



**Technical Committee on Computer Communications** 

December 2019 Newsletter

http://cs-tccc.org/

### **Editorial**

The end of the year 2019 is approaching, and we are pleased to send you a copy of the December 2019 newsletter today. As usual, it summarizes recent TCCC activities and provides you with information on upcoming conferences in the field of computer communications. This issue of the TCCC Newsletter has been edited by TCCC Communications Chair Matthias Frank (<a href="matthew@cs.uni-bonn.de">matthew@cs.uni-bonn.de</a>). Reach out to him if you have any content to publish in a future issue.

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### TCCC supported activities at a glance

### 1. A Message by the TCCC Chair

### By Andreas Reinhardt (TU Clausthal, Germany)

Computer communications have impacted humankind in countless unforeseeable positive ways, but the communications between us humans remain as important as ever. It has been a little more than one year since I was elected to serve as the chair of the IEEE Computer Society Technical Committee on Computer Communications, or TCCC for short. In this message, I would like to reach out to all members to briefly report on the current situation of our committee, its recent accomplishments, as well as the vision for the future of TCCC.

- 1. TCCC is growing at a slow but steady pace. There are currently more than 2,600 registered members around the globe. Around 10-20 new people interested in computer communications join us every month. You can meet many of them at the conferences we sponsor, particularly our flagship conference IEEE LCN. Did you know? TCCC has been established in the late 1970s, so you can proudly call yourself a member of one of the oldest technical committees of the IEEE Computer Society. Our History Chair, Joe Bumblis, has compiled a number of interesting artifacts about the TCCC's long-standing history at <a href="https://cs-tccc.org/history/">https://cs-tccc.org/history/</a>
- 2. The TCCC executive committee, i.e., the volunteers who provide you with the benefits of TCCC membership, has undergone some changes after the 2018 elections. Nils Aschenbruck, formerly TCCC Chair, is now the Past Chair. There are no more Hot Topic Area Chairs; there are simply too many hot topics to cover them all! Burkhard Stiller and Salil Kanhere have instead been re-nominated to serve as Conference Liaison Chairs. They oversee our portfolio of sponsored conferences and act as first points of contact for conference organizers. The newly created role of the Student Outreach Chair, held by Matthias Wübbeling, has been implemented to coordinate activities for early-career researchers and provide ways for them to join our community. Lastly, Girish Revadigar, Huawei International Pte. Ltd. (Singapore), now serves as our Industry Chair. He will try to work out recommendations on how TCCC can support conference organizers to cater to a more balanced participation of people from academia and industry alike. You can always find an up-to-date list of all our executive committee members at https://cs-tccc.org/whoweare/
- 3. You may have noticed that newsletters have started to circulate on our TCCC mailing list (to which you as a member are automatically subscribed) in the recent past. We hope that you appreciate this short summary of the TC's activities, upcoming conference deadlines, and reports of interest to the community. If there's something you would like to contribute or anything you dislike, it's easiest to directly reach out to our communications chair (Matthias Frank <a href="matthew@cs.uni-bonn.de">matthew@cs.uni-bonn.de</a>). And don't worry if you only recently joined TCCC and suffer from the 'fear of missing out': We've compiled all past newsletters that we could get hold of (all the way back to the year 2004) at <a href="https://cs-tccc.org/newsletter/">https://cs-tccc.org/newsletter/</a>, so you can easily catch up.

### A Message by the TCCC Chair (ctd.)

4. We are proud to continue our generous support that makes it possible for students to attend conferences in our portfolio. Many of the recipients would not have been able to present their papers otherwise. If you feel like there should be another one of our sponsored conferences providing such support, feel free to reach out to our Student Outreach Chair (Matthias Wübbeling matthias.wuebbeling@cs.uni-bonn.de). We also support the N2WOMEN network to create professional networks between researchers working in the field of computer networking. Moreover, TCCC was also the sponsor of the 1st International TCCC Student Foosball tournament held at IEEE LCN 2019. Find a report and a photo of the winning team below, and stay tuned for more events to come. And if you are the advisor of PhD students, please encourage them to join the next event (and of course you yourself are welcome, too)!

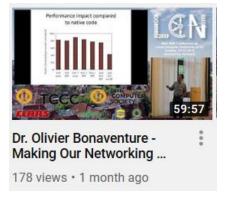
5. Last, but not least, what is planned next for TCCC? Budgetary challenges within the IEEE Computer Society made it a little complicated for us to operate according to our original plans in 2019. Thanks to reorganization efforts, however, we could at least to keep our commitment on the support of student participation and N2WOMEN meetings. We are looking forward to a more prosperous 2020, and are confident we will regain the possibility to (1) continue our long-standing support for conferences to create technical programs of outstanding quality, (2) provide the support needed by students and underrepresented minorities to become part of the scientific community, (3) foster the creation of professional networks between academics and professionals at all stages of their careers.

I wish you an enjoyable holiday season and look forward to meeting you at some event supported by TCCC in the coming year.

### 2. IEEE LCN 2019 keynote videos on YouTube

This year, the keynote and presentation videos of IEEE LCN 2019 will be published step by step, each video after the corresponding post processing has been completed by the LCN Media Chair Fabian

Marquardt.





Make sure to subscribe to the YouTube channel named "IEEE LCN" to get automatic notification of the other upcoming presentation recordings of LCN 2019.

### 3. Grants and Awards at IEEE LCN 2019 in Osnabrück

The IEEE Computer Society Technical Committee on Computer Communications (TCCC) provided support for several student travel grants for non-EU based students to attend the conference and co-located events.

The students receiving travel grants were Jaybie de Guzman (University of New South Wales, Australia, 2<sup>nd</sup> from the left), Durgesh Singh (Indian Statistical Institute, India, 3rd from the left), Alejandra **Duque-Torres** (University of Cauca, Colombia, 4th from the left) and Arunan Sivanathan (University of New South Wales, Australia, 5<sup>th</sup> from the left). The photo also shows Martine S. Lenders (2<sup>nd</sup> from the right), organizer of this year's N2Women event at LCN 2019, Soumaya Cherkaoui (on the right), LCN 2019 General Chair, and Andreas Reinhardt (on the left), TCCC Chair.





The LCN 2019 best paper award was presented to Jonas Höchst and Artur Sterz (plus co-authors) for their paper entitled "Learning Wi-Fi Connection Loss Predictions for Seamless Vertical Handovers Using Multipath TCP". The photo also shows Karl Andersson, LCN 2019 Program Chair (on the left), and again Soumaya Cherkaoui.

Photos: Fabian Marquardt (LCN 2019 Media Chair)

The LCN 2019 best demo award was presented to Stefanie Thieme, Bertram Schütz, Leonhard Brüggemann and Nils Aschenbruck (plus Dominic Laniewski, who is not in the photo) for their demo entitled "Link 'Em: An Open Source Link Emulation Bridge for Reproducible Networking Research".

The photo also shows Katrin Reitsma (3<sup>rd</sup> from the left), LCN 2019 Demo Chair, and once again Soumaya Cherkaoui, LCN 2019 General Chair.



### 4. N2Women Panel at IEEE LCN 2019 in Osnabrück

By Martine Sophie Lenders (Freie Universität Berlin, Germany)



At this year's IEEE Local Computer Networks (LCN) Conference in Osnabrück, Germany, a N2Women event was organized by Martine S. Lenders (Freie Universität Berlin, Germany) on October 16th, 2019 9:30-10:30. The meeting was held as a panel with the topic "Bridging the Gap Between Research and Engineering".

Photos: Fabian Marquardt (LCN 2019 Media Chair)

The panelists were (from left to right) Dr. Katrin Reitsma (Motorola Inc., Solutions, United States), Martine S. Lenders Soumaya herself, Prof. Cherkaoui (Université de Sherbrooke, Canada), and Prof. Anna Förster (University of Bremen, Germany).



Find a separate report at

https://labs.ripe.net/Members/martine\_sophie\_lenders/networking-networking-women-at-ieee-lcn-2019/

For the date and location of the next N2WOMEN meeting, please refer to <a href="https://n2women.comsoc.org/meetings/">https://n2women.comsoc.org/meetings/</a>

## 5. Report from 1st TCCC (Student) Foosball Tournament @LCN2019

### By Matthias Wübbeling (TCCC Student Outreach Chair)

Co-located with the 44th Conference on Local Computer Networks (LCN) in Osnabrück, the 1st TCCC Foosball Tournament (table soccer for those who don't know the term Foosball) took place. The tournament was organized by the TCCC Student Outreach Activities Group led by its chair Matthias Wübbeling. The pub "Grüner Jäger" in the Osnabrück city center was chosen as location because it provides enough room for the participants and provides two foosball tables that could be exclusively used during the whole event.

With 28 participants, i.e. 14 teams with 2 players each, the expectations of the organizers were exceeded by far. In order to determine the teams for the shootout phase, a ladder mode with 5 matches per team has been scheduled. In these 35 ladder matches, 385 goals have been scored in about 2 hours. This is a new world record for TCCC foosball tournaments so far. The team who first scores 6 goals won the game and was awarded with 3 ladder points. Right after the ladder matches, the best 8 teams advanced to the final round.



The winner team "404", Stephanie Tieme and Timmy Schüller, with Matthias Wübbeling (from left to right) Photo: Thomas Hänel

The teams have been mapped to the single elimination shootout roster based on their ladder rank. In the shootout phase the match mode changed to "best of 3 legs", which means that a team advances to the next round after winning 2 legs. In the end, team "404" from the University of Osnabrück could win the final match against team "Verpeilte Systeme" from Cottbus and received the TCCC winner trophies.

### 6. Report from IEEE RADIO 2019, Reunion Island

#### Note from the editor:

Miroslav Skoric (TCCC member) kindly volunteered to send a report from attending IEEE Radio and Antenna Days of the Indian Ocean (RADIO) 2019, held in September 2019 in Reunion Island. Although IEEE RADIO 2019 is not a TCCC supported conference, the report might be of interest to TCCC members.

If you would like to volunteer to send conference reports from other conferences related to computer communications, please contact us!

### By Miroslav Skoric (IEEE Senior Member, Secretary of Amateur radio union of Vojvodina, Serbia)

Besides its other qualities, IEEE RADIO 2019 offered an opportunity for increasing awareness in research and scientific communities for amateur radio communications and their usefulness in emergency situations. Having in mind that the region of Indian Ocean is prone to natural disasters such as hurricanes and tsunamis caused by earthquakes, the conference opened a discussion on what would be possible to do in the future - with the help of radio 'hams'.

In that direction, it was the great pleasure to participate in a first special session dedicated to educational, research, and first-responders' activities of regional radio amateurs. The speakers for that session came from Reunion Island and Mauritius, while valuable comments came from other conference participants, among whom were researchers from Madagascar and Uganda, to name a few.

It was concluded that some efforts shall be made to get together radio amateurs from continental African countries, as well as those from the islands mentioned, to discuss about implementing an early warning system on weather-related disasters like incoming hurricanes in Indian Ocean coming towards the African coast, etc. Some conference participants from overseas also offered hand in supporting such project. The times in front of us will show whether radio amateurs in that part of Indian Ocean region will obtain enough logistics and other support from their nations to make the project feasible. Next IEEE RADIO conference will probably give some more airing to that initial idea.

The amateur radio session was preceded by a conference tutorial session, given by Miroslav Skoric, YT7MPB, the Secretary of Amateur radio union of Vojvodina (Serbia). Tutorial gave an opportunity to the conference participants to learn more about recent efforts in European amateur radio communities (and other users) to adopt various digital systems for communication (such as DMR - "Digital Mobile Radio"), as well as various 'data' modes (Packet-radio, Pactor, BPSK, etc.). During the three conference days, an ad-hoc amateur radio station for international HF frequencies was set up at the conference room. The tutorial speaker used the radio to establish communication with surrounding environment, by using special amateur radio identifiers TOOMPB and TOO19IEEE, granted by French telecommunications authorities in Paris.

### 7. TCCC Sponsored Conferences

### **IEEE International Conference on Pervasive Computing and Communications** (Percom)

IEEE PerCom is the premier conference for presenting scholarly research in pervasive computing and communications. Advances in this field are leading to innovative platforms, protocols, systems, and applications for always-on, always-connected services. In 2020, PerCom will visit Austin, the capital of Texas and the eleventh largest city in the US. It is known as the "live music capital of the world", is famous for its barbecue, and is a progressive techcentric town.



http://www.percom.org/

IEEE PerCom 2020 will be March 23 – 27, 2020, in Austin, Texas (USA).

### IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM)

The evolution of wireless networking technologies and their key role in future Internet scenarios offer an increasing wealth of opportunities for distributing multimedia contents wireless over networks, enabling dissemination professional contents to mobile users as well as sharing user-generated contents among them. Users will be able to retrieve, publish, manage information, and communicate with other users or devices, access and author services, and create and exploit context-awareness.

The 21st IEEE WoWMoM will be in Cork, Ireland in June 2020.



### **TCCC Sponsored Conferences (continued)**

### **IEEE International Conference on Local Computer Networks (LCN)**

The IEEE LCN conference is the premier conference on theoretical and practical of aspects computer networking. LCN is highly interactive, enabling effective interchange of results and ideas among researchers, users, and product developers. Major developments from highspeed networks to the global Internet to specialized sensor networks have been reported at past LCNs.



http://www.ieeelcn.org/

IEEE LCN 2020 will be November 16 – 19, 2020, in Sydney, Australia, for the third time.

### IEEE International Performance Computing and Communications Conference (IPCCC)

The International Performance, Computing, and Communications Conference is a premier IEEE conference presenting research in the performance of computer and communication systems. For over three-and-a-half decades, IPCCC has been a research forum for academic, industrial, and government researchers.

IPCCC 2019 was in London (England, UK), October 29th – 31st, 2019.



http://ipccc.org/

The next IPCCC location and time are not yet known.

### **TCCC Featured Conferences**

### **IEEE International Conference on Smart Computing (SMARTCOMP)**

SMARTCOMP is about smart computing innovations in all different technology aspects including pervasive/ubiquitous computing, cloud computing, sensor networks, internet of things, big data analytics, security and privacy, social computing, cognitive computing, cyber-physical systems with their



validation within smart computing environments, and applications such as smart buildings, smart cities, smart grids, precision agriculture and other societal applications contributing to smart living.

http://www.smart-comp.org/

The 6th edition of SMARTCOMP will be in Bologna, Italy 22-25 June 2020.

### **Recent Technically Co-Sponsored Conferences**

- 34th of the International Conference on Information Networking (ICOIN 2020) <a href="http://www.icoin.org/">http://www.icoin.org/</a>
- 15th International Conference on Network and Service Management (CNSM 2019) <a href="http://cnsm-conf.org/2019/">http://cnsm-conf.org/2019/</a>
- 12th International Conference on Mobile Computing and Ubiquitous Networking (ICMU 2019) <a href="http://www.icmu.org/icmu2019/">http://www.icmu.org/icmu2019/</a>
- 18th IFIP Networking 2019 Conference (NETWORKING 2019) <a href="https://networking.ifip.org/2019/">https://networking.ifip.org/2019/</a>
- International Conference on Networked Systems (NetSys 2019) <a href="http://netsys2019.org/">http://netsys2019.org/</a>

For a full list of past technically co-sponsored TCCC conferences see <a href="https://cs-tccc.org/sponsored/tcs/">https://cs-tccc.org/sponsored/tcs/</a>

### 8. Calendar of upcoming (TCCC) conference deadlines & dates

### Submission deadlines:

January 8, 2020 (extended!)

January 17, 2020

IEEE WOWMOM abstract submission

IEEE SMARTCOMP paper registration

March 15, 2020 (to be confirmed) IEEE WoWMoM workshop papers due

April 6, 2020 IEEE SMARTCOMP workshop paper submission

May 22, 2020 IEEE LCN conference paper registration June 5, 2020 IEEE LCN symposium paper submission

### Dates of the conferences:

January 7-10 34<sup>th</sup> ICOIN, Barcelona (Spain)

March 23-27, 2020

June 15-18, 2020

June 22-25, 2020

October 14-17, 2019

18<sup>th</sup> IEEE PerCom, Austin Texas (USA)
21<sup>st</sup> IEEE WoWMoM, Cork (Ireland)
6<sup>th</sup> IEEE SMARTCOMP, Bologna (Italy)
45<sup>th</sup> IEEE LCN, Sydney (Australia)

TBD 39<sup>th</sup> IEEE IPCCC

### 2019 TCCC Executive Committee

The Executive Committee of the TCCC is chaired by the TCCC Chair, directs the operations of the TCCC and determines the budget and nature of TCCC activities:

TCCC Chair: Andreas Reinhardt, TU Clausthal, Germany

TCCC Past Chair: Nils Aschenbruck, University of Osnabrück, Germany

Treasurer: Frank Huebner, U.S.A.

Conference Liaison Chairs: Salil Kanhere, The University of New South Wales, Australia

Burkhard Stiller, University of Zürich, Switzerland

Industry Chair: Girish Revadigar, Huawei International Pte. Ltd., Singapore

Student Outreach Chair: Matthias Wübbeling, University of Bonn and Fraunhofer

FKIE, Germany

History Chair: Joe Bumblis, IEEE TCCC Executive Committee, U.S.A.

Communications Chair: Matthias Frank, University of Bonn, Germany

TCHPC Representative: Anura Jayasumana, Colorado State University, U.S.A.

# What would you like to read in the next TCCC newsletter?

### **Call for contributions!**

We are soliciting contributions for our TCCC newsletter. This maybe any piece of information like

- Call for Papers/Workshops/Demos/Posters/Participation/...
- Job offer related to TCCC
- Information of general relevance for the TCCC members
- Information on conference award recipients (best paper, best demo, travel grants, ...)
- Experience reports from conferences and workshops

If you are missing an important topic that should be mentioned as well, please let us know! (<a href="mailto:matthew@cs.uni-bonn.de">matthew@cs.uni-bonn.de</a>) We plan to send out a TCCC newsletter about every few months, depending on availability of relevant content.



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