Tuesday, August 26, 2025 (Meeting Room: Atlantic)

Health Informatics and Biomedical Imaging ICR25-Session-4-IR

08.00-09.20, August 26, 2025 (In Person/Remote)

Session Chair: Sandi Ljubic

University of Rijeka, Croatia

Urban Technologies for Sustainable Aging: Addressing Vision 08.00-08.20

Impairments in Older Populations

Gema Martinez-Navarrete¹, Vanessa Zorrilla-Muñoz^{2,3}, Eduardo Saenz de Cabezon⁴, Nicanor Morales-Delgado¹, Ramon Peral-Orts⁵, María Silveria Agulló-Tomás ^{2,6}, Nicolas Garcia Aracil¹, Jose Maria

Sabater-Navarro¹, and Eduardo Fernandez ^{1,7}

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²Bioengineering Institute, Miguel Hernandez University, 03202, Elche, Spain

³University Institute on Gender Studies, University Carlos III of Madrid, Getafe, 28903 Madrid, Spain

⁴Department of Mathematics and Computation Department, University of La Rioja, 26006, Logroño, Spain

⁵Department of Applied Mechanical Engineering, Miguel Hernandez University, 03202, Elche, Spain

⁶Social Sciences Department, University Carlos III of Madrid, Getafe,

28903 Madrid, Spain

⁷Networking Research Centre of Bioengineering, Biomaterials and

Nanomedicine (CIBER-BBN), Spain

A Comprehensive Three-Stage Evaluation Framework for AI-Enhanced

EHR Training Systems: A Case Study in Cardiac Catheterization

Laboratory Documentation

Vikraman Baskaran and Keyani Mathis

College of Professional Advancement, Mercer University, Atlanta, GA-

30341, USA

08.40-09.00 Advancing Healthy Aging: The Impact of Assistive Technolo-gies on

Mobility and Self-Care Among Older People

Vanessa Zorrilla-Muñoz^{1,2}, Gema Martinez-Navarrete³, Yolanda Vales¹, José M. Catalan¹, Andrea Blanco-Ivorra⁴, Nicanor Morales-Delgado⁵, Ramón Peral-Orts⁶, Eduardo Saenz-de-Cabezon⁷, José María Sabater-Navarro1, Eduardo Fernandez^{1, 8}, Nicolas García Aracil1, and

Mari Carmen Lillo-Navarro⁹

¹Bioengineering Institute, Miguel Hernandez University, 03202, Elche, Spain

²University Institute on Gender Studies, University Carlos III of Madrid, Getafe, 28903 Madrid, Spain

³Department of Histology and Anatomy. Division of Cell Biology,

08.20-08.40

Miguel Hernandez University, 03550, San Joan, Spain

⁴Department of Materials Science, Optics, and Electronic Technology, Miguel Hernandez Univer-sity,03202, Elche, Spain

⁵ Department of Anatomy and Human Embriology, Miguel Hernandez University, 03550, San Joan, Spain

⁶ Department of Applied Mechanical Engineering, Miguel Hernandez University, 03202, Elche, Spain

⁷ Department of Mathematics and Computation Department, University of La Rioja, 26006, Lo-groño, Spain

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⁹Department of Pathology and Surgery, Miguel Hernandez University, 03550, San Joan, Spain

09.00-09.20

TINRELIEF: Mobile Application for Tinnitus Sound Therapy Luka Škrlj^{1,2}, Andrea Andrijašević³, Mirta Čulina⁴, and **Sandi Ljubic**^{1,2} ¹University of Rijeka, Faculty of Engineering, Vukovarska 58, 51000 Rijeka, Croatia

²Center for Artificial Intelligence and Cybersecurity, University of Rijeka, R. Matej ci c 2, 51000 Rijeka, Croatia

³University of Applied Sciences of Rijeka, Vukovarska 58, 51000

Rijeka, Croatia

⁴Clinical Hospital Center Rijeka, Kre^{*}simirova 42, 51000 Rijeka, Croatia

09.20-10.20 Panel: Current and Future Innovations in Data Science

Moderator: Robert Polding, IE University, Spain

Panelists: Samah Senbel, Sacred Heart University, USA

Maryna Averkyna, Estonian Business School, Estonia Imran Khan, Sultan Qaboos University, Muscat, Oman.

10.20-10.40 **BREAK**

ICR25-Session-5-IR Computer and Network Security

10.40-12.00, August 26, 2025 (In-person/Remote)

Session Chair: Eleftherios Zacharioudakis

National Technical University of Ukraine, Ukraine

10.40-11.00 Impact Assessment of Adversary-in-the-Middle Attack Evilginx

Bypassing 2FA **Hiroaki Kikuchi**

Meiji University, 4-21-1 Nakano, Tokyo 164-8525, Japan

11.00-11.20 Developing a Conceptual Framework for Enhanced Cybersecurity

Defense against Zero-Click Exploit

Abdulhadi A. AL Khamis ¹ , Mohsin Iftikhar ² , Mohsin Murtaza ³ , and
Sohail Gohir ⁴

¹ Saudi Aramco, Saudi Arabia

² Higher Colleges of Technology, UAE Federal Government

³ STEM College, RMIT University, Melbourne, Australia

⁴ Higher Colleges of Technology, UAE Federal Government

11.20-11.40 Dynamic and Explainable Federated Learning for IoT Anomaly

Detection: A Comparative Study with Centralized Machine Learning

Models

Alend Jarjis^{1, 3} and Yaşar Becerikli²

¹Faculty of Engineering, Department of Computer Engineering,

Kocaeli University, Kocaeli 41001 Turkey

² Department of Digital Forensics Specialization, Institution of

Forensic Medicine, Istanbul 34400 Turkey

³Department of Mathematics, College of Education, Salahaddin

University, Erbil, Iraq

11.40-12.00 A Scalable Cybersecurity Model for Shared SOCs in SMEs

Eleftherios Zacharioudakis¹ and Elena Kakoulli^{2,3}

¹National Technical University of Ukraine, Igor Sikorsky Kyiv

Polytechnic Institute, Kyiv, Ukraine

²Intelligent Systems Laboratory, Department of Computer Science,

Neapolis

University Pafos, Pafos, Cyprus

³Electrical Engineering and Computer Engineering and Informatics,

Cyprus

University of Technology, Limassol, Cyprus

12.00-12.20 FREE SLOT

12.20-01.20 LUNCH BREAK (ON YOUR OWN)

ICR25-Session-6-IR Internet of Things + Computer and Network Security

01.20-02.40, August 26, 2025 (In-person/Remote)

Session Chair: Spyros Sioutas

University of Patras, Greece

01.20-01.40 SF-SMCM: A Security Framework for Single-To-Multi-Cloud Migration

Yasmin Gad, Mohamed Hamed N. Taha, and Nour Eldeen Khalifa

Faculty of Computers and Artificial Intelligence, Cairo University, Egypt

01.40-02.00 From Static to Elastic: A Hybrid IoT Ontology Framework for Industry

4.0 and Beyond

Larysa Globa¹, **Serhii Ushakov**¹, and Oleh Kopiika²

¹Institute of Telecommunication System, National Technical University of Ukraine, Ukraine
²Institute of Applied Control Systems of the National Academy of

Sciences of Ukraine, Ukriane

02.00-02.20 Securing LoRaWAN for Smart Grids: A Comprehensive Analysis of

Vulnerabilities, Challenges, and Research Directions

Noor Shomal and Bassel Soudan University of Sharjah, Sharjah, UAE

02.20-02.40 Optimizing Data Transmission in LoRa-Based IoT Systems: A

Performance Evaluation of Compression Algorithms

Vasilikh Misahlidou¹, Aristeidis Karras¹, Ioanna Giannoukou², and

Spyros Sioutas¹

¹Computer Engineering and Informatics Department, University of Patras,

Greece

²Department of Management Science and Technology, University of

Patras, Greece

02.40-03.00 **BREAK**

03.00-04.00 **Keynote Speech:**

Architectures of Next Generation Wireless Networks

Professor Pascal Lorenz

University of Haute-Alsace, France, France