12TH INTERNATIONAL CONFERENCE ON
SMART & SUSTAINABLE TECHNOLOGIES

SPLIT - BOL, CROATIA / JUNE 14-17, 2027

Special Session

CYBERSECURITY IN HEALTHCARE AND MEDICINE (CYHEME)

ORGANIZERS:



HRVOJE BELANI
MINISTRY OF HEALTH, CROATIA /
VERN' UNIVERSITY, CROATIA



KREŠIMIR ŠOLIĆ
JOSIP JURAJ STROSSMAYER
UNIVERSITY OF OSIJEK, CROATIA



KRISTINA FIŠTER
UNIVERSITY OF ZAGREB,
CROATIA



ANA MADEVSKA-BOGDANOVA
SS. CYRIL AND METHODIUS
UNIVERSITY, NORTH MACEDONIA



TONI PERKOVIĆ
UNIVERSITY OF SPLIT, CROATIA



KRISTINA DRUSANY STARIČ
UNIVERSITY MEDICAL CENTRE
LJUBLJANA, SLOVENIA

CALL FOR PAPERS

The Fourth International Special Session on Cybersecurity in Healthcare and Medicine (CyHeMe 2027) fosters multidisciplinary discussion on information security and cybersecurity, addressing the growing need to develop secure, reliable, resilient, and trustworthy digital systems and services in healthcare and medicine. As healthcare organizations increasingly rely on digital technologies, including artificial intelligence (AI), the Internet of Medical Things (IoMT), mobile health applications, and interconnected medical devices, ensuring cybersecurity throughout the design, development, deployment, and operation of these solutions has become essential. The special session also emphasizes the importance of protecting sensitive health information, supporting patient safety, promoting well-being and healthy lifestyles, and addressing the specific needs of an aging population.

This multidisciplinary special session will bring together practitioners, researchers, healthcare professionals, policymakers, and experts from government, industry, and academia to exchange knowledge, share experiences, and explore emerging cybersecurity challenges in healthcare and medicine.

Among other objectives, CyHeMe 2027 aims to:
i) develop approaches, models, methods, standards, and requirements that address multiple perspectives of information security and cybersecurity in healthcare and medicine;
ii) develop and refine methods for improving cybersecurity, managing vulnerabilities, reducing risks, and strengthening the resilience of digital health systems and services;
iii) promote cybersecurity-by-design principles, security awareness, and organizational cybersecurity culture while balancing technical security requirements with human factors and clinical needs; and
iv) identify emerging research and industry challenges, establish evaluation and validation objectives, and encourage evidence-based approaches to improving cybersecurity in healthcare environments.

The CyHeMe special session particularly emphasizes the importance of addressing evolving cyber threats, including ransomware attacks, vulnerabilities in medical devices and connected healthcare infrastructures, and security challenges associated with emerging technologies. To ensure that innovative digital health solutions can operate securely and effectively in real-world environments, appropriate cybersecurity and data protection regulations, standards, and organizational policies must be incorporated into their development and operation. Particular attention is given to secure health data management, access control, risk assessment, regulatory compliance, and the protection of critical healthcare infrastructure.

The fourth CyHeMe special session will be organized as a multidisciplinary, half-day, on-site event within the 12th IEEE International Conference on Smart and Sustainable Technologies (SpliTech 2027), taking place in Split-Bol, Croatia, from June 14 to 17, 2027. Participants from government, industry, healthcare institutions, and academic sectors will investigate current and emerging challenges, exchange knowledge, and contribute to aligning cybersecurity efforts across healthcare and medicine. The session will examine critical factors that enhance the security, safety, reliability, and resilience of health-related systems and services through technical, organizational, regulatory, and user-driven mechanisms, while encouraging interdisciplinary collaboration and identifying directions for future research and practical implementation.

FULL PAPER SUBMISSION FEBRUARY 18, 2027

NOTIFICATION OF ACCEPTANCE APRIL 16, 2027

CAMERA READY PAPER MAY 1, 2027

SUBMIT PAPER HERE

VISIT OUR WEBSITE FOR MORE INFORMATION

HTTPS://SPLITECH.ORG/