The 2026 International Conference on Advances in Computing Research (BAI'26)
Tunis, Tunisia, May 4-6, 2026

Conference Program

Tuesday, May 5, 2026

Session BAI-3   **Cutting Edge Artificial Intelligence + Machine Learning**
                     08.40-10.20, May 5, 2026 (In-person/Remote)

Session Chair: **Felice Franchini**
                     University of Bari Aldo Moro, Italy

08.40-09.00   Towards the Introduction of Quantum Machine Learning in Possible Epileptic Seizure Detection
Francesco Mercaldo[3,1], Hubert Schölnast[2], Oliver Eigner[2], Antonella Santone[3], Mario Cesarelli[4], Fabio Martinelli[5], and Paul Tavolato[1]
[1]Faculty of Computer Science, University of Vienna, Vienna, Austria
[2]Department of Computer Science and Security, St. Pölten University of Applied Sciences, Sankt Pölten, Austria
[3]Department of Medicine and Health Sciences "Vincenzo Tiberio", University of Molise, Campobasso, Italy
[4]Department of Engineering, University of Sannio, Benevento, Italy
[5]Institute of High Performance Computing and Networking, National Research Council of Italy (CNR), Rende, Italy

09.00-09.20   Quantum Machine Learning: A Comparative Review of Algorithms and Applications
Amani Lamine, Ameni Mejri, and Bilel Charfi
ESPRIT School of Engineering, Tunis, Tunisia

09.20-09.40   Predictive Maintenance in the Oil and Gas Industry: A Systematic Literature Review
Abdulrahman Alteneiji[1] and **Mahmoud Bakkar**[2]
[1]Abu Dhabi University, Abu Dhabi, UAE
[2]Abu Dhabi University, Al Ain, UAE

09.40-10.00   Benchmarking Deep Learning Models for Automated Structural Defect Detection
Afif Beji and Donia Lassoued
ESPRIT, School of Engineering, Ariana, Tunisia

10.00-10.20	Comprehensive Analysis and Comparison of Deep Learning based Privacy-Preserving Gesture Authentication
	Ahmed Elouni and Rachid Zagrouba
	University of Tunis El Manar, Higher Institute of Computer Science, Intelligent Systems in Imaging and Artificial Vision, LIMTIC Laboratory, Tunisia

10.20-10.40	**BREAK**

10.40-11.00	**FREE SLOT**

11.00-12.00   **Panel**: **Artificial Intelligence for Cybersecurity Engineering: Will Our Assets Be Exceptionally Protected?**

Moderator: **Guillermo Francia, III**, University of West Florida, USA

Panelists: **Irene Kopaliani**, Princeton University, USA
Sorin Soviany, National Institute for Research and Development in Informatics ICI-Bucharest, Romania
Nazli Tekin, Erciyes University, Turkey

12.00-01.20   **LUNCH BREAK (ON YOUR OWN)**

01.20-02.40   **Keynote Speech: The Invisible Code: Why Dataset Design is the New Software Engineering**

Professor Luis Coelho
Polytechnic of Porto, Portugal

02.40-03.00   **FREE SLOT**

03.00-03.20   **BREAK**

Session BAI-4   **Artificial Intelligence Applications**
03.20-04.40, May 5, 2026 (Remote)

Session Chair: **Afif Beji**
ESPRIT, School of Engineering, Ariana, Tunisia

03.20-03.40	Analysis of Process Model Complexity through Time-Window Activity Aggregation

Antonella Madau[1], **Gianfranco Semeraro**[2], Chiara Verdone[1], and Lerina Aversano[3]
[1]Department of Engineering, University of Sannio, Benevento, Italy
[2]Department of Computer Science, University of Studies of Bari Aldo Moro, Bari, Italia
[3]Department of Agricultural Science, Food, Natural Resources and Engineering, University of Foggia, Foggia, Italy

03.40-04.00	Federated Breast Lesion Segmentation in Kaapana: A Synthetic Multi-Site Evaluation

Shqipe Salii[1,2], Markus Graf[2], and Mennan Selimi[1]
[1]Faculty of Contemporary Sciences and Technologies, South East European University, North Macedonia.
[2]Faculty of Informatics, University of Applied Sciences Heilbronn, Germany

04.00-04.20	AI- & Heuristic-Driven Predictive Analytics for Network Traffic Optimization in 5G Wireless Networks

Olaoluwa Malachi and Janet Light
Department of Computer Science, University of New Brunswick, Canada

04.20-04.40	Privacy-Preserving AI for Wearable Healthcare: A Federated Learning Framework with Unsupervised Domain Transfer

Eliezer Schwarz[1], Rajesh Ampani[2,3], Kristy Chung[1], Md Mashrur Jamil Rafin[1], Altamash Sayed[1], Naomi Viegas[1], Nabeel Niaz[1], Jawad Khanafer[4], and **Ali Anaissi**[1,4]
[1]University of Sydney, Australia
[2]Asia Pacific International College (APIC), Sydney, Australia
[3]Peninsula Health, Victoria, Australia
[4]University of Technology Sydney, Australia