2024 IEEE/ACM 4th International Workshop on Engineering and **Cybersecurity of Critical Systems** and 2024 IEEE/ACM Second **International Workshop on Software** Vulnerability (EnCyCriS/SVM 2024)

Lisbon, Portugal 15 April 2024



IEEE Catalog Number: CFP24AK1-POD **ISBN:**

979-8-3503-6514-6

Copyright © 2024, Association for Computing Machinery All Rights Reserved

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number:	CFP24AK1-POD
ISBN (Print-On-Demand):	979-8-3503-6514-6
ISBN (Online):	979-8-4007-0565-6

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400 Fax: (845) 758-2633 E-mail: curran@proceedings.com Web: www.proceedings.com



2024 IEEE/ACM 4th International Workshop on Engineering and Cybersecurity of Critical Systems and 2024 IEEE/ACM Second International Workshop on Software Vulnerability (EnCyCriS/SVM) EnCyCriS/SVM 2024

Table of Contents

Welcome Messge from the Workshop	p Organizers	vii
----------------------------------	--------------	-----

Developing secure software

WasmCFuzz: Structure-aware Fuzzing for Wasm Compilers Xiangwei Zhang (Tianjin University, China), Junjie Wang (Tianjin University, China), Xiaoning Du (Monash Universtiy, Australia), and Shuang Liu (Tianjin University, China)	1
Mitigating Security Issues in GitHub Actions Hassan Onsori Delicheh (University of Mons, Belgium) and Tom Mens (University of Mons, Belgium)	. 6

Developing secure software and Industrial Challenges

Interplay of Digital Twins and Cyber Deception: Unraveling Paths for Technological Advancements	20
Jessica Heluany (Department of Information Security and Communication Technology (IIK), Norwegian University of Science and Technology), Ahmed Amro (Department of Information Security and Communication Technology (IIK), Norwegian University of Science and Technology), Vasileios Gkioulos (Department of Information Security and Communication Technology (IIK), Norwegian University of Science and	20
Technology), and Sokratis Katsikas (Department of Information Security and Communication Technology (IIK), Norwegian University of Science and Technology)	

Training, knowledge and Industrial challenges

Building a Cybersecurity Knowledge Graph with CyberGraph)
Training Developers to Code Securely: Theory and Practice	,
On DevSecOps and Risk Management in Critical Infrastructures: Practitioners' Insights on Needs and Goals	\$
Cyber-incident Response in Industrial Control Systems: Practices and Challenges in the Petroleum Industry	}
Cybersecurity and Medical Devices: A Bull in a china Shop61 Roberto Filippini (EBG MedAustron GmbH, Austria) and Sara Spiller (EBG MedAustron GmbH, Austria)	
Author Index)