



Internet Technical Committee Meeting

May 22, 2018 Kansas City, USA

Dijiang Huang (Arizona State University, USA)





Meeting Agenda

- 1. Introduction
- 2. Approval of last meeting minutes
- 3. Conference activities
- 4. ITC awards
- 5. IRTF activities
- 6. IEEE ComSoc Student Competition
- 7. Recertification
- 8. Fall elections
- 9. Open discussions and other business
- 10. Adjourn





1. Introductions

Structure: IEEE, ComSoc, and TAC

IEEE

IEEE Communication Society (ComSoc)

One of the 38 societies of IEEE

ComSoc Technical & Education Activities (TEA)

- Members: VP Technical Activities, TAC Vice-chair,
 TC Chairs and Vice-chairs
 - 27 TCs, 7 Emerging Tech. Initiatives: http://www.comsoc.org/about/committees/Technical
 - Internet TC is a joint tech. committee of ComSoc and ISOC





1. ITC Officers

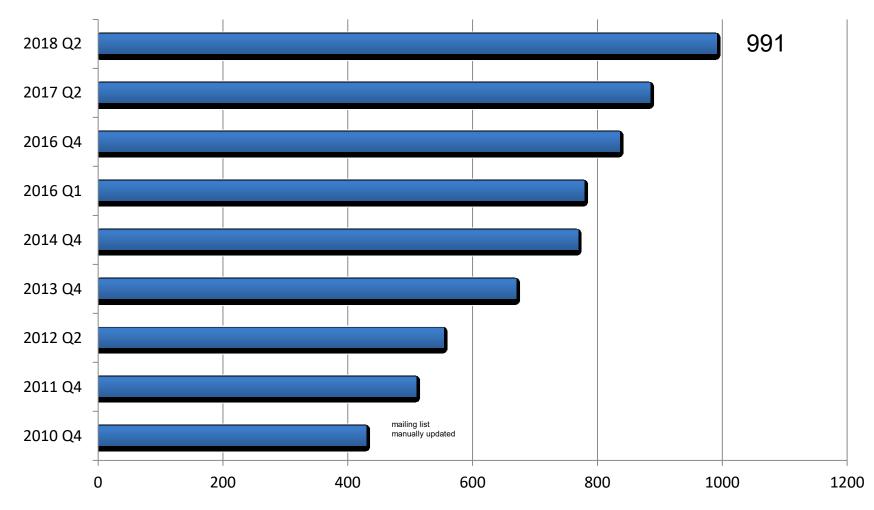
- Officers (2015-2017):
 - Chair:
 Dijiang Huang (Arizona State University, USA)
 - Vice-Chair:
 Michele Nogueira (Federal Univ. of Parana, Brazil)
 - Secretary:
 Paolo Bellavista (DISI, Università di Bologna, Italy)
 - Elected in Fall 2017.
 Next elections: Fall 2019.
- Previous Chairs (1995-2017):
 - Stefano Secci (2015-2017), J. Lloret-Mauri (2013-2015), Xiaoming Fu (2011-2013), Deep Medhi (2007-2011), Markus Hoffman (2004-2007), Joe Touch (2000-2004), Henning Schulzrinne (1995-2000)





1. ITC Community

ITC members



ITC Meeting, May 2017





1. ITC Community

ITC Mailing List

- 991 "correct" subscribers (2018 Q2)
- In the last 6 months:
 - 881 successful posts
 - 76 new completed subscriptions
 - 25 unsubscription
- Mailing list cleaning
 - Semi-automatically configured for users' deletion in case of "permanent" errors (no such user, no such host, etc.), e.g., after 5 bounces
 - Additional manual check on April'18





2. Approval of May 24, 2017, ITC Meeting Minutes

http://itc.committees.comsoc.org/meetings/itc-meeting-at-ieee-icc-2017-parisfrance-may-24-2017/





3. Conference Activities

- IEEE ICC & GLOBECOM 2017, 2018
- IEEE INFOCOM Global Internet Symposia
- Recently endorsed conferences
 - ITC, ICIN, DRCN, TMA, NETGAMES, and SCNS
 - Representatives, please check the website
 http://itc.committees.comsoc.org/activities/





3. ICC 2017



- ITC representatives:
 - Shiwen Mao, Auburn U, for NGNI
 - 181 TPC members
 - 213 submissions (179 reviewed, 34 withdrawn, 73 accepted)
 - 10 Lecture sessions and 4 Interactive Sessions
 - loannis Papanagiotou, Netflix, for SAC Cloud
 - 113 TPC members
 - 103 submissions (90 reviewed, 13 withdrawn, 32 accepted)
 - +43% (72) submissions increase wrt IEEE ICC 2016
 - +72% (60) submissions increase wrt IEEE GLOBECOM 2016





3. ICC 2018





IEEE International Conference on Communications

20-24 May 2018 // Kansas City, MO, USA Communications for Connecting Humanity

- ITC representatives: Deep Medhi (general chair), Michele Nogueira (NGNI), cochair, Dijiang Huang and Stefano Secci (publication co-chairs)
- Michele Nogueira and Hongbin Liu in the NGNI symposium;
- Giacomo Verticale for the Smart Grid Communications track.





3. ICC 2019



IEEE International Conference on Communications 20-24 May 2019 // Shanghai, China Empowering Intelligent Communications







 Stefano Secci (ITC) and Rami Langar (appointed by TCIIN) in the NGNI symposium.





3. GLOBECOM 2018



IEEE Global Communications Conference 9-13 December 2018 // Abu Dhabi, UAE Gateway to a Connected World







- ITC representatives:
 - Hongbin Lou (NGNI)
 - Giacomo Verticale (Smart Grid Communications SAC track)





3. GLOBECOM 2019

December 2019

Big Island, HI, USA

- ITC representatives:
 - Pietro Manzoni is the co-chair for SAC Internet of Things;
 - Alessio Botta is the co-chair of Next-Generation Networking and Internet Symposium.





3. 21th IEEE INFOCOM Global Internet Symposium

WORKSHOP ON GI 2018: IEEE GLOBAL INTERNET SYMPOSIUM

21st IEEE Global Internet Symposium (GI 2018)

In conjunction with IEEE INFOCOM 2018

15-19 April 2018, Honolulu, HI, USA

- 21th Global Internet Symposium at IEEE INFOCOM 2018
 - Co-chairs: Kevin C. Almeroth and Xenofontas Dimitropoulos
 - Keynote by Sonia Fahmy (Purdue)
 - 20 submissions, 7 accepted
 - Report: http://itc.committees.comsoc.org/report-on-ieee-infocom-global-internet-2018/





3. IEEE INFOCOM Global Internet Symposium

- Rule for the composition of the GISC (GI Steering Committee)
 - The ITC chair acts as GISC chair
 - one from each of recent 3-4 editions of GI, considering the institution/country/continent diversity maximization as first criterion.
- New GISC taking in charge GI'18 and GI'19
 - Dijiang Huang Chair/GISC [Chair/ITC] (ASU,USA)
 - Stefano Secci (UPMC, France)
 - Kevin Almeroth (UC Santa Barbara, USA)
 - Olaf Maennel (Tallinn University of Technology, Estonia)
 - Stefan Schmid (TU Berlin, Germany)
 - <u>Toru Hasegawa</u> (Osaka University, Japan)

- Thanks to outgoing members:
 - Jaime Lloret Mauri (UPC, Spain)
 - <u>Jun Li</u> (Oregon U., USA)
 - <u>Marcelo Bagnulo Braun</u> (UC3M, Spain)





3. IEEE GLOBECOM & ICC

Nominations – refresh on the procedure

- About the co-chair position: each symposium will have its own technical program committee that is managed by a set of 2-4 Symposium Co-Chairs. The co-chairs retain full responsibility for all aspects of the symposium technical program, including the shaping of its technical program, managing the review process, selecting accepted papers, and organizing its sessions. Symposium co-chairs are highly respected leaders in their fields of expertise, with outstanding records of IEEE publications and proven experience in the peer review process.
- Strongest profiles will be nominated so as to increase selection chances
- Send nominations to ITC_Officers@comsoc.org
- Next loop for ICC & GC '20 starting later in 2018







• ITC Representatives: Prosper Chemouil, Pedro Casas, Deep Medhi, Tobias Hoßfeld

Conference Statistics

submissions: 46

accepted: 18 (39.1%)

date of acceptance: May 8

Extras:

- 2 Workshops Network Calculus Workshop, PhD Workshop
- "ITC 30 Network Science Vision Day" where several top experts from the networking community will present their views and visions on the future smart world and the role of networking research in it (program finalized in May)
- Posters and demos (submission deadline not expired)





TMA 2018



- ITC representatives: Stefano Secci, Michele Nogueira, Pedro Casas
- The focus is on improving the practice or application of measurements, across the entire network stack up to the application layer, with an emphasis on new areas of network communication such as Software-Defined Networks, Cloud services, Content Distribution Networks, Social Networks, mobile applications and data centers. We also welcome more traditional measurement topics, such as traffic classification, anomaly detection, network performance evaluation and traffic analysis.
- Decisions pending and notifications being sent out soon



ICIN 2018





- ITC representative: Prosper Chemouil, Stefano Secci, Michele Nogueira
- number of submissions: 88
- date of acceptance decision: November 24th 2017
- acceptance rate: 27% (24/88)
- number of attendants: 137
- co-located workshops, total attendants = 49
 - DRCN 2018 (see the following slides)
 - NI 2018 (1st edition): 11 submissions, acceptance rate = 45.5%

In addition, within ICIN 2018: 2 Tutorials, 2 Keynote talks, 8 Technical sessions, 1 Invited session, 1 Panel session, 11 demonstrations over 3 days



DRCN 2018





ITC representatives: Jérémie Leguay, Stefano Secci, Michele Nogueira

- 14th EDITION
- It covered topics, among the others, of network design and operational aspects of reliability, survivability and traffic engineering for optical, IP and multi-layer networks, robustness of multi-domain network and protocol architectures, resilience in Software-Defined Networking (SDN), highavailability for Network Functions Virtualization (NFV) infrastructures, network dependability in cloud networking, dependability of cellular/mobile networks, resilience of Networked Services, Quality of Experience (QoE) and network service availability assessments, survivability of multimedia networks
- 26 submissions, 10 papers accepted, acceptance rate 38.5%
- Attendants around 25





8th International Conference

Network of the Future



November 22-24, 2017 London, United Kingdom

- General Chairs: Toktam Mahmoodi, Stefano Secci
- Program Chairs: Antonio Cianfrani, Filip Idzikowski
- Confirmed keynote speakers:
 - Mischa Dohler (IoE & beyond cellular)
 - Marco Fiore (mobile network analytics)
- Tutorials on unmanned vehicle networks, 5G slicing, etc
- ONOS Hackathon Session
- 65 submissions
- 22 accepted full papers
- Target acceptance ratio = 33.8%



NETGAMES 2018





- ITC representatives: Maha Abdallah, Sheng-Wei (Kuan-Ta) Chen, Carsten Griwodz
- The workshop is co-located with ACM MMsys conference, which got around 110 submissions for an acceptance ratio in the range 20-25%.
 Besides Netgames, three workshops are organized: Nossdav (26 submissions), Packet Video (25 submissions), MMVE (11 submissions)
- NetGames:
 - Decreased number of submitted papers: only 11
 - 5 accepted papers
- Merging Netgames and MMVE is an option for the future
- The conference will be held in June. In the 2017 edition of the workshop, around 30 people attended





3. Technical Co-Sponsorship Procedure

- Technical Co-Sponsorship refresh on the procedure
 - You are organizing a conference in the scope of ITC (i.e., Internet as primary scope)
 - TPC contains 3+ ITC members
 - Wish IEEE publication and ComSoc dissemination (magazines, etc)
 - Send required material to ITC_Officers@comsoc.org
 - Names of ITC members in the TPC
 - CFP in PDF & website
 - Topics related to the Internet scope
 - Acceptance statistics from the previous 3 events (if new, detailed description of the new event, targeted reach, target acceptance rate)
 - Do this at least 4 months before paper submission deadline, 6 months ahead the conference takes place
 - Do not show IEEE/ComSoc logos and "pending" string in CFP and website until approval





4. ITC Awards

Michele Nogueira, Stefano Secci May 22, 2018





4. Purpose and Considerations

- Recognize Individuals with Significant Contributions to the Field and the TC
- Promote and Raise Awareness of the Field and the TC

- Pool of Qualified Candidates; Sustainability
- Financial Means, Impact
- Selection Process Uniqueness of the TC





4. ITC Awards

- "ITC Best Paper" Award
 - Established in 2013
- "ITC Early Career" Award
 - Established in 2014
- "ITC Outstanding Service" Award
 - Established in 2014





4. ITC Best Paper Award

Eligibility:

- Only papers that have been published in conferences held during 2016 and 2017
- Conferences supported or endorsed by the Internet Technical Committee of the IEEE Communications Society
- List of conferences endorsed by Internet TC in 2016 and 2017 on the ITC website
- Self-nominations are accepted

Current selection committee (two years term)

- Stefano Secci (Sorbonne Univ.) Chair
- Pedro Casas (AIT)
- Stefan Schmid (UVienna)





4. ITC Best Paper Award

- Awardees (Announcement at TMA 2018):
 - Push Away Your Privacy: Precise User Tracking Based on TLS
 Client Certificate Authentication
 by Matthias Wachs, Quirin Scheitle and Georg Carle presented at TMA Conference 2017 (BPA @TMA Conference 2017)
 - Stochastic Dynamic Cache Partitioning for Encrypted
 Content Deliver
 by Andrea Araldo, György Dán and Dario Rossi
 presented at ITC28 2016





4. ITC Early Career Award

- Aim at an ITC member in the early career for his/her technical contributions in the area of Internet research and technology development
 - Within 10 years after PhD
 - No older than 40 years at the time of nomination
- Current selection committee:
 - Michele Nogueira (Federal Univ. of Paraná, Brazil) Chair
 - Tilman Wolf (UMass Amherst, USA)
 - Noa Zilberman (Univ. of Cambridge, UK)
- No awardee this year





4. ITC Outstanding Service Award

Aim:

 to an ITC member in recognition of excellent service rendered to the fields of ITC over a long period of time

Current selection committee:

- Michele Nogueira (Federal Univ. of Paraná, Brazil) Chair
- Tilman Wolf (UMass Amherst, USA)
- Noa Zilberman (Univ. of Cambridge, UK)

Awardee:

 (2018): Shiwen Mao, Auburn U. (for his service to the Internet technical community)





5. ITC Special Interest Groups (SIGs)

- Active
 - Location ID Separation
 - Information-Centric Networking
 - Network Support for Games
 - Network Measurement and Analytics
 - Internet Security NEW!
- Closed
 - Cloud Networking, Internet of Things





5. Internet Security SIG

- Activity
 - ONOS Security & Performance Brigade
 - SAC proposals at ICC/GC
- Lightening Talks provided in ICC 2017 ITC meeting
 - Sandra Scott-Hayward, QUB, Ireland
 - SDN Security What's done, what's next?
 - Nirmala Shenoy, RIT, USA
 - A Secure Routing Architecture





5. Call for new Special Interest Groups

- New propositions are welcome!
- A SIG is generally opened
 - on a very recent subjects in Internet-working,
 - if there is a clear activity related to the subject,
 - Conferences, workshops, special issues, standardization, large research projects, etc.
 - in which ITC members are involved and willing to report.
 - Please send propositions to ITC_officers@comsoc.org





6. IRTF Activities Report

Dimitri Papadimitriou
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Bell Labs

No significant updates from the report in ICC 2017





7. IEEE ComSoc Student Competition

- Communication Technology Changing the World
 - Goal: <u>recognize</u> students or teams of <u>students</u> with the capacity to <u>improve</u> <u>people's lives</u> through <u>communication technology</u> and the development of projects that meet the human needs of people

Prizes

- 1st: USD \$2000 + plaque
- 2nd: USD \$1000 + plaque
- All other projects judged meritorious by the evaluation committee will receive honorary certificates of appreciation by the IEEE Comsoc

Submission

- Follow the requirements provided by IEEE
- Project and optionally a video about the project
- Deadline was September 19, 2017 (extended deadline)
- http://www.comsoc.org/communications-technology-changing-world







Competition

- Number of eligible submissions: 23 (after removing those from no IEEE ComSoc Student Members) → less than in 2016 (36 submissions)
- Selection Committee
 - Co-Chairs: Prof. Stefano Bregni and Prof. Nelson Fonseca
 - 44 Members from different TCs
 - Same procedure and number of members than 2016
- Review and Selection Procedure
 - Phase 1
 - 23 submitted projects: divided in 3 subsets (7-8 projects each)
 - Committee: divided in 3 groups (14-15 members each)
 - Each member evaluated 7-8 projects: numerical scores attributed for each project

Phase 2

- Projects raked
- Each member voted for the best among the top 6-8 projects





7. IEEE ComSoc Student Competition

- **Results:**
 - 1st PRIZE

3D Air Pollution Monitoring System in Urban Areas using UAV Yuzhe Yang, Zhiwen Hu, & Zijie Zheng Peking University, China

2nd PRIZE

An Adaptive Physiology-Aware Communication Framework Mohammad Hosseini University of Illinois at Urbana-Champaign, USA

 "HONORARY MENTION" CERTIFICATES: 7 other project following the top ranked projects based on the members vote





7. IEEE ComSoc Student Competition

- Selection procedure practically the same than 2015 and 2016 editions
- This TC has supported and reported the idea of having a separate selection process for undergraduate and graduate projects





8. Recertification

- Recertification form submitted on March 2017
- Reported on the Active Membership issue raised in last recert as:
 - 12. DO YOU HAVE AN "ACTIVE" MEMBERSHIP TIER AND WHAT ARE THE ELIGIBILITY CRITERIA FOR ACTIVE MEMBERSHIP?

As per ITC bylaw, everything is performed by Internet and meeting participation is not an active membership criterion.

Nevertheless, a discussion and a survey with ITC members took place among all ITC members about the introduction of a definition of active membership, in order to meet the request of the last recertification. The outcome of the survey was the introduction of the following active membership definition:

"An ITC Member is an Active Member if he/she has been Ordinary Member for at least the last six months."

This definition appears to be compatible with the version of the ComSoc P&P in place at that time (likely unchanged until now), which differs from the ComSoc P&P document in place during the last recertification (the one making explicit reference to the need to have an active membership definition).

Lesson learned:

More details can be found in a meeting minutes at this page: http://itc.committees.comsoc.org/itc-e-meeting-friday-may-27-2016/

we had to report on ITC members being promoted to senior and fellow grades and indicated some names but likely not all → if you are promoted as Senior/Fellow (or need TC support for that), please contact itc officers@comsoc.org





8. Recertification

Results from GC 2017

TCs RECERTIFICATION STANDING COMMITTEE

Review Process Summary 6/8

- 6- Recertification Summary of Internet Technical Committee
 (ITC) 2017
- The TC is well run. The officers should take care of the following comments:
- WEBSITE contain the expected information. Some sections: Awards, Early Career and Service Awards should be kept updated.
- MEMBERSHIP Reasonable number of members with small participation to meetings. Active members are not requested to attend meeting. TC activities are run on Internet.
- IEEE COMSOC ACTIVITIES active in conferences, publications and standardization... Increase DLs, Senior Members and nominations for ComSoc awards
- ITC is approved for Recertification and it is suggested to further enhance the efforts to increase members participation on ComSoc activities







9. Fall elections

- Election committee (see P&P)
 - Current ITC chair and last two chairs + up to two additional members if needed
 - Xiaoming Fu, Jaime Lloret Mauri, Deep Medhi, Stefano Secci (chair)

Modalities:

- Via email. Instant Runoff Voting
- Nominations to be sollicited in July, 2019, with Sept as deadline
- Candidates announced in Oct.
- Request to register to vote sent on Oct.
- Voting decision by the end of Oct.





10. Other Business

- Technical & Educational Activity (TEA) council feedback
 - TC-specific award process may be synched at the ComSoc level
 - Discussion about the introduction of a Ph.D. thesis award
 - Internet TC recertification: review in june-august with other 7 TCs. Decision had been announced in GC'17 TEA meeting (We are OK for now ☺)

Join ITC:

- Join the mail list by sending an email to listserv@comsoc.org and type in the body of the message "join itc FirstName FamilyName"
- Participate/raise discussions in the list
- Provide your inputs and help





11. Adjourn

Next ITC meetings:

IEEE GLOBECOM 2018 or IEEE ICC 2019