

2019 4th International Conference on Computing, Communications and Security (ICCCS 2019)

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10 – 12 October 2019**



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4th IEEE International Conference on Computing, Communication & Security (ICCCS-2019)

Rome, 10th-12th October

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Thursday 10th October 2019

9:00

Registration Opening

9:30 – 9:45

Conference Opening

Room: Leonardo

Luca Chiaraviglio (*University of Rome Tor Vergata, Italy - General Co-Chair*)

Sudarsan SD (*ABB Bangalore, India - General Co-Chair*)

Anna Maria Vegni (*Roma Tre University, Italy - TPC Co-Chair*)

Vishal Kumar (*Bipin Tripathi Kumaon Institute of Technology, India - TPC Co-Chair*)

9:45 – 10:45

Keynote 1

Room: Leonardo

Chair: Vishal Kumar (*Bipin Tripathi Kumaon Institute of Technology, India*)

Intelligent System Applications in Solving Engineering Problems

S N Singh (*Vice-Chancellor, MMMUT, India*)

10:45 – 11:15

Coffee Break

11:15 – 12:30

Technical Session: Cloud Computing

Room: Leonardo

Chair: Riccardo Lancellotti (*University of Modena and Reggio Emilia, Italy*)

[Vertelas - Automated User-Controlled Vertical Elasticity in Existing Commercial Clouds](#)

Kashifuddin Qazi (*Manhattan College, USA*)

[Remote Memory Swapping for Virtual Machines in Commercial Infrastructure-as-a-Service](#)

Kashifuddin Qazi (*Manhattan College, USA*) and Steven Romero (*Manhattan College, USA*)

[Optimizing on-demand GPUs in the Cloud for Deep Learning Applications Training](#)

Arezoo Jahani (*University of Tabriz, Iran*), Marco Lattuada (*Politecnico di Milano, Italy*), Michele Ciavotta (*University of Milano-Bicocca, Italy*), Danilo Ardagna (*Politecnico di Milano, Italy*), Edoardo Amaldi (*Politecnico di Milano, Italy*) and Li Zhang (*IBM, USA*)

[A Web Client Secure Storage Approach in Multi-Cloud Environment](#)

Murtadha Arif Bin Sahbudin (*University of Messina, Italy*), Riccardo Di Pietro (*University of Messina, Italy*) and Marco Scarpa (*University of Messina, Italy*)

11:15 – 12:30

Technical Session: Neural Networks and Artificial Intelligence

Room: Archimede

Chair: Edoardo Serra (*Boise State University, USA*)

[Analyzing CNN Model Performance Sensitivity to the Ordering of Non-Natural Data](#)

Randy Klepetko (*University of Texas at San Antonio, USA*) and Ram Krishnan (*University of Texas at San Antonio, USA*)

[Study on Mental Disorder Detection via Social Media Mining](#)

Iwan Syarif (*Politeknik Elektronika Negeri Surabaya, Indonesia*), Nadia Ningtias (*Politeknik Elektronika Negeri Surabaya, Indonesia*) and Tessy Badriyah (*Politeknik Elektronika Negeri Surabaya, Indonesia*)

[Mental Stress Assessment via Ultra-Short-Term Recordings of Photoplethysmographic Sensor](#)***** (*)

Muhammad Zubair (*Korea University of Science and Technology, Korea*) and Changwoo Yoon (*Electronics and Telecommunication Research Institute, Korea*)

12:30 – 13:30

Lunch Break

13:30 – 14:30

Keynote 2

Room: Leonardo

Chair: Anna Maria Vegni (*Roma Tre University, Italy*)

Back to the Future: Hardware-specialized Cloud Networking

Giuseppe Bianchi (*University of Rome Tor Vergata, Italy*)

14:30 – 15:45

Technical Session: Security and Privacy

Room: Leonardo

Chair: Anna Maria Vegni (*Roma Tre University, Italy*)

[An architecture to manage security services for cloud applications](#)***** (*)

Matteo Repetto (*CNIT, Italy*), Alessandro Carrega (*CNIT, Italy*) and Guerino Lamanna (*Infocom Srl, Italy*)

[Detecting Saturation Attacks in SDN via Machine Learning](#)***** %

Samer Khamaiseh (*Boise State University, USA*), Edoardo Serra (*Boise State University, USA*), Zhiyuan Li (*Boise State University, USA*) and Dianxiang Xu (*Boise State University, USA*)

[SDN-RBAC: An Access Control Model for SDN Controller Applications](#)***** -

Abdullah Al-Alaj (*University of Texas at San Antonio, USA*), Ram Krishnan (*University of Texas at San Antonio, USA*) and Ravi Sandhu (*University of Texas at San Antonio, USA*)

[Clustering Geo-Indistinguishability for Privacy of Continuous Location Trace](#) ^{*****++}

Mariana Cunha (*University of Coimbra, Portugal*), Ricardo Mendes (*University of Coimbra, Portugal*) and Joao P. Vilela (*University of Coimbra, Portugal*)

14:30 – 15:45

Technical Session: Data Analytics

Room: Archimede

Chair: K. Sankaranarayanan (*National Institute of Technology Puducherry, India*) and G. Seetharaman (*National Institute of Technology Puducherry, India*)

[Real-time Disaggregation of Residential Energy Consumption Enhanced with User Feedback - Invited paper](#) ^{*****;)}

Anosh Arshad Sundhu (*Politecnico di Milano, Italy*), Cristina Rottondi (*Politecnico di Torino, Italy*) and Giacomo Verticale (*Politecnico di Milano, Italy*)

[Facial Mask Detection using Semantic Segmentation](#) ^{***** - %}

Toshnall Meenpal (*National Institute of Technology, India*), Ashutosh Balakrishnan (*National Institute of Technology, India*) and Amit Verma (*National Institute of Technology, India*)

[Accurate Iterative Algorithm for Detection and the Signal AoA Estimation in Low SNR Region](#) ^{*****. *}

Olesya Bolkhovskaya (*Lobachevsky University, Russia*), Alexander Maltsev (*Lobachevsky University, Russia*), Victor Sergeev (*Lobachevsky University, Russia*), Wilhelm Keusgen (*Fraunhofer Heinrich-Hertz-Institut, Germany*) and Michael Peter (*Fraunhofer Heinrich-Hertz-Institut, Germany*)

15:45 – 16:15

Coffee Break

16:15 – 17:30

Joint Work in Progress & Speak Session

Room: Leonardo

10:45 – 12:30

Technical Session: Edge, Fog and Mobile Networks

Room: Leonardo

Chair: Shivani Rohilla (*Meerut Institute of Engineering & Technology, India*)

[ADELE: An Architecture for Steering Traffic and Computations via Deep Learning in Challenged Edge Networks - Invited Paper](#)

Alessandro Gaballo (*Saint Louis University, USA and Polytechnic of Turin, Italy*), Matteo Flocco (*Saint Louis University, USA*), Flavio Esposito (*Saint Louis University, USA*) and Guido Marchetto (*Polytechnic of Turin, Italy*)

[A Techno-Economic Evaluation of VNF Placement Strategies in Optical Metro Networks - Invited Paper](#)

Leila Askari (*Politecnico di Milano, Italy*), Francesco Musumeci (*Politecnico di Milano, Italy*) and Massimo Tornatore (*Politecnico di Milano, Italy*)

[PAFFI: Performance Analysis Framework for Fog Infrastructures in realistic scenarios - Invited Paper](#)

Claudia Canali (*University of Modena and Reggio Emilia, Italy*) and Riccardo Lancellotti (*University of Modena and Reggio Emilia, Italy*)

[Wi-CR: Human Action Counting and Recognition with Wi-Fi Signals](#)

Xiwen Liu (*Ningbo University, China*), Haiming Chen (*Ningbo University, China*), Xianliang Jiang (*Ningbo University, China*), Jiangbo Qian (*Ningbo University, China*), Giuseppe Aceto (*University of Napoli Federico II, Italy*) and Antonio Pescapè (*University of Napoli Federico II, Italy*)

[MIRAGE: Mobile-app Traffic Capture and Ground-truth Creation](#)

Giuseppe Aceto (*University of Napoli Federico II, Italy and NM2 s.r.l., Italy*), Domenico Ciuonzo (*University of Napoli Federico II, Italy*), Antonio Montieri (*University of Napoli Federico II, Italy*), Valerio Persico (*University of Napoli Federico II, Italy*) and Antonio Pescapè (*University of Napoli Federico II, Italy and NM2 s.r.l., Italy*)

10:45 – 12:30

Workshop on Smart Building and Internet of Things (SBloT)

Room: Archimede

Chairs: Virginia Pilloni (University of Cagliari, Italy) and Michele Nitti (University of Cagliari, Italy)

[Interoperability of home automation systems as a critical challenge for IoT](#))

Vittorio Miori (CNR, Italy), Dario Russo (CNR, Italy) and Luca Ferrucci (CNR, Italy)

[BRAIN-IoT: Model-Based Framework for Dependable Sensing and Actuation in Intelligent Decentralized IoT Systems](#) &

Davide Conzon (LINKS Foundation, Italy), Mohammad Rifat Ahmmad Rashid (LINKS Foundation, Italy), Xu Tao (LINKS Foundation, Italy), Angel Soriano (Robotnik Automation SLL, Spain), Richard Nicholson (Paremus Ltd, UK) and Enrico Ferrera (LINKS Foundation, Italy)

[UWB TDoA-based Positioning Using a Single Hotspot with Multiple Anchors](#) & \$

Marco Martalò (University of Parma, Italy), Gianluigi Ferrari (University of Parma, Italy), Simone Perri (Elettric80 S.p.A., Italy), Gianmichele Verdano (Elettric80 S.p.A., Italy), Francesco De Mola (Elettric80 S.p.A., Italy) and Francesco Monica (Elettric80 S.p.A., Italy)

[Computational complexity upper bounds for fingerprint-based Point-Of-Interest recognition algorithms](#) & +

Igor Bisio (University of Genoa, Italy), Fabio Lavagetto (University of Genoa, Italy), Chiara Garibotto (University of Genoa, Italy) and Andrea Sciarrone (University of Genoa, Italy)

[Using the I2C bus to set up Long Range Wired Sensor and Actuator Networks in Smart Buildings](#))

Tommaso Addabbo (University of Siena, Italy), Ada Fort (University of Siena, Italy), Marco Mugnaini (University of Siena, Italy), Stefano Parrino (University of Siena, Italy), Alessandro Pozzebon (University of Siena, Italy) and Valerio Vignoli (University of Siena, Italy)

12:30 – 13:30

Lunch Break

13:30 – 14:30

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Room: Leonardo

Chair: Luca Chiaraviglio (University of Rome Tor Vergata, Italy)

Can't You Hear Me Knocking: Novel Security and Privacy Threats to Mobile Users

Mauro Conti (*University of Padua, Italy*)

14:30 – 15:30

Workshop on Optimization in Computing and Networking (OptiComNet)

Room: Leonardo

Chair: Fabio D'andreaiovanni (*CNRS, France*)

[Towards a fully automated and optimized network security functions orchestration](#)

Daniele Bringhenti (*Politecnico di Torino, Italy*), Guido Marchetto (*Politecnico di Torino, Italy*), Riccardo Sisto (*Politecnico di Torino, Italy*), Fulvio Valenza (*Politecnico di Torino, Italy*) and Jalolliddin Yusupov (*Politecnico di Torino, Italy*)

[Evaluation of Channel Assignment Algorithms in a Dense Real World WLAN](#)

Alessandro Raschellà (*Liverpool John Moores University, UK*), Michael Mackay (*Liverpool John Moores University, UK*), Faycal Bouhafs (*Liverpool John Moores University, UK*) and Bjorn Ivar Teigen (*Domos AS, Norway*)

15:30 – 16:00

Coffee Break

20:00 – 23:00

Gala Dinner & Best Paper Awards

Venue: Ristorante L'Archeologia

Address: Via Appia Antica 139, Rome

Saturday 12th October 2019

10:00 – 13:00

Post conference tour: a guided walk in the city center

Meeting point: Piazza del Quirinale, Rome