

The 15th IEEE International Conference on **Security of Information and Networks**



11-13 November 2022, Tunisia

















	SINCONF 2022 2	> Friday, 11th of November		
13:00 - 14:30	Registration and Opening			
14:30- 14:45	Welcome from the general of	Welcome from the general conference chair		
14:45 – 15:30	Keynote Speech 1: Random Neural Networks Optimise QoS, Security and Energy Consumption Keynote Speaker: Erol Gelemb, Polish Academy of Sciences			
15:30 –16:00	Keynote Speech 2: Intrusion detection systems using machine learning for the security of autonomous vehicles Keynote Speaker: Abdelwahid Derhab, King Saud University, Saudi Arabia			
16 :00-16-30	Coffee Break			
	Session 1: Mitigating Session chair: Pr. Atil			
16:30-16:50	Andikan Otung and Andrew Martin	Towards Comparative Evaluation of DDoS Defences		
16:50-17:10	Ouissem Ben Fredj	A NLP-inspired method to predict multi-step cyberattacks		
17:10-17:30	Ali Kerem Yıldız, Aykut Atmaca, Ali Özgür Solak , Yekta Can Tursun and Şerif Bahtiyar	A Trust Based DNS System to Prevent Eclipse Attack on Blockchain Networks		
17:30-17:50	Chidera Biringa and Gokhan Kul	A Secure Design Pattern Approach Toward Tackling Lateral- Injection Attacks		
17:50-18:10	Anne Bumiller, Olivier Barais and Nicolas Aillery	Towards a Better Understanding of Impersonation Risks		
18:10-18:30	Moez Krichen, Mariam Lahami and Qasem Abu Al-Haija	Formal Methods for the Verification of Smart Contracts: A Review		
18:30-18:50	Thiago Figueiredo Costa and Mateus Felipe Tymburibá	Challenges on Prioritizing Software Patching		
	SINCONF 2022 >	Saturday, 12th of November		
08:00-08:30	Day Opening Remarks			
8:30 – 09:00 Keynote speech 3: Cyber Security Threat Landscape in the Context of Industry 4.0 Keynote Keynote Speaker: Haider Abbas, NCSAEL, USA				
09:00 - 09:40		ing Homomorphic Encryption in Blockchain-enabled Applications d Hamdi, University of Carthage, Tunisia		
	Session 2: Blockchair Session chair: Pr.Mol			
09:40-10:00	Bessem Zaabar, Omar Cheikhrouhou and Mohamed Abid	Intrusion Detection System for IoMT through Blockchain-based Federated Learning		
10:00-10:20	Murshedul Arifeen and Andrei Petrovski.	Topology for Preserving Feature Correlation in Tabular Synthetic Data		
10:20 - 10:45	Coffee Break			
	Session 3: Security Sy Session chair: Habib			
10:45-11:05	Dmitriy Levonevskiy, Anna Motienko and Mikhail Vinogradov.	Approach to Physical Access Management, Control and Analytics Using Multimodal and Heterogeneous Data		
11:05-11:25	Abdelhamid Saighi and Salim Chitroub.	Robust Grayscale Image Watermarking Approach using DCT and DWT		
11:25-11:45	Elías Grande	Social Behaviour Identification relying on Device Fingerprint Analysis		
11:45-12:05	Cristian Chindrus and Constantin F. Caruntu	Development and Testing of a Core System for Red and Blue Scenario in Cyber Security Incidents		
12:05-12:25	Mariem Turki, Bouthaina Dammak and Rawya Mars	A Private Smart Parking Solution based on Blockchain and AI		
12:25-12:45	Mays A. Hamdan, Amel Meddeb Maklouf and Hassene Mnif	Review of Authentication with Privacy-Preserving Schemes for 5G-enabled Vehicular Networks		
12:45 - 14:15	Lunch Break			
14:15 – 14:45	Keynote speech 5: Scaling	Blockchains		

	Keynote Speaker: Abdelhakin	n Senhaji Hafidh, University of Montreal, Canada	
	Session 4: machine le	arning for Security	
	Session chair: Prof. Dn		
14:45-15:05	Ines Jemal, Mohamed Amine Haddar, Omar Cheikhrouhou and Adel Mahfoudhi.	SWAF: A Smart Web Application Firewall Based on Convolutional Neural Network	
15:05-15:25	Amina Sahbi, Faouzi Jaidi and Adel Bouhoula	Artificial Intelligence for SDN Security: Analysis, Challenges	
15:25-15:45	Ciprian-Alin Simion, Gheorghe Balan and Dragos Gavrilut	Improving Detection of Malicious Samples by using State-of-the- Art Adversarial Machine Learning Algorithms	
15:45-16:05	Ratun Rahman, Md Rafid Islam and Akib Ahmed.	A Study of Permission-based Malware Detection Using Machine Learning	
16:05- 16:30	Coffee Break		
	Session 5: Short papers Session chair: Dr. Elías Grand	de	
16:30-16:45	Sabrine Bhiri, Kais Loukil, Faten Chaabane and Tarek Frikha	Blockchain Application for Parking Management	
16:45-17:00	Hedi Choura, Faten Chaabane, Mouna Baklouti and Tarek Frikha	Blockchain for IoT-Based Healthcare using Secure and Privacy- Preserving Watermark	
17:00-17:15	Héla Makina, Asma Ben Letaifa and Abderrezak Rachedi	Leveraging Edge Computing, Blockchain and IPFS for Addressing eHealth Records Challenges	
17:15-17:30	Lotfi Ezzeddini, Jalel Ktari, Iheb Zouaoui, Amira Talha, Nizar Jarray and Tarek Frikha.	Blockchain for the Electronic Voting System: a Case study: Student Representative Vote in Tunisian Institute	
17:30-17:45	Ahmed Abadulla Ashlam, Atta Badii, Frederick Stahl	Multi-Phase Algorithmic Framework to Prevent SQL Injection Attacks using Improved Machine Learning and Deep Learning to Enhance Database Security in Real-Time	
17:45-18:00	Omar Cheikhrouhou, Ouissem Ben Fredj, Nesrine Atitallah and Salem Hellal	Intrusion Detection in Industrial IoT	
18:00-18:15	Mehdi Houichi, Faouzi Jaidi and Adel Bouhoula.	Analysis of Smart Cities Security: Challenges and Advancements	
18:15-18:30	Siegfried Hollerer, Marta Chabrova, Thilo Sauter and Wolfgang Kastner	Combined Modeling Techniques for Safety and Security in Industrial Automation: A Case Study	
18:30-18:45	Mays Jabbar and Hafedh Trabelsi.	A Betweenness Centrality Based Clustering in VANETs	
SINCONF 2022 > Sunday, 13th of November			
09:00 - 10:00	Keynote speech 6: Cybersecu. Keynote Speaker: Mohamed I	rity of connected Vehicules Mosbah, Polytechnic Institute of Bordeaux	
	Session 6: Security Sys Session chair: Moham		
10:00-10:20	Liudmila Babenko and Ilya Rusalovsky	Homomorphic Operations on Integers via Operations on Bits	
10:20-10:40	Silviu-Constantin Viţel, Marilena Lupaşcu, Dragoş Teodor Gavriluţ and Henri Luchian	Evolution of Macro VBA Obfuscation Techniques	
10:40-11:00	Sondes Ksibi, Faouzi Jaidi and Adel Bouhoula.	A User-Centric Fuzzy AHP-based Method for Medical Devices Security Assessment	
11:00-11:30	Coffee Break		
11:30-12 :00	Closing Cerem		
12:00 -13 :00	Room Check-out and Lunch	Break	
13:00- Cultural activities			