

IFIP WG6.6 & IEEE CNOM

Joint Meeting

(@NOMS 2022, hybrid)



April 26, 2022



Meeting Overview

1. Overview of CNOM and IFIP WG6.6
2. Conference statistics and upcoming events
3. Journals, their impact factors and upcoming special issues
4. CNOM SIGs (Special Interest Groups): overview and proposals
5. CNOM awards and award committees
6. Outreach
7. IEEE ComSoc distinguished lecturer program
8. IEEE ComSoc student competition
9. Initiatives and opportunities for young researchers

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1. Overview of CNOM and IFIP WG6.6 Groups

CNOM

IEEE organized into Societies

→ **IEEE Communication Society (ComSoc)** composed of Technical Committees

→ **Committee on Network Operations and Management (CNOM)** deals with network operations and network/service management, promotes and represents this community

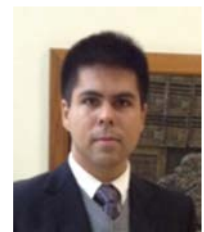


<https://cnom.committees.comsoc.org>

CNOM

CNOM officers (05/2021 → 05/2023)

- **Chair: Noura Limam**, University of Waterloo, Canada
- **Vice-chair: Marinos Charalambides**, Huawei Technologies, Belgium
- **TPC chair: Carol Fung**, Concordia University, Canada
- **Secretary: Carlos Raniery P. dos Santos**, Federal University of Santa Maria, Brazil



<https://cnom.committees.comsoc.org/about-cnom/members/officers/>

CNOM

How to join?

- Subscribe to the **CNOM mailing list**
- Become 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, CNSM, APNOMS, LANOMS, NetSoft
 - Served as an editorial board member or editorial advisory board member of JNSM, IJNM, or TNSM

<https://cnom.committees.comsoc.org/about-cnom/how-to-join/>



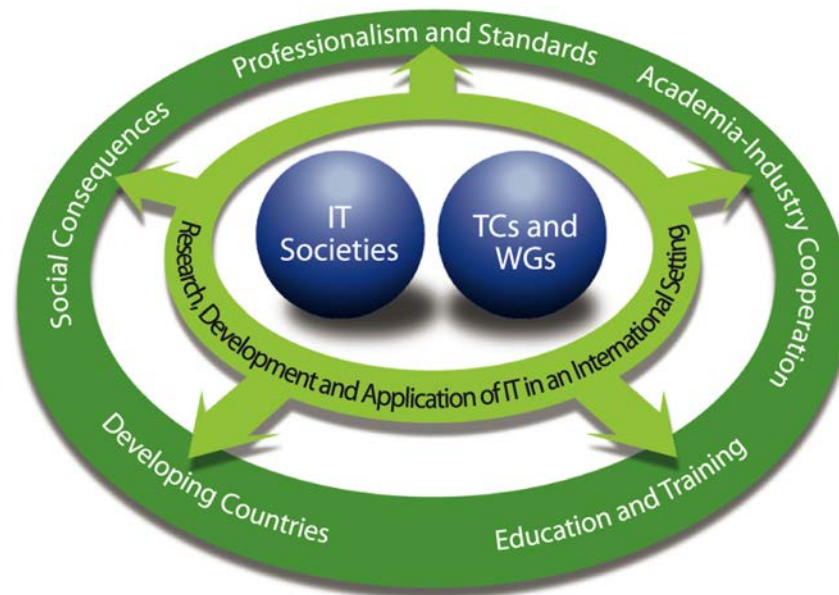
ifip

the leading edge of
information technology

**TC6
WG6.6
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

TC12 Artificial Intelligence

TC13 Human-Computer Interaction

TC14 Entertainment Computing



Burkhard Stiller
TC6 Chair



ifip

Technical Committee TC6

WG6.1 Architectures and Protocols for Distributed Systems

WG6.2 Network and Internetwork Architectures

WG6.6 Management of Networks and Distributed Systems

WG6.7 Smart Networks

WG6.8 Mobile and Wireless Communications

WG6.9 Comm. Systems for Developing Countries

WG6.10 Photonic Networking

WG6.11 Communication Aspects of the E-World

WG6.12 Services-Oriented Systems



Rémi Badonnel
WG6.6 Chair



WG6.6 Activities

- Joint work with IEEE CNOM
- Open platform for community building, animation, promotion and structure setting
 - Co-organizing conferences
 - Promoting journals
 - Sponsoring excellence
 - Best paper awards (3-4 per year)
 - Student travel grants (+/- 10 per year)
- All the WG6.6 / 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** (dl.ifip.org)



What does « WG6.6 Member » mean?

- 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
- Contact: IFIP WG6.6 Officer
 - Rémi Badonnel – TELECOM Nancy, France (since 2019), badonnel@loria.fr

How to get involved?

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

ifip_nm@listes.telecomnancy.eu

- Visit our IFIP WG6.6 website

wg66.ifip.org

- Follow us on twitter

[@ifipwg66](https://twitter.com/ifipwg66)



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2. Conference statistics and current/upcoming events

2. Conference Statistics

	Submitted	Accepted (full)	A.R.	Attendees	Proceedings
IM 2021	191	46	24.1%	335	IFIP DL, Xplore
ITC 33	27	11	40.7%	144	IFIP DL, Xplore
TMA 2021	40	18	45%	115	IFIP DL, Xplore
NoF 2021	41	12	29.3%	65	Xplore
CNSM 2021	93	18	19.4%	178	IFIP DL, Xplore
ICIN 2022	43	9	20.9%	130	Xplore
NOMS 2022	173	43	24.8%	356	IFIP DL, Xplore
Networking 2022	160	47	29.3%		IFIP DL, Xplore
NetSoft 2022	85	21	24.7%		Xplore

2. Current and Upcoming Events

NOMS 2022 (IEEE/IFIP)

April 25-29, 2022, Budapest, Hungary

Networking 2022 (IFIP/IEEE)

June 13-16, 2022, Catania, Italy

NetSoft 2022 (IEEE)

June 27-July 1, 2022, Milan, Italy

TMA 2022 (IFIP)

June 27-July 1, Enschede, The Netherlands

ITC 34 (IFIP/IEEE/In Coop. with ACM SIGCOMM)

September 14-16, 2022, Shenzhen, China

APNOMS 2022 (IEEE)

September 28-30, 2022, Takamatsu, Japan

NoF 2022 (IEEE)

October 5-7, 2022, Ghent, Belgium

CNSM 2022 (IFIP/IEEE/In Coop. with ACM SIGCOMM)

October 31-November 4, 2022, Thessaloniki, Greece

NOMS 2023 (IEEE/IFIP)

May 8-12, 2023, Miami, Florida, USA

NOMS 2022

April 25 – 29, 2022, Budapest, Hungary (**hybrid**)

General co-chairs

Paul Varga,
Lisandro Z. Granville



TPC co-chairs

Alex Galis, Istvan Godor,
Noura Limam, Prosper Chemouil

<https://noms2022.ieee-noms.org>



NetSoft 2022

June 27 – July 1, 2022, Milan, Italy

General co-chairs

Alexander Clemm,
Guido Maier

TPC co-chairs

Carmen Mas Machuca,
K.K. Ramakrishnan, Fulvio Risso



<https://netsoft2022.ieee-netsoft.org>



TMA 2022

June 27 – July 1, 2022, Enschede, The Netherlands

General co-chairs

Anna Sperotto,

Roland van Rijswijk-Deij

TPC co-chairs

Roya Ensafi,

Andra Lutu



<http://tma.ifip.org>



ITC 34

September 14 – 16, 2022, Shenzhen, China

General co-chairs

Z.-Q. Tom Luo,

Zhisheng Niu

TPC co-chairs

Minghua Chen, Longbo Huang,

Patrick Loiseau, Weina Wang



<https://itc34.org>

Paper submission deadline:
May 15, 2022



APNOMS 2022

September 28-30, 2022, Takamatsu, Japan

General co-chairs

Yuji Nomura

TPC co-chairs

Hiroki Nakayama,

You-Chiun Wang, Kyungbaek Kim

APNOMS

<http://apnoms.org>

Paper submission deadline:
May 30, 2022



NoF 2022

October 5-7, 2022, Ghent, Belgium

General chair

Tim Wauters

TPC co-chairs

Maurice Khabbaz,

Federica Paganelli

NoF

<https://nof2022.dnac.org>

Paper submission deadline:
May 15, 2022



CNSM 2022

October 31 – November 4, 2022, Thessaloniki, Greece

General co-chairs

Marinos Charalambides,
Panagiotis Papadimitriou

TPC co-chairs

Walter Cerroni,
Salil Kanhere,
Lefteris Mamatas



<http://cnsm-conf.org/2022>

Paper submission deadline:
June 17, 2022



NOMS 2023

May 8 – 12, 2023, Miami, FL, USA

General chair

Kemal Akkaya,
Olivier Festor

TPC co-chairs

Mohammad Ashiqur Rahman, Carol Fung,
Lisandro Zambenedetti-Granville



<https://www.ieee-noms.org>



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3. Journals, their impact factors, and upcoming special issues

IEEE Transactions on Network and Service Management (TNSM)

EiC: Prof. Hanan Lutfiyya (since January 2022)

- Subscription-based & open access
- Open call & special issues
- Frequency: 4 issues / year
- Current issue: Volume 19, Issue 1
- JCR Impact factor: 4.195
- H-index: 51 (as of 04/22)

IEEE TRANSACTIONS ON
**NETWORK AND
SERVICE MANAGEMENT**
A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY

4.195

Impact
Factor

0.00436

Eigenfactor

0.94

Article
Influence
Score

7.9

CiteScore
Powered by Scopus

TNSM searchable index

☐ 2022 (161) ☐ 2021 (379) ☐ 2020 (195) ☐ 2019 (136) ☐ 2018 (125) ☐ 2017 (86) ☐ 2016 (71) ☐ 2015 (45) ☐ 2014 (40) ☐ 2013 (33) ☐ 2012 (38) ☐ 2011 (31) ☐ 2010 (23) ☐ 2009 (20) ☐ 2008 (20) ☐ 2007 (16) ☐ 2006 (9) ☐ 2005 (5) ☐ 2004 (10)

Author	Title	Year ↓	Issue	Keywords
Xiangqiang Gao and Rongke Liu and Aryan Kaushik	Virtual Network Function Placement in Satellite Edge Computing with a Potential Game Approach	2022	Early Access	Satellites Edge computing Resource management
Debobroto Das Robin and Javed I.Khan	CLB: Coarse-Grained Precision Traffic-Aware Weighted Cost Multipath Load Balancing on PISA	2022	Early Access	Load management Switches Servers
Vincenzo Eramo and Tiziana Catena	Application of an Innovative Convolutional/LSTM Neural Network for Computing Resource Allocation in NFV Network Architectures	2022	Early Access	Costs Resource management Quality of service
Poulmanogo Illy and Georges Kaddoum and Kuljeet Kaur and Sahil Garg	ML-based IDPS Enhancement With Complementary Features For Home IoT networks	2022	Early Access	Security Feature extraction Smart homes
Danyang Zheng and Gangxiang Shen and Xiaojun Cao and Biswanath Mukherjee	Towards Optimal Parallelism-Aware Service Chaining and Embedding	2022	Early Access	Delays Propagation delay Parallel processing
Loïc D. Tsobdjou and Samuel Pierre and Alejandro Quintero	An Online Entropy-based DDoS Flooding Attack Detection System with Dynamic Threshold	2022	Early Access	Entropy Denial-of-service attack Computer crime
Joy Halder and Tamaghna Acharya and Uma Bhattacharya	A Novel RSCA Scheme for offline Survivable SDM-EON with Advance Reservation	2022	Early Access	Resource management Heuristic algorithms Routing

<https://www.tnsm-overview.org/>

IEEE ComMag – Network Softwarization and Management Series

Series Editors: Walter Cerroni, Oscar Mauricio Caicedo Rendón, Noura Limam

- Consolidation of 2 series: **Telecom Software, Network Virtualization and Software Defined Networks & Network and Service Management**
- Open call
- Frequency: 4 issues / year (~4 papers/12 submissions)
- IEEE ComMag JCR impact factor: **9.619**

Issue	Published	Accepted
1	October 2020, Vol 58, No. 10	6
2	March 2021, Vol 59, No. 3	5
3	June 2021, Vol 59, No. 6	4
4	October 2021, Vol 59, No. 10	6
5	February 2022, Vol 60, No. 2	4

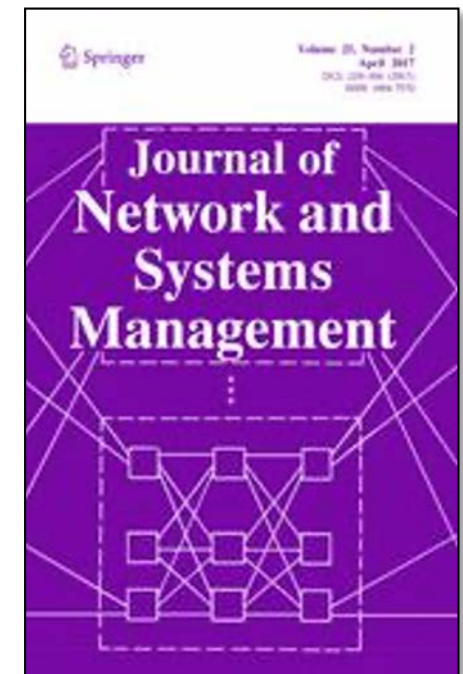


<https://www.comsoc.org/publications/magazines/ieee-communications-magazine/cfp/network-softwarization-and-management>

Journal of Network and Systems Management (JNSM)

EiC: Prof. Luciano P. Gaspary

- Subscription-based & open access
- Open call & special issues
- Publisher: Springer
- Frequency: 4 issues / year
- Last issue: Volume 30, Issue 3 (July 2022)
- ISI impact factor:
 - 1.588 (2016)
 - 1.676 (2018)
 - 2.250 (2019)
 - **2.590 (2020)**
- H-index (2021): **35**
- Usage (2021): **63.958 downloads**



2.026 (2020)
Impact factor

2.139 (2020)
Five year impact factor

14 days
Submission to first decision
(Median)

63,958 (2021)
Downloads

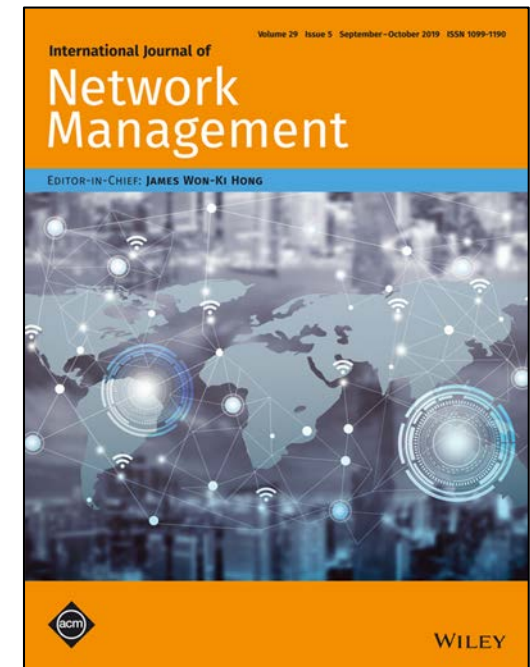
<https://www.springer.com/journal/10922>

International Journal of Network Management (IJNM)

EiC: Prof. James Won-Ki Hong

AEiC: Jérôme François and Lisandro Z. Granville

- Subscription-based & open access for most cited papers
- Publisher: Wiley
- Frequency: 6 issues / year (since 2011, online only)
- Current issue: Volume 32, Issue 3
- ISI impact factor:
 - 1.118 (2016)
 - 1.340 (2017)
 - 1.231 (2018)
 - 1.338 (2019)
 - **1.712 (2020)**



<https://onlinelibrary.wiley.com/journal/10991190>

IEEE Journal on Selected Areas in Communications (JSAC)

EiC: Petar Popovski

- Subscription-based
- Special issues
- Frequency: 12 issues / year
- Current issue: Volume 40, Issue 5
- JCR impact factor: **9.114**
- H-index: **236**

IEEE JOURNAL ON
**SELECTED AREAS IN
COMMUNICATIONS**

9.144

Impact
Factor

0.02762

Eigenfactor

2.421

Article
Influence
Score

23.1

CiteScore
Powered by Scopus

Call for papers

TNSM

- April 30, 2022: Machine Learning and Artificial Intelligence for Managing Networks, Systems, and Services
- October 1, 2022: The Latest Developments in Federated Learning for the Management of Networked Systems and Resources

COMMAG

- Open call: Series on Network Softwarization and Management

JNSM

- May 31, 2022: High-Precision, Predictable and Low-Latency Networking

JSAC

- May 15, 2022: Multi-Tier Computing for Next Generation Wireless Networks
- July 1, 2022: Rate Splitting for Future Wireless Networks
- August 1, 2022: Beyond Shannon Communications: A Paradigm Shift to Catalyze 6G
- September 15, 2022: Next Generation Ultra-Reliable and Low-Latency Comm.
- September 15, 2022: 3GPP Technologies: 5G-Advanced and Beyond

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4. Special Interest Groups

4. Special Interest Groups

- Foster collaboration within and across TCs
- Foster interaction with industry
- Organize workshops, special issues, feature topics, conference talks, vision papers
- CNOM SIGs
 - **Flexible Addressing, Routing and Management across Limited Domains (ARMS)**
 - Communications Switching & Routing (CSR) TC
 - **Autonomous Networking Technologies (ANT)**
 - Security Management of Networks and Services **(to come)**
 - AI-based Network Management **(to come)**

ARMS SIG

Officers

- Chair: Alex Galis, UCL, UK a.galis@ee.ucl.ac.uk
- Vice Chair: David Lou, Huawei Technologies, Germany

Scope

- A holistic approach to cross-domain addressing, routing and management for service performance guarantees, improved security and privacy, extended data plane programmability and network scalability, to meet 6G emerging requirements.

Activities

- 2nd edition of Semantic Addressing and Routing for Future Networks (SARNET) workshop collocated with High Performance Switching and Routing (HPSR) 2022
- Prepare a feature topic at IEEE Communications Magazine based on the scope of ARMS SIG

ANT SIG

Officer

- Chair: Laurent Ciavaglia, Rakuten Mobile, France
laurent.ciavaglia@rakuten.com

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5. CNOM Awards

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- **Dan Stokesberry Award**
NOMS/IM Steering Committee (NISC)
- **Salah Aidarous Award**
NOMS/IM Steering Committee (NISC)
- **Best Paper Award**
CNOM award Subcommittee: Carol Fung (chair), Takeru Inoue, Jinho Hwang, Ai-Chun Pang, Walter Cerroni
- **Test of Time Paper Award**
CNOM award Subcommittee: Yixin Diao (chair), Deep Medhi, Salil Kanhere, Lea Skorin-Kapov, Carlos Raniery P. dos Santos
- **Young Professional Award**
CNOM award Subcommittee: Nur zincir-Heywood (chair), Prosper Chemouil, Zuqing Zhu, Xiaoming Fu, Taghrid Samak

<https://cnom.committees.comsoc.org/about-cnom/awards/>

IEEE Fellow

IEEE Fellow one of the highest honors that can be granted to a member of IEEE for their outstanding technical, educational, and leadership achievements.

- Eligibility:
 - contributed importantly to the advancement or application of engineering, science and technology, bringing the realization of significant value to society.
 - [Senior Member](#) or [IEEE Life Senior grade](#) at the time the nomination is submitted and shall have been a member in good standing in any grade for a period of five years or more preceding 1 January of the year of elevation.
 - self-nominations shall not be permitted.
- IEEE Fellow class of 2022:
 - **Mauro Conti**, University of Padua, Italy, for contributions to communications network security
 - **Xiaoming Fu**, University of Goettingen, Germany, for contributions to resource management in edge computing and networking

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6. Outreach

Call for Symposium Chairs and Nominations

IEEE GLOBECOM 2023

Kuala Lumpur, Malaysia, December 4-8, 2023

Mohamed Faten Zhani @ Communications QoS, Reliability and
Modelling Symposium

IEEE ICC 2024

Denver, Colorado, US, June 9-13, 2024

nominations for Symposium/Track Co-Chairs due May 6, 2022

“...any candidate that has chaired, or has been selected to chair, 3 symposia in the 10 most recent ICC/GC conferences (i.e., from GLOBECOM 2018 through ICC 2023) may not be selected.”

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7. IEEE Distinguished Lecturer Program

7. IEEE ComSoc Distinguished Lecturer Program

Each TC is encouraged to nominate up to 4 DLs.

- 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.
- DLs appointed to a term of **two years**, can be appointed more than once, and can continue to serve for an additional two-year term at the discretion of the Selection Committee.
- DLs can be nominated or self-nominated.
- A nominee may be nominated by either a person or a TC.
- Nominators must be IEEE ComSoc members and IEEE Senior Member or higher.
- Nominations are **due July through 30 September 2022**.
- Selection announced by December.

<https://www.comsoc.org/membership/distinguished-lecturers>

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8. ComSoc Student Competition

8. ComSoc Student Competition

Communication Technology Changing the World competition recognizes (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 human needs.

- Open to graduate and undergraduate students, who are members of the IEEE Communications Society.
- The First Prize consists of \$2000 , winner(s) invited to receive it at IEEE GLOBECOM
- **The deadline for submissions is each year mid-August**
- The IEEE ComSoc Student Competition has been a great success since its first edition in 2013

Toufik Ahmed, Bordeaux INP, France (tad@labri.fr) CNOM representative at the ComSoc Student Competition

<https://www.comsoc.org/membership/ieee-comsoc-student-competition>

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9. Opportunities for Young Researchers

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CNOM & IFIP WG 6.6 strive to **create more opportunities for young researchers** to thrive

- Doctoral Symposium (**1st edition in NOMS 2022**)
 - **Students** in the early or mid stage of their PhD
 - Organized by Maria Torres Vega, Shihabur Rahman Chowdhury and Daphne Tuncer
- Mentorship program (**to come**)
- Competitions and challenges (**to come**)

Contact CNOM / IFIP WG 6.6 officers for more details

IFIP WG6.6 & IEEE CNOM

Joint Meeting

(@NOMS 2022, hybrid)



April 26, 2022

