

# Cyber Science 2024 Conference Timetable

June 27-28, 2024

Craiglockhart Campus, Edinburgh Napier University  
Scotland, UK

Theme – **Building Community of Good Practice in Cybersecurity**

Thursday June 27, 2024 | UK Time zone: GMT+1

Time	Description
09:00 – 09:45	<p style="text-align: center;"><b>Registration and Breakfast</b></p> <p>Registration - Open from 9:00 am - Closes at 9:45 am</p> <p><i>All delegates must complete their registration process before the 9:45 AM cut-off time. Please arrive in a timely manner to allow for registration and to avoid any inconvenience.</i></p> <p><i>We appreciate your cooperation in helping us maintain the event's schedule and ensuring that everyone can fully participate in the Cyber Science Conference. If you have any questions or require assistance, our event organisers will be available to assist you with the registration process.</i></p> <p><i>Thank you for your understanding, and we look forward to an insightful and valuable event together!</i></p>
09:45 – 10:00	<p style="text-align: center;"><b>Conference Announcements</b></p> <p><i>Cyber Science 2024 is the 10th episode of the International Conference on Cybersecurity, Situational Awareness and Social Media (Cyber Science 2024), a multidisciplinary event focusing on advancing the principles, methods and applications of cybersecurity, situational awareness and social media.</i></p> <p><i>The theme of this year's event is <b>Building Community of Best Practice in Cybersecurity.</b></i></p>

<p>10:00 – 10:30</p>	<p><b>Conference Proceedings Opening</b></p> <p><b>Professor William (Bill) Buchanan OBE</b>, PhD, FBCS, PFHEA, CEng, BSc (Hons) Professor of Applied Cryptography, Edinburgh Napier University</p>	 <p><b>Professor William (Bill) Buchanan OBE</b></p>
<p>10:40 – 11:40</p>	<p><b>Keynote Session</b></p> <p><b>Dr. Lynsay Shepherd</b> Reader in Cybersecurity and HCI School of Design and Informatics   Division of Cyber Security</p>	 <p><b>Dr. Lynsay Shepherd</b></p>
<p>11:40 – 11:50</p>	<p><b>Coffee &amp; Tea Break</b></p>	
<p>11:50 - 12:20</p>	<p>Day 1 / Session 1: Host &amp; Moderator: Sean / Belinda</p> <p><b>Towards a Secure Manufacturing Framework for Single Malt Whisky in Industry 4.0</b></p> <p><i>Jacob Connell, Dimitrios Kasimatis, Pavlos Papadopoulos, William J. Buchanan, Panagiotis Sarigiannidis and Nikolaos Pitropakis</i></p>	<p>Day 1 / Session 2: Host &amp; Moderator: Sana</p> <p><b>Critical Infrastructures in the Cloud</b></p> <p><i>Martin Gilje Jaatun and Geir Kjetil Hanssen</i></p>
<p>12:20 - 12:50</p>	<p><b>TIPS: Threat Sharing Information Platform for Enhanced Security</b></p> <p><i>Lakshmi Rama Kiran Pasumarthy, Hisham Ali, William Buchanan, Jawad Ahmad, Audun Josang, Vasileios Mavroeidis and Mouad Lemoudden</i></p>	<p><b>Design of Pairing Free Attribute-based Encryption for Smart Grid Applications</b></p> <p><i>Anjali Kumari, Sreevallabh Karanam, Swejan Annabathini and Kamalakanta Sethi</i></p>
<p>12:50 - 13:50</p>	<p><b>Group Photography &amp; Lunch Break</b></p>	
<p>14:00 - 14:30</p>	<p><b>Utilizing YARA: An Effective Method for Phishing Attack Response</b></p> <p><i>Ferenc Leitold</i></p>	<p><b>Malware Detection using Machine Learning Algorithms</b></p> <p><i>Nureni Ayofe Azeez, Ogechukwu Juliet Nzeribe, Charles Van der Vyver and Ademola Philip Abidoye</i></p>

14:30 – 15:00	<b>A Case Study of a Ransomware and Social Engineering Competition</b> <i>Aunshul Rege and Rachel Bleiman</i>	
15:00 – 15:15	<b>Coffee &amp; Tea Break</b>	
15:15 – 16:15	<b>Keynote Session</b>  <b>R.V. Gundur, PhD</b> Criminologist & Lecturer University of the West of Scotland, Scotland, UK	 <b>R.V. Gundur, PhD</b>
16:15 – 16:30	<b>Coffee &amp; Tea Break</b>	
16:30 – 17:00	<b>Digital Evidence from the Legal Practitioners' Perspective</b>  <i>Ibeabuchi Egbu, Jacques Ophoff and Annelize McKay</i>	<b>Attack Resilient Federated Learning Framework</b>  <i>Sushant Kumar, Kasturi Routray and Padmalochan Bera</i>
17:00 – 17:30	<b>Improving Credit Card Fraud Detection with Combined Feature Extraction and Class Balance Optimisation Techniques</b>  <i>Boluwatife Ajibade-Ajibosin, Uchenna Daniel Ani, Theocharis Kyriacou and Mark Turner</i>	<b>Attention based Image Steganography Using CNNs in Integration with Quantization</b>  <i>Sravan Kumar Gatram, Kamalakanta Sethi, Piyush Joshi and Rakesh Kumar Sanodiya</i>
18:00 – 21:00	<b>Evening Dinner &amp; Drinks &amp; Photos</b>	


**Friday June 28, 2024**

Theme – **Building Community of Good Practice in Cybersecurity**

UK Time zone: GMT+1

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09:00 – 09:30			Coffee & Tea		
09:30 – 10:30		<p><b>Keynote Session</b></p> <p><b>Dr. Uchenna Daniel Ani</b> Lecturer in Cybersecurity, &amp; Programme Lead MSc in Cyber Security Keele University, UK</p>		 <p><b>Dr. Uchenna Daniel Ani</b></p>	
10:30 – 10:45			Coffee & Tea Break		
Day 2 / Session 3: Host & Moderator: Naghmeh		Day 2 / Session 4: Host & Moderator: Matthew			
10:45 – 11:15		<p><b>An Exemplar Incident Response Plan for Security Operations Center Analysts</b></p> <p><i>Enoch Agyepong and Cyril Onwubiko</i></p>		<p><b>Cybersecurity Upskilling for Criminal Justice Professionals</b></p> <p><i>Yan Bai and Juan Li</i></p>	
11:15 – 11:45		<p><b>RingGuard: A privacy protected Peer-to-Peer Federated Learning Framework</b></p> <p><i>Narasimhan Kovalai, Ramsundar Tanikella, Rojalini Tripathy and Padmalochan Bera</i></p>		<p><b>A Survey on Firmware Security Fuzzers</b></p> <p><i>Silje Marie Sørlien, Åse Marie Solnør, Karin Bernsmed and Martin Gilje Jaatun</i></p>	
11:45 – 12:00			Coffee & Tea Break		
<b>Industry Talk</b>					
12:00 – 12:15		<p><b>Cystel – Building Resilience &amp; Agility through Cybersecurity Quantum Innovation</b> by Dr Thomas Matheus, CTO Cystel</p>			
12:15 – 12:30		<p><b>Smart Net Zero – Building Transformative network of Building Management System, Operational and Information Technology (OT/IT) Cybersecurity</b> by Andrew Rae, Security Director, Smart Net Zero</p>			
12:30 – 13:30		<p><b>Perception of cyber risk for assisted living technologies in the Norwegian healthcare sector – key stakeholders perceptions</b></p> <p><i>Alvhild Skjelvik and Bian Yang</i></p>		<p><b>vSPACE: Voting in a Scalable, Privacy-Aware and Confidential Election</b></p> <p><i>Se Elnour, William Buchanan, Paul Keating, Mwrwan Abubaka and Sirag Elnour</i></p>	
13:30 – 13:45			Group Photography & Lunch Break		

13:45 – 14:15	<b>Exploring DTrace as an Incident Response Tool for Unix Systems</b> <i>Joe Duin, Sean McKeown and Mwrwan Abubakar</i>	
14:15 – 14:45	<b>TRIST: Towards a container-based ICS testbed for cyber threat simulation and anomaly detection</b> <i>Carol Lo, Jack Christie, Thu Yein Win, Zeinab Rezaeifar, Zaheer Khan and Phil Legg</i>	<b>Workshop Insights: Navigating Cybersecurity Regulations for Device Manufacturers and Healthcare Operators</b> <i>Andrea Skytterholm, Lars Halvdan Flå and Martin Gilje Jaatun</i>
14:45 – 15:00	<b>Coffee &amp; Tea Break</b>	
15:00 – 15:30	<b>Implementation of Zones and Conduits in Industrial Control and Automation Systems</b> <i>Lars Halvdan Flå, Mary Ann Lundteigen, Fredrik Gratte and Martin Gilje Jaatun</i>	<b>Radio Frequency (RF) Cyber Threats and a novel RF Cyber Kill Chain</b> <i>Carolyn Swinney and Woods John</i>
15:30 – 16:30	<b>Panel Discussion</b>  <b>AI for Cybersecurity: How do we use Artificial Intelligence (AI) to secure Applications and Systems</b>  <b>Speakers: Professor Rajendra K. Raj, Dr Sara Vecchini and Dr Cyril Onwubiko</b>	
16:35	Closing of the Proceedings by Dr Cyril Onwubiko	 <b>Dr. Cyril Onwubiko</b> Founder – Centre for Multidisciplinary Research, Innovation and Collaboration & Conference Co-Chair

### Legend

Conference Talks	Conference Talks	Panel Session	Keynote Session	Lunch & Dinner / Drinks
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