# 12th IFIP International Conference on New Technologies, Mobility and Security NTMS 2025

#NTMS2025

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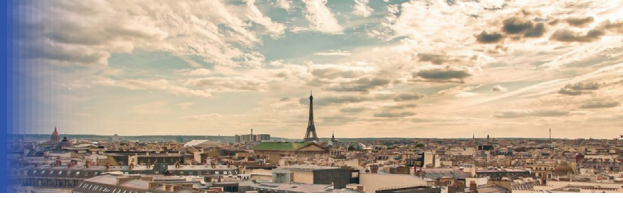
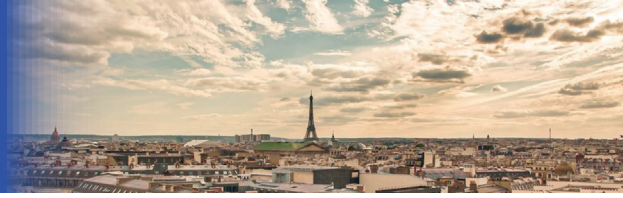


# Program NTMS 2025

## NTMS 2025 Program at a glance

| | June 18, 2025 | | June 19, 2025 | | June 20, 2025 |
|---|---|---|---|---|---|
| | SRC-DAV | CID Workshop | NTMS | | NTMS |
| 9:00 | | | | | |
| 9:30 | Opening (Conference & Workshops) | | | | |
| 10:00 | Keynote #1<br>Erol Gelenbe | | Technical Session #1 (A)<br>*Edge, 5G, and Blockchain-Driven Wireless Architectures* | Technical Session #1 (B)<br>*Edge Systems and Secure Protocols for 5G and Tactical Networks* | Technical Session #6<br>*ML and Vision Applications in IoT and UAVs* |
| 11:00 | Coffee Break | | Coffee Break | | Coffee Break |
| 11:30 | Technical Session #1<br>*Security and Privacy in UAV and IoT Systems* | Technical Session #1<br>*Network and OS Forensics* | Technical Session #2<br>*Security Engineering for Embedded, Vehicular, and Critical Systems* | | Keynote #2<br>*Josep Domingo-Ferrer* |
| 12:30 | Lunch Break | | Lunch Break | | Lunch Break |
| 13:30 | Technical Session #2<br>*AI and Optimization in UAV Networks* | Technical Session #2<br>*AI and ML for Digital Forensics* | Technical Session #3<br>*Large Language Models and Intelligent Network Management* | | Keynote #3<br>*José Lopes Esteves & Emmanuel Cottais* |
| 14:30 | Coffee Break | | Coffee Break | | Coffee Break |
| 15:00 | Technical Session #3<br>*Cryptography, Blockchain, and Quantum-Resilience* | | Technical Session #4 (A)<br>*AI and Reinforcement Learning for Intrusion Detection and Wireless Intelligence* | Technical Session #4 (B)<br>*Advanced Cybersecurity Frameworks and Trust in Distributed Systems* | Technical Session #7<br>*AI and Reinforcement Learning for Intrusion Detection and Wireless Intelligence* |
| 16:00 | Closing Workshops | | Coffee Break | | Closing Conference |
| 16:30 | | | Technical Session #5 (A)<br>*Cybersecurity in Diverse and Cross-Domain Systems* | Technical Session #5 (B)<br>*Advanced Cybersecurity Frameworks and Trust in Distributed Systems* | |
| 17:00 | Welcome Reception<br>Demos Session | | | | |
| | | | Conference dinner | | |

Registration



# NTMS 2025 Keynotes

## *AI and Queueing Theory Combine Forces for the Detection and Mitigation of Cyberattacks*

**Erol Gelenbe**
(FIEEE FACM FIFIP Institute of Theoretical & Applied Informatics, Polish Academy of Sciences, King's College London & CNRS I3S, Université Côte d'Azur, Nice, France)

***Prof. Erol Gelenbe,*** MAE FIEEE FACM FIFIP FRSA FRSS FIET graduated from METU (Ankara), is an expert on System and Network Performance, Cybersecurity and AI. He proved basic mathematical performance results on page fault rates, random access channels, multi-path communications, and optimum database checkpoints, and was involved in the development of commercial performance tools such as QNAP2 and Flexsim. He invented G-Networks with product form solutions, the Random Neural Network, and introduced diffusion approximations for queueing systems with reflecting boundaries. He received a PhD from the Tandon School of Engineering, New York University, and the State Doctorate in Mathematical Sciences from the Sorbonne (Paris). A Professor at the Institute of Theoretical and Applied Informatics, Polish Academy of Sciences, he graduated over 90 PhDs and was awarded the honours of Chevalier de la Légion d'Honneur, Commander of Merit of France and Italy, Commander of the Order of the Crown of Belgium, and Officer of the Order of Merit of Poland. A Fellow of the National Academy of Technologies of France, of the Science Academies of Belgium, Poland and Turkey, Honorary Fellow of the Hungarian Academy of Sciences (Budapest) and the Islamic Academy of Sciences (Amman), he Chairs the Informatics Section of Academia Europaea. He won the ACM SIGMETRICS Lifetime Award, the Mustafa Prize, the Grand Prix France-Télécom of the French Science Academy, the IET Innovation Award (Oliver Lodge Medal), and other prizes.

**Abstract:** *Gateway Servers for the Internet of Things, used in critical application areas such as the Internet of Vehicles and health monitoring, must meet stringent Security and Quality of Service (QoS) requirements, offering cyberattack protection with fast response and minimal loss of benign data. Therefore, it is vital to protect these systems with effective traffic shaping, accurate Attack Detection (AD) and Mitigation mechanisms. We will first demonstrate online and federated learning techniques that accurately detect attacks. Measurements of packet floods that convey a cyberattack will be shown to impair the QoS at the Gateways and impede their capability to carry out AD. Using Queueing Theory, we will show that the novel traffic shaping method QDTP will ensure that a Gateway can allow AD to operate promptly during an attack. A new Adaptive Attack Mitigation (AAM) system will be introduced to sample the incoming packet stream, determine whether an attack is ongoing, and dynamically drop batches of packets at the input to reduce the effects of the attack, and minimise the AD overhead and the cost of lost benign packets.*

**References:** *Our papers related to this talk appear in the IEEE Internet of Things Journal (2025), Internet of Things (Elsevier, 2024), Information Fusion (Elsevier, 2025), Computers and Industrial Engineering (Elsevier, 2024), Performance Evaluation (Elsevier, 2024), IEEE Trans. on Security and Information Forensics (2024), and IEEE Network (Online 2024, and 2025), IEEE Access 2022, 2023*

## *Are current privacy attacks to artificial intelligence really so alarming?*

**Josep Domingo-Ferrer**
(Universitat Rovira i Virgili, Tarragona, Catalonia, and LAAS-CNRS, Toulouse, France)

***Josep Domingo-Ferrer*** (Fellow, IEEE and Distinguished Scientist, ACM) received BSc-MSc and PhD degrees in computer science (Autonomous University of Barcelona), a BSc-MSc in mathematics (UNED) and an MA in philosophy (U. Paris Nanterre). He is a distinguished full professor of computer science and an ICREA-Acadèmia research professor at Universitat Rovira i Virgili, Tarragona, Catalonia, where he also leads CYBERCAT (Center for Cybersecurity Research of Catalonia). He is currently also affiliated as an invited professor with LAAS-CNRS, Toulouse, France. His research interests include data privacy, data security, trustworthy machine learning, and ethics in IT. More details: https://crises-deim.urv.cat/jdomingo
Contact him at josep.domingo@urv.cat

**Abstract:** *In this talk, I will first give an overview of privacy attacks against machine learning. Then I will examine proposed privacy defenses. Among these, the most common rely on noise, and they are problematic both regarding accuracy and security. I will end by exploring how effective are privacy attacks in reality. In fact, their current limited effectiveness casts doubts on how justified is the cost of privacy defenses in terms of accuracy, security, and regulatory compliance for the EU AI industry.*

## *Threats from electromagnetic interaction: overview and practical aspects*

**Abstract:** *Electromagnetic security relates to risks arising from interaction between an electronic device processing sensitive information and its electromagnetic environment.*
*While physical cryptanalysis or fault injection on components are quite well known from information security specialists, other threats considering an attacker in physical proximity exploit such interaction.*
*As such, TEMPEST, IEMI, among other funny codenames can be seen as device level counterparts of these component level threats.*
*In this keynote, an overview of threats considered in electromagnetic security will be proposed in order to allow a better understanding of threat models discrepancies.*
*Then, practical considerations will be discussed, both from the offensive and defensive viewpoints.*

**Emmanuel Cottais**
(Agence Nationale de la Sécurité des Systèmes d'Information (ANSSI), France)

***Emmanuel Cottais*** received his degree in electronics engineering from the Polytechnic School of the University of Nantes (Polytech'Nantes) in 2002, and a PhD in electronics from the University of Nantes in 2005. After developing an interest in digital communications, he joined ANSSI in 2016 and currently holds the position of expert in electromagnetic security. His research activities focus on the risks associated with electromagnetic waves on information security.

**Jose Lopes Esteves**
(Deputy Head of the Wireless Security Lab at Agence Nationale de la Sécurité des Systèmes d'Information (ANSSI), France)

***José Lopes Esteves*** is the deputy head of the Wireless Security Laboratory at the ANSSI, the French Cybersecurity Agency. He holds a PhD in computer science from HESAM University and CNAM Paris and focuses his research on the exploitation of intentional electromagnetic interference on electronic devices and the security of wireless protocols and embedded systems. He is VP of the commission E for France at the International Union of Radio Science (URSI) and an active member of the IFIP WG11.2.

**Location References:**

**Amphi JBS: Amphi Jean-Baptiste Say (Y) (Access – 1, 292 rue Saint Martin)**
**Amphi FP: Amphi Fabry Perot (A) (292 rue Saint Martin)**
**Salon d'honneur: (2 rue conté)**
**Rest. CNAM: Restaurant du CNAM (2 rue conté)**
**Salle 21.1.08: Building 17/21, first Floor (292 rue Saint Martin)**

***Please refer to the CNAM / Room Plan at the end of this document.***

**WiFi Access:**

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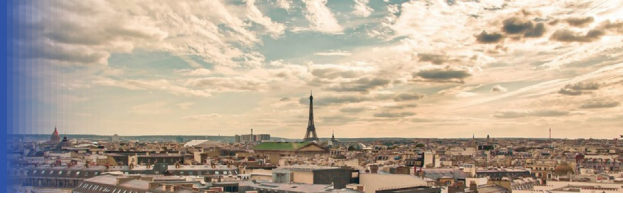


## Wednesday, June 18th, 2025 (Workshops)

**09:00 - 09:30 Registration**

**09:30 - 10:00 Opening (Conference & Workshops)**

**10:00 - 11:00 Keynote 1: AI and Queueing Theory Combine Forces for the Detection and Mitigation of Cyberattacks**
***Speaker : Erol Gelenbe (FIEEE FACM FIFIP Institute of Theoretical & Applied Informatics, Polish Academy of Sciences, King's College London & CNRS I3S, Université Côte d'Azur, Nice, France)***
Session Chair : Saadi Boudjit (University of Rouen Normandy, France)

**11:00 - 12:30 TS #1: Security and Privacy in UAV and IoT Systems (SRC-DAV Workshop) - Amphi JBS**
***Session Chair : Amine Ouamri (Sorbonne Paris Nord, France)***

***Drone Security in Connected Agriculture: Threats, Datasets, and AI-Driven Solutions***
(Anis Charfi (Université de Technologie de Troyes, France & UTT, France); Samiha Ayed (Université Technologique de Troyes, France); Lamia Chaari (CRNS, Tunisia)

***Towards a Secure Modular Drone-Based Hardware Architecture for IoT-Enabled Traffic Safety in Intelligent Transportation Systems***
Younes Ifourah (École Nationale Supérieure d'Informatique (ESI), France & Conservatoire National Des Arts et Métiers, France); Landry Tchouapi Pouyap (Ecole d'Ingénieurs du CNAM, France & EICNAM, France); Saadi Boudjit (University of Rouen Normandy, France); Samia Bouzefrane (CNAM, France); Amar Balla (Computer Science, Algeria); Ryma Boussaha (École nationale supérieure d'informatique, Algeria)

***A Novel SDN-Driven IDS Framework for the Internet of Vehicles***
Amal Hbaieb (University of Technology of Troyes, France); Samiha Ayed (Université Technologique de Troyes, France); Lamia Chaari Fourati (Institut Supérieur d'Informatique et de Multimédia de Sfax, Tunisia)

**11:00 - 12:30 TS #1: Network and OS Forensics (CID Workshop) - Amphi FP**
***Session Chair : Lyes Khoukhi (Normandie University, France)***

***Application of SNN and CNN Models for Intrusion Detection in Resource-Constrained Networks***
Alina Fesu, Nathan Shone, Aine MacDermott, Bo Zhou and Max Hashem Eiza (Liverpool John Moores University, United Kingdom (Great Britain))

***Mapping Industry Demands for Digital Forensics: A Study of Penetration Tester Requirements***
Pragya Kaushik (The University of Adelaide, Australia); Faheem Ullah and Muhammad Imran Taj (Zayed University, United Arab Emirates)

***Forensic Examination of iOS Platform Artifacts: A Comparative Multi-Tool Study Using Publicly Available Data***
Muhannad AlBreiki, Faisal Alazemi, Niyat Seghid and Azka Wani (Zayed University, United Arab Emirates); Farkhund Iqbal (Zayed University, United Arab Emirates & McGill University, Canada)

**12:30 - 13:30 Lunch Break - Rest. CNAM**

**13:30 - 14:30 TS #2: AI and Optimization in UAV Networks (SRC-DAV Workshop) - Amphi JBS**
***Session Chair : Lyes Khoukhi (Normandie University, France)***

***Multi-Modal Deep Reinforcement Learning Framework for Interference-Limited RIS-Assisted UAV Wireless Network***
Mamadou Aliou Diallo (Chongqing University of Posts and Telecommunications, China); Mohamed Amine Ouamri, Amine (Université Sorbone paris nord, France & L2ti laboratory, France); Muhammad Imran Khalid and Asma Komal (Chongqing University Posts and Telecommunications, China); ELhadj Moustapha Diallo (Chongqing University of Post and Telecommunications, China); Abuzar Babikir Mohammad Adam (University of Luxembourg, Luxembourg)

***Quantum Deep Reinforcement Learning for Secure Multi-User UAV RSMA Networks***
Mohamed Amine Ouamri, Amine (Université Sorbone paris nord, France & L2ti laboratory, France); Abuzar Babikir Mohammad Adam (University of Luxembourg, Luxembourg); Mohammed A. M. Elhassan (Zhejiang Normal University, China)

***A Case for Enabling Delegation of 5G Core Decisions to the RAN***
Lucas N Vancina and Geoffrey G Xie (Naval Postgraduate School, USA)

**13:30 - 14:30 TS #2: AI and ML for Digital Forensics (CID Workshop) - Amphi FP**
***Session Chair :** Farkhund Iqbal (Zayed University, United Arab Emirates & McGill University, Canada)*

***Enhancing Digital Forensics in Higher Education: The Role of Experiential Learning in Bridging the Skills Gap***
Benjamin Yankson (State University of New York - Albany, USA)

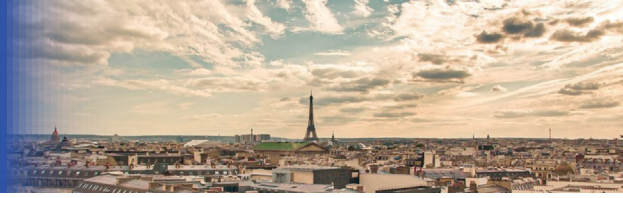
***PViT: A Hybrid Model for Deepfake Face Detection using Patch Vision Transformers and Deep learning***
Zunera Jalil (Air University, Pakistan & National Center for Cyber Security, Pakistan); Farkhund Iqbal (Zayed University, United Arab Emirates & McGill University, Canada); Andrew Marrington (Zayed University, United Arab Emirates); Muhammad Aatif (National University of Science and Technology, Pakistan); Iqra Ambreen (National Center for Cyber Security, Pakistan)

***Unlocking Digital Evidence Utilizing Save Wizard for PS4 in Forensic Analysis***
Hamed Alawadhi (ZU, United Arab Emirates); Belal Alghafri and Niyat Seghid (Zayed University, United Arab Emirates); Farkhund Iqbal (Zayed University, United Arab Emirates & McGill University, Canada)

**14:30 - 15:00 Coffee Break**

**15:00 - 16:00 TS #3: Cryptography, Blockchain, and Quantum-Resilience (SRC-DAV Workshop) - Amphi JBS**
***Session Chair : Rida Khatoun (Telecom ParisTech, France)***

***Digital Signature Quantification in the Bitcoin Blockchain: A Statistical Approach (R)***
Hussein Kazem (Consevatoir National des Arts et Métiers, France & ISEP. Sopra Steria I2S, France); Youakim Badr (Pennsylvania State University at Great Valley, USA); Nour El Madhoun (LISITE – Isep, France & Sorbonne Université, France); Pierrick Conord (Sopra Steria I2S, France)



***Hybrid Key Exchange & Signature Design for Quantum-safe C-ITS***
Brigitte Lonc (IRT SystemX, France); Farah-Emma Braiteh (LTCI, Télécom Paris, Institut Polytechnique de Paris, France & Renault Group, France); Francesca Bassi (IRT, France)

***Advances in Lightweight Cross-Architecture Procedural Debugging***
Jonathan Brossard (Conservatoire National des Arts et Métiers & MOABI, France)

**16:00 - 16:30 Closing Workshop**

**17:00 Welcome Reception / Posters & Demos - Salle d'honneur**

**Biometric Private Embedding**
Hervé Chabanne (Idemia); Vincent Despiegel and Damien Monet (Idemia, France)

**Turnstile cookies: A new root of trust for personhood credentials**
Hervé Chabanne (Idemia); Alberto Ibarrondo (Arcium, France)



## Thursday, June 19th, 2025

**09:00 - 09:30 Registration**

**10:00 - 11:00 TS #1 (A): Edge, 5G, and Blockchain-Driven Wireless Architectures - Amphi JBS**
***Session Chair : Pengwenlong Gu (CNAM, France)***

***Distinguishing Signal from Noise in 5G MIMO Systems Using Generative Adversarial Networks (R)***
Damianos Diasakos and Nikolaos Prodromos (University of Patras, Greece); Apostolos Gkamas (University of Ioannina, Greece); Vasileios Kokkinos (University of Patras, Greece); Christos J Bouras (University of Patras – ELKE, Greece); Philippos Pouyioutas (University of Nicosia, Cyprus)

***Coded caching in Wireless Local Area Networks***
Mirna Hamad Haidar (Lebanese University, Belgium & Saint Joseph University, Lebanon); Yasser Fadlallah (University of Sciences and Arts in Lebanon, Lebanon); Hadi Edmond Sawaya (Saint Joseph University, Lebanon); Abed Ellatif Samhat (Lebanese University, Lebanon)

***Hybrid Metaheuristics-Driven Distributed Task Scheduling for Latency-Sensitive Edge Data Processing***
Achraf Sayah (University HASSAN II of Casablanca, Morocco); Said Aqil (University of Casablanca, Morocco); Lahby Mohamed (Ecole Normale Supérieure (ENS) de Casablanca, Morocco)

**10:00 - 11:00 TS #1 (B): Edge Systems and Secure Protocols for 5G and Tactical Networks - Salle 21.1.08**
***Session Chair : Ahmed Serhrouchni (Telecom Paris, France)***

***Blockchain-based data management approach for swarm-edge computing***
Adnan Imeri (Luxembourg Institute of Science and Technology & LIST, Luxembourg); Oussema Gharsallaoui (Luxembourg Institute of Science and Technology, Luxembourg); Thierry Grandjean and Uwe Roth (Luxembourg Institute of Science and Technology (LIST), Luxembourg)

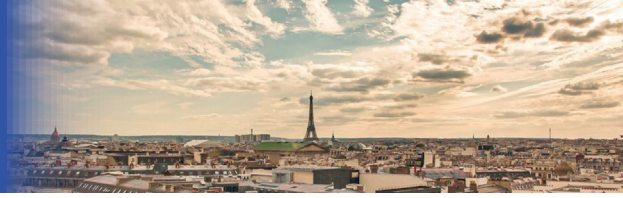
***Energy-Efficient Cryptography for Green Computing: Optimizing Algorithms to Reduce Energy Consumption Without Sacrificing Security***
Mohammed Ibrahim El-hajj (Arab Open University – Lebanon (AOU), Lebanon); Ahmad Fadlallah (University of Sciences and Arts in Lebanon (USAL), Lebanon); Ali El Attar (Arab Open University (AOU), Lebanon); Rida Khatoun (Telecom Paris, France)

***Edge Computing with Kubernetes: KubeEdge in 5G, SATCOM, and Tactical Networks***
Emil Paulin Andersen (Norwegian Defence Research Establishment (FFI), Norway); Ola Flaata (Norwegian University of Science and Technology (NTNU), Norway); Frank T. Johnsen (Norwegian Defence Research Establishment (FFI), Norway)

**11:00 - 11:30 Coffee Break**

**11:30 - 12:30 TS #2: Security Engineering for Embedded, Vehicular, and Critical Systems - Amphi JBS**
***Session Chair : Rida Khatoun (Telecom Paris, France)***

***Enhancing Security and Privacy in 5G Bubbles with Zero-Knowledge Proofs: A Comparative Analysis***
Flavien Dermigny (Conservatoire National des Arts et Métiers, France & Thales SIX GTS France, France); Vania Conan (CNAM Paris, France); Samia Bouzefrane (Conservatoire National des Arts et Métiers, France);



Pengwenlong Gu (CNAM, France); Youakim Badr (Pennsylvania State University at Great Valley, USA); Jean-Marc Montenot (Thales SIX GTS France, France)

***Towards a situational aware-based cybersecurity remediation***
Rayan Kanawati (Conservatoire national des art et métier, France); Nadira Lammari, Adam Faci and Nada Mimouni (Conservatoire National des Arts et Métiers, France)

***A Secure and Cooperative Departure Protocol for Connected Automated Platoons***
Farah-Emma Braiteh (LTCI, Télécom Paris, Institut Polytechnique de Paris, France & Renault Group, France); Davy Tse and Ounas Yhia (Sorbonne University, France); Francesca Bassi (IRT, France); Rida Khatoun (Telecom Paris, France)

**12:30 - 13:30 Lunch Break - Rest. CNAM**

**13:30 - 14:30 TS #3: Large Language Models and Intelligent Network Management - Amphi JBS**
***Session Chair : Saadi Boudjit (University of Rouen Normandy, France)***

***Analysis of Propagation of Regular, Extended, and Large BGP Communities (R)***
Lilia Hannachi (NIST, USA), Kotikalapudi Sriram (NIST, USA), Doug Montgomery (NIST, USA)

***A Survey on Large Language Models in Phishing Detection***
Muharrem Atakan Şentürk & Serif Bahtiyar (Istanbul University, Turkey)

***Quantization Effects on Large Language Models for Intent-Based Network Management***
Nicollas R. de Oliveira (Universidade Federal Fluminense, Brazil); Gabriel Campos and Igor Rodrigues (Universidade Federal Fluminense (UFF), Brazil); João André C. Watanabe (UFF, Brazil); Rodrigo S. Couto (Universidade Federal do Rio de Janeiro, Brazil); Igor Monteiro Moraes and Dianne Medeiros (Universidade Federal Fluminense, Brazil); Diogo M. F. Mattos (Universidade Federal Fluminense & MídiaCom, Brazil)

***Traffic Prediction Improvement in 5G and beyond: AI and Self-Controlled Components (Short Paper)***
Thierry Isaac N'kouka (Cnam (Conservatoire national des arts et métiers), France); Tatiana Aubonnet (CNAM, CEDRIC, France); Frédéric Lemoine (CNAM, France); Mounir Kellil (CEA LIST, France); Noëmie Simoni (Telecom Paristech, France)

**14:30 - 15:00 Coffee Break**

**15:00 - 16:00 TS #4 (A): AI and Reinforcement Learning for Intrusion Detection and Wireless Intelligence - Amphi JBS**
***Session Chair : Rida Khatoun (Telecom Paris, France)***

***Refining Intrusion Detection in the Age of QUIC: Leveraging Machine Learning for Enhanced Security (R)***
Adam Kadi and Lyes Khoukhi (ENSICAEN, France); Jouni Viinikka and Pierre-Edouard Fabre (6Cure, France)

***Enhancing IIoT Security with Deep Reinforcement Learning for Intrusion Detection***
Aymene Selamnia (University of Caen Normandie & UNICAEN, Ensicaen, France); Lyes Khoukhi (ENSICAEN, France); Mondher Ayadi (Numeryx, France); Zakaria Abou El Houda (INRS, Canada)

***Leveraging Zero Trust for Enhanced Security and Connectivity in Ad-Hoc Mesh Networks***
Guilherme Nunes Nasseh Barbosa (Universidade Federal Fluminense, Brazil); Martin Andreoni (Technology Innovation Institute (TII), United Arab Emirates & Khalifa University, United Arab Emirates); Diogo M. F. Mattos (Universidade Federal Fluminense & MídiaCom, Brazil)

**15:00 - 16:00 TS #4 (B): Advanced Cybersecurity Frameworks and Trust in Distributed Systems - Salle 21.1.08**
***Session Chair : Pengwenlong Gu (CNAM, France)***

***Enhancing Maritime Cybersecurity with Advanced Anomaly Detection using Semi-Markov Processes (R)***
Kamel Abbad (Ensicaen, France); Lyes Khoukhi (ENSICAEN, France); Lionnel Mesnil and Alain Alliot (NEAC Industry, France)

***DAPIS: A Secure Proxy Re-encryption Protocol for Delegated Authentication and Privacy Management***
Abdou-Essamad Jabri (Matsi Laboratory – UMP Oujda, Morocco); Cyril Drocourt (Mis Laboratory / University of Picardie Jules Verne, France); Mostafa Azizi (MATSI Laboratory – UMP Oujda, Morocco); Gil Utard (MIS Laboratory – UPJV Amiens, France)

***Revisiting Atomic Patterns for Elliptic Curve Scalar Multiplication Revealing Inherent Vulnerability to Simple SCA***
Alkistis Aikaterini Sigourou (IHP GmbH – Leibniz Institute for High Performance Microelectronics, Germany); Zoya Dyka (Innovations for High Performance Microelectronics & IHP, Germany); Sze Hei Li (IHP GmbH – Leibniz Institute for High Performance Microelectronics, Germany); Peter Langendoerfer (IHP Microelectronics, Germany); Ievgen Kabin (IHP, Germany)

**16:00 - 16:30 Coffee Break**

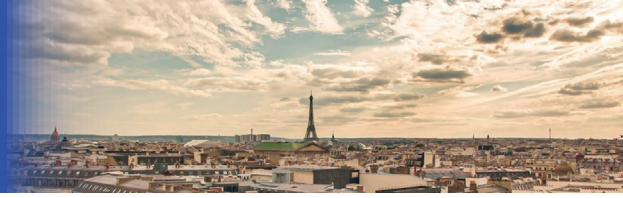
**16:30 - 18:00 TS #5 (A): Cybersecurity in Diverse and Cross-Domain Systems - Amphi JBS**
***Session Chair : Ahmed Serhrouchni (Telecom Paris, France)***

***A Novel Clustering Framework for Military High Performance Mobile Ad-Hoc Networks***
Mehmet Semih Saydam (ASELSAN Inc., Turkey); Seyyit Alper Sert (Middle East Technical University, Turkey); Güven Yenihayat and Ege Orkun Gamgam (ASELSAN Inc., Turkey)

***Evaluating Emotional Responses to Experimental Video Art***
Konstantinos G Tsioutas (Athens University of Economics and Business, Greece); Ioannis Doumanis (University of Central Lancashire, United Kingdom (Great Britain)); Konstantinos Dalezios (Greece); Dora Siafla (Ionian University, Greece); Konstantinos Tiligadis (Ionian University Corfu, Greece)

***A Novel Framework for Adversarial DoS Attack Generation on UAVs***
Burcu Sonmez and Serif Bahtiyar (Istanbul Technical University, Turkey)

***Securing Fault Diagnosis in IoT-Enabled Industrial Systems Using Homomorphic Encryption***
Mohammed Ibrahim El-hajj (Arab Open University – Lebanon (AOU), Lebanon); Ali El Attar (Arab Open University (AOU), Lebanon); Ahmad



Fadlallah (University of Sciences and Arts in Lebanon (USAL), Lebanon); Rida Khatoun (Telecom Paris, France)

***Counter-Argument: Ecuador's Progress in Cyberpolicy and Cybersecurity Strategy (ShortPaper)***
Roberto Andrade (Universidad San Francisco, Ecuador); Jenny Torres and Patricio Zambrano (Escuela Politécnica Nacional, Ecuador)

**16:30 - 18:00 TS #5 (B): Advanced Cybersecurity Frameworks and Trust in Distributed Systems - Salle 21.1.08**
***Session Chair : Saadi Boudjit (University of Rouen Normandy, France)***

***A Smart System for Detecting High-Risk Areas of Epidemic Spread***
Khaled Abbaci (University of Science and Technology Houari Boumediene, Algeria); Fayçal M'hamed Bouyakoub (University of Sciences and Technology Houari Boumediene, Algeria); Ikram Chegroune and Massinissa Mouhoub (University of Science and Technology Houari Boumediene, Algeria)

***Enhancing Digital Product Passport Through Decentralized Digital Twins***
Ranjit Kannappan (Telecom Sud Paris & Orange Innovation, France); Julien Hatin (Orange Innovation, France); Emmanuel Bertin (Orange Labs, France); Noel Crespi (Institut Mines-Télécom, Télécom SudParis, France)

***Multi-Centered Attack-Surface-Driven Threat Modeling: Securing Healthcare Systems***
Rachid Rebiha (CNAM, France); Sofia Rebiha Decesaro (Charles University Prague, Czech Republic)

***Federated Secure Intelligent Intrusion Detection and Mitigation Framework for SD-IoT Networks using ViT-GraphSAGE and Automated Attack Reporting***
Walid El Gadal and Sudhakar Ganti (University of Victoria, Canada)

***WebScan: A Comprehensive Static and Dynamic Analysis Approach for Web Application Security (Short Paper)***
Ahmet Eren Gündoğdu (Istinye University, Turkey); Ebu Yusuf Güven (Istanbul University – Cerrahpasa, Turkey)

**20:00 Conference Dinner**

## Friday, June 20th, 2025

**09:00 - 09:30 Registration**

**10:00 - 11:00 TS #6 : ML and Vision Applications in IoT and UAVs - Amphi JBS**
***Session Chair : Pengwenlong Gu (CNAM, France)***

***Adversarial Attacks on Faster R-CNN Model for Object Detection in Autonomous Vehicles***
Melike Başer (Istanbul University – Cerrahpasa, Turkey); Serif Bahtiyar (Istanbul Technical University, Turkey)

***DCA-Net: Advanced Small Object Detection Scheme for UAVs Using Contextual Feature Extraction***
Maham Misbah and Haleema Sadia (UAE University, United Arab Emirates); Nasir Saeed (United Arab Emirates University, United Arab Emirates)

***Fuzzy Logic-Based IoT Object Integrity Self-Management***
Abdelhamid Garah, Nader Mbarek and Sergey Kirgizov (LIB, Université Bourgogne Europe, France)

**11:00 - 11:30 Coffee Break**

**11:30 - 12:30 Keynote 2: Are current privacy attacks to artificial intelligence really so alarming? - Amphi JBS**
***Speaker : Josep Domingo-Ferrer (Distinguished Full Professor of Computer Science and an ICREA-Acadèmia Researcher at Universitat Rovira i Virgili, Tarragona, Catalonia)***
Session Chair : Ahmed Serhrouchni (Telecom Paris, France)

**12:30 - 13:30 Lunch Break - Rest. CNAM**

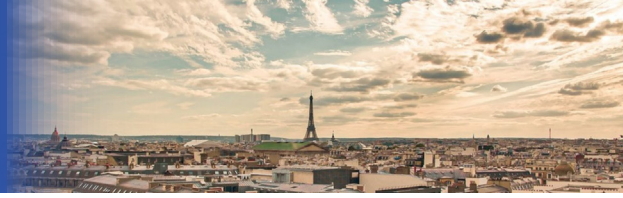
**13:30 - 14:30 Keynote 3: Threats from electromagnetic interaction: overview and practical aspects - Amphi JBS**
***Speaker : Emmanuel Cottais (Agence Nationale de la Sécurité des Systèmes d'Information (ANSSI), France) & Jose Lopes Esteves (Deputy Head of the Wireless Security Lab at Agence Nationale de la Sécurité des Systèmes d'Information (ANSSI), France)***
Session Chair : Ahmed Serhrouchni (Telecom Paris, France)

**14:30 - 15:00 Coffee Break**

**15:00 - 16:00 TS #7: AI and Reinforcement Learning for Intrusion Detection and Wireless Intelligence - Amphi JBS**
***Session Chair : Pengwenlong Gu (CNAM, France)***

***User Association in Wireless Networks with Distributed GNN-Based Reinforcement Learning***
Martín Randall (Universidad de la República, Uruguay); Santiago Paternain (Rensselaer Polytechnic Institute, USA); Pedro Casas (Austrian Institute of Technology (AIT), Austria); Federico Larroca (Universidad de la República, Uruguay); Pablo Belzarena (Universidad de la Republica, Uruguay)

***Network Traffic Fingerprinting for IoT Device Identification Using Machine Learning***
Jamal Haydar (Islamic University of Lebanon, Lebanon); Linda Kanaan (IUL, Lebanon); Ali Mokdad (Islamic University of Lebanon, Lebanon); Ali Beydoun (Lebanese University, Lebanon)

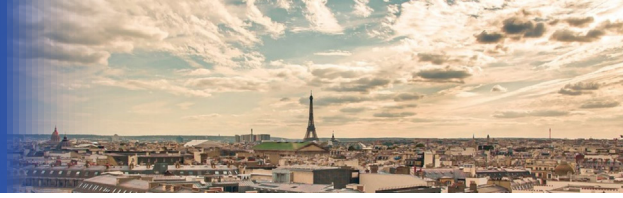


***Advancing Intrusion Detection: A Deep Analysis of Anomalies and Network Protocol Vulnerabilities (R)***
Ali Rachini (Lebanese University, Lebanon & Holy Spirit University of Kaslik, Lebanon); Souheil Taouk (Lebanese University, Lebanon); Maroun Abi Assaf (USEK, Lebanon); Rida Khatoun (Telecom Paris, France)

***CD2A: Continuous Device-to-Device Authentication Exploiting Crystal Oscillator Impurities***
Muthupavithran Selvam (City, University of London, United Kingdom (Great Britain)); Zeba Khanam (British Telecom, United Kingdom (Great Britain)); Amit Singh (University of Essex, United Kingdom (Great Britain)); Zhan Cui (British Telecom, United Kingdom (Great Britain)); Muttukrishnan Rajarajan (City University London, United Kingdom (Great Britain))

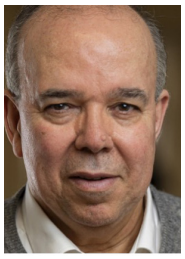
**16:00 - 16:30 Closing Conference**

## CNAM / Room Plan



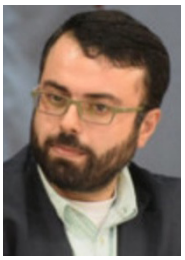
## General Co-Chairs

**Samia Bouzefrane**
(CNAM, France)



**Ahmed Serhrouchni**
(Telecom Paris, France)

## TPC Co-Chairs



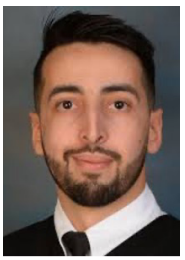
**Ahmad FADLALLAH**
(University of Sciences and Arts, Lebanon)

**Lyes KHOUKHI**
(ENSICAEN, Normandie University, France)

## Mobility and Wireless Track Chair

**Mohammed Amine TOGOU**
(Dublin City University, Irland)

## Security Track Chair



**Zakaria Abouelhouda**
(University of Québec - INRS, Canada)

## New Technologies and Services Track Chair

**Pascal Lorenz**
(University of Haute Alsace, France)

## Keynote Chair

**Farid Nait-Abdesselam**
(University Paris Cité, France)

## Workshop Co-Chairs

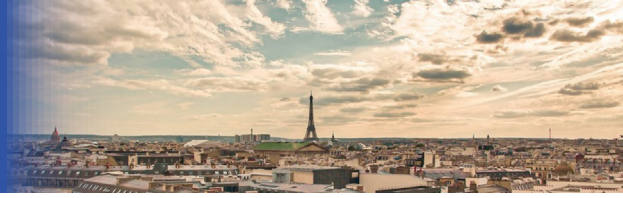
**Tatiana Aubonnet**
(CNAM, France)

**Rida Khatoun**
(Telecom ParisTech, France)

## SRC-DAV Workshop Co-Chairs

**Saadi Boudjit**
(University of Rouen Normandy, France)

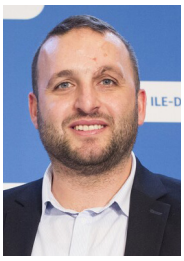
**Fériel Bouakkaz**
(EFREI Paris Panthéon-Assas University, France)



## CID Workshop Chair

**Farkhund Iqbal**
*(Zayed University, United Arab Emirates & McGill University, Canada)*

## Local Co-Chairs



**Ali Jaffal**
(ESIEE, France)

**Pengwenlong Gu**
(CNAM, France)

## Finance Chair

**Ibrahim Hajjeh**
(Fransec, France)

## Overall arrangements Chair

**Aziza Lounis**
(DNAC, France)

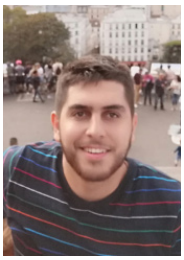
## Publicity Co-Chairs

**Mohamed Lahby**
(University Hassan II, Casablanca, Morocco)

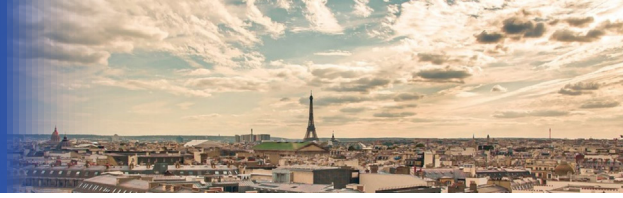
**Dongqing Liu**
(The First Affiliated Hospital of Zhengzhou University, China)

**Mohamad Badra**
(Zayed University, UAE)

## Web/IT Chair



**Elia Kallas**
(DNAC, France)



## NTMS 2025 TPC List

Abbass Madi University of Sciences and Arts in Lebanon, Lebanon
Adam Kadi École Nationale Supérieure d'Ingénieurs de Caen, France
Ahmad Fadlallah University of Sciences and Arts in Lebanon, Lebanon
Ahmed Serhrouchni Télécom Paris, France
Ali Chouman Western University, Canada
Ali Ghorayeb Al Maaref University, Lebanon
André Aquino Federal University of Alagoas, Brazil
Avimita Chatterjee University of Colorado Boulder, USA
Aymene Selamnia University of Caen Normandy, France
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Badis Hammi Institut Polytechnique de Paris, Télécom SudParis
Bassem Haidar ESIEA University, Paris
Benatia Mohamed Amin CESI LINEACT, France
Bogdan Ksiezopolski Kozminski University, Poland
Carl J. Debono University of Malta, Malta
Constantin Volosencu Politehnica University of Timisoara, Romania
David Lima University of Coimbra & Federal Institute of Alagoas, Brazil
Fadlallah Chbib Télécom Paris, France
Felipe Cunha Linköping University, Sweden
Gerardo Pelosi Politecnico di Milano, Italy
Geymerson Ramos INSA Lyon, France
Hadi Fadlallah Saint Joseph University, Lebanon
Hassan Harb American University of the Middle East, Kuwait
Hussein Hazimeh Al Maaref University, Lebanon
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Jorge Sá Silva University of Coimbra, Portugal
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Kamel Abbad University of Caen Normandy (UNICAEN), France
Keila Barbosa Federal University of Alagoas, Brazil
Lukasz Krzywiecki Wrocław University of Science and Technology, Poland
Lyes Khoukhi École Nationale Supérieure d'Ingénieurs de Caen, France
Manuel Fernández Veiga Universidade de Vigo, Spain
Maryline Laurent Télécom SudParis, France
Mohamed-el-Amine Brahmia CESI LINEACT, France
Mohammed Amine Togou Dublin City University, Ireland
Mohammed Ibrahim El-Hajj Arab Open University (AOU), Lebanon
Mohand Yazid Saidi University of Paris 13, France
Mortada Termos CESI LINEACT, France
Mouhamed Amine Bouchiha University of La Rochelle, France
Nadjib Aitsaadi UVSQ Paris-Saclay & DAVIDLab, France
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Nicolas Sklavos University of Patras, Greece
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Rami Tawil Lebanese University, Faculty of Sciences, Lebanon
Rayane El Sibai Al Maaref University, Lebanon
Rida Khatoun Télécom Paris, France
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Shahin Gheitanchi Altera Corporation, USA
Shaolong Guo Xi'an Jiaotong University
Siwar Ben Hadj Said CEA-LIST, France
Will Lima Junior Federal University of Alagoas, Brazil
Y A Joarder Concordia University, Canada
Yasser Fadlallah University of Sciences and Arts in Lebanon, Lebanon
Yuntao Wang Xi'an Jiaotong University, China
Zakaria Abou El Houda INRS, Canada

## Volunteering Students List

Billal Mokhtari (Cnam, France
Hakim Adjedjou (Cnam, France)
Kaoutar Sadouki (Cnam, France)
Muhammad Mansoor Ashraf (Université Sorbonne Paris Nord, France)
Salah Dine Maham (UTT, France)

## Notes


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