# IFIP WG6.6 & IEEE CNOM Joint Meeting

## (Online Edition)

*December 4, 2020*

# Meeting Overview

1. Action points from previous meeting
2. Organization of journals and magazines in Network and Service Management domain
3. IEEE-Wiley Book Series on Network and Service Management
4. Organization of conferences and workshops (portfolio and technically co-sponsored events)
5. Conference ranking and required inputs
6. Update of CNOM TC P&P document, request for approval
7. Organization of activities in times of Covid19-measures
8. Starting SIGs (Special Interest Groups)
9. Network operations data management competition
10. Update of Network and Service Management taxonomy
11. Opportunities for young researchers

# CNOM

- IEEE organization into Societies
  - IEEE Communication Society composed of Technical Committees
    - **CNOM** (Committee on Network Operations and Management) Technical Committee dealing with network management and operations, and ultimately representing this community in IEEE structure

# CNOM

- CNOM officers (since 04/2019)
  - Chair: Filip De Turck, Ghent University-imec, Belgium
  - Vice-chair: Marinos Charalambides, Huawei Research, Belgium (was: University College London, UK)
  - TPC chair: Carol Fung, Virginia Commonwealth University, USA
  - Secretary: Carlos Raniery P. dos Santos, Federal University of Santa Maria, Brazil

# CNOM

- How to participate?
  - Subscribing to the CNOM mailing list
    - http://cnom.committees.comsoc.org go to "Members"
  - Becoming an *Active Member* by satisfying at least one of these conditions in the last two years:
    - Attended (physically or remotely) at least one CNOM meeting
    - Served as TPC or OC member of NOMS/IM, APNOMS, LANOMS
    - Served as an editorial board member or editorial advisory board member of JNSM, TNSM, or IJNM
  - Representing CNOM on ICC and GlobeCom Symposia
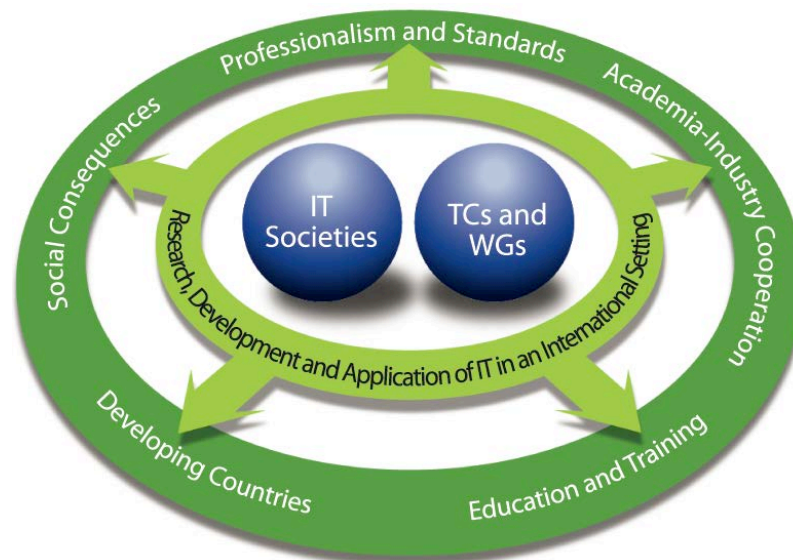    - ICC 2021/2022
    - GlobeCom 2021/2022

**TC 6
WG 6.6
Network &
Service
Management**

# ifip

- Non-governmental, not-for-profit umbrella organization of national learned societies working in the field of Information Technology

- Established in 1960 under the auspices of UNESCO as a result of the first World Computer Congress held in Paris in 1959

# ifip

## Technical Committees

**TC1**   Foundations of Computer Science

**TC2**   Software: Theory and Practice

**TC3**   Education

**TC5**   Information Technology Applications

## TC6  Communication Systems

**TC7**   System Modeling and Optimization

**TC8**   Information Systems

**TC9**   ICT and Society

**TC10**   Computer Systems Technology

**TC11**   Security and Privacy Protection in Inf. Processing  Systems

**TC12**   Artificial Intelligence

**TC13**   Human-Computer Interaction

**TC14**   Entertainment Computing

# ifip

## Technical Committee TC6

**WG 6.1**   Architectures and Protocols for Distributed Systems

**WG 6.2**   Network and Internetwork Architectures

## WG 6.6 Management of Networks and Distributed Systems

**WG 6.7**   Smart Networks

**WG 6.8**   Mobile and Wireless Communications

**WG 6.9**   Communications Systems for Developing Countries

**WG 6.10**  Photonic Networking

**WG 6.11**  Communication Aspects of the E-World

**WG 6.12**  Services-Oriented Systems

# WG6.6 Activities

- Joint work with IEEE CNOM
- Open platform for community building, animation, promotion and structure setting
- Co-organizing of conferences
- Promoting of journals
- Sponsoring excellence
  - Best paper awards (3-4 per year)
  - Student travel grants (+/- 10 per year)
- IFIP fees paid by the supported workshops and conferences are « re-invested » in our conferences for our community
- All the WG6.6 and CNOM involvement is volunteered
- On the IFIP WG6.6 side: encouraging the alignment of the WG6.6 supported conferences to the TC6 strategy on the Open Digital Library

# What does « WG6.6 Member » mean?

- IFIP WG 6.6 Officer
  - Chair: Rémi Badonnel – TELECOM Nancy, France (since 04/2019)
- Actively volunteer to
  - Contribute to reviews of the community conferences, workshops and journals
  - Encourage and do submissions to the community events and journals
  - Join TPCs and OCs
  - Be active in the mailing-lists
  - Participate to our conferences and meetings

# How to get involved?

- Participate to the WG6.6 meetings in our conferences
    - NOMS, IM, CNSM, TMA
- React and talk on the mailing list (222 pers.)

  **ifip_nm@lists.utwente.nl**

- Visit our IFIP WG6.6 website

  **wg66.ifip.org**



- Follow us on twitter

  **@ifipwg66**

# 1. Action points from previous meeting

1. Exchange of ideas/best practices for the organization of activities in times of Covid19-measures

   (point 7 of agenda)

2. Starting SIGs (Special Interest Groups)

   (point 8 of agenda)

3. Workshop on Challenges for the next decade

   (ongoing, planning a meeting with Vincent Chan in January)

4. Consider a Network operations data management competition

   (point 8 of agenda)

**2. Overview of journals, their impact factors, special issues and upcoming calls**

# IEEE Transactions on Network and Service Management (TNSM)

- EiC: Prof. Filip De Turck

- Journal with the highest impact factor within our community

  - Indexed by Scopus and many others

- http://www.comsoc.org/tnsm/

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| SJR | 0.291 | 0.577 | 0.369 | 0.717 | 0.649 | 0.663 | 0.63 | 0.846 | 1.359 |
| SNIP | 0.86 | 1.74 | 1.23 | 1.62 | 2.35 | 2.34 | 2.12 | 2.59 | 2.18 |
| Citations | 122 | 164 | 199 | 286 | 423 | 501 | 763 | 1220 | 1786 |

# IEEE Transactions on Network and Service Management (TNSM)

- Submission format: 12 pages +extra pages possible

- Regular calls + special issues + extended versions of best papers selected from conferences

- Current issue: Volume 17, Issue 3

- JCR Impact factor: 3.878

- **H-index: 43** (as of 11/20)

# TNSM Overview – Analytics
## *http://www.tnsm-overview.org*

# IEEE ComMag – Network Softwarization and Management

- Magazine Series Editors
  - Walter Cerroni, Alex Galis, Kohei Shiomoto, Mohamed Faten Zhani
- Consolidation of:
  - Telecom Software, Network Virtualization and Software Defined Networks
  - Network and Service Management
- http://www.comsoc.org/publications/magazines/ieee-communications-magazine
- JCR Impact Factor: 11.052
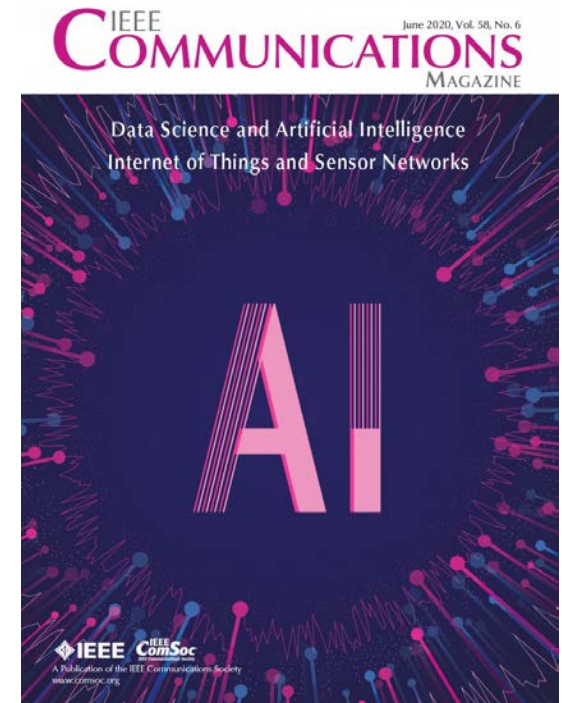
# IEEE ComMag - Network and Service Management Series

| Issue | Published | Submitted | Accepted | Acc. ratio |
|---|---|---|---|---|
| 16 | July 2013 | 21 | 4 | 19% |
| 17 | December 2013 | 22 | 5 | 23% |
| 18 | July 2014 | 22 | 4 | 18% |
| 19 | January 2015 | 18 | 3 | 17% |
| 20 | July 2015 | 16 | 4 | 25% |
| 21 | January 2016 | 28 | 4 | 14,3% |
| 22 | July 2016 | 16 | 3 | 18,8% |
| 23 | January 2017 | 18 | 2 | 11,1% |
| 24 | July 2017, Vol 55, No.7 | 23 | 4 | 17,4% |
| 25 | January 2018, Vol 56, No.1 | 19 | 3 | 15,8% |
| 26 | July 2018, Vol 56, No. 7 | 19 | 4 | 21% |
| 27 | January 2019, Vol 57, No. 1 | 21 | 4 | 19% |
| 28 | July 2019, Vol 57, No. 1 | 18 | 3 | 16,7% |
| 29 | March 2020, Vol 58, No. 3 | 16 | 3 | 18,8% |
| **1** | **October 2020, Vol 58, No. 10** | **23** | **6** | **26,1%** |

# Journal of Network and Systems Management (JNSM)

- EiC: Prof. Luciano P. Gaspary
- International journal published by Springer / 4 x year
- Current issue: Volume 29, Issue 1
- ISI impact factor:
  - 0.450 (2010)
  - 0.432 (2012)
  - 0.796 (2014)
  - 1,588 (2016)
  - 1,676 (2018)
  - **2.250 (2019)**
- **H-index (2019): 32**
- **Usage (2019): 33.955 downloads**
- https://www.springer.com/journal/10922

# International Journal of Network Management (IJNM)

- EiC: Prof. James Won-Ki Hong
- AEiC: Prof. Jérôme François / Prof. Lisandro Z. Granville
- Journal published by Wiley / 6 x year (since 2011, online only)
- Current issue:  Volume 30, Issue 6
- Virtual issues published every year
  - Open access for the most cited papers
- ISI impact factor:
  - 0.510 (2012)
  - 0.283 (2014)
  - 0.681 (2015)
  - 1.118 (2016)
  - 1.340 (2017)
  - 1.231 (2018)
  - **1.338 (2019)**
- https://onlinelibrary.wiley.com/journal/10991190
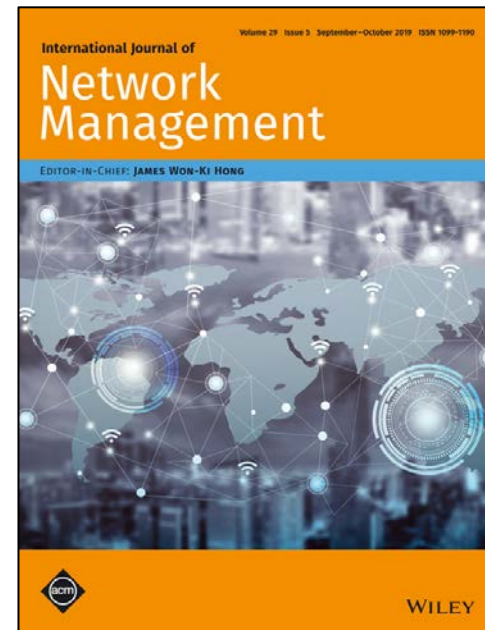
# IEEE Journal on Selected Areas in Communications (JSAC)

- EiC: Prof. Raouf Boutaba

- International journal published by IEEE

- Current issue:  Volume 38, Issue 12

- ISI impact factor:
  - 3.453 (2014)
  - 3.672 (2015)
  - *8.085 (2016)*
  - *7.172 (2017)*
  - *9,302 (2018)*
  - ***11.42 (2019)***

- https://www.comsoc.org/publications/journals/ieee-jsac

IEEE JOURNAL ON

SELECTED AREAS IN

COMMUNICATIONS

# Special Issues

- TNSM
  - March 2021: Advanced Management of Softwarized Networks
  - June 2021: Design and Management of Reliable Communication Networks
  - June 2021: Latest Developments for Security Management of Networks and Services
- COMMAG
  - Move from a deadline-driven system to a rolling open call system
  - Series on Network Softwarization and Management
- IJNM
  - January 30, 2021: Artificial Intelligence-based Management of Communication Networks in IIoT
- JNSM
  - December 21, 2020: Network management for beyond 5G systems
- **TNSM, IJNM and JNSM**
  - **Are accepting submissions for Special Issues!**

# JSAC Special Issues

- **March 1, 2021: Private Information Retrieval, Private Coded Computing over Distributed Servers, and Privacy in Distributed Learning**

- **February 1, 2021: Distributed Learning over Wireless Edge Networks**

- First/Second Quarter 2021: Massive Access for 5G and Beyond

- Second Quarter 2021: TeraHertz Communications and Networking

- Third Quarter 2021: UAV Communications in 5G and Beyond Networks

- Third Quarter 2021: Latest Advances in Optical Networks for 5G Communications and Beyond

# 3. IEEE-Wiley Book Series on Network and Service Management

- Book Series Editors
  - Prof. Mehmet Ulema

    mehmet.ulema@manhattan.edu

    Manhattan College, USA
  - Veli Sahin

    veli.sahin53@gmail.com

    IEEE, USA
- https://ieee-press.ieee.org/book-series/ieee-press-series-on-network-and-service-management/

# IFIP WG6.6 and CNOM Report

**4. Overview and Statistics
of Current and Future Conferences**

# CNOM endorsed conferences

- IEEE/IFIP Network Operations and Management Symposium (NOMS)
- IFIP/IEEE Integrated Management Symposium (IM)
- IEEE Conference on Network Softwarization (NetSoft)
- International Conference on Network and Service Management (CNSM)
- Asia-Pacific Network Operations and Management Symposium (APNOMS)
- Latin-America Network Operations and Management Symposium (LANOMS)
- Network Traffic Measurement and Analysis Conference (TMA)
- Conference on Innovation in Clouds, Internet and Networks (ICIN)
- Conference on Network of the Future (NoF)
- Conference on the Design of Reliable Communication Networks (DRCN)
- International Teletraffic Congress (ITC)
- Conference on Blockchain Research & Applications for Innovative Networks and Services (BRAINS)
- IEEE International Conference on Communications (ICC)
- IEEE Global Communications Conference (GLOBECOM)

# 2019 Conferences

|  | Submitted | Accepted | A.R. | Attendees | Proceedings |
|---|---|---|---|---|---|
| IM 2019 | 157 | 39 | 24,8% | ~170 | IFIP DL, Xplore |
| TMA 2019 | 64 | 25 | 36,9% | 144 | IFIP DL, Xplore |
| NETSOFT 2019 | 103 | 20 | 19,2% | 151 | Xplore |
| LANOMS 2019 | 25 | 10 | 40% | ~60 | IFIP DL, Xplore |
| CNSM 2019 | 127 | 21 | 16,5% | ~134 | IFIP DL, Xplore |

# 2020 Conferences

| | Submitted | Accepted | A.R. | Attendees | Proceedings |
|---|---|---|---|---|---|
| NOMS 2020 | 243 | 72 | 29,6% | 297 | IFIP DL, Xplore |
| TMA 2020 | 54 | 18 | 33.3% | 115 | IFIP DL, Xplore |
| NETSOFT 2020 | 90 | 18 | 20.0% | 380 | Xplore |
| CNSM 2020 | 106 | 21 | 19.8% | 152 | IFIP DL, Xplore |
| NoF 2020 | 53 | 15 (+9 short) | 28.3% | 95 | Xplore |
| DRCN 2020 | 56 | 24 (+4 posters) | 42.8% | 82 | Xplore |
| ICIN 2020 | 69 | 22 (+3 short) | 31.8% | 103 | Xplore |

# Future Conferences

- IM 2021 (IFIP/IEEE)
  - May 17-21, 2021, Bordeaux, France
- TC6: Networking 2021 (IFIP/IEEE)
  - June 21-24, 2021, Helsinki, Finland
- NetSoft 2021 (IEEE)
  - June 28-July 2, 2021, Tokyo, Japan
- ITC 33 (IFIP/IEEE)
  - August 31-September 3, 2021, Avignon, France
- CNSM 2021 (IEEE/IFIP)
  - October 25-29, 2021, Izmir, Turkey
- TMA 2021 (IFIP)
  - Online edition, dates to be announced

# IM 2021

- 17-21 May, 2021, Bordeaux, France

- General Chairs
  - Toufik Ahmed, Olivier Festor

- TPC Chairs
  - Yacine Ghamri-Doudane, Joon-Myung Kang, Alberto E. Schaeffer-Filho

**https://im2021.ieee-im.org**

**Workshop Paper
Submission: January 8, 2021**

# Networking 2021

- 21-24 June, 2021, Helsinki, Finland
- General Chairs
  - Raimo Kantola, Lars Eggert
- TPC Chairs
  - Zheng Yan, Gareth Tyson, Dimitrios Koutsonikolas



**https://networking.ifip.org/2021/**

**Paper Submission: January 5, 2021**

# Netsoft 2021

- 28 June – 2 July, 2021, Tokyo, Japan

- Chairs
  - General Chairs
    - Kohei Shiomoto, Young-Tak Kim
  - Vice General Co-Chair
    - Kazuhiko Kinoshita
  - TPC Co-Chairs
    - Christian E. Rothenberg, Barbara Martini, Eiji Oki

**https://netsoft2021.ieee-netsoft.org**

**Paper Submission: December 14, 2020**

# ITC 33

- Aug. 31 – Sept. 3, 2021, Avignon, France

- Chairs
  - General Chairs
    - Rachid Elazouzi, Carla F. Chiasserini
  - TPC Chairs
    - Francesco de Pellegrini, Jianwei Huang, Bo Ji

**https://itc33.org/**

**Paper Submission: April 9, 2021**
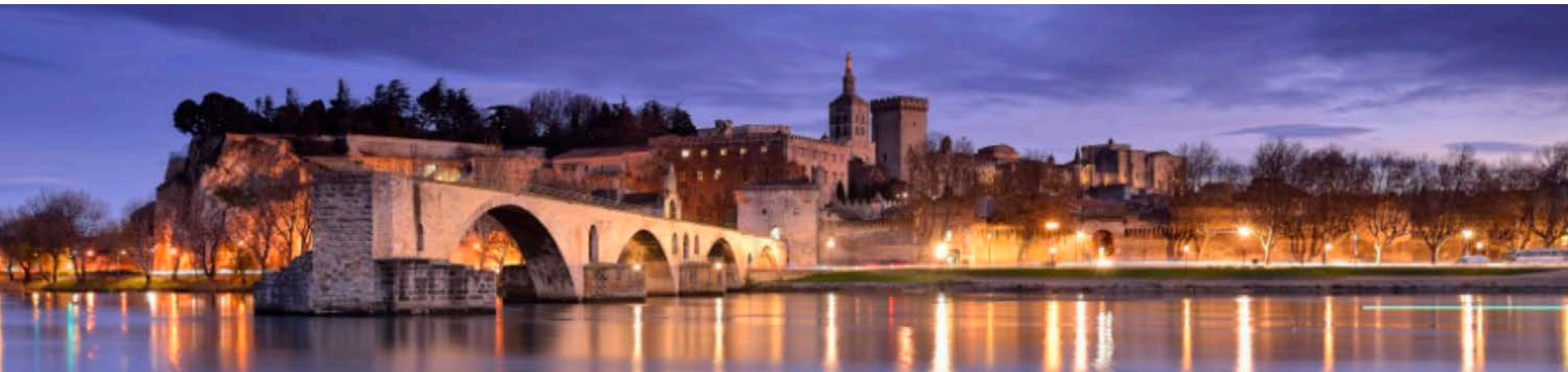
# CNSM 2021

- October 25-29, 2021, Izmir, Turkey
- Chairs
  - General Chairs
    - Prosper Chemouil, Mehmet Ulema
  - TPC Chairs
    - Muge Sayit, Stuart Clayman

**http://cnsm-conf.org/2021**

# ICIN 2021

- March 1-4, 2021, Paris, France

- Chairs
  - General Chairs
    - Hakon Lonsethagen, Jie Tang, Walter Cerroni
  - TPC Chairs
    - Barbara Martini, Marie-Jose Montpetit

**https://www.icin-conference.org/**

# NoF 2021

- October 6-8, 2021, Coimbra, Portugal

- Chairs
  - General Chairs
    - Carmen Mas Machuca, Teresa Gomes
  - TPC Chairs
    - Tim Wauters, Susana Sargento

# NoF

**https://nof2021.dnac.org**
**Paper Submission: April 23, 2021**

# CNOM endorsed conferences

- IEEE/IFIP Network Operations and Management Symposium (NOMS)
- IFIP/IEEE Integrated Management Symposium (IM)
- IEEE Conference on Network Softwarization (NetSoft)
- International Conference on Network and Service Management (CNSM)
- Asia-Pacific Network Operations and Management Symposium (APNOMS)
- Latin-America Network Operations and Management Symposium (LANOMS)
- Network Traffic Measurement and Analysis Conference (TMA)
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- Conference on Network of the Future (NoF)
- Conference on the Design of Reliable Communication Networks (DRCN)
- International Teletraffic Congress (ITC)
- Conference on Blockchain Research & Applications for Innovative Networks and Services (BRAINS)
- IEEE International Conference on Communications (ICC)
- IEEE Global Communications Conference (GLOBECOM)

# 5. Conference ranking and required inputs

- CORE conference ranking

- https://www.core.edu.au/conference-portal

- The Computing Research and Education Association of Australasia (CORE), is an association of university departments of computer science in Australia and New Zealand.

- Ongoing action to provide input

- Current team: Prosper, Filip, Rémi, Carlos, Burkhard

# Call for Symposium Chairs and nominations

- IEEE ICC 2022
  - Seoul, South Korea
  - 16-20 May,  2022


- IEEE Globecom 2022
  - Rio de Janeiro, Brazil
  - 4-8 December, 2022

# IFIP WG6.6 and CNOM Report

**Community-wide Activities**

# 6. CNOM Recertification - P&P Update

- P&P define TC structure and operation

- Updates requested by TC Board

- Color coding and main changes:
  - Black text common for all TCs, blue text specific to CNOM
  - Structure and order of some clauses has changed
  - At least two candidates for each elected office (clause 5)
  - Best Paper Award and Young Professional Award (clause 6)
  - Conflicts of interest list for awards subcommittee (clause 6)
  - Engaging with industry and government entities (clause 10)

- Feedback and request for approval

# CNOM BPA 2021

- Newly established CNOM Best Paper Award
- Eligibility:
  - Papers published in conferences (2019 and 2020)
    - IM, NOMS, CNSM, APNOMS, LANOMS, NetSoft, ICIN, NoF, DRCN, ITC, BRAINS, ICC, GLOBECOM
  - Self-nominated
  - Nominated by TPC chairs of supported/endorsed events
- Chair:
  - Carol Fung (Virginia Commonwealth University, USA)

# CNOM BPA

- ## 2020 edition:
  - Farnaz Moradi (Ericsson Research), Rolf Stadler (KTH The Royal Institute of Technology), and Andreas Johnsson (Ericsson Research). P**erformance Prediction in Dynamic Clouds using Transfer Learning,** *16th IFIP/IEEE Symposium on Integrated Network and Service Management (IM 2019)*

- ## *Award Committee:*
  - *Carol Fung (chair)*
  - *Carlos Raniery P. dos Santos*
  - *Marinos Charalambides*
  - *Young-Tak Kim*

# 7. Organization of activities in times of Covid19-measures

- Physical/Hybrid/Online events
- All feedback/suggestions welcome

# IEEE Distinguished Lecturers

- Nomination of DLs on behalf of the TC. Each TC is encouraged to nominate up to 4 DLs.

  - *https://www.comsoc.org/about/memberprograms/distinguished-lecturers*

- Some important facts about the process:

  - DLs must be a Senior Member of IEEE or higher.

  - DLs must be a member of ComSoc.

  - DLs must be willing to create a conference tutorial if requested.

  - A nominee may be nominated by either a person or a TC, but a TC nomination is preferred.

  - Nominators must be IEEE ComSoc members and IEEE Senior Member or higher, TC chair preferred.

  - Nominations are due each year by September. The Distinguished Lecturers Selection Committee will begin processing nominations at that time.

# IEEE Student Competition

This year, the 6th edition of the IEEE ComSoc Student Competition "**Communications Technology Changing the World**" takes place, coordinated by Nelson Fonseca and Stefano Bregni.

The Competition is open to graduate and undergraduate students, who are members of the IEEE Communications Society.

Its purpose is to recognize students or teams of students who demonstrate the capacity to improve the lives of people, through the application of communication technology and the development of projects that meet the human needs of people.

The First Prize consists of $2000 + plaque.
Winner(s) will be invited to receive it at IEEE GLOBECOM.
See all details at:
 http://www.comsoc.org/communications-technology-changing-world
The deadline for submissions is each year mid-August (next one in 2021).

The IEEE ComSoc Student Competition has been a great success since its first edition in 2013.

# 8. Starting SIGs (Special Interest Groups)

- Organise workshops, journal special issues, conference  talks, vision papers

- Foster interaction with industry

- Activities span across TCs

- Current/past SIGs

  https://itc.committees.comsoc.org/special-interest-groups/

- Candidates:

  - AI for network management

  - Softwarized networks

  - Privacy/identity management

# 9. Network Operations Data Management Competition

- Planned for spring 2021 (during IM)

- Objective: use dataset to improve performance of a management function, e.g. design more intelligent load balancing algorithm

- Data analytics competition in the past (NOMS'16)
  https://noms2016.ieee-noms.org/content/special-tracks-0.html

- Suggestions for selection of target management function and valuable (public) dataset

# 10. Network and Service Management Taxonomy

- Jeroen van der Hooft, et al. **Updated Taxonomy for the Network and Service Management Research Field.** *Journal of Network and Systems Management*, Volume 26, Issue 3, July 2018, pp. 790–808

**https://en.wikipedia.org/wiki/ network_and_service_management_taxonomy**

- The taxonomy is being updated
- Contact: Carlos Raniery Paula dos Santos (UFSM, Brazil)
  – csantos@inf.ufsm.br

# 11. Young researchers: contributions to organizational tasks in community

- Please contact CNOM / IFIP WG 6.6 officers

- Open to contributions at future conferences

- Meet experts and broaden your network

- Build your CV

# IFIP WG6.6 & IEEE CNOM Joint Meeting
## (Online Edition)

*December 4, 2020*