TC13 business meeting (N. 48)

The business meeting N. 48 was initially planned to be held in March in Milan, however, due to the covid-19 pandemic it was postponed and finally run virtually on June 22, 2020. The Open Symposium which was planned as part of the activities for 2020 was cancelled.

The main items discussed during the TC13 business meeting N. 48:

#### Updates of conferences planned for 2020:

- The conference **HCSE 2020** jointly organized by the WG 13.2 and WG 13.5, originally schedule to June is postponed to November 2020. The conference is still expected to run physically. Further information at: <http://hcse-conference.org/>
- The conference **EICS 2020** supported by the WG 13.4/2.7 (UI Engineering) <https://eics.acm.org/2020/> and originally planned to be held in Sophia Antipolos,

France, in June 2020, had the physical meeting cancelled due the covid-19 pandemic. The conference was not organized virtually. As the conference follows a revise and resubmit process with 3 rounds of submissions, the review process was maintained, completed and accepted submissions are already available in the ACM DL. The authors of accepted contributions have been invited to present their work during the next edition (EICS 2021 in Eindhoven <http://eics.acm.org/eics2021/index.html>).

- The conference Interaction Design and Children (**IDC 2020**), supported by the working group WG 13.9, was held virtually on June 17-24, 2020. Further information at: <https://idc.acm.org/2020/>

### Election of the TC13 chair

**Philippe Palanque** was elected unanimously for a second term as TC13 chair and entitled.

### Quick check for pending actions

#### a. IFIP HCI Summer School

David Lamas and José Nocera made an update on the proposal of running a summer school on HCI research methods. This discussion started in Cyprus and we are now actively moving this forward to make a new proposal next year.

#### b. IFIP fellows nominations & other awards

Members of the TC13 were recalled to send to Paula Kotzé, vice-chair for awards, the nominations to the IFIP TC 13 Pioneers including names of renowned researchers and educators in HCI for nomination.

### Upcoming conferences and events

#### TC13 business meeting (N. 49)

We still plan to have a physical meeting by the end of 2020 the sanitary conditions permit. The idea is to host the business meeting alongside one of the following conference venue: NordiCHI'20 or HCSE'20. The location will be selected according to the offered facilities. This TC13 meeting might be organized before or after the hosting conference (to be decided). In any case, the meeting will happen in a hybrid model (both physical and virtual) allowing TC 13 meeting to attend in any case.

Preliminary for the agenda of next meeting:

- i. Report of INTERACT 2019
- ii. INTERACT 2023 site selection
- iii. Updates on Working groups
- iv. Report of the Web site
- v. Report of Steering Committee
- vi. Call for hosting the location of the next business meetings

#### **HCSE 2020, Eindhoven, The Netherlands, France – November 30-December 2, 2020**

HCSE 2020 is the 8<sup>th</sup> International Working Conference on Human-Centered Software Engineering. It is going to be held in Eindhoven, Netherlands, from November 30-December 2, 2020. The organizers are Regina Bernhaupt, Carmelo Ardito, and Stefan

Sauer, also the officers of the Working Group of 13.2. The proceedings will be published by Springer in the LNCS series. Further information at the web site: <http://hcse-conference.org/>

**EICS 2021, Eindhoven, The Netherlands, June 2021**

The EICS 2021 is supported by the working group 2.7/13.4. The organizers are Panos Markopoulos (general chair), Jun Hu and Philippe Palanque (Technical Programme Chairs). Proceedings are published as part of the EICS PACMHCI Proceedings of the ACM on Human-Computer Interactions. Further information on the web site <http://eics.acm.org/2021/>

**HWID 2021, Beijing, China, May 15-16, 2021**

The WG 13.6 (Human-Work Interaction Design) propose to organize the conference HWID in 2021. The organizers are Barbara Rita Barricelli, and Xiangang Qin (General Chairs). Further information at: <https://www.hwid2021.com/>

**TC13 INTERACT 2021, Bari, Italy, August 30-September 3, 2021**

The TC13 INTERACT conference will be held in Italy from August 20<sup>th</sup> to September 3<sup>rd</sup> 2021. The organizers are Paolo Buono and Catherine Plaisant (General Chair) and Carmelo Ardito, Rosa Lanzilotti, and Alessio Malizia (Technical Program chairs). Further information at: <http://www.interact2021.org/>. The PC meeting is planned to March 2021, location to be defined.



## 14.12 TC14: Entertainment Computing

(Rainer Malaka, Chair of TC14)

### 1. TC14 meetings held since September 2019

#### 1.1 Twenty-eighth meeting

The twenty-eighth TC14 business meeting took place on November 14, 2019 at the site of the combined conferences of the International Conference on Entertainment Computing and Joint Conference on Serious Games ICEC-JCSG 2020, at San Pablo University in Arequipa, Peru.

#### TC officers:

Chair	Rainer MALAKA (Prof., Univ. of Bremen)
Vice-chair	Letizia JACCHERI (Prof., Norwegian Univ. of Science and Technology)
Vice-chair	Esteban CLUA (Prof., Federal Univ. Fluminense)
Vice-chair	Junichi HOSHINO (Assoc. Prof., Univ. of Tsukuba)*
Secretary	Erik VAN DER SPEK (dr., Eindhoven Univ. of Technology)

#### National Representatives:

Austria	AT	Helmut HLAVACS (Univ. of Vienna)
Brazil	BR	Esteban CLUA (Federal Univ. Fluminense)
China	CN	Zhigeng PAN (Zhejiang Univ.)
Czechia	CZ	David OBDRZALEK (Charles Univ.)*
Germany	DE	Rainer MALAKA (Univ. of Bremen)
Japan	JP	Junichi HOSHINO (Tsukuba Univ.)*
Netherlands	NL	Matthias RAUTERBERG (Eindhoven Univ. of Technology)
Norway	NO	Juan Carlos TORRADO (proxy for Letizia JACCHERI)
(NTNU)		
Portugal	PT	Nuno CORREIA (Univ. Nova Lisbon)
South Africa	SA	Gunther DREVIN (North West Univ.)*

#### WG chairs:

WG14.10 Chair: Rodrigo SCHRAMM (Federal Univ. Rio de Grande Sol)\*

#### Observers:

Alex CUADROS VARGAS (San Pablo Catholic Univ.)

#### Honorary Members:

Nahum GERSHON (MITRE) **Attendance by teleconference**

#### 1.2 Twenty-ninth meeting

The twenty-ninth TC14 business meeting took place on May 15, 2020 via teleconference software.

#### TC officers:

Chair	Rainer MALAKA (Prof., Univ. of Bremen)*
Vice-chair	Letizia JACCHERI (Prof., Norwegian Univ. of Science and Technology)*
Vice-chair	Esteban CLUA (Prof., Federal Univ. Fluminense)*
Secretary	Erik VAN DER SPEK (dr., Eindhoven Univ. of Technology)*

## **National Representatives:**

Austria	AT	Helmut HLAVACS (Univ. of Vienna)*
Brazil	BR	Esteban CLUA (Federal Univ. Fluminense)*
China	CN	Zhigeng PAN (Zhejiang Univ.)*
Czechia	CZ	David OBDRZALEK (Charles Univ.)*
Germany	DE	Rainer MALAKA (Univ. of Bremen)*
France	FR	Jerome DUPIRE (CNAM)*
Italy	IT	Paolo CIANCARINI (Univ. Bologna)*
Netherlands	NL	Matthias RAUTERBERG (Eindhoven Univ. of Technology)*
Norway	NO	Letizia JACCHERI (NTNU)*
Portugal	PT	Nuno CORREIA (Univ. Nova Lisbon)*
South Africa	SA	Gunther DREVIN (North West Univ.)*

## **WG chairs:**

WG14.5 Chair:	Rod McCALL (Luxembourg Inst. of Science and Technology)*
WG14.7 Chair:	Jun HU (Eindhoven Univ. of Technology)*
WG14.8 Chair:	Jannicke BAALSRUD HAUGE (KTH)*

## **Observers:**

Nikitas SGOUROS (Univ. of Piraeus)\*

## **Honorary Members:**

Ryohei NAKATSU (Kyoto Univ.) Attendance by teleconference

## **Agenda:**

1. Opening, agenda and minutes
2. Members (welcome to new members, how to approach member societies to send representatives)
3. Report from the chair including report on budget, and IFIP matters
4. Reports from officers, WG-chairs
5. ICEC 2020 current status of organization
6. Future ICECs, Bids, timing
7. ICEC Steering Board, handbook etc.
8. ENTCOM journal progress and editorial board
9. TC14 future development
10. Dates for next meetings
11. Any other business

## **2. TC14 meetings scheduled until next IFIP General Assembly**

The 30<sup>th</sup> TC14 meeting will be held during the International Conference on Entertainment Computing Conference ICEC 2020 in November 2020, organized by Northwest A&F University (China), Xi'an University of Technology (China), and Hangzhou Normal University (China).

The 31<sup>st</sup> TC14 meeting will be held via teleconference software in May 2021.

## **3. Changes in membership and officers**

There have been no changes in memberships or officers since the last report, barring the removal of representatives of countries that stopped being an IFIP member

#### **4. TC14 conferences held since 2019**

##### **4.1 Sponsored events**

###### **ICEC-JCSG 2020 held at Universidad Catolica de San Pablo, Arequipa, Peru**

Held November 11-15, 2020

###### General Chairs

Esteban Clua Fluminense Federal University, Brazil  
Jannicke Baalsrud Hauge KTH, Sweden; BIBA, Germany  
Alex Cuadros-Vargas Universidad Catolica San Pablo, Peru

###### Program Chairs

Erik van der Spek Eindhoven University of Technology, Netherlands  
Stefan Gobel Technische Universitat Darmstadt, Germany  
Ellen Yi-Luen Do University of Colorado Boulder, USA

###### Workshop Chairs

Paolo Ciancarini University of Bologna, Italy  
Erick Gomez-Nieto Universidad Catolica San Pablo, Peru

###### Doctoral Consortium Chair

Helmut Hlavacs University of Vienna

###### Demonstration Chairs

Javier Gomez Escribano Autonomous University of Madrid, Spain  
Marc-Antoine Le Guen Universidad Catolica San Pablo, Peru

###### Tutorial Chairs

Artur Lugmayr Curtin University, Australia  
Johan Baldeon Pontical Catholic University of Peru, Peru

###### Publicity Chairs

Letizia Jaccheri Norwegian University of Science and Technology,  
Norway  
Minhua Eunice Ma Staffordshire University, UK

##### **4.2 Co-Sponsored events**

No co-sponsored events.

#### **5. TC14 conferences to be held**

ICEC2020 will be organized by Northwest A&F University, China

Held November 10 – 13, 2020

###### General chairs

Zhigeng Pan - Hangzhou Normal University, CN  
Nuno Correia - New University of Lisbon, PT

###### Local Organization chairs

Hongming Zhang - Northwest A&F University, CN  
Meili Wang - Northwest A&F University, CN  
Haiyan Jin - Xian University of Technology, CN

###### Program chairs

Junichi Hoshino - University of Tsukuba, JP  
Lizhuang Ma - Shanghai Jiao Tong university, East China Normal University, CN  
Nuno Nunes - Human-Computer Interaction Institute, PT

## **6. Other TC14 activities**

### **6.1 Conference Proceedings**

The proceedings of ICEC2019 have been published from Springer as one of the LNCS series.

### **6.2 Publications**

In 2009 TC14 and Elsevier started a new International Journal on 'Entertainment Computing'. Contracts have been signed and exchanged between IFIP, IFIP TC14 and Elsevier. Also we have composed a group of Editors-in-Chief, Co-Editors-in-Chief and Associate Editors. Already several issues of the journal have been published.