

15th IFIP Wireless and Mobile Networking Conference

IFIP WMNC 2024 @ Scientific Campus of Ca' Foscari University

Sponsored by Department of Molecular Sciences and Nanosystems (DSMN) and technically by IEEE ComSoc

November 11th-12th 2024 Mestre (Venice) - Italy

FINAL PROGRAMME

DAY 1 (November 11th 2024)

9.00 Opening ceremony

9.15 **Keynote speech 1:** Dr. Danilo Amendola - **Counter-Drone: Protection of Public Spaces and Critical Infrastructures**

10.00 Session 1: Last advances in Unmanned Aerial Vehicles and Drones

Chairman: Prof. Miroslav Voznak

- 1.1 **R. Litjens**, T. R. Pijnappel, S. Borst, H. Van den Berg: *Joint Use of Drone-Mounted Base Stations and Cell Outage Compensation in Emergency Scenarios*
- 1.2 S. Lagaras, **D. Amendola**, D. Anderson: *Design of a counter-drone visualisation platform incorporating sensor-data fusion*
- 1.3 **O. M. Gul**: *UAV-Driven Robust and Energy-Aware Data Collection in Robotic Wireless Sensor Networks*
- 1.4 **A. Abdulazeez**, N. R. Zema, **T. A. Yahiya**, S. Martin: *Formation Control of UAV-fleet With Orientation Alignment: A Multi-Agent Actor-Critic Based Approach*

11.20 Coffee Break

11.50 Session 2: Future Networks and Security

Chairman: Dr. Danilo Amendola

- 2.1 **N. Mehling**, F. Loh, T. Hoßfeld: *Applicability of Listen Before Talk for LoRaWAN Deployments with Multiple Gateways*
- 2.2 L. Kapicak, J. Stipal, K. Trubak, P. Machnik, **P. S. Le**: *Detection System for Passive Network Eavesdropping*
- 2.3 B. ThankGod-Ibulubo, C. I. Nwakanma, E. Allotey-Acquaye: *Mitigating Broadcast Propagation in Redundant BMA Networks using Layer 3 Uplinks*
- 2.4 **M. Memarian**, A. J. Kassler, K.-J. Grinnemo, S. Laki, G. Pongrácz, J. Forsman: *Utilizing Hybrid P4 Solutions to Enhance 5G gNB with Data Plane Programmability*

13.15 Lunch

14.40 **Keynote speech 2:** Dr. Giovanni Antonio Salvatore - **Towards stretchable and wearable sensors**

15.20 MDPI Session

15.40 Coffee Break and Posters Session

- 1 **P. Perazzo**, M. Paladini, A. Vecchio: *Connectivity and Energy Consumption of Cyber-Physical Systems under Wi-Fi Attack*
- 2 **A. Sivo**, O. Pohudina, N. Cordeschi, L. A. Grieco: *Queue Simulation Study for Multi-Link Operation in IEEE802.11be Networks*
- 3 **M. Kharouf**: *Signal source detection using asymptotic behavior of eigenvectors of random matrices*

4 **J. P. Loureiro**, A. Mateus, F. B. Teixeira, R. Campos: *A Semantic-oriented Approach for Underwater Wireless Communications using Generative AI*

5 P. Fazio, M. Mannone, **B. Marchiori**, P. Riello, N. Marwan, **M. Voznak**: *A Biological Fading Channel Model for Neural Communication Networks: a Preliminary Sketch*

16.20 Session 3: Wireless and Mobile Communications and Networks - Internet Wireless Access

Chairman: Dr. Giovanni A. Salvatore

- 3.1 J. B. Davenport, J. Chiksha: *Optimizing Target Coverage in Wireless Sensor Networks: A Hybrid Differential Evolution and Simulated Annealing-Based Approach*
- 3.2 **A. Papadakis**, D. Palianopoulos, G. Kalfas, M. Gatzianas, S. Petridou: *SMART: A Holistic Simulation Framework for End-to-End V2X Communication*
- 3.3 L. Belcastro, **F. Marozzo**, A. Orsino, A. Presta, A. Vinci: *Developing Cross-Platform and Fast-Responsive Applications on the Edge-Cloud Continuum*
- 3.4 C. J. Bouras, **D. Diasakos**, A. Gkamas, V. Kokkinos, P. Pouyioutas, N. Prodromos: *Simulation-based Beamforming Optimization in Moving Drones*

19.30 Social Dinner

DAY 2 (November 12th 2024)

9.00 **Tutorial:** Dr. Riccardo Piccoli - **TeraHertz technology: bridging electronics and photonics**

9.45 **Session 4: Modern channel modeling approaches in the Beyond-5G era**

Chairmen: Dr. Riccardo Piccoli and Dr. Danilo Amendola

- 4.1 **M. S. Alencar**: *Epidemic Interference Effect on the Error Probability of a Cellular System*
- 4.2 **E. Ember**, J. Pestana, M. Krisper, M. Stocker, K. Römer, C. A. Boano, P. Corbalán: *Improving the Correction of NLoS-Induced Ranging Errors in UWB Systems through Enhanced Labeling*
- 4.3 **P. S. Le**, H.-N. Nguyen, D. T. Huynh, G. Salvatore, E. Chromy, M. Voznak: *RIS-Aided Short-Packet with Imperfect CSI: Average Block Error Rate Analysis*
- 4.4 **S. Böhmer**, S.-N. Wollny, H. Frey: *Locally Estimating Log-normal Shadowing Parameters with Applications in Graph Planarization*

11.10 Coffee Break

12.00 **Keynote Speech 3:** Prof. Miroslav Voznak - **The current state of QKD and Future Trends**

12.45 Closing ceremony

All sessions will be held in the "Orio Zanetto" Conference Room, Floor -1 – ALFA BUILDING
The social dinner is reserved **only for attendees who paid the extra dinner ticket before Oct. 30th 2024**