

**The Fifth International Conference on Innovations in Computing Research (ICR'26)
Berlin, Germany, August 24-26, 2026**

Conference Program

Monday, August 24, 2026

- 07.30-08.00** Conference Registration (Conference Registration Desk)
- 08.00-08.15** WELCOME
Professor Pascal Lorenz, University of Haute Alsace, France
Conference Chair
- Session-ICR-1** **Data Science**
08.20-10.20, August 24, 2026 (In-person)
- Session Chair:** **Robert Polding**
IE University, Spain
- 08.20-08.40** AI-Driven Immersive VR Biathlon for Dual-Task Cognitive-Motor Enhancement in Individuals with Disabilities
Rebecca Papa¹, **Mario Covarrubias**¹, Diego Sanchez¹, Arthur Alexis Guilhem¹, and Sara Arlati²
¹Politecnico di Milano, Department of Mechanical Engineering, Italy
²Institute of Intelligent Industrial Technologies and Systems for Advanced Manufacturing, Italy
- 08.40-09.00** Data-Driven Water Reuse Assessment in Textile Processes Using Multivariate Analysis and Unsupervised Learning
Ivan Gomes, Daniela Quintas, Andreia Cunha, and Ana L. Gonçalves
CITEVE, Centro Tecnológico das Indústrias Têxtil e Vestuário de Portugal
- 09.00-09.20** AI-Driven Predictive Cybersecurity for User Behavior Analysis in Government Institutions
Azza Mohamed¹ and Ahmed Al-Gindy²
¹ Faculty of Engineering and Computing, Liwa University, United Arab Emirates
² AZTech Training and Consultancy Company, United Arab Emirates
- 09.20-09.40** Methodological Aspects of the Fears Mitigation of Change Management in Wartime: Textual Data Analyses and Practical Solutions
Maryna Averkyna^{1,2} and Lauri Tabur³
¹Estonian Business School, Management, Entrepreneurship, & Innovation Excellence Knowledge Team, Estonia
²Lviv Polytechnic National University, Management Organization

Department, Ukraine
³Smartgrow OÜ, Estonia

09.40-10.00 Collaborative UAV Target Search Using QTRAN-Based CTDE in Multi-Agent Reinforcement Learning
Mohamed Amine Ghamri, Zakaria SAHRAOUI, and Nesrine Kamazi
Computer Science Department, Ecole Militaire Polytechnique, Algeria

10.00-10.20 Deep Learning-based Anomaly Detection in Industrial Images: Evaluation and Comparison of Modern Methods
Florian Hecht and **Marcus Grum**
University of Potsdam, Germany

10.20-10.40 **BREAK**

Session-ICR-2 **Computer Science and Computer Engineering Education**
10.40-12.40, August 24, 2026 (Remote)

Session Chair: **Viktoriia Korzhuk**
SIT department, ITMO University, Russia

10.40-11.00 ARCHIE: Automated Concept Extraction from Student Code for Formative Assessment in K-12 Computer Science
Aaja Christie and Anu G. Bourgeois
Georgia State University, Atlanta GA 30303, USA

11.00-11.20 Reframing Disinformation as an Educational Challenge in ICT and Computer Science Education
Hana Dubravova, Lenka Jakubcova, and **Kristyna Holubova**
Police Academy of the Czech Republic in Prague, Faculty of Security Management, Czech Republic

11.20-11.40 LLM Consortium Assessment of Critical Thinking in Student Essays
Diwakar Yalpi, Sruta Keerti Kasula, and Ravi Mukkamala
Old Dominion University, Norfolk, VA 23529, USA

11.40-12.00 Teaching Unicode and UTF-8 Encodings Through Practical Utility Tool Development: A Case Study for Computer Science Education
Nakhoon Baek^{1,2}
¹School of Computer Science and Engineering, Kyungpook National University, Republic of Korea
²Data-driven Intelligent Mobility ICT Research Center, Kyungpook National University, Republic of Korea

- 12.00-12.20** Design and Evaluation of a Tangible AR Learning Environment for Chemistry Education using 3D-Printed Physical Markers
Mónica Jara-Alvarado¹, Leslie Gaibor-Mora¹, Germán Rodríguez-Galán², and **Andrea López-López**¹
¹Universidad de las Fuerzas Armadas ESPE, Santo Domingo, Ecuador
²Universidad de las Fuerzas Armadas ESPE, Sangolquí, Ecuador
- 12.20-12.40** Enhancing Mathematical Reasoning Education with Data-Driven Fine-Tuning of Large Language Models
Pearl Pulikkottil¹, Deshao Liu^{2,3,4}, Junaid Akram^{1,5,6}, **Muhammad Nawaz**⁵, and Ali Anaissi^{1,5}
¹The University of Sydney, Australia
²Asia Pacific International College (APIC), Parramatta, NSW, Australia
³Lincoln Institute of Higher Education (LIHE), Sydney, Australia
⁴The Institute of International Studies (TIIS), Sydney, Australia
⁵University of Technology Sydney, Australia
⁶University of New South Wales, Australia
- 12.40-01.20** **LUNCH BREAK (ON YOUR OWN)**
- Session-ICR-3** **Computer and Network Security**
01.20-03.00, August 24, 2026, (In-Person/Online)
- Session Chair:** **Mario Covarrubias**
Politecnico di Milano, Italy
- 01.20-01.40** Privacy-Preserving Mobile Malware Detection and Payload localisation by means of Explainable Deep Learning
Francesco Mercaldo^{4,1}, Sebastian Schrittwieser², Patrick Kochberger³, Marta Petyx⁶, Patrizia Agnello⁶, Antonella Santone⁴, Fabio Martinelli⁵, and Paul Tavalato¹
¹Faculty of Computer Science, University of Vienna, Vienna, Austria
²Christian Doppler Laboratory for Assurance and Transparency in Software Protection, University of Vienna, Vienna, Austria
³Department of Computer Science and Security, St. Pölten University of Applied Sciences, Sankt Pölten, Austria
⁴Department of Medicine and Health Sciences “Vincenzo Tiberio”, University of Molise, Campobasso, Italy
⁵Institute of High Performance Computing and Networking, National Research Council of Italy (CNR), Rende, Italy
⁶Istituto Nazionale per l’Assicurazione contro gli Infortuni sul Lavoro, Roma, Italy
- 01.40-02.00** Fortifying a Small Water Utility Against Hybrid Threats
Lauri Anttila^{1,2}
¹University of Jyväskylä, Finland
²61N Solutions Oy, Tampere, Finland

- 02.00-02.20 A Quantum-Safe “Subscriber Concealed Identifier” Scheme for 6G Systems
Geir Køien
University of South-Eastern Norway (USN), Norway
- 02.20-02.40 Fault-Tolerant Transaction Scheduling for Stable Distributed Systems
Ariful Islam Emon and **Pavan Poudel**
University of Houston-Clear Lake, Houston, USA
- 02.40-03.00 A Unified Experimental Evaluation of Guardrail Mechanisms for LLM Agents
Roman Safiullin, Viktoriia Korzhuk, Akylzhan Kerimbay, Roman Patrikeev
SIT department, ITMO University, Russia
- 03.00-03.20 **BREAK**
- 03.20-04.20 **Keynote Speech: Data-driven decision support in complex situations-IRIS Integrated Reachback Information System as hybrid optimization frameworks**

Professor Stefan Wolfgang Pickl
DKKV, COMTESSA, Munich, Germany
- 07.30-09.30 **CONFERENCE DINNER**