



7th International Conference on Cyber Security and Privacy in Communication Networks (ICCS) 2021

<https://iccs2021.iaasse.org/>

Joining Instructions: All Sessions will be held on MS Teams. Download and install [Microsoft Teams](#) for the best experience or use web app. (Session links will be emailed to the registered participants.)

| GMT London | DAY 1 – Thursday 9 th December 2021 |
|---------------|--|
| 9.45 – 10.00 | Welcome and Pre - Conference Registrations |
| 10.00 – 11.00 | Keynote Speech - Professor Mohammad Hammoudeh , SMIEEE, MCIS <i>Title - Digital forensics in emerging technologies, the cases of Blockchain and the Internet of Things</i> |
| 11.00 | Day 1 – Morning Session (Cyber Innovation Track) 11AM – 2.40 PM Session Chair: Dr. Usman Muhammad University of South Wales |
| 11.00 – 11.20 | Fully Integrated Software Defined Networking (SDN) Testbed using Open-source Platforms (Damitha Rathnamalala, Pubudu Milan, Inosha Dilhani and Eranda Jayatunga) |
| 11.20 – 11.40 | Smart Boarding System with e-Passports for Secure and Independent Operability (Mohamed Azman and Kunal Sharma) |
| 11.40 – 12.00 | An Enhanced FFT Algorithm: Framework for Keystrokes Acoustic Emanations Denoising Approach on Real-Time Environment (Suleiman Ahmad, John Kolo Alhassan, Shafi'I Muhammad Abdulhamid, Suleiman Zubair) |
| 12.00 – 12.20 | Intrusion Detection System based on RNN Classifier for feature reduction (Bhushan Deore and Surendra Bhosale) |
| 12.20 – 12.40 | Network Communication Encoding: A Study for Authentication Protocols (Tejaswini Apte, Priti Kulkarni) |
| 12.45 – 13.35 | Lunch |
| 13.35 | Day 1 – Afternoon Session (Cyber Physical Systems Track) 1.35PM – 2.35 PM Session Chair: Dr. Elochukwu Ukwandu - Cardiff Metropolitan University |
| 13.35 – 13.55 | Lessons Learned from a Comparative Analysis of Counterintelligence and Insider Threat Mitigation Case Studies in Nuclear Facilities (Noelle Camp) |
| 14.55 – 14.15 | Threat modelling of Cyber Physical Systems: A real case study based on Window Cleaning Business (Sion Brown, Stephen Fox, Chaminda Hewage and Imtiaz Khan) |
| 14.15 – 14.35 | Conceptual Framework for cybersecurity Resilience Maturity Assessment Model for Critical National Information Infrastructure (Victor Emmanuel Kulugh) |
| 14.40 – 15.00 | Tea Break |
| 15.00 | Day 1 – Evening Session (Cloud Security Track) 3PM – 4.20 PM Session Chair: Dr. Chaminda Hewage - Cardiff Metropolitan University |
| 15.00 – 15.20 | Provable data possession (PDP) and Proofs of retrievability (POR) of current big user data (Leuan Walker, Chaminda Hewage and Ambikesh Jayal) |
| 15.20 – 15.40 | An Efficient and Secured Vehicular Networks based on IoT and Cloud Computing (Hesham Elzouka) |
| 15.40 – 16.00 | Securing the Kubernetes Control and Data Plane (John Jeyasekaran, Edmond Prakash and Chaminda Hewage) |
| | End of Day 1 |



| | |
|---------------|--|
| GMT London | Day 2 – Friday 10 th December 2021 |
| 9.30 | Day 2 – Morning Session 9.30AM – 12.40 PM |
| 9.30 | (Data Protection Track) Session Chair: Dr. Pardeep Kumar Swansea University |
| 09.30 – 09.50 | The normative power of the GDPR: a case study of data protection laws of South Asian countries (Vibhushinie Bentotahewa, Chaminda Hewage and Jason Williams) |
| 09.50 – 10.10 | An efficient Intrusion detection system for IoT (Naveen Saran and Nishtha Kesswani) |
| 10.10 – 10.30 | Cybersecurity, Data Protection and Blockchain: Current Challenges (Vinden Wylde, Nisha Rawinathan, John Lawrence Jeyasekaran, Rushil Balasubramanian, Edmond Prakash, Ambikesh Jayal, Imtiaz Khan, Chaminda Hewage, Jon Platts) |
| 10.30 – 10.50 | An explorative study into the importance of defining and classifying cyber terrorism in the United Kingdom (Victoria Jangada Correia) |
| 10.50 – 11.00 | Tea Break |
| 11.00 | (Malware Analysis Track) 11AM – 12.40 PM Session Chair: Dr. Pardeep Kumar Swansea University |
| 11.00 – 11.20 | Investigating malware propagation and behaviour using system and network pixel-based visualisation (Jacob Williams and Phil Legg) |
| 11.20 – 11.40 | How good are we at detecting a phishing attack? Investigating how the evolving phishing attack email effects the trust of citizens (John Ayooluwa Adejobi, Fiona Carroll and Reza Montasari) |
| 11.40 – 12.00 | Mobile Agent Security against Malicious Hosts - A Survey (Twisha Chattopadhyay and Gaurav P) |
| 12.00 – 12.20 | Optimising the Security Architecture in Wireless Mesh Networks (Syed Saqlain Ahmed and Liqaa Nawaf) |
| 12.20 – 13.15 | Lunch |



| | |
|---------------|---|
| 13.15 | Day 2 – Afternoon Session (1.15AM – 2.15 PM) (AI & Machine Learning Track) Session Organizer: Prof. Phill Legg UWE |
| 13.15 - 13.35 | Deep Neural Network based Real-Time Intrusion Detection System (Sharuka Thirimanne, Lasitha Jayawardana, Lasith Yasakethu, Pushpika Liyanaarachchi and Chaminda Hewage) |
| 13.35– 13.55 | Categorizing Sentiment polarities in Social networks data using Convolutional Neural Network (Gaurav Meena, Krishna Kumar Mohbey and Ajay Indian) |
| 13.55 – 14.15 | Identifying & Counting Hosts behind NAT using ML and Comparative Analysis with Conventional approach (Sanjeev Shukla and Himanshu Gupta) |
| 14.15 – 14.30 | Tea Break |
| 14.30 | Day 2 – Evening Session 2.30 PM – 3.30 PM (Cryptography Track) Session Chair: Dr. Liqaa Nawaf Cardiff Metropolitan University |
| 14.30 – 14.50 | Resource-Aware Cryptography: An Analysis of Lightweight Cryptographic Primitives. (Mohammed Rushad, Akshat Nambiar and B.R. Chandavarkar) |
| 14.50 – 15.10 | CBS: A Crypto-Biometric system for Information Security (Aderonke F Thompson, Otasowie Owolafe and Olaniyi A. Ayeni) |
| 15.10– 15.30 | A Hybrid Secured Approach Combining LSB Steganography and AES using Mosaic Image for Ensuring Data Security (Saralya Roy and Md. Moinul Islam) |
| 15.30 – 15.40 | Closing Remarks Dr. Chaminda Hewage Cardiff Metropolitan University |