

	21st European Conference on Cyber Warfare and Security (ECCWS 2022) The University of Chester, UK 16 -17 June 2022 All timings in GMT+1 - UK Time	
	Wednesday 15 June	Zoom Room Details
10:00 -	Pre-Conference Workshop: How Cyber Warfare and Information Operations are changing Everything!	PASSCODE FOR ALL ROOMS IS: ECCWS22
16:30	Presented by Dr Leigh Armistead (Room: BINKS CBK247/2)	Zoom Room 1
18:30	Pre-Conference Registration and Welcome Drink at Premier Inn - Chester Railway Station (until 19:30)	https://us02web.zoom.us/j/81925241136
	Thursday 16 June	Zoom Room 2
08:30	Conference Registration at The University of Chester, UK	https://us02web.zoom.us/j/84692324763
08:45	Zoom Room 1 Opens	Zoom Room 3
09:00	Welcome to the Conference	https://us02web.zoom.us/j/87292180076
09:15	Keynote: Dr Charles Clarke, Senior Lecturer in Cyber Security and Programme Convenor, University of Roehampton, UK Employability by Design: A Strategy for Career Ownership	
10:00	Break and conference splits into streams	
	Stream A: Cyber Warfare Chair: Christoph Lipps Zoom Room 1 & CBK106	Stream B: Cyber Skills Chair: Huw Read Zoom Room 2 & CBK107
10:10	Public Authorities as a Target of Disinformation Pekka Koistinen, Milla Alaraatikka, Teija Sederholm, Dominic Savolainen, Aki-Mauri Huhtinen and Miina Kaarkoski National Defence University, Helsinki, Finland	Researching Graduated Cyber Security Students: Reflecting Employment and Job Responsibilities through NICE framework Karo Saharinen, Jarmo Viinikanoja and Jouni Huotari, JAMK University of Applied Sciences, Finland (virtual)
10:30	How are Hybrid Terms Discussed in the Recent Scholarly Literature? Ilkka Tikanmäki and Harri Ruoslahti, Laurea University of Applied Sciences, Espoo, Finland (virtual)	Pedagogical and Self-Reflecting Approach to Improving the Learning within a Cyber Exercise Anni Karinsalo, Jarmo Salonen, VTT Technical Research Centre of Finland Ltd, Oulu, Karo Saharinen, University of Jyväskylä, and Jani Pajänen, Jyväskylä Security Technology, Finland (virtual) (virtual)
10:50	Infinite Game Theory & Cybersecurity Jacob Oakley, T2S Solutions, Huntsville, USA (Non-Academic Presentation Only) (virtual)	Desired Cybersecurity Skills and Skills Acquisition Methods in the Organizations Kirsi Aaltola, University of Jyväskylä, Harri Ruoslahti and Jarmo Heinonen, Laurea University of Applied Sciences, Espoo, Finland (virtual)
11:10	Short Break	Short Break
11:20	Supporting Situational Awareness in VANET Attack Scenarios Dimah Almani, Steven Furnell and Tim Muller, University of Nottingham, UK	The Search for Cybersecurity Social Contract in Democracy: The Citizen's Perspective Jan Kleiner, Masaryk University, Brno, Czech Republic (Presentaion Only)
11:40	Cyber Warfare 2022 the Next Level \$#!@! You Need to Know in Today's Cyber Battlefield Michele (Micki) Boland, Check Point Software Technologies, Irving, USA (Presentation only)	Including Human Behaviors into IA Training Assessment: A Better Way Forward! Henry Collier, Norwich University, Northfield, USA
12:00	Reith, Russell, and the Robots: AI, Warfare, and Shaping the Debate Keith Scott, De Montfort University, Leicester, UK	Societal Impacts of Cyber Security in Academic Literature – Systematic Literature Review Eveliina Hytönen, Harri Ruoslahti, and Amir Trent, Laurea University of Applied Sciences, Espoo, Finland (virtual)
12:20	Lunch Break	Lunch Break
	Stream A: Internet of Things Chair: Henry Collier Zoom Room 1 & CBK106	Stream B: PhD and Masters Colloquium Chair: Connie Justice and Ian Sutherland Zoom Room 2 & CBK107
13:20	The Emergence of IIoT and its Role in Critical Information Infrastructure Humairaa Bhaiyat and Siphehile Sithungu and University of Johannesburg, South Africa	The Cyber Era's Character of War Maija Turunen, Finnish National Defence University, Helsinki, Finland (PhD)
13:40	Obstacles on the Path to the Internet of Things: The Digital Divide John Gray, Nova Southeastern University, Fort Lauderdale, USA (virtual)	Assessing Information Security Continuous Monitoring in the Federal Government Tina AlSadhan and Joon Park, Syracuse University, USA (PhD) (virtual)
14:00	Strategies for Internet of Things Data Privacy and Security Using Systematic Review Sithembiso Khulamo, Amanda Sibiyi and Teballo A. Kekana, University of Johannesburg, South Africa (virtual)	Expectations And Mindsets Related To GDPR Pauliina Hirvonen, University of Jyväskylä, Finland (PhD) (virtual)
14:20	A managerial review and guidelines for Industry 4.0 factories on Cybersecurity Najam Ul Zia, Ladislav Burita, Aydan Huseynova and Victor Kwarteng Owusu, Tomas Bata University in Zlin, Zlin, Czech Republic (virtual)	A Cyber Counterintelligence Competence Framework Thenjiwe Sithole and Jaco Du Toit University of Johannesburg, South Africa (PhD)
14:40	Physical Layer Security: About Humans, Machines and the Transmission Channel Christoph Lipps and Hans Dieter Schotten, German Research Center for Artificial Intelligence, Kaiserslautern, Germany	Enhancing the STIX Representation of MITRE ATT&CK for Group Filtering and Technique Prioritization Mateusz Zych and Vasileios Mavroeidis, University of Oslo, Norway (PhD)
15:00	The Protocols of the Elders of Zion, Euravia and Socail Media Warfare: An Ethical and Anticipatory Ethical Analysis Richard Wislon, Towson University, Towson, USA (Virtual)	Analysis of Sexual Abuse of Children Online and CAM Investigations in Europe Johanna Parviainen and Jyri Rajamäki, Laurea University of Applied Sciences, Finland (Masters) (virtual)
15:20	Break	Break
	Stream A: Mini Track on Enhancing Critical Infrastructure Cybersecurity Chair: Leigh Armistead Zoom Room 1 & CBK106	Stream B: Criminal Activity Chair: Micki Boland Zoom Room 2 & CBK107
15:40	Combining System Integrity Verification with Identity and Access Management Markku Kylänpää and Jarmo Salonen, VTT Technical Research Centre of Finland, Espoo Finland (virtual)	An Analysis of the Prevalence of Game Consoles in Criminal Investigations in The United Kingdom. Iain Sutherland, Noroff University College, Norway, Huw Read, Norwich University, USA and Konstantinos Xynos, Mycenx, Germany
16:00	An Ontological Model for a National Cyber-attack Response in South Africa Aphile Kondlo, Louise Leenen University of the Western Cape and Joey Jansen van Vuuren, Tshwane University of Technology, South Africa (virtual)	Probability of Data Leakage and its Impacts on Confidentiality Paul Simon, and Scott Graham, Air Force Institute of Technology, Wright Patterson AFB, USA (virtual)
16:20	Developing Mandatory Reporting for Cyber-Attacks on U.S. Businesses Franck Baylor and Mark Reith, AFIT, Beavercreek, USA (virtual)	Turner Diaries: The Camp of the Saints and Domestic Terrorism: An Ethical and Anticipatory Ethical Analysis Richard Wislon, Towson University, Towson, USA (Virtual)
16:40	Cybersecurity Threats to and Cyberattacks on Critical Infrastructure: a Legal Perspective Murdoch Watney, University of Johannesburg, South Africa	Classification of Cyber Security Costs: Case of Lithuanian Enterprises Olga Navickienė, Aidas Vasilis Vasiliauskas, General Jonas Žemaitis Military Academy of Lithuania, Vilnius, Gintarė Giriūnienė, Mykolas Romeris University, Lithuania (Presentation only)
17:00	Close of Conference Day	Close of Conference Day
19:00	In Person Participants: Conference Dinner at Duttons, 10 12 Godstall Ln, Cheshire, Chester, CH1 1LN	

	Friday 17 June	
09:00	Opening Messages	
09:05	Virtual Plenary Address: Dr Brett van Niekerk, Noëlle Van der Waag-Cowling, Dr Trishana Ramluckan <i>Multidisciplinarity and Multistakeholderism for Cyber Resilience of Emerging Economies: Lessons from Cyber Challenges</i>	
09:50	Introduction to ECCWS 2023	
10:00	Break and Poster Presentations - In person presenters to stand by poster and virtual presenters in Zoom Room 3	
	Stream A: Mini Track on Interdisciplinary Research in Cybersecurity Chair: Char Sample Zoom Room 1 & CBK106	Stream B: Cyber Issues Chair: Toyosi Oyinloye Zoom Room 2 & CBK107
10:30	A Cyber-Diplomacy and Cybersecurity Awareness Framework (CDAF) for Developing Countries Hendrik Zwartz , Jaco Du Toit and Basie Von Solms , University of Johannesburg, South Africa	SIEM4GS: Security Information and Event Management for a Virtual Ground Station Testbed Yee Wei Law and Jill Slay , University of South Australia, Australia (virtual)
10:50	Responsible Digital Security Behavior: Definition and Assessment Model Clara Maathuis , Open University, Heerlen, the Netherlands and Sabarathinam Chockalingam , Institute for Energy Technology, Norway	Impact of Moral Disengagement on Counterproductive work behavior in IT Sectors of Pakistan Qazi Muhammad Ali , Superior University, Lahore, Pakistan
11:10	Cyberterritory: An Exploration of the Concept Jori-Pekka Rautava , University of Oulu, and Mari Ristolainen , Finnish Defence Research Agency, Riihimäki, Finland (virtual)	Planning the building a SOC - A Conceptual Process Model Pierre Jacobs and Sebastiaan Von Solms , University of Johannesburg, South Africa
11:30	On the Road to Designing Responsible AI Systems in Military Cyber Operations Clara Maathuis , Open University, Heerlen, Netherlands (virtual)	Exploring Care Robots' Cybersecurity Threats from Care Robotics Specialists' Point of View Jyri Rajamäki and Marina Järvinen , Laurea University of Applied Sciences, Espoo, Finland (virtual)
11:50	A Collaborative Design Method for Safety and Security Engineers Taito Sasaki , Takashi Hamaguchi and Yoshihiro Hashimoto , Nagoya institute of technology, Japan (virtual)	Cyber Security Norms: Trust and Collaboration Allison Wylde , Cardiff University, UK (virtual)
12:10	Building Software Applications Securely with DevSecOps: A Socio-Technical Perspective Rennie Naidoo , and Nicolaas Möller , University of Pretoria, South Africa (virtual)	Automatic Construction of Hardware Traffic Validators Jason Dahlstrom , Web Sensing LLC, USA, Stephen Taylor , Brandon Guzman , Ellie Baker , Dartmouth College, Hanover NH, USA
12:30	Lunch Break	Lunch Break
	Stream A: Mini Track on Interdisciplinary Research in Cybersecurity Chair: Char Sample Zoom Room 1 & CBK106	Stream B: Cyber Issues Chair: Jaco du Toit Zoom Room 2 & CBK107
13:30	ZTA: Never Trust, Always Verify Char Sample , Sin Ming Loo , Boise State University, USA, Ian Poynter , Cragin Shelton , Lynette Hornung , Independent Researcher, USA & Connie Justice , Purdue School of Engineering and Technology, USA	A Model for State Cyber Power: Case Study of Russian Behaviour Juha Kai Mattila , Aalto University, Helsinki, Finland (virtual)
13:50	Two Novel Use-Cases for Non-Fungible Tokens (NFTs). Alexander Pfeiffer , Thomas Wernbacher , Denk Natalie , Donau Universität Krems, Austria and Stephen Bezzina , Vince Vella and Alexiei Dingli University of Malta, Malta	Cyber Security Risk Assessment Subjects in Information Flows Jouni Pöyhönen , Aarne Hummelholm and Martti Lehto , University of Jyväskylä, Finland (virtual)
14:10	Layer 8 Tarps: Overwhelming Malicious Actors With Distracting Information Toni Virtanen and Petteri Simola , Finnish Defence Research Agency (FDRA), Järvenpää, Finland	Effective Cyber Threat Hunting: Where and how does it fit? Nombeko Ntingi , Petrus Duvenage , Jaco du Toit and Sebastian von Solms , University of Johannesburg, South Africa
14:30	Identification of Violence in Twitter Using a Custom Lexicon and NLP Jonathan Adkins , Norwich University, Northfield, Vermont, USA (virtual)	Siamese neural network and Machine Learning for DGA classification Lander Seguro-Gil , Telmo Egües , Francesco Zola , and Raul Orduna-Urrutia , Vicomtech, Donostia San Sebastian, Spain,
14:50	Summary of the conference and Award to the winner of the best PhD paper Close of Conference	
	In Person Poster Presenters will stand by their posters during the Friday morning refreshment break at 10:00, virtual posters will be presented in Zoom Room 3 at 10:00	
	In Person Posters	10:00-11:30 Virtual Poster Presentations Chair Zoom Room 3 (5 minute presentations with time for discussion)
	DRAM-Based Physically Unclonable Functions and the Need for Proper Evaluation Pascal Ahr, Christoph Lipps and Hans Dieter Schotten, German Research Center for Artificial Intelligence, Kaiserslautern, Germany (WIP Paper)	ECHO Cyber-Skills Framework as a Cyber-Skills Education and Training Tool in Health and Medical Tourism Eleonora Beltempo, Jyri Rajamäki and Jussi Karvonen, Laurea University of Applied Sciences, Finland (WIP Paper)
	Wittery: A Password Training Tool! Henry Collier, Johannes G. Meyer and Adele E. Cousland, Norwich University, Northfield, USA (Invited Poster)	How to Utilize E-EWS as a Tool in Healthcare Janne Lahdenperä, Joonas Muhonen and Jyri Rajamäki, Laurea University of Applied Sciences, Finland (WIP Paper)
		Identifying Malware Variants Through DNA Sequence-Based Signature Extraction Sreenivas Sremath Tirumala, Manukau Institute of Technology, Auckland, New Zealand and Narayan Nepal, Yoobee College, New Zealand
		Post Modernism, Post Truth, and the Information Warfare on Democracy: Ethical and Anticipated Ethical Issues Richard Wislon, Towson University, Towson, United States
		The Great Replacement, White Genocide, and the War on Multiculturalism: An Ethical and Anticipatory Ethical Analysis Richard Wislon, Towson University, Towson, United States
		Societal Impacts of Cybersecurity Jarmo Heinonen and Harri Ruoslahti, Laurea University of Applied Sciences, Finland (Invited Poster)
		Hybrid Threats Against Crisis Management Ilkka Tikanmäki and Harri Ruoslahti, Laurea University of Applied Sciences, Finland (Invited Poster)
		My Buddy: Digital Companion Allison Wylde, Cardiff University, Cardiff, UK (Invited Poster)