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Communications Technologies 4Good

Call for Papers and Proposals

# Communication & Information System Security Symposium

## Co-Chairs

- Francesco Chiti, University of Florence. <francesco.chiti@unifi.it>
- Xinwen Fu, University of Massachusetts Lowell. <xinwen\_fu@uml.edu>
- Imad H. Elhadj, American University of Beirut. <ie05@aub.edu.lb>

## Scope and Motivation

Due to the rapid advancements in computing and communication technologies, the scope of cyber threats has significantly widened. Moreover, the emergence of cutting-edge technologies like the Internet of Everything, where inexpensive, resource-limited devices are interconnected via the Internet, provides an attractive target for cyberattacks. In today's society, communication and information systems have become increasingly vital, making security more crucial and complex as numerous applications, devices, and users connect to the public Internet. This trend is likely to persist in the future.

In response to the evolving cyber threat landscape and rising cyberattacks, this symposium invites submissions on various facets of modeling, designing, implementing, deploying, and managing security algorithms, protocols, architectures, and systems. Additionally, papers focused on evaluating, optimizing, or improving security and privacy mechanisms for current technologies, as well as developing effective security and privacy solutions using emerging technologies, are highly sought after. High-quality papers from both industry and academia that apply communications theory are strongly encouraged.

## Topics of Interest

The Communication & Information System Security Symposium seeks original contributions in the following topical areas, plus others that are not explicitly listed but are closely related:

- Applied cryptography for cyber, information, and network security
- Attack detection and prevention in communication systems
- Authentication protocols and key management
- Blockchain applications in communication systems
- Cellular network security and privacy (5G, 5G beyond, and 6G)
- Data center and distributed systems security
- Cloud, edge, fog, and device security
- Connected and autonomous vehicle security
- Emerging technologies and methods for information, cyber, and network security

- Formal trust models, security modeling, and design of secure protocols
- Future Internet Architecture (FIA) security and privacy
- Internet of Things security and privacy
- Malware detection and damage recovery
- Security and privacy in Age of Information (AoI)
- Security and privacy in digital twins
- Security for mobile and wireless communications
- Security in smart grid communications
- Trust management in networks through emerging technology
- UAV and vehicular network security
- Social network security
- Artificial Intelligence (ML, DL, and FL) for network security
- Secure and trustworthy artificial intelligence in networking

## Biographies of the Co-Chairs

**Francesco Chiti** is currently an Associate Professor at the Department of Information Engineering, University of Florence. His research topics are devoted to the synergies between Internet of Things and Software Defined Networking / Network Function Virtualization paradigms with application to 6G systems, 5G Vehicular Networks, Industry4.0 and Smart Cities. In addition, his research is devoted to the foundation of Quantum Networking for non-terrestrial scenarios. He actively participated in several European research projects (NextGenerationEU NRRP "RESTART", COST 22168, COST 289, IP "GoodFood", NoE "NEWCOM", CRUISE NoE, STREP "DustBot", REGPOT AgroSense, EDA "MEDUSA"). He served the IEEE Communications and Information Security Technical Committee as Secretary (2013-2015), Vice Chair (2015-2019) Chair (2020-2021), Award Chair (2022-2023) as well as Editor-in-Chief of the Newsletter (2016 - now). He has been involved as "Communication & Information System Security" Symposium Chair for IEEE Globecom'21 and "Communication & Information System Security" Symposium Chair for IEEE Globecom'16. He is Associate Editor of Wiley Security and Communication Networks journal (from 2013), Associate Editor of Wiley "Security and Privacy Journal" (from 2017) and Associate Editor of Springer "Peer-to-Peer Networking and Applications Journal" (from 2019).

**Xinwen Fu** is a Professor in the School of Computer & Information Science, University of Massachusetts Lowell. He was a tenured Associate Professor at University of Central Florida. His current research interests are in computer and network security and privacy. Dr. Fu has published at prestigious conferences including the four top computer security conferences (Oakland, CCS, USENIX Security and NDSS), and journals such as ACM/IEEE Transactions on Networking (ToN) and IEEE Transactions on Dependable and Secure Computing (TDSC). He received multiple best paper awards including the 44th IEEE ICDCS 2024 Distinguished Paper Award. He spoke at various technical security conferences including Black Hat.

**Imad H. Elhadj** is a Professor with the Department of Electrical and Computer Engineering and is the Associate Dean for Academic Transformation at the Maroun Semaan Faculty of Engineering and Architecture at the American University of Beirut. In 2014, he co-founded SAUGO 360, the first startup to be incubated at AUB, and in 2017 he co-founded the Humanitarian Engineering Initiative at AUB. Dr. Elhadj is the past chair of IEEE Lebanon Section. He has served as an ABET program evaluator since 2013. His research interests are at the intersection of robotics, networking, and human machine interfacing with applications in health and environment. Dr. Elhadj is recipient of the IEEE Outstanding Branch Counselor and Advisor Award (2019), the Teaching Excellence Award at the American University of Beirut (2011), the Kamal Salibi Academic Freedom Award (2014), and the most Outstanding Graduate Student Award from the Department of Electrical and Computer Engineering at Michigan State University (2001).

## How to Submit a Paper

All papers for technical symposia should be submitted via EDAS. Full instructions on how to submit papers and important deadlines are posted at <https://icc2025.ieee-icc.org/>

The authors of selected papers from this symposium will be invited to submit an extended version of their work for fast-track review and possible publication in the IEEE Open Journal of the Communications Society.