Mohammad Shojafar

Nationality: British   **Date of birth:** 05/09/1983   **Gender:** Male

💼 **Phone number:** (+44) 01483689480   ✉ **Email address:** m.shojafar@surrey.ac.uk

Skype: m.shojafar

LinkedIn: https://www.linkedin.com/in/mohammad-shojafar-6b673332/

GitHub: https://github.com/mshojafar/sourcecodes

Website: https://www.surrey.ac.uk/people/mohammad-shojafar

Website: www.mshojafar.com

📍 **Work:** Stag Hill, 5G/6G Innovation Centre (5G/6GIC), University of Surrey, GU2 7XH Guildford (United Kingdom)

ABOUT ME

Mohammad Shojafar (M'17-SM'19) is an Associate Professor in Network Security, an Intel Innovator, a Senior IEEE member, an ACM distinguished speaker, a Sustainability Fellow at the Institute for Sustainability, and a Fellow of the Higher Education Academy, working in the 5G & 6G Innovation Centre (5G/6GIC) at the University of Surrey, UK. Before joining 5G/6GIC, he was a Senior Researcher and a Marie Curie Fellow in the SPRITZ Security and Privacy Research group at the University of Padua, Italy. He was a Senior Researcher working on a network security project (~11 months) jointly with Ryerson University/University of Toronto and Telus Communications Inc (TELUS) in Toronto, Canada 2019. Also, he was a CNIT Senior Researcher at the University of Rome Tor Vergata and contributed to the 3GPPP European H2020 "SUPERFLUIDITY" project.

Dr Mohammad secured **around £1.9M as PI** in various EU/UK projects, including ORAN-TWIN (lead of project which is funded by EPSRC/DSIT CHEDDAR Hub UK;2024), 5GTwinRL (funded by UK DSTL;2024), D-XPERT (funded by I-UK/UK; 2024), 5G MoDE (funded by DSIT/UK;2023), 5G ONE4HDD (funded by DSIT/UK;2023), AUTOTRUST (funded by ESA/EU; 2021), PRISENODE (funded by EU/MSCA-IF:2019), and SDN-Sec (funded by Italian Government:2018). He was also COI of various UK/EU projects like 6G-SMART (funded by CELTIC-NEXT;2024), HiPER-RAN (funded by DSIT/UK;2023), TRACE-V2X (funded by EU/MSCA-SE;2023), APTd5G project (funded by EPSRC/UKI-FNI:2022), ESKMARALD (funded by UK/NCSC;2022), GAUChO, S2C and SAMMClouds (funded by Italian Government;2016-2018).

He received a Ph.D. from the Sapienza University of Rome, Rome, Italy, in 2016 with an "Excellent" degree. He was a programmer/software analyzer at the National Iranian Oil Company (NIOC) and Tidewater Ltd in Iran from 2008 to 2013. He published over 230 refereed top-tier articles in prestigious venues such as IEEE TC, IEEE TCC, IEE TVT, IEEE TNSM, IEEE T-ITS, IEEE TII, IEEE Network, Computer Networks, and FGCS. He is an Associate Editor in IEEE Transactions on Network and Service Management, IEEE Transactions on Intelligent Transportation Systems, IEEE Transactions Consumer Electronics Magazine, IEEE Consumer Electronics Magazine, and Computer Networks Journals. He has published three books on cybersecurity applications and network security, which appeared in Springer recently.

WORK EXPERIENCE

Associate Professor
5G/6GIC, University of Surrey [15/10/2019 – Current]

City: Guildford | **Country:** United Kingdom

- Security and privacy in Open-RAN (i.e., rApps/xApps and Near-Real time/Non-Real-time RIC)
- Security and privacy in 5G/6G Network and Communication (i.e., intrusion detection systems, mobile edge computing)
- Adversarial machine learning in Mobile data (i.e., adversarial ML, federated learning, reinforcement learning)
- Security in SDN/NFV and virtualized networks

- Security/Privacy in Fog/edge Computing and Fog data storage (i.e., data deduplication)
- Applied lightweight cryptography in 5G/6G network (i.e., distributed ledger, blockchain, lattice-based methods, QKD)

Senior Researcher (Senior PostDoc)

Ryerson University and University of Toronto [01/01/2019 – 15/10/2019]

City: Toronto | **Country:** Canada

My responsibilities:
- Contribute to the acquisition, set up, maintenance and integration of the SDN/NFV/SD-WAN and Cloud infrastructure
- Security Network monitoring and measurement, including, e.g., resource provisioning, performance analysis and modeling of SD-WAN
- Analytical Modelling and mathematical analysis of the security issues in Blockchain
- Analysis of SD-WAN Integrated with Blockchain and IoT data management and identify vulnerabilities, attacks, and countermeasures to preserve accountability

Senior Researcher

University of Padua [01/01/2018 – 01/01/2019]

City: Padua | **Country:** Italy

My responsibilities:
- Contribute to the acquisition, set up, maintenance and integration of the Software-Defined Network and Cloud infrastructure
- Security Network monitoring and measurement, including, e.g., resource provisioning, performance analysis and modeling of SDNs
- Analytical Modelling and mathematical analysis of the security issues (network trustworthy, misconfiguration, Accountability, and steal flow) on SDN/NFVs and network devices such as printers and propose robust algorithms
- Analysis SDN data and control planes and identify vulnerabilities, attacks, and countermeasures to preserve accountability
- Analytical Modelling and numerical analysis of malware/ransomware detection systems in Large datasets
- Modeling and numerical analysis of dynamic feature selection methods on Adversarial Machine Learning: attacks and Countermeasures

Senior Researcher

CNIT (Consorzio Nazionale Interuniversitario per le Telecomunicazioni) [01/12/2016 – 31/01/2018]

City: Rome | **Country:** Italy

I was as a CNIT senior researcher at the University of Rome Tor Vergata to work on European H2020 Superfluidity project. The SUPERFLUIDITY project aims at achieving superfluidity on the Internet: the ability to instantiate services on-the-fly, run them anywhere in the network (core, aggregation, edge) and shift them transparently to different locations.
My responsibilities:
- Establish solution environments for the 5G Cloud section of the SUPERFLUIDITY project
- Propose some scheduling and adaptive allocation techniques over the Cloud Datacenter in the SUPERFLUIDITY project
- Apply Artificial and meta-heuristic methods (e.g., machine learning and reinforcements) over 5G network architecture over SUPERFLUIDITY project.

Research Associate (PostDoc)

University of Modena and Reggio Emilia [01/12/2015 – 01/12/2016]

City: Modena | **Country:** Italy

Work on the project SAMMClouds: Secure and Adaptive Management of Multi-Clouds
Description: The SAMMClouds project aims to address some of the open issues related to the Software as a Service (SaaS) and Infrastructure as a Service (IaaS) systems. Specifically, the research activities will focus on the study and proposal of innovative solutions with regard to three main issues:
- Monitoring and management of IaaS cloud and multi-cloud systems

- Resource management in SaaS multi-cloud systems
- Data protection and security in cloud systems

My responsibilities:
- Propose, implement some analytical solutions techniques some novel solutions using AMPL (Knitro, MOSEK, and IBM CPLEX) optimizers.
- Corporate the programming language (C++/python) using a bash script to the formulation, testing, deployment, and maintenance of the multi-cloud resource management issues.
- Implement VMs managing algorithm using Docker and Oracle Virtual box in some tasks.

PhD Student (Research Assistant)

Sapienza University of Rome [01/11/2012 – 20/05/2016]

City: Rome | **Country:** Italy

My responsibilities:
- System modeling via computational intelligence methods, particularly mathematical optimization
- Techniques such as KKT, workload anticipation techniques, and gradient-based approaches, some AI methods, and some supervised learning (regression analysis)
- CloudSim Platform knowledge and hands-on experiences (Java coding)
- CVX/MOSEK packages over MATLAB Platform knowledge and hands-on experiences

Software Programmer

National Iran Oil Company (NIOC) [01/04/2012 – 31/10/2012]

City: Tehran | **Country:** Iran

My responsibilities:
- Software Analysing on PISDB and FFSDB projects (oil field datastream organization software)
- Maintain confidentiality with regard to the information being processed, stored or accessed on the internal projects
- Coordinating the data entry flow and establishing initiative methods for reliable data entry
- Analyze, develop and implement testing procedures, programming (C++, Java) and documentation

Computer Science Lecturer

[22/09/2008 – 05/06/2012]

City: Tehran | **Country:** Iran

Teach CS courses for BSc students. The courses are like Data Structure, Computer Networks, Network Security, Data Storage, Algorithm Design.

Software Programmer

Rahyab Rayaneh Gostar sub-firm of Tidewater ltd co. [01/04/2008 – 31/12/2008]

City: Tehran | **Country:** Iran

I attended two projects **GCOMS**, **TCTS** as a software tester and programmer.
In **GCOMS**, which is a system under the direction of ports and maritime organization in non-container terminals domain with the slogan of creating unity procedure in port operations cycle at nine significant general cargo commercial ports of Iran.
My **responsibility** is to R&D and Design on IBM Rational Robot, IBM Rational Administrator, Testing Method and Error Recovery in Debugging Unit of GCOMS besides making tests scenarios and developing test program using C#.Net language applying Ranorex testing Tool. **This system is proud to be the second award winner of AFACT Electronic Asia Transcendent Pattern in 2011.**
In **TCTS** Project, which is a smart combination of hardware and software as an exhaustive resource for managing and leading container operations which are designed and implemented for administering the most extensive container port of Iran.
My responsibility was to test the program and troubleshooting the problems may happen in the connection exploited black box software testing. We monitored the testing and the test environment, often using Ranorex tool for this task, and often gather performance metrics by writing and executing test scripts and bug reports.

Computer Systems Analyzer

Shibkaran Construction Co [02/10/2004 – 31/05/2006]

City: Sary | **Country:** Iran

- Install network components and operating systems (WIN 2003 serv.,15 nodes winXP, internal switch)
- Troubleshooting network issues (hardware, software or network faults

Computer Systems Analyzer

Medical University [01/06/2003 – 22/09/2003]

City: Sary | **Country:** Iran

- Maintenance the OSs and educate the internal management software to the 150+ employee of the medical universities
- Troubleshooting the hardware and software of the PCs
- Documentations and data orchestration using Microsoft Office (Access and SQL) and VB Programming for troubleshooting of the software integration of the official processing

EDUCATION AND TRAINING

Information and Communications Technology

Sapienza University of Rome [01/11/2012 – 20/05/2016]

City: Rome | **Country:** Italy | **Field(s) of study:** Engineering and engineering trades | **NQF Level:** Advanced university studies (Doctorate)

- Design, implementation, and evaluation of energy-provisioning cloud-based (virtualized)/networked data centers testbed
- Mathematical, statistical modeling, and experimental analysis of latency problem in data centers
- CloudSim Cloud Computing Platform knowledge and hands-on experience (using C++/Java over Eclipse IDE)
- Develop efficient coding in C++/Matlab/JAVA

Computer Science (Software)

Qazvin Islamic Azad University [22/09/2007 – 15/09/2010]

City: Qazvin | **Country:** Iran | **Field(s) of study:** Computing | **NQF Level:** University studies (Master)

- Programming in distributed computing e.g., grid and p2p computing using C++/Java programming.
- Programming in WSNs using NS2/Matlab IDEs.

Computer Science (Software)

Iran University Science and Technology [22/09/2001 – 04/12/2006]

City: Tehran | **Country:** Iran | **Field(s) of study:** Computing | **NQF Level:** University studies (Bachelor)

- Software engineering courses
- Several technical reports and course projects such as MPI programming, C/C++/Java academic projects
- Software analyzing and modeling tools such as UML/RUP and Petri nets
- Be familiar with Microsoft Office, Microsoft Visual Studio, Adobe software

Certified Ethical Hacker (CEH)

Sharif University of Technology [01/06/2012 – 12/10/2012]

City: Tehran | **Country:** Iran | **Field(s) of study:** Computing | **NQF Level:** Upper secondary education

- System Development & Management
- System Analysis & Audits
- Security Testing/Vulnerabilities
- Reporting
- Mitigation
- Ethics

JAVA J2SE Developer

Sharif University of Technology [01/04/2011 – 24/03/2012]

City: Tehran | **Country:** Iran | **Field(s) of study:** Computing | **NQF Level:** Upper secondary education

Java Applets, Web Programming Skills, Teamwork, Verbal Communication, Web User Interface Design, Software Development Process, Object-Oriented Design (OOD)

HONOURS AND AWARDS

Honours and awards
- **Grant:** <u>150,000 Pounds</u>, EPSRC - DSIT, **ORAN-TWIN**, (2024-2025) - **(PI)**
- **Grant:** <u>75,000 Pounds</u>, DSTL, **5GTWINRL**, (2024-2025) - **(PI)**
- **Grant:** <u>80,000 Pounds</u>, Innovate UK, **D-Xpert**, (2024-2026) - **(PI)**
- **Grant:** <u>88,000 Euro</u>, Horizon Europe-MSCA-SE, **TRACE-V2X** (2024-2027) - **(PI)**
- **Grant:** <u>367,000 Pounds</u>, DSIT-UK, **ONE4HDD**, (2023-2025) - **(PI)**
- **Grant:** <u>367,000 Pounds</u>, DSIT-UK, **5G Mode** (2023-2025) - **(PI)**
- **Grant:** <u>550,000 pounds</u>, EU-CELTIC-NEXT- **6G-SMART** (2023-2027) - **(CoI)**
- **Grant:** <u>367,000 Pounds</u>, DSIT-UK, **HiPer-RAN** (2023-2025) - **(CoI)**
- **Grant:** <u>310,263 Pounds</u>, NCSC-UK, **ESKMARALD** (2023-2025) - **(CoI)**
- **Grant:** <u>40,000 Pounds</u>, EPSRC/UKI-FNI-UK, APTd5G: APT detection in 5G networks (2023)- **(CoI)**
- **Grant:** <u>750,000 Euro</u>, European Space Agency, **AUTOTRUST: A Secure 5G Transport and Logistics Demonstration** (2022-2023)- **(PI)**
- **Grant:** <u>275,000 Euro</u>, European Commission, **Marie Curie Individual Fellowship** (2019-2021)- **(PI)**
- **Grant:** <u>20,000 US-Dollar</u>, **Energy and delay provisioning in IoT and Industry 4.0**, (2020 for 18 months) - **(CoI)**
- **Grant:** <u>58,500 Euro</u>, Italian Government, High Impact Research, Ministry of Higher Education, Rome, Italy (2012-2015) - **(PI)**
- **Permanent resident in Italy (obviously in EU) since Jan. 2018.**
- **UK Permanent Settlement, since November 2023.**
- **Award:** <u>19,500 Euro</u>, Department of "Enzo Ferrari", University of Modena and Reggio Emilia, Modena, Italy
- **Award (PI):** <u>54,000 Euro+5000 euro</u> supporting, University of Padua, Padua, Italy
- **Award:** <u>5,000 Euro</u>, Principle Investigator, Research Fund for University of Padua, Padua, Italy
- Among the top 1000 in the Iranian National University Exam (500,000 participants), 2001.

PUBLICATIONS

List of my publications on Google Scholar

List of my Scopus indexed publications

LANGUAGE SKILLS

Mother tongue(s): Persian

Other language(s):

English

LISTENING C2 **READING** C2 **WRITING** C1

SPOKEN PRODUCTION C2 **SPOKEN INTERACTION** C2

Italian

LISTENING B1 **READING** A1 **WRITING** A1

SPOKEN PRODUCTION A1 **SPOKEN INTERACTION** A2

Spanish

LISTENING A1 **SPOKEN INTERACTION** A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PROJECTS

[01/08/2024 – Current]
ORAN-TWIN (EPSRC/DSIT Cheddar Hub) (PI: £150,000)
ORAN-TWIN is Enhancing the Performance of O-RAN with DL and RL-based Applications Leveraging Digital Twins for Training. ORAN-TWIN (**led by myself and the University of Surrey**) represents a novel contribution to the O-RAN architecture, by integrating advanced machine learning techniques such as Multilayer Perceptron (MLP), Deep Q-Networks (DQN), Deep Neural Networks (DNN), and Convolutional Neural Networks (CNN) into xApps for dynamic resource allocation and test time data augmentation. It includes the University of Leeds, the University of York, Birmingham City University and the University of Surrey.

Leveraging NDTs created with platforms like Apache Ditto and Azure DTDL, we simulate diverse network conditions to generate synthetic data, optimize resource allocation, and ensure real-time performance adaptation. Creating a comprehensive NDT involves several challenges, such as simulating UEs and accurately mimicking the channel between UEs and the RAN by feeding in channel state information (CSI), SNR, and other channel report statistics. These metrics must be processed through PHY, Lower and Upper MAC, and the E2 interface into the Near-RT RIC. This proposal focuses on implementing the NDT for this phase, acknowledging the constraints in time and resources, and aiming to deliver a concrete outcome in 10 months. Data augmentation is essential to emulate and simulate the traffic on the E2 interface for several UEs.

Link: http://orantwin.github.io/

[01/10/2023 – Current]
5G MoDE (UK-DSIT-2023) (PI: £367,000)
5G MoDE (Mobile oRAN for highly Dense Environments) seeks to revolutionise how we manage dense mobile network traffic using oRAN. The partners are Virgin Media O2 (VMO2), Mavenir, VMWare, and the University of Surrey.

Led by VMO2, our consortium will develop and demonstrate the effectiveness of the 5G MoDE concept in real-world scenarios. Mavenir, a key consortium member and technical lead, and will provide essential hardware, software, and services.
5G MoDE is not just about winning a competition; it's about redefining the future of mobile connectivity, one open network at a time. Our project aims to significantly impact the high-density mobile traffic landscape, driving the adoption of open mobile networks and creating a more connected and empowered world.

Link: https://uktin.net/5GMoDE

[01/11/2023 – Current]
ONE4HDD (UK-DSIT-2023) (PI: £367,000)
5G ONE4HDD project proposes a novel solution to optimise mobile network performance in High Demand Density (HDD) environments such as music festivals, sporting events, and major public gatherings. We have designed a Mobile 'Cell on Wheels' (CoW) equipped with Open RAN (Radio Access Network) technology, offering reliable connectivity in crowded venues, thereby enhancing user experience and fostering technological innovation in the UK.

Link: https://one4hdd.co.uk/about/

[01/11/2024 – Current]
6G-SMART (EU Celtic Next 2024) (COI: £550,000)

6G-SMART: 6G Self Organising and Managing Open Radio Access Network

https://www.celticnext.eu/project-6g-smart/

The growing complexity of mobile networks has presented challenges in optimising the network performance. While 6G promises potential performance improvement, managing 6G operating to ensure optimal performance is achieved in all operating environment is challenging. This project deals with the challenges of 6G network self-organisation by utilising Open Radio Access Network (O-RAN) network architecture and machine learning (ML) techniques. In the literature, ML technique has been shown to be effective in optimising a specific aspect of a network. However, often multiple aspects of the network performance are required to be optimised simultaneously, and applying multiple ML models without proper management may result in conflicting decision making by each ML model causing the network to operate in undesirable state. To tackle this issue, the project aims to research solutions for coordinating multiple ML algorithms, develop a unified ML platform for O-RAN, and conduct real-world testing of these algorithms in an O-RAN environment. The project will first develop several individual ML algorithms to fulfil self-configuration, self-optimisation and self-healing. Then an integration of the ML models will be sought, and an ML orchestrator will be developed to manage and resolve conflicting decisions made by various ML models. Testing will be conducted in two countries focusing on both telecom and future smart factory environments.

Link: https://www.celticnext.eu/project-6g-smart/

[01/11/2023 – Current]
HiPer-RAN (UK-DSIT-2023) (COI: £367,000)
The HiPer-RAN (Highly Intelligent, Highly Performing RAN) project aims to develop an open platform to host diverse, software-based intelligence that accounts for RAN architecture.

HiPer-RAN Includes the University of Surrey, AWTG, Lime Microsystems, Keysight technologies, Viavi solutions, Virgin Media O2 and BT.

HiPer-RAN faces two fundamental challenges. Firstly, the development of interoperable, efficient, and reliable software for automation operating at different time scales. Secondly, efficiently translating intelligence into quantifiable and measurable gains enables high-performance, energy-efficient, low-latency operations at a system level.

Link: https://www.surrey.ac.uk/research-projects/hiper-ran

[01/01/2024 – Current]
TRACE-V2X (Horizon Europe - MSCA-SE-2023) (PI: €88,000)
Connected and autonomous vehicles (CAVs) have the potential to provide efficient and sustainable transportation. However, road safety of autonomous driving remains a critical challenge, the lack of which hinders their widespread adoption and integration into the transportation system. It is thus pressing to evolve vehicle-to-everything (V2X) communications to provide reliable and secure communications for CAVs to exchange critical information for cooperative decision-making, ensuring the road safety. This project sets an ambitious goal of designing smart and proactive traffic steering across multiple radio access technologies (multi-RAT) in the environment of CAVs. The technical approach is threefold. First, to ensure the reliability of communications, this project unleashes the full potential of massive sensing that involves the collection of vast amounts of data from sensors deployed on vehicles and roadside infrastructure, and then leverage the cooperation perception of environment for situational awareness and ahead-of-time decision-making in V2X. Second, it develops a security and privacy preservation mechanism to protect the integrity and privacy of the highly dynamic vehicular network as well as defending the widely used machine learning process. Finally, relying on the 5G testbed, Open RAN (O-RAN) solution, and other V2X facilities provided by some partners, the final step is to implement and evaluate the performance of developed solutions, which closes the gap between theory and practice. The planned secondments provide partners the opportunity to test their solutions on the infrastructure possessed by other partners.

Link: https://cordis.europa.eu/project/id/101131204

[01/01/2023 – 31/12/2024]
ESKMARALD: Enhanced Security of the AKMA on 5G (COI: £311,000)
ESKMARALD looks at the cryptographic, security, and privacy guarantees of edge computing over mobile networks and related services, primarily as per 5G (5th Generation Mobile Networks)-related specifications. ESKMARALD will consider threat models and use formal analysis methods and tools for security protocols and cryptographic primitives.

[01/01/2023 – 01/07/2023]
APTd5G: APT detection in 5G networks (COI: £40,000)
This pilot study focuses on Advanced Persistent Threats (APTs) detection in 5G/6G networks, drawing from realistic experimental implementations on the Surrey 5G testbed that go beyond a single intrusion scenario.

Link: https://www.ukifni.org/call-for-pilot-study-proposals-for-epsrc-uk-india-future-networks-initiative-uki-fni/

[01/02/2022 – Current]
AUTOTRUST (EU ESA/UKSA) (PI: €750,000)
This project aims to secure data traffic among autonomous vehicles through the SAT-5G communication and cloud systems. AutoTrust is a European Space Agency (ESA) funded project that secures €750,000 (~£650,000) and includes three British participants (the University of Surrey, University of Hertfordshire and RL Capital Auto ltd). AutoTrust is authorised to be funded by UK Space Agency under the ARTES 4.0 SPL 5G.

Link: https://business.esa.int/space-and-5g-convergence-transport-logistics

[01/01/2020 – 31/12/2022]
PRISENODE (Hoziron 2020 - MSCA-IF-GF)(PI: €275,000)
In this project, I integrate fog technology with SDDCs and design a scalable fog network to manage the cloud service demands and provide secure processing and traffic data privacy in SDDC. I named this project PRISENODE: Privacy- and secuRity-aware solutIons in SoftwarE-defiNed fOg Data cEnter. My project targets fog data center (FDC) which consists of SDN-enabled switches that are instantiated on an SDDC server and serve as edge switches (Fog Nodes; FNs). FNs accommodate small-size flows with limited response time and deliver high-user QoE. In this way, I design a fundamental tool (open-source software) and a holistic business model for privacy- and security-aware data traffic passed through SDN-enabled FDCs/CDCs. The salient feature of my project is to jointly monitor network traffic, validate network traffic policies, and detect malicious entities in the cloud system, as well as introduce related security- and privacy-aware defenses in SDDCs.

Link: https://cordis.europa.eu/project/rcn/222120/factsheet/en

DIGITAL SKILLS

Knitro Optimization Toolsbox / CPLEX / MATLAB / MININET

NETWORKS AND MEMBERSHIPS

Memberships
Editorial Member

- **IEEE Transactions on Network and Service Management (TNSM)**, **(JCR IF 2024: 4.7)**
- **IEEE Transactions on Intelligent Transportation Systems (T-ITS)**, **(JCR IF 2024: 7.9)**
- **IEEE Transactions on Circuits and Systems for Video Technology**, **(JCR IF 2024: 8.3)**
- **IEEE Transactions on Consumer Electronics** (TCE), **(JCR IF 2024: 4.3)**

- **IEEE Consumer Electronics Magazine**, **(JCR IF 2024: 3.7)**
- **Elsevier - Computer Networks (COMNET)**, **(JCR IF 2024: 4.4)**

Technical Committee (TPC) Member

- IEEE (WCNC 2025) - Open Radio Access Network (Open RAN) workshop 24-27 March 2025, Milan, Italy. **(Workshop Chair)**
- IEEE ICC '24 , Denver, USA, Jun 9-13, 2024.

- IEEE TrustCom 2023, Exeter, UK, November 1-3, 2023.
- ACM WiSeC 2023 Guildford, Surrey, United Kingdom, May 29 - June 01, 2023.
- IEEE ICCE 2023, Las Vegas, NV, USA, January 6-8, 2023.

- IEEE IPCCC '22, Austin, TX, USA, November 11th - 13th, 2022.
- IEEE GLOBECOM '22, Section GCSN, Rio de Janeiro, Brazil, December 4-8, 2022.

- IEEE PST '21, Auckland, New Zealand, December 13-15, 2021.
- IEEE/ACM UCC '21, Leicester, UK, December 6-9, 2021.
- IEEE GLOBECOM '21, Section GCSN, Madrid, Spain, December 7-11, 2021.
- IEEE GLOBECOM '21, Section SAC BD, Madrid, Spain, December 7-11, 2021.
- IEEE CPS-Sec '21, Dallas, Texas, USA, November 2-5, 2021.
- IEEE ScalCom '21, Atlanta, USA, October 18-21, 2021.
- IEEE/ACM CCGRID '21, Melbourne, Australia, May 10-13, 2021.

OTHER SKILLS

Other skills

JBuilder, SQL Server (programming), Cascading Style Sheets (CSS), Microsoft Visual Studio, Computer technology (engineering), Test management (data systems), VMs management software

RECOMMENDATIONS

- **Prof. Rahim Tafazolli**, Regius Professor, FREng, FIET, WWRF Fellow, Head of the Institute for Communication Systems (ICS), Director of the 6G Innovation Centre (6GIC), University of Surrey, Guildford, United Kingdom. Tel: +44 (0)1483 689834, Email: r.tafazolli@surrey.ac.uk
- **Prof. Rajkumar Buyya**, Distinguished Professor, Director of the Cloud Computing and Distributed Systems (CLOUDS) Laboratory, School of Computing and Information Systems, University of Melbourne, Australia. Tel: +61-3-83441344, Email: rbuyya@unimelb.edu.au
- **Prof. Mukesh Singhal**, Chancellor's Professor, University of California, Merced, USA. Tel: +1-209-228-4344, Email: msinghal@ucmerced.edu
- **Prof. Mauro Conti**, Professor, Marie Curie Alumni, University of Padua, Via Trieste, 63 - 35131, Padua, Italy, Tel: +39-049-827-1488, Email: conti@math.unipd.it
- **Prof. Jemal Abawajy**, Professor, Deakin University, School of Information Technology, Melbourne, Australia. Tel: +61-3-522-71376, Email: jemal.abawajy@deakin.edu.au
- **Prof. Enzo Baccarelli**, Professor, Scientific Investigator of PRIN15, Gaucho/V-FOG projects, Sapienza University of Rome, Via Eudossiana 18, 00184 Rome, Italy. Tel: +39-06-445-85466, Email: enzo.baccarelli@uniroma1.it

CITATIONS

Citations

- **Google Scholar**: Citations: 10000+, H-Index: 51 (45+ IEEE/ACM Transactions)
- **SCOPUS:** Citations: 7500+, H-Index: 44

PHD/MSC STUDENTS

Students

Current PostDocs/RAs

- Samara Mayhoub (2024+) -- **Current Postdoc**
- Mohsen Eslamnejad (2024+) -- **Current Postdoc**
- Hamed Alimohammadi (2024+) -- **Current Postdoc**
- Sulyman Age Abdulkareem (2024+) -- **Current Postdoc**
- Zhizou He (2024+) -- **Current Postdoc**
- Seyed Ahmad Soleymani (2023+) -- **Current Postdoc**
- Mona Akbari (2024+) -- **Current RA**
- Neha Gupta (2024+) -- **Current RA**
- Taneya Sharma (2024+) -- **Current RA**
- David Bouri (2024+) -- **Current RA**

Current PhDs

- Sotiris Chatzimiltis (2023+) -- **current Ph.D. student**
- Krupal Byalaiah (2024+) -- **current Ph.D. student**
- Emmanuel N, Amachaghi (2022+) -- **current Ph.D. student**
- Karmaker, Sudarson (2023+) -- **current Ph.D. student**

Past PhDs/Postdocs

- Sanaz Soltani (2020-2023) -- **Ph.D. Graduated**
- Parya Hajimirzaei (2020-2022) -- **Ph.D. Graduated**
- Esmaeil Amiri (2020-2023) -- **Ph.D. Graduated**
- Mohammad Mahdi Tajiki (2017-2019) -- **Ph.D. Co-supervised**
- Paola Vinueza (2015-2018) -- **Ph.D. Co-supervised**
- Rahim Taheri (2017-2020) -- **Ph.D. Co-supervised**
- Farhad Aghili (2012-2018) -- **Ph.D. Co-supervised**
- Meysam Ghahramani (2016-2021) -- **Ph.D. Co-supervised**
- Zahra Pooranian (2022-2023) -- **Ex-Postdoc**

Current/Past Mscs

- Mona Akbari (2023) -- **MSc. supervised**
- Neha Gupta (2023) -- **MSc. supervised**
- Taneya Sharma (2023) -- **MSc. supervised**
- Domenico Paravati (2015) -- **MSc. Co-supervised**
- Massimo Biancifiori (2014) -- **MSc. Co-supervised**
- Saeed Javanmardi (2013) -- **MSc. Co-supervised**
- Ali Ahmadi Dounchali (2012) -- **MSc. Co-supervised**
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PRESENTATIONS

Presentations

Keynote Presentations

- **(2023)** Trustworthy AI for Building Operation Management Workshop - A Trustworthy AI Solution for IoT Systems on Logistics Vehicle Transportation, Guildford, UK Link: https://direk.io/events
- **(2023)** 6GIC-CLICK Series - 6GSec: Security and Privacy for Future Information Networks, Guildford, UK Link: https://www.youtube.com/watch?v=GIaZJhlDTzA
- **(2017)** SPRITZ-CLUSIT Workshop on Future Systems Security and Privacy, Padua, Italy Link: http://spritz.math.unipd.it/events/2017/EU-cybersecuritymonth-workshop/
- **(2018)** Keynote in Fog and Cloud Technology (University of Ottawa), 1-3 March, Canada
- **(2018)** Keynote in I2SBD2C (International Spring School for Big Data and Cloud Computing), 7-8 April, Tunisia