



# 1st Cyber Security in Networking Conference

## CSNet'17

October 18 – 20, 2017

Rio de Janeiro, Brazil

### Technical Program

#### Wednesday, October 8, 2017

8:00 – 8:45 Registration

8:45 – 9:00 Conference Opening by **Colonel Arthur Pereira Sabbat**

#### 9:00 – 10:00 Session 1: Botnet – Session Chair: **Otto Duarte**

- **BotGM: Unsupervised Graph Mining to Detect Botnets in Traffic Flows**  
Sofiane Lagraa (Inria, France); Jérôme François and Abdelkader Lahmadi (INRIA Nancy Grand Est, France); Marine Minier (LORIA - Université de Lorraine, France); Christian Hammerschmidt and Radu State (University of Luxembourg, Luxembourg)
- **A Cooperation-Aware Virtual Network Function for Proactive Detection of Distributed Port Scanning**  
Igor J. Sanz (UFRJ, Brazil); Martin E. Andreoni Lopez (UFRJ, Brazil & UPMC, France); Diogo Mattos (UFRJ & GTA, Brazil); Otto Carlos M. B. Duarte (UFRJ, Brazil)

10:30 – 11:00 break

#### 11:00 - 12:30 Keynote speech

“Cyber security at the service of citizens, organizations and states: issues and future”

#### **Solange Ghernaouti**

(Swiss Cybersecurity Advisory & Research Group, University of Lausanne)

12:30 – 14:00 Lunch

#### 14:00 - 14:30 Invited talk

“Cybersecurity Investment in the Context of Critical Infrastructures Protection: a Game Theory Approach”

#### **Dimitri Percia David**

(ETH ZURICH)

#### 14:30 – 16:00 Session 2: IOT SECURITY - Session Chair: **Guy Pujolle**

- **Fake Timing Attack Against Behavioural Tests Used in Embedded IoT M2M Communications**  
Valerio Selis and Alan Marshall (University of Liverpool, United Kingdom)
- **An Approach for Secure Edge Computing in the Internet of Things**  
Markus Endler (Pontificia Universidade Católica do Rio de Janeiro, Brazil); Anderson Silva and Rafael Cruz (PUC-Rio, Brazil)
- **A Lightweight IoT Security Protocol**  
Mohamed Tahar Hammi (Telecom ParisTech, France); Erwan Livolant (Boost-Conseil & AFNeT, France); Patrick Bellot, and Ahmed Serhrouchni (Telecom ParisTech, France); Pascale Minet (INRIA, France)

16:00 – 16:30 break

#### 16:30 – 18:00 Session 3: Security Management - Session Chair: **Diogo Menezes**

- **dynSMAUG: A dynamic security management framework driven by situations**  
Romain Laborde, Arnaud Oglaza, François Barrère and Abdelmalek Benzekri (Université Paul Sabatier, France)
- **A Cooperative Approach for a Global Intrusion Detection System for Internet Service Providers**  
Renato Souza Silva (UFRJ & Oi, Brazil); Evandro Luiz Cardoso Macedo (UFRJ, Brazil)
- **Collecting and Characterizing a Real Broadband Access Network Traffic Dataset**  
Martin E. Andreoni Lopez (UFRJ, Brazil & UPMC, France); Renato Souza Silva (UFRJ & Oi, Brazil); Igor Alvarenga, Gabriel Rebello, Igor J. Sanz, Antonio Lobato, Diogo Mattos, Otto Carlos M. B. Duarte (UFRJ, Brazil); Guy Pujolle (UPMC, France)

#### Thursday, October 19, 2017

#### 9:00 - 10:30 Keynote speech

The Cat-and-Mouse Game: Searching for Security Intelligence in the Era of IoT and Blockchain

#### **Michele Nogueira**

(Federal University of Parana, Brazil)

10:30 – 11:00 break

#### 11:00 – 12:30 Session 4: Blockchain Applications - Session Chair: **Michel Nogueira**

- **Bitcoin Transaction: From the Creation to Validation, a Protocol Overview**  
Valentin Vallois (Beamap, Sopra Steria group, France), Fouad Amine Guenane (Beamap, Sopra Steria group, France)

- **Securing Virtual Machine Orchestration with Blockchains**  
Nikola Bozic (LIP6 and SQUAD, France); Guy Pujolle and Stefano Secci (UPMC, France)

- **Comparative Analysis of Blockchain Technologies and TOR Network Two Faces of the Same Reality**

Joanna Moubarak (USJ, Lebanon); Eric Filiol (ESIEA, France); Maroun Chamoun (Université Saint Joseph, Lebanon)

12:30 – 14:00 Lunch

#### 14:00 - 14:30 Invited talk

“Privacy and Security: Maintaining services in the Cloud”

#### **Thomas Langër**

(University of Lausanne, Switzerland)

#### 14:30 - 16:00 Poster session

16:00 - 16:30 Break

#### 16:30 – 18:00 Session 5 – Certificates and Cryptography

##### Session Chair: **Rida Khatoun**

- **Identity Based Cryptography (IBC) Based Key Management System (KMS) for Industrial Control Systems**  
Zakarya Drias (225 Promenade des Anglais & Schneider Electric, France); Olivier Vogel (Manager, France); Ahmed Serhrouchni (ENST, France)
- **On DGHV and BGV Fully Homomorphic Encryption Scheme**  
Khalil Hariss (Lebanese University, Lebanon); Maroun Chamoun (Université Saint Joseph, Lebanon); Abed Ellatif Samhat (Lebanese University, Lebanon)
- **Using Butterfly Keys: a Performance Study of Pseudonym Certificates Requests in C-ITS**  
Badis Hammi, Jean-Philippe Monteuis, Houda Labiod, Rida Khatoun, Ahmed Serhrouchni (Telecom ParisTech, France)

20:00 Gala dinner “Fogo de Chao”

#### Friday, October 20, 2017

#### 9:00 - 10:30 Keynote speech

“Blockchain: making money and business from networks and energy: the new Internet age?”

#### **Pascal Urien**

(Mines-Telecom, France)

10:30 – 11:00 break

#### 11:00 – 12:00 Session 6: Cloud Security - Session Chair: **Solange Guernaouti**

- **Side-Channels Beyond the Cloud Edge: New Isolation Threats and Solutions**  
Mohammad Mahdi Bazm and Marc Lacoste (Orange Labs, France); Mario Südholt (IMT Atlantique, France); Jean-Marc Menaud (IMT-A & INRIA & LS2N, France)
- **A Ranking Based Privilege Model for Privacy in Location Based Services**  
Varun Sharma (University of Delaware, USA)

12:00 – 14:00 Lunch

#### 14:00 - 14:30 Invited talk

“User Profile and Cybersecurity”

#### **Guy Pujolle**

(University Pierre & Marie Curie, France)

#### 14:30 – 16:00 Session 7: Miscellaneous - Session Chair: **Pascal Urien**

- **Magic Always Comes with a Price: Utility Versus Security for Bank Cards**  
Nour El Madhoun (UPMC, France); Emmanuel Bertin (Orange Labs, France)
- **Secure and Resilient Scheme for Data Protection in Unattended Wireless Sensor Networks**  
Katarzyna Kapusta, Gerard Memmi (Telecom ParisTech, France); Hassan Noura (American University of Beirut, Electrical and Computer Engineering, Lebanon)
- **Multilingual Cyberbullying Detection System: Detecting Cyberbullying in Arabic Content**  
Batoul Haidar (USJ, Lebanon); Maroun Chamoun (Université Saint Joseph, Lebanon); Ahmed Serhrouchni (Telecom ParisTech, France)

16:00 – 16:30 break

16:30 – 17:30 Ronde table / Closing Conference