

*The 11<sup>th</sup> IFIP International Conference on  
New Technologies, Mobility and Security  
(NTMS 2021)*

→ PROGRAM



# The 2021 11<sup>th</sup> IFIP International Conference on New Technologies, Mobility and Security

## Program

Monday, April 19		
09:00 am – 09:30 am	Opening Session	
09:30 am – 11:00 pm	NTMS Session 1	Workshop CyberSECHARD
11:15 pm – 12:30 pm	NTMS Session 2	Workshop CID
12:30 pm – 02:00 pm	Break	
02:00 pm – 03:40 pm	NTMS Session 3	Workshop BSC Session 1
04:00 pm – 06:00 pm	NTMS Invited Papers	Workshop BSC Session 1
06:00 pm – 06:10 pm	Cloture	

**09:00 – 09:30**

### Opening Session

**09:30 – 11:00**

### NTMS Session 1

Chair: Lorenzo Vangelista, University of Padova, Italy

#### ***Digital Forensic Investigation Process in Railway Environment***

Jasmin Cosic; Christian Schlehuber; Drazen Morog

#### ***Performance Evaluation of Pseudonym Reload over Cellular Technology***

Farah Haidar; Farah Braiteh; Brigitte Lonc; Arnaud Kaiser; Pascal Urien

#### ***TypoSwype: An Imaging Approach to Detect Typo-Squatting***

Joon Sern Lee; David Yam

#### ***SDN Security through System Call Learning***

Danai Chasaki; Christopher Mansour

### CyberSECHARD

Chair: Nicolas Sklavos (University of Patras, Greece)

#### ***A Survey on the Application of Fault Analysis on Lightweight Cryptography***

Patrick Karl; Michael Gruber

#### ***CORSICA: A Framework for Conducting Real-World Side-Channel Analysis***

Jens Schlumberger; Stefan Wildermann; Jürgen Teich

#### ***Electromagnetic Fields as a Sign of Side-Channel Attacks in GSM Module***

Alla Levina; Vladimir Vladimirovich Gustov

#### ***FFT based Horizontal SCA Attack against ECC***

Zoya Dyka; Dan Klann; Ievgen Kabin; Marcin Aftowicz; Peter Langendoerfer

***Towards An SDN Assisted IDS***

Robert Sutton; Robert Ludwiniak; Christos Chrysoulas; Nikolaos Pitropakis; Tasos Dagiuklas

**11:15 – 12:30**

## **NTMS Session 2**

Chair: Layth Sliman, EFREI Engineering School, France

***Securing Building Automation Systems***

Johannes Goltz

***Game Theoretical Model for Cybersecurity Risk Assessment of Industrial Control Systems***

Mohamed Nassar; Joseph Khoury; Abdelkarim Erradi; Elias Bou-Harb

***Privacy-preserving and Efficient Aggregation for Smart Grid based on Blockchain.***

Mohamad Badra, Rouba Borghol

***Scalable Wi-Fi Intrusion Detection for IoT Systems***

Faik Kerem Örs; Mustafa Aydın; Aysu Boğatarkan; Albert Levi

***Auditchain: a mechanism for ensuring logs integrity based on proof of existence in a public blockchain***

Bruno de Azevedo Mendonça; Paulo Matias

## **CID Workshop**

Chair: Farkhund Iqbal (Zayed University, UAE)

***Discord Server Forensics: Analysis and Extraction of Digital Evidence***

Farkhund Iqbal; Michal Motylinski; Aine MacDermott

***Cyber Forensics Tools: A Review on Mechanism and Emerging Challenges***

Vihara Fernando

***Security Assessment for Zenbo Robot Using Drozer and mobSF Frameworks***

Benjamin Yankson; Patrick C. K. Hung; Farkhund Iqbal; Liaqat Ali

***WhatsApp Network Forensics: Discovering the IP Addresses of Suspects***

Waqas Ahmed; Faisal Shahzad; Abdul Rehman Javed; Farkhund Iqbal; Liaqat Ali

**12:30 – 14:00**

## **Break**

**14:00 – 15:40**

## **NTMS Session 3**

Chair: Ibrabim Hajjeh (FanSEC, France)

***An empirical evaluation of QoME for NMP***

Konstantinos G Tsioutas; George Xylomenos; Ioannis Doumanis

***Performance Evaluation of Transmission Mode Selection in D2D communication***

Iacovos Ioannou; Christophoros Christophorou; Vasos Vassiliou; Andreas Pitsillides

***Exploring the energy efficiency for Search and Rescue operations over LoRa***

Christos J Bouras; Apostolos Gkamas; Spyridon Aniceto Katsampiris Salgado

***Energy-efficient Protection of IoT Networks using Trust Management on the IEEE 802.15.4 Protocol***

Zeeshan Ali Khan; Peter Herrmann

***An Internet of Things (IoT) Homecare Management System Using Cardiac Arrhythmia Classification***

Areej Almazroa; Hongjian Sun

## **BSC Workshop**

Chair: Kalpana Singh, IRT SystemX, France

***Anonymous Fair Auction on Blockchain***

Gaurav Sharma; Denis Verstraeten; Vishal Saraswat; Jean-Michel Dricot; Olivier Markowitch

***A Private Key Recovery Scheme Using Partial Knowledge***

Har Preet Singh; Kyriakos Stefanidis; Fabian Kirstein

***Secure Distributed Medical Record Storage using Blockchain and Emergency Sharing Using Multi-Party Computation***

Lohith Jyothinagara Jayaram; Sudarshan Parthasarathy; Kunwar Singh

***Towards the Identification of Security Tokens on Ethereum***

Monika di Angelo; Gernot Salzer

***A GDPR-Compliant Framework for IoT-Based Personal Health Records Using Blockchain***

Bandar Alamri; Tiziana Margaria; Ibrahim Tariq Javed

***SpeedChain: A framework for Monitoring and Alerting blockchain projects***

Mouad Fakhri, Baptiste Zegre, Nouha Omrane, Rakia Jaziri

**16:00 –18:00**

## **NTMS Invited Papers**

Chair: Layth Sliman, EFREI Engineering School, France

***Differential Evolution for VNE-5G Scenarios***

Rayner Gomes; Dario Vieira; Miguel Franklin de Castro

***5G Network Slice - A URLLC Resource Allocation Perspective***

Christiano A. P. Rodrigues; Dario Vieira; Miguel F. de Castro

***Massive MIMO mmWave Full Duplex Relay for IAB with Limited Dynamic Range***

Chandan Kumar Sheemar; Dirk Slock

***Extending the Lora modulation to add parallel channels and improve the LoRaWAN network performance***

Lorenzo Vangelista; Alessandro Cattapan

***An Innovative and Decentralized Identity Framework Based on Blockchain Technology***

Daniel Maldonado-Ruiz; Jenny Torres; Nour El Madhoun; Mohamad Badra

**Smart Contract Based Solution for Secure Distributed SDN**

Mouhamad Almakhour; Ayoub Wehby; Layth Sliman, Abdellatif Samhat

## **BSC Workshop**

Chair: Khalifa Toumi, IRT SystemX, France

**Blockchain Development Platforms: Performance Comparison**

Iman R Dermayka; Ali Chehab

**Evaluation of Ethereum End-to-end Transaction Latency**

Lin Zhang; Brian Lee; Yuansong Qiao; Yuhang Ye

**Blockchain based Resource Tokenization for Crowdfunding of Wireless Network Deployment**

Volkan Sevindik

**Visual Analytics of Bitcoin Mining Pool Evolution: On the Road Toward Stability?**

Natkamon Tovanich; Nicolas Soulié; Petra Isenberg

**Implementation of Proof-of-Work Concept Algorithm using SimBlock Simulator**

Viddi Mardiansyah, Riri Fitri Sari

**18:00 – 18:10**

**Cloture**

## Guidelines to Access the Conference and Workshops Zoom link

Step one: Please make sure to install zoom and to create a zoom account.

Step two: on Monday, April 19, 9:00 am, Paris Time (GMT + 2), you are all invited to attend the opening session. Following the Opening session, there will be 2 sessions in parallel as per the program. To join a given session, please refer to the figure below: you click on “More” to see the list of breakout session, a list of different session appears, you click on join to enter the desired breakout session.

The Zoom link is:

<https://zoom.us/j/91956716677?pwd=YnNuYWJOS25KOTV6UDhlcVZDUjFadz09>

