

Nafsika and Nefeli rooms (workshops)

Legend: 2021 IEEE CSR Workshop on...

- Actionable Cyber Threat Intelligence (ACTI)
- Cyber Resilience and Economics (CRE)
- Cyber Ranges and Security Training (CRST)
- Data Science for Cyber Security (DS4CS)
- Electrical Power and Energy Systems Security, Privacy and Resilience (EPES-SPR)
- Maritime Cyber Security (MCS)
- Resilient Artificial Intelligence (RAI)

Monday 26th of July

10:00–11:20 Keynote session WS-DS4CS1

CET Chair: Christos Tryfonopoulos, University of Peloponnese (GR)

Room: Nafsika

10:00–10:20 [Welcome from the DS4CS workshop chairs](#)
C. Tryfonopoulos, S. Skiadopoulos, and S. Idreos

10:20–11:00 **Invited talk:** [Tracking IoT botnets in the wild](#)
Angelos K. Marnerides, University of Glasgow (UK)

10:00–11:20 Technical session WS-CRST1

CET Chair: Konstantina-Eleni Davri, Center for Security Studies (GR)

Room: Nefeli

10:00–10:20 [The current SOTA and future of European cyber range ecosystem](#)
C. Virag, T. Lieskovan, J. Čegan, and M. Merialdo

10:20–10:40 [Frankenstack: Real-time cyberattack detection and feedback system for technical cyber exercises](#)
M. Pihelgas and M. Kont

10:40–11:00 [ECHO federated cyber range: Towards next-generation scalable cyber ranges](#)
N. Oikonomou, N. Mengidis, M. Spanopoulos – Karalexidis, A. Voulgaridis, M. Merialdo, I. Raisr, K. Hanson, P. de La Vallee, T. Tsikrika, S. Vrochidis, and K. Votis

11:00–11:20 [The Cyber-MAR project: First results and perspectives on the use of hybrid cyber ranges for port cyber risk assessment](#)
O. Jacq, P. Giménez Salar, K. Parasuraman, J. Kuusijärvi, A. Gkaniatsou, E. Latsa, and A. Amditis

11:20–11:40 Coffee break

CET

11.40–13:00 Technical session WS-DS4CS2

CET Chair: Spiros Skiadopoulos, University of Peloponnese (GR)

Room: Nafsika

11.40–12:00 [Social media monitoring for IoT cyber-threats](#)
S. Alevizopoulou, P. Koloveas, C. Tryfonopoulos, and P. Raftopoulou

12.00–12:20 [Data exfiltration: Methods and detection countermeasures](#)
J. King, G. Bendiab, N. Savage, and S. Shiaeles

12.20–12:40 [Detecting adversarial DDoS attacks in software-defined networking using deep learning techniques and adversarial training](#)
B. Nugraha, N. Kulkarni, and A. Gopikrishnan

11.40–13:00 Technical session WS-CRST2

CET Chair: Angelos Amditis, Institute of Communication and Computer Systems (GR)

Room: Nefeli

- 11.40–12:00 [The SPIDER cyber security investment component \(CIC\)](#)
M. Tsiotra, M. Chronopoulos, M. Ghering, E. Karapistoli, N. Gerosavva, and N. Kyllis
- 12.00–12:20 [The THREAT-ARREST cyber ranges platform](#)
G. Hatzivasilis, S. Ioannidis, M. Smyrlis, G. Spanoudakis, F. Frati, C. Braghin, E. Damiani, H. Koshutanski, G. Tsakirakis, T. Hildebrandt, L. Goeke, S. Pape, O. Blinder, M. Vinov, G. Leftheriotis, M. Kunc, F. Oikonomou, G. Magilo, V. Petrarolo, A. Chieti, and R. Bordianu
- 12.20–12:40 [Cyber security certification programmes](#)
E.-C. Davri, E. Darra, I. Monogioudis, A. Grigoriadis, C. Iliou, N. Mengidis, T. Tsikrika, S. Vrochidis, A. Peratikou, H. Gibson, D. Haskovic, D. Kavallieros, E. Chaskos, P. Zhao, S. Shiaeles, N. Savage, B. Akhgar, X. Bellekens, and M. Amine Ben Farah

13:00–14:00 Lunch break

CET

14:00–15:20 Technical session WS-DS4CS3

CET Chair: Christos Tryfonopoulos, University of Peloponnese (GR)

Room: Nafsika

- 14:00–14:20 [Unveiling MIMETIC: Interpreting deep learning traffic classifiers via XAI techniques](#)
A. Nascita, A. Montieri, G. Aceto, D. Ciunzo, V. Persico, and A. Pescape
- 14:20–14:40 [Detecting attacks on IoT devices using featureless 1D-CNN](#)
A. Khan and C. Cotton
- 14:40–15:00 [DAHID: Domain adaptive host-based intrusion detection](#)
O. Ajayi and A. Gangopadhyay

15:20–15:40 Coffee break

CET

15:40–17:20 Technical session WS-MCS1

CET Chair: Leandros Maglaras, De Montfort University (UK)

Room: Nefeli

- 15:40–16:00 [Advancing the state of maritime cybersecurity guidelines to improve the resilience of the maritime transportation system](#)
L. Drazovich, L. Brew, and S. Wetzel
- 16:00–16:20 [The impact of COVID-19 on the security and resilience of the maritime transportation system](#)
L. Brew, L. Drazovich, and S. Wetzel
- 16:20–16:40 [Impact assessment of anomaly propagation in a naval water distribution cyber-physical system](#)
N. Pelissero, P. Merino Laso, and J. Puentes
- 16:40–17:00 [A backwards compatible approach to authenticate automatic identification system messages](#)
M. Struck and J. Stoppe
- 17:00–17:20 [Quantum cryptography in maritime telecommunications](#)
M. Papathanasaki, P. Fountas, L. Maglaras, C. Douligeris, and M. A. Ferrag

17:20–17:40 Coffee break

CET

17:40–18:20 Panel discussion WS-MCS2

CET Chairs: Christos Douligeris, University of Piraeus (GR);
Despina Polemi, University of Piraeus (GR)

Room: Nefeli

Panel topic: [Future trends and perspectives in maritime communications](#)

Moderator: Despina Polemi, University of Piraeus (GR)

- Ravishankar Borgaonkar, SINTEF Digital (NO)
- Bruno Bender, Ventura (FR)
- Sofoklis Efremidis, Maggioli SpA (IT)
- Corinna Schmitt, Unibw (DE)

Tuesday 27th of July

10:00–11:20 Technical session WS-CRE1

CET Chair: Nicholas J. Multari, Pacific Northwest National Lab (US)

Room: Nafsika

10:00–10:20 [Welcome from the CRE workshop chairs](#)

N. J. Multari and J. Picciotto

10:20–10:40 [Modelling cyber-risk in an economic perspective](#)

I. Bothos, V. Vlachos, D. Kyriazanos, I. Stamatiou, K. G. Thanos, P. Tzamalīs, S. Nikolettseas, and S. Thomopoulos

10:40–11:00 [Disposable identities; Enabling trust-by-design to build more sustainable data driven value](#)

J. Isohanni, K. M. Hermsen, L. Goulden, M. Ross, and J. Vanbockryck

11:00–11:20 [Influence pathways: Mapping the narratives and psychological effects of russian COVID-19 disinformation](#)

A. Hoyle, T. Powell, B. Cadet, and J. van de Kuyt

11:20–15:40 Break (resume in the afternoon)

CET

15:40–17:20 Keynote session WS-CRE2

CET Chair: Rosalie McQuaid, MITRE Corporation (US)

Room: Nafsika

15:40–16:10 **Invited talk:** [A process-based approach to cybersecurity certification](#)

Volkmar Lotz, SAP Security Research (FR)

16:10–16:40 **Invited talk:** [Adaptable cyber matrix in energy security hybrid threat analysis](#)

Gabriel Raicu, Constanta Maritime University (RO)

16:40–17:10 **Invited talk:** [Hybridized exercising of critical infrastructure cyber resilience](#)

George Sharkov, European Software Institute (BG)

17:20–18:20 Break (awards session in Athena room)

CET

18:20–20:00 Panel discussion WS-CRE3

CET Chair: Jeffrey Picciotto, MITRE Corporation (US);
Nicholas J. Multari, Pacific Northwest National Lab (US)

Room: Nafsika

18:20–18:50 **Invited talk:** [Cyber reflections, cyber projections](#)

Paul Nielsen, Carnegie Mellon University/Software Engineering Institute (US)

- 18:50–19:20 **Invited talk:** [On the resilience of command and control architectures for cyber defense](#)
Marco Carvalho, Florida Institute of Technology (US)
- 19:20–20:00 **Panel topic:** [The next step for cyber resilience](#)
Moderator: Nicholas J Multari, Pacific Northwest National Lab (US)
— Marco Carvalho, Florida Institute of Technology (US)
— Volkmar Lotz, SAP Security Research (FR)
— Paul Nielsen, Carnegie Mellon University/Software Engineering Institute (US)
— Gabriel Raicu, Constanta Maritime University (RO)
— George Sharkov, European Software Institute (BG)

Wednesday 28th of July

10:00–11:20 **Keynote session WS-ACTI1**

CET Chair: Vasilis Katos, Bournemouth University (UK)

Room: Nafsika

10:00–10:20 [Welcome from the ACTI workshop chair](#)
V. Katos

10:20–11:00 **Invited talk:** [Stop chasing rabbits: The case of actionable intelligence where the rubber meets the road](#)
Azeem Aleem, NTT (UK)

10:00–11:20 **Technical session WS-RAI1**

CET Chair: Fiammetta Marulli, University of Campania (IT)

Room: Nefeli

10:00–10:20 [Welcome from the RAI workshop chairs](#)
F. Marulli, F. Mercaldo

10:20–10:40 [Towards resilient artificial intelligence: survey and research issues](#)
O. Eigner, S. Eresheim, P. Kieseberg, L. D. Klausner, F. Marulli, F. Mercaldo, M. Pirker, T. Priebe, and S. Tjoa

10:40–11:00 [Assessing adversarial training effect on IDSs and GANs](#)
H. Chaitou, T. Robert, J. Leneutre, and L. Pautet

11:00–11:20 [Defending against model inversion attack by adversarial examples](#)
J. Wen, S.-M. Yiu, and L. C. K. Hui

11:20–11:40 **Coffee break**

CET

11.40–13:00 **Technical session WS-ACTI2**

CET Chair: Cagatay Yucel, Bournemouth University (UK)

Room: Nafsika

11.40–12:00 [Mapping cyber threat intelligence to probabilistic attack graphs](#)
A. Gylling, M. Ekstedt, Z. Afzal, and P. Eliasson

12.00–12:20 [A tree-based machine learning methodology to automatically classify software vulnerabilities](#)
G. Aivatoglou, M. Anastasiadis, G. Spanos, A. Voulgaridis, K. Votis, and D. Tzovaras

12.20–12:40 [Evaluation and enhancement of the actionability of publicly available cyber threat information in digital forensics](#)
A. Dimitriadis, E. Lontzetidis, and I. Mavridis

12.40–13:00 [A workflow and toolchain proposal for analyzing users' perceptions in cyber threat intelligence sharing platforms](#)
B. Stojkovski and G. Lenzi

11.40–13:00 Technical session WS-RAI2

CET Chair: Francesco Mercaldo, University of Molise (IT)

Room: Nefeli

11.40–12:00 [X-BaD: A flexible tool for explanation-based bias detection](#)
M. Pacini, F. Nesti, A. Biondi, and G. Buttazzo

12.00–12:20 [Improving classification trustworthiness in random forests](#)
S. Marrone, M. S. de Biase, F. Marulli, and L. Verde

13:00–14:00 Lunch break

CET

14:00–15:20 Technical session WS-ACTI3

CET Chair: Ioannis Chalkias, Bournemouth University (UK)

Room: Nafsika

14:00–14:20 [CTI blockchain-based sharing using proof-of-quality consensus algorithm](#)
D. Chatziamanetoglou and K. Rantos

14:20–14:40 [Towards intrusion response intel](#)
K. Hughes, K. McLaughlin, and S. Sezer

14:40–15:00 [Data sanitisation and redaction for cyber threat intelligence sharing platforms](#)
C. Yucel, I. Chalkias, D. Mallis, D. Cetinkaya, J. Henriksen-Bulmer, and A. Cooper

15:00–15:20 [Named entity recognition in cyber threat intelligence using transformer-based models](#)
P. Evangelatos, C. Iliou, T. Mavropoulos, K. Apostolou, T. Tsikrika, S. Vrochidis, and I. Kompatsiaris

14:00–15:20 Technical session WS-EPES-SPR1

CET Chair: Panagiotis Sarigiannidis, University of Western Macedonia (GR)

Room: Nefeli

14:00–14:20 [Welcome from the EPES-SPR workshop chair](#)
P. Sarigiannidis

14:20–14:40 [Enhancing SIEM technology for protecting electrical power and energy sector](#)
I. Sklavidis, C. Angelidis, R. Babagiannou, and A. Liapis

14:40–15:00 [A scalable multi-agent system for black start restoration in low voltage microgrids](#)
A. Pasiadis, A. Schoinas, A. Drosou, and D. Tzouvaras

15:00–15:20 [TRUSTY: A solution for threat hunting using data analysis in critical infrastructures](#)
P. Radoglou-Grammatikis, A. Liatifis, E. Grigoriou, T. Saoulidis, A. Sarigiannidis, and T. Lagkas

15:20–15:40 Coffee break

CET

15:40–17:20 Technical session WS-ACTI4

CET Chair: Dimitrios Mallis, Bournemouth University (UK)

Room: Nafsika

15:40–16:00 [Towards selecting informative content for cyber threat intelligence](#)
P. Panagiotou, C. Iliou, K. Apostolou, T. Tsikrika, S. Vrochidis, P. Chatzimisios, and I. Kompatsiaris

16:00–16:20 [Trust and quality computation for cyber threat intelligence sharing platforms](#)
K. B. Mavzer, E. Konieczna, H. Alves, C. Yucel, I. Chalkias, D. Mallis, D. Cetinkaya, and L. Galindo Sanchez

16:20–16:40 [Towards automated matching of cyber threat intelligence reports based on cluster analysis in an Internet-of-vehicles environment](#)
G. E. Raptis, C. Katsini, and C. Alexakos

16:40–17:00 Workshop’s closing remarks
V. Katos

15:40–17:20 Technical session WS-EPES-SPR2

CET Chair: Thomas Lagkas, International Hellenic University (GR)

Room: Nefeli

- 15:40–16:00 [Increasing resilience of power systems using intentional islanding; a comparison of binary genetic algorithm and deep learning based method](#)
P. Paradell, Y. Spyridis, A. Colet Subirachs, A. Ivanova, J. L. Dominguez – Garcia, A. Sesis, and G. Efstathopoulos
- 16:00–16:20 [Enabling cyber-attack mitigation techniques in a software defined network](#)
A. Pasiadis, T. Kotsiopoulos, G. Lazaridis, A. Drosou, D. Tzovaras, and P. Sarigiannidis