

AIMSA 2024

Conference Program

Day 1: 18.09.2024

9:00 – 9:30

Registration and opening

Session 1

9:30 – 9:50

*Vankov, Georgi; Dimitrov, Dimitar Ilianov; **Koychev, Ivan K.**; Nakov, Preslav*
Multimodal Sentiment Analysis: Recognizing Sentiment in Memes

9:50 – 10:10

Li, Yunan; Dhelim, Sahraoui; Chen, Liming; Kechadi, Mohand Tahar
Remote Sensing Data for Predicting Crop Growth

10:10 – 10:30

Mihov, Stoyan
Cross-lingual Style Transfer TTS for High-quality Machine Dubbing

10:30 – 11:00

Coffee break

Session 2

11:00 – 11:20

Nisheva-Pavlova, Maria M.
An Approach to Discovering, Tracking over Time, and Summarizing Publicly Available Information on a Given Topic

11:20 – 11:40

Markov, Borislav; Koprinkova-Hristova, Petia
Reinforcement learning control of Cart Pole system with Spike timing Neural Network Actor-critic architecture

11:40 – 12:00

AbouHassan, Iman Y.; Kasabov, Nikola; Trifonov, Roumen; Popov, George
Predictive and Explainable Modelling in Economics on the Case Study of Remittance Prediction Using the NeuDen AI Computational Architecture

12:00 – 13:00

Lunch break

Plenary session 1

13:00 – 14:00

Plamen Angelov
Bringing Deep Learning and Reasoning Closer

14:00 – 14:30

Coffee break

Session 3

14:30 – 14:50

Santana, Vanessa F.; Georgieva, Petia; Brito, José
Deep Learning for Multi-class Diagnosis of Thyroid Disorders using Selective Features

14:50 – 15:10

Al-Khateeb, Aayad; Ragheb, Mostafa; Momcheva, Galina D.; Kamar, Issa; Hamady, Mohamad
Medical Ultrasound Image Quality Assessment using Deep Learning

15:10 – 15:30

Marchev, Angel; Lyubchev, Dimitar; Penchev, Nikolay
Testing the NEAT Algorithm on a PSPACE-Complete Problem

Poster session

15:30 – 16:00

Short announcements of all posters (3 min per poster)

16:00 – 18:00

Poster exhibition

19:00 – 22:00

Conference dinner

Day 2: 19.09.2024

Session 4

- 9:30 – 9:50 **Rieger, Ines**
Investigating the Regularization of Deep Neural Networks for Affect Recognition with Relevance-Guided Local Explanations
- 9:50 – 10:10 **Akmal, Muhammad Uzair; Asif, Saara; Koval, Leonid; Mathias, Selvine George; Knollmeyer, Simon; Grossmann, Daniel**
Layered Data-Centric AI to Streamline Data Quality Practices for Enhanced Automation
- 10:10 – 10:30 **Markov, Konstantin**
Combining Graph NN and LLM for Improved Text-based Emotion Recognition
- 10:30 – 11:00 **Coffee break**

Plenary session 2

- 11:00 – 12:00 **Zeng-Guang Hou**
AI and BCI Based Interaction Control Methods for Robotics
- 12:00 – 13:00 **Giacomo Indiveri**
Neuromorphic Intelligence: spiking neural network and on-line learning circuits for brain-inspired technologies
- 13:00 – 14:00 **Lunch break**

Session 5

- 14:00 – 14:20 **Grancharova, Alexandra; Xie, Junhong; Kocijan, Jus**
A Novel Study on Modelling and Adaptive Optimal Control of a Tubular Reactor Based on Gaussian Processes
- 14:20 – 14:40 **Janjani, Pranav; Palan, Mayank Bhavesh; Shirude, Sarvesh Eknath; Shegokar, Ninad S; Kazi, Dr. Faruk**
Converging Dimensions: Information Extraction and Summarization through Multisource, Multimodal, and Multilingual Fusion
- 14:40 – 15:00 **Tanner, Thomas; Ogul, Hasan; Marfurt, Andreas**
Enhancing Question Answering in Lecture Videos with a Multimodal Retrieval-Augmented Generation Framework

- 15:00 – 15:30 **Coffee break**

Session 6

- 15:30 – 15:50 **Muraretu, Ionut D; Vultureanu-Albisi, Alexandra; Ilie, Sorin V; Badica, Costin**
Agent-based simulation leveraging declarative modeling for efficient resource allocation in emergency scenarios
- 15:50 – 16:10 **Anastasiadis, Dimitrios; Refanidis, Ioannis**
Enhancing Security in Federated Learning: Detection of Synchronized Data Poisoning Attacks
- 16:10 – 16:30 **Miteva, Mariya**
Clinical and Acquisition Data for Optimizing MGMT Methylation Status Prediction: A Comprehensive Ensemble Strategy Emphasizing Non-Invasive Approaches
- 16:30 – 17:00 **Closing**