



MONTENEGRIN ACADEMY OF SCIENCES AND ARTS

DEPARTMENT OF NATURAL SCIENCES

INFORMATION AND COMMUNICATION
TECHNOLOGIES BOARD

3RD SCIENTIFIC MEETING

**SIGNAL PROCESSING:
STATE-OF-THE-ART
AND
PERSPECTIVES**

PROGRAMME

MONTENEGRIN ACADEMY OF SCIENCES AND ARTS

Podgorica, Friday, June 6, 2025

ORGANIZING COMMITTEE:

ACADEMICIAN LJUBIŠA STANKOVIĆ,
President of the Montenegrin Academy of Sciences and Arts

ACADEMICIAN IGOR DJUROVIĆ,
*Secretary of the Division of Natural Sciences,
President of the Information and Communication Technologies
Board, Montenegrin Academy of Sciences and Arts*

DOC. DR MILOŠ BRAJOVIĆ,
Faculty of Electrical Engineering, University of Montenegro

Venue:

**MONTENEGRIN ACADEMY OF SCIENCES AND ARTS,
Rista Stijovića 5, Podgorica**

9.00–9.10

OPENING ADDRESS:

- **ACADEMICIAN LJUBIŠA STANKOVIĆ,**
President of the Montenegrin Academy of Sciences and Arts

9.10–10.15

Session I
GRAPH SIGNAL PROCESSING

- Chaired by **ACADEMICIAN IGOR DJUROVIĆ**

9.10–9.40

- **GERAL MATZ,**
Technische Universität Wien, Vienna, Austria
*„Localized Frames for Computationally
Efficient Graph Signal Processing“*

9.45–10.15

- **ALI BAGHERI BARDI^{1,2} & MILOŠ BRAJOVIĆ²,**
*¹Persian Gulf University, Bushehr, Iran, ²University of
Montenegro*
*A Framework for Graph Fourier
Transforms on Directed Graphs*

10.15–10.35

COFFEE BREAK

10.35–11.35

Session II
AI IN MEDICINE

- Chaired by **DOC. DR MILOŠ BRAJOVIĆ**

10.35–11.05

- **ERVIN SEJDIĆ,**
University of Toronto, Canada
AI in Medicine, (online lecture)

11.05–11.35

- **DANILO MANDIĆ,**
Imperial College, London, United Kingdom
*Machine Intelligence for eHealth: Hearables
for 24/7 Doctorless Hospitals?*

11.35–12.05	Session III RADARS ▫ Chaired by Doc. Dr Miloš Brajović
11.35–12.05	▪ MARCO MARTORELLA, <i>University of Birmingham, United Kingdom</i> <i>3D ISAR imaging of non-cooperative targets</i>
12.05–12.25	COFFEE BREAK
12.25–14.00	Session IV APPLICATION IN VEHICLE CONTROL AND TRAFFICK MONITORING ▫ Chaired by Academician Igor Djurović
12.25–12.55	▪ CÉDRIC RICHARD, <i>University Côte d'Azur, Nice, France</i> <i>This Wheel's on Fibre: using fibre optic sensing for traffic monitoring</i>
12.55–13.25	▪ BRANKA JOKANOVIĆ, <i>Amazon, Spain</i> <i>Advanced driver-assistance systems (ADAS) and application of the machine learning in the automotive industry, (online lecture)</i>
13.25–13.55	▪ SLOBODAN DJUKANOVIĆ, <i>Siemens, Czech Republic</i> <i>Acoustic foundation model-based vehicle speed estimation in real-world environments, (online lecture)</i>
13.55	CONCLUDING REMARKS