

EICC 2025

Preliminary Program

June 18-19th 2025

June 18th

Welcome session

8:30 – 9:00 *Welcome coffee - Registration*

9:00 – 9:20 **Opening**
Isabel Praça, Jean-François Lalande

Cybercrime and Cyberthreats

- 9:20 – 9:40 **Analysis of Permissions and Trackers in Android Apps Targeting Children Under Thirteen**
Jamie Fitzpatrick and Virginia Franqueira
- 9:40 – 10:00 **Understanding Corporate Ransomware — A Case Study in the Nordics**
Emil Larsson and Meiko Jensen
- 10:00 – 10:20 **Exploring the Cybercrime Potential of LLMs: A Focus on Phishing and Malware Generation**
Orçun Çetin, Baturay Birinci, Çağlar Uysal and Budi Arief
- 10:20 – 10:50 *Coffee break*

Artificial Intelligence Applied to Cybersecurity

- 10:50 – 11:10 **An Automated Home Secretary: Evaluating the Ability of Large Language Models to Understand Extremist Conversations**
James Stevenson, Luke Gassmann and Matthew Edwards
- 11:10 – 11:30 **PARAG: Proactive Answering Framework Integrating LLMs with Retrieval-Augmented Generation**
Bikash Saha, Nanda Rani, Joheen Chakraborty, Divyanshu Singh, Soumyo V. Chakraborty and Sandeep Kumar Shukla
- 11:30 – 11:50 **Evaluating LLaMA 3.2 for Software Vulnerability Detection**
José Gonçalves, Miguel Silva, Bernardo Cabral, Tiago Dias, Eva Maia, Isabel Praça, Ricardo Severino and Luís Ferreira
- 11:50 – 12:10 **Power Consumption Analysis for Reverse Engineering Digital Modulation: A Novel Approach to Physical Layer Attacks on Communication Systems**
Pablo Pareja, Yehya Nasser, Ahmed Masmoudi and Sebastien Houcke
- 12:10 – 13:30 *Lunch*

Keynote

- 13:30 – 14:30** **Blockchain Interoperability: From Vulnerabilities to Attacks**
Miguel Pupo Correia

MeDSec Special Session – Medical Device Security and Privacy

MeDSec - Threshold Multiparty Private Set Intersection

- 14:30 – 14:50** **Threshold Multiparty Private Set Intersection via Federated Graph Neural Networks**
Sotirios Messinis, Nicholas E. Protonotarios, Dimitrios Kalogeras and Nikolaos Doulamis
- 14:50 – 15:20** *Coffee break*

MeDSec - Cybersecurity for medical devices

- 15:20 – 15:40** **IoT-driven security solutions for resource-constrained wearable medical devices**
Emmanouil Bakiris and George Oikonomakis
- 15:40 – 16:00** **Cyber-risk indicators for the medical domain**
Simeon Andersen Tverdal, Gencer Erdogan, Andrea Neverdal Skytterholm, Steve Taylor, Samuel Senior and Laura Carmichael
- 16:00 – 16:20** **A Secure Data Transmission Protocol for Cardiac Implants to Mitigate Intrusive Cyber Attacks**
Anisha Mitra and Dipanwita Roy Chowdhury

MeDSec - MDCG Guidance

- 16:20 – 16:40** **Strengthening the MDCG Guidance on Cybersecurity for Medical Devices: A Legal Approach**
Oguzhan Yesiltuna, Ruoxin Su, Ashwinee Kumar and Paul Quinn
- 16:40 – 17:00** **MDCG 2019-16 Guidelines: Case Study-based Assessment and Path Forward**
Christos Androutsos, Steve Taylor, Karin Bernsmed, Andrea Neverdal Skytterholm, Gregory Epiphaniou, Nabil Moukafih, Theodoros N. Arvanitis, Sotirios Messinis, Nikos Papadakis, Marco Fruscione, Andrés Castillo, Dusko Milojevic, Dimitrios S. Karas, Nikolaos Fotos, Max Ostermann, Oscar Freyer, Stephen Gilbert, Vasilis Pezoulas, Lambros Athanasiou, George Gkois and Dimitrios Fotiadis

Social events

- 18:15 – 19:45** *Guided tour of the old city center of Rennes*
- 19:45** *Gala Dinner*

June 19th

8:00 – 9:30 *Welcome coffee - Registration*

Cybersecurity

8:30 – 8:50 **The Fragmented Research Space of Cybersecurity: A Map of the Territory**
Michael Lang

8:50 – 9:10 **Hiding Information in Short Network Packets**
Jörg Keller and Sebastian Litzinger

9:10 – 9:30 **Examining the Influence of Cultural Diversity in Cybersecurity Culture**
Mohammed Aljohani, Steven Furnell, Xavier Carpent and Nicholas Gervassis

CyFRP Special Session – Advances in Interdisciplinary Cybersecurity: Insights from Funded Research Projects

9:30 – 9:45 **Maritime Cyber Resilience: Bridging Cybersecurity and Regulatory Frameworks**
Sandra Lieļbārde, Agnė Brilingaitė, Linas Bukauskas, Evita Roponen, Elizabete Cit-skovska and Rūta Pirta

9:45 – 10:00 **Evaluating KASLR Break on RISC-V using gem5: Microarchitectural Side-Channel Analysis of Page-Table Walks**
Mahreen Khan, Renaud Pacalet, Maria Mushtaq and Ludovic Aprille

10:00 – 10:30 *Coffee break*

Software Development Security

10:30 – 10:50 **A framework to enable cheating detection in Multiplayer Online Games**
Salman Shaikh, Hugo Bertin, Marc Dacier and Yérom-David Bromberg

10:50 – 11:10 **Framework and Roadmap for Secure Design and Development of Applications in the Cloud and Mobile Ecosystem**
Francisco Chimuco, João Sequeiros, Mário Freire and Pedro Inácio

11:10 – 11:30 **Enhancing JavaScript Malware Detection through Weighted Behavioral DFA's**
Pedro Pereira, José Gonçalves, João Vitorino, Eva Maia and Isabel Praça

CNACYS Special Session – Complex Network Analysis for Cybersecurity

11:30 – 11:50 **Spectral Graph Analysis of Bipartite Graphs for Advanced Attack Detection**
Majed Jaber, Nicolas Boutry and Pierre Parrend

11:50 – 12:10 **Hypergraph-based model for adversary threat intelligence analysis**
Juan Manuel Matalobos, Regino Criado and Santiago Moral

Closing session

12:10 – 12:30 **Conference closing**
Isabel Praça, Jean-François Lalande

12:30 – 13:30 *Lunch*