Conference Program

Thursday, October 9, 2025			
10:00 – 10:45	Opening Ceremony (Ceremonial Hall)		
10:45 – 11:30	**Keynote Talk 1**: *Álvaro Rocha*, AI IN HEALTH CARE STRATEGIES (Ceremonial Hall)		
11:30 – 12:00	Coffee Break (Hallway, 2nd floor)		
	Ceremonial Hall	Room 102	Room 103
12:00 – 13:30	Parallel Sessions		
	NLP1	**ML**	**CV**
13:30 – 15:00	Lunch Break		
15:00 – 16:30	Parallel Sessions		
	NLP2	**GAI1**	**AIEPS**
16:30 – 17:00	Coffee Break (Hallway, 1st and 2nd floor)		
17:00 – 18:30	Parallel Sessions		
	EAI	**GAI2**	**KRUR**
Friday, October 10, 2025			
10:45 – 11:30	**Keynote Talk 2**: *Petar Veličković*, LLMs AS GNNs (TO UNDERSTAND HOW THEY GENERALISE) (Ceremonial Hall)		
11:30 – 12:00	Coffee Break (Hallway, 2nd floor)		
	Ceremonial Hall	Room 102	Room 103
12:00 – 13:30	Parallel Sessions		
	NLP3	**DMPS1**	**AIE**
13:30 – 15:00	Lunch Break		
15:00 – 16:30	Parallel Sessions		
	NLP4	**DMPS2**	**AIS**
16:30 – 17:00	Closing Session		

Topics of Interest

AIE	AI in Education
AIEPS	AI in Ethics, Privacy and Society
AIS	AI in Security
CV	Computer Vision
DMPS1	Decision Making and Problem Solving 1
DMPS2	Decision Making and Problem Solving 2
EAI	Explainable AI
GAI1	General and Generative AI 1
GAI2	General and Generative AI 2
KRUR	Knowledge Representation, Uncertain Knowledge and Reasoning
ML	Machine Learning
NLP1	Natural Language Processing 1
NLP2	Natural Language Processing 2
NLP3	Natural Language Processing 3
NLP4	Natural Language Processing 4

NOTE: The presentation time is limited to 20 minutes, including discussions. The Ceremonial Hall is located on the 2nd floor of the SASA building at Knez Mihailova 35. All other rooms are on the 1st floor.

Keynote Talks

Thursday, October 9, 2025

10:45 – 11:30 Ceremonial Hall

Chair:

Álvaro Rocha
AI IN HEALTH CARE STRATEGIES

Friday, October 10, 2025

10:45 – 11:30 Ceremonial Hall

Chair:

Petar Veličković
LLMs AS GNNs (TO UNDERSTAND HOW THEY GENERALISE)

Parallel Sessions

Thursday, October 9, 2025

12:00 – 13:30 Ceremonial Hall

NLP1 – Natural Language Processing 1

Chair:

Adela Ljajić, Marko Zubac, Miloš Košprdić, Nikola Milošević, Dragiša Mišković
EFFICIENT FINE-TUNING OF LLAMA 3.2 VISION FOR SERBIAN LANGUAGE GENERATION

Dragica Ljubisavljević, Ana Korunović
TEXT VALIDATION IN NLP APPLICATIONS: A CHAIN OF RESPONSIBILITY APPROACH

Gorana Gojić, Milena Oparnica, Darija Medvecki, Bojana Bašaragin
USING A GENERATIVE LLM TO CREATE AN ANNOTATED DATASET IN SERBIAN: OUTCOMES AND LESSONS LEARNED

Jing Meng, Zhenfang Zhu, Xiangyu Shui, Guangyuan Zhang, Guang Yang, Hongli Pei
MSEAN: MULTI-LEVEL SEMANTIC ENHANCEMENT WITH GRAPH ATTENTION NETWORK FOR IMAGE-TEXT MATCHING

Xiaoyun Wang
STUDENTS' ACCEPTANCE OF AI AGENTS: THE TAM-AS MODEL

12:00 – 13:30 Room 102

ML – Machine Learning

Chair:

Andjelija Ž. Ilić, Jelena Z. Trajković, Slobodan V. Savić, Darko M. Ninković, Milan M. Ilić
CNN-BASED RECOGNITION AND CORRECTION OF AXES MISALIGNMENTS AND TILTS IN THE WIRELESS COMMUNICATIONS SYSTEM UTILIZING OAM MODES FOR DATA TRANSMISSION

Irfan Fetahović, Aldina Avdić, Ulfeta Marovac
SWARM INTELLIGENCE METHODS IN FEATURE SELECTION FOR BIOMEDICAL DATA CLASSIFICATION

Katarina Mitrović, Andrej M. Savić, Aleksandra Radojičić, Marko Daković, Igor Petrušić
MACHINE LEARNING-BASED PROFILING OF MIGRAINE WITH AURA: FROM BINARY DETECTION TO MULTILEVEL COMPLEXITY CLASSIFICATION USING STRUCTURAL MRI

Milena Živković, Dragana Krstić, Taha Yeseen Wais, Berivan F. Namq
MODELING SOIL-TO-PLANT TRANSFER FACTORS OF NATURAL RADIONUCLIDES WITH RANDOM FOREST ALGORITHM

Sonja D. Radenković, Milan Radovanović, Slavica Malinović-Milićević
USING MACHINE LEARNING TO PREDICT SPACE WEATHER'S EFFECT ON PRECIPITATION-INDUCED FLOODS FROM SOLAR ACTIVITY TIME SERIES

12:00 – 13:30 Room 103

CV – Computer Vision

Chair:

Anđelka Zečević, Anastazia Žunić, Nikolina Vukša Popović, Božo Vuković, Lazar Velimirović
DIGITIZING SERBIAN PERIODICALS: A MODULAR PIPELINE FOR HISTORICAL COLLECTIONS

Aying, JianXun Cui
EFFICIENT HIGH-FIDELITY RECONSTRUCTION OF DYNAMIC URBAN SCENES VIA GAUSSIAN SPLATTING

Đorđe D. Nešković, Minja Vuković, Đurađ Budimir, Miloš Đorđević, Nadica Miljković
EFFECTS OF DIFFERENT PREPROCESSING METHODS ON CELL SEGMENTATION USING U-NET NEURAL NETWORKS

Peiwu Qin
INTELLIGENT SYNDROME DIFFERENTIATON AND PRESCRIPTION FOR TRADITIONAL CHINESE MEDICINE

Qirui Hou, Jianxun Cui
DRIVINGSCENE: A REAL-TIME AND HIGH-PRECISION DRIVING SCENE RECONSTRUCTION METHOD BASED ON 2D GAUSSIAN SPLATTING

15:00 – 16:30 Ceremonial Hall

NLP2 – Natural Language Processing 2

Chair:

Aleksandar Tomašević, Darja Cvetković, Sara Major, Slobodan Maletić, Miroslav Anđelković, Ana Vranić, Boris Stupovski, Dušan Vudragović, Aleksandar Bogojević, Marija Mitrović Dankulov
LARGE-SCALE SIMULATION OF REDDIT COMMUNITIES USING MULTI-AGENT LLM SYSTEMS

Danka Jokić, Ranka Stanković, Ana Kovačević
FAKE NEWS DETECTION IN SERBIAN USING LARGE LANGUAGE MODELS AND KNOWLEDGE GRAPHS

Marko Koprivica
BENCHMARKING OF METHODS FOR DETECTING MACHINE GENERATED TEXT IN SERBIAN

Ranka Stanković, Tamara Vučenović, Milica Ikonić Nešić
FROM UNSTRUCTURED INTERVIEWS TO QUERYABLE KNOWLEDGE: AN AI PIPELINE FOR THE "DIGITALNE IKONE" CORPUS USING TEI, NER, NEL, AND RAG

15:00 – 16:30 Room 102

GAI1 – General and Generative AI 1

Chair:

Aleksandra Klašnja-Milićević, Mirjana Ivanović, Jelena Ilić, Nataša Papić-Blagojević
RISK, REGULATION, AND READINESS: GENERATIVE AI ADOPTION IN HEALTHCARE AND IT

Nikola Vidović
EFFECTS OF INVESTMENT IN THE APPLICATION OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES ON THE TRANSFORMATION OF THE FINANCIAL SECTOR

Ognjen Ristić
NO-CODE AI AUTOMATION – DATA ANALYSIS WITH VISUAL WORKFLOW AUTOMATION

Wei Shao, Lianhai Wang, Qizheng Wang, Jinpeng Wang, Shujiang Xu, Shuhui Zhang
A BLOCKCHAIN-DRIVEN OPTIMIZATION MECHANISM FOR FEDERATED LEARNING DATA DISTRIBUTION

15:00 – 16:30 Room 103

AIEPS – AI in Ethics, Privacy and Society

Chair:

Dragan Manojlović, Ergin Hakić, Enver Međedović
ARTIFICIAL INTELLIGENCE AND CITIZEN IDENTIFICATION THROUGH MATCHING BIOMETRIC DATA WITH AUDIO AND VIDEO RECORDINGS FROM PUBLIC SPACES: THE LEGAL STATUS OF CURRENT PRACTICE IN SERBIA

Jovan Kojić
INVISIBLE BARRIERS: AI BIAS AND CROSS-BORDER PRIVACY RISKS IN AUTOMATED HIRING

Milena Šović, Milena Škobo, Marko Radojčić
CHALLENGES AND POTENTIALS IN THE USE OF ARTIFICIAL INTELLIGENCE FOR THE RECONSTRUCTION AND SIMULATION OF OLD DIALECTS AND LANGUAGE VARIETIES IN THE BALKANS

Muzafer Saračević, Suad Bećirović, Dženis Bajramović
APPLICATION OF AI FOR THE EVALUATION OF CATALAN-BASED CRYPTOGRAPHIC AND STEGANOGRAPHIC METHODS

17:00 – 18:30 Ceremonial Hall

EAI – Explainable AI

Chair:

Aleksandra Stojnev Ilic, Dragan Stojanovic, Milos Ilic, Natalija Stojanovic
EXPLAINABLE AI IN MEDICINE: BRIDGING TRUST, TRANSPARENCY, AND CLINICAL UTILITY

Enisa Trubljanin, Nataša Kovač
DIFFERENCES BETWEEN EXPLAINABILITY IN TABULAR AND UNSTRUCTURED DATA: AN EXPERIMENTAL ANALYSIS OF XAI METHODS

Jinyuan Zhang, Lei Zhang, Jianxun Cui
EXPLAINABLE AUTONOMOUS DRIVING RESEARCH WITH OBJECT-LEVEL VECTOR MODALITY INTEGRATION

Mina Nikolić, Aleksandar Stanimirović, Leonid Stoimenov
THE INCORPORATION OF LLM TOOL-CALLING CAPABILITIES FOR ENHANCING THE EXPLAINABLE AI PARADIGM IN CLASSIFICATION TASKS

17:00 – 18:30 Room 102

GAI2 – General and Generative AI 2

Chair:

Bojan Šmidling, Miona Tomić
GAME ENGINE-BASED RGB-THERMAL IMAGE SIMULATION: A PLATFORM FOR FUTURE AI INTEGRATION

Davorka Radaković, Tanja Savić, William Steingartner
EXPLORING AI USE AMONG ELEMENTARY SCHOOL PUPILS

Ivan Lorencin, Sandi Baressi Šegota, Nikola Anđelić, Vedran Mrzljak
INTEGRATION OF RAG PIPELINES IN MEDICAL REPORT GENERATION

Jiahui Yang, Jianxun Cui
EFFICIENT FEATURE DISENTANGLEMENT VIA ORTHOGONAL DECOMPOSITION FOR MODEL FINE-TUNING

17:00 – 18:30 Room 103

KRUR – Knowledge Representation, Uncertain Knowledge and Reasoning

Chair:

Mahima Choudhary, Basant Agarwal
HYBRID KNOWLEDGE GRAPH AND MACHINE LEARNING FRAMEWORK FOR CODE-MIXED ANTI-RELIGIOUS CONTENT DETECTION

Marija Tasić, Miroslav Ćirić, Jelena Ignjatović, Marko Stanković, Stefan Stanimirović
HESITANT FUZZY SETS AND HESITANT FUZZY RELATIONS OVER THE GÖDEL POWER SET QUANTALE

Milorad Tosic, Nenad Petrovic
INTELLIGENT DATA - THE PLATFORM DRIVEN APPROACH

Nenad Petrovic, Milorad Tosic
SYNERGY OF LLMS AND ONTOLOGIES TO REDUCE COGNITIVE LOAD IN MANUFACTURING PROCESS

Vanja Stepanović, Andreja Tepavčević
COMPLETE MEET-CONTINUOUS CODOMAIN LATTICE AND EXTREMAL SOLUTIONS OF L-VALUED FUZZY RELATION EQUATIONS

Friday, October 10, 2025

12:00 – 13:30 Ceremonial Hall

NLP3 – Natural Language Processing 3

Chair:

Anđelka Zečević, Bojana Bašaragin, Jovana Kovačević, Vladimir Kovačević, Elma Dervić
SEMANTIC LANDSCAPES OF DEMENTIA: INSIGHTS FROM PUBMED AND LANGUAGE MODEL EMBEDDINGS

Anđelka Zečević, Ranka Stanković
HARNESSING LARGE LANGUAGE MODELS FOR MEDICAL LEXICON SIMPLIFICATION

Mihailo Škorić
PILOT TEXT TO TEXT TRANSFER TRANSFORMER MODEL FOR SERBIAN LANGUAGE

Milica Ikonić Nešić, Saša Petalinkar, Ranka Stanković
TOWARDS LINGUISTIC COMPLETENESS IN KNOWLEDGE GRAPHS: GENERATING SERBIAN INFLECTIONS WITH LANGUAGE MODELS

Sandi Baressi Šegota, Nikola Anđelić, Vedran Mrzljak, Ivan Lorencin
ON THE ROBUSTNESS AND PRIVACY OF LIGHTWEIGHT LLM ROUTERS IN RETAIL CONTEXTS

12:00 – 13:30 Room 102

DMPS1 - Decision Making and Problem Solving 1

Chair:

Jelena Marković
FORMALIZATION OF GYROVECTOR SPACES AS MODELS OF HYPERBOLIC GEOMETRY AND SPECIAL RELATIVITY

Mihailo Ilić, Mirjana Ivanović
SOME POSSIBILITIES TO OPTIMIZE FEDERATED LEARNING PROCESSES

Nataša Milosavljević, Tatjana Davidović
METAHEURISTIC CLUSTERING OF INCOMPLETE DATA: TOWARDS ADAPTIVE OBJECTIVE FUNCTIONS AND PRIOR-GUIDED INITIALIZATION

Nemanja Vučićević, Nenad Stojanović, Marina Svičević, Filip Andrić
ENERGY OF INTERVAL-VALUED BIPOLAR NEUTROSOPHIC SOFT SETS: A NEW TOOL FOR MEDICAL DECISION-MAKING

Tanuja Voruganti, Faizan Raza, Mark Fahim, Nonna Sorokina, Dusan Ramljak, Tatjana Davidovic, Dragutin Ostojic
BEHAVIORAL HEALTH INTERVENTION

12:00 – 13:30 Room 103

AIE - AI in Education

Chair:

Irena Vodenska, Jelena Jovanovic, Vladan Devedzic
A DECADE OF STUDENT VOICES: LEVERAGING LLMS TO SCALE ANALYSIS OF STUDENT FEEDBACK FOR ACTIONABLE COURSE IMPROVEMENT

Matteo Ciastellardi, Giovanna Di Rosario, Paolo Ferri
FROM SUBSTITUTE TO COGNITIVE AMPLIFIER: THE AIEB FRAMEWORK (AI AS EDUCATIONAL BOOSTER) FOR STRATEGIC TEACHER TRAINING

Milena Živković, Dubravka Živković, Marina Svičević, Aleksandar Milenković, Nemanja Vučićević
CLASSIFICATION OF PHYSICS PROBLEMS AS A BASIS FOR THE DEVELOPMENT OF EDUCATIONAL AI MODELS

Svetozar Ikovic, Jelena Graovac
AI-POWERED GRADING FOR HIGHER EDUCATION

Vladimir Pavlović, Bogdan Novaković, Nataša Milosavljević, Olivera J. Bogunović
THE CHALLENGES OF AI INTEGRATION IN EDUCATIONAL SYSTEMS

15:00 – 16:45 Ceremonial Hall

NLP4 – Natural Language Processing 4

Chair:

Aldina Avdić, Adela Ljajić, Ulfeta Marovac
MULTIMODAL INTELLIGENCE FOR MEDICAL TEXT EXTRACTION: BENCHMARKING VISION LLMS AGAINST CLASSIC PIPELINES IN SERBIAN

Milena Šošić, Ranka Stanković, Jelena Graovac
DEVELOPING LANGUAGE RESOURCES FOR RECOGNIZING MORAL ASPECTS IN THE SERBIAN LANGUAGE: MULTI-LABEL CATEGORIZATION THROUGH THE PERSPECTIVE OF MORAL FOUNDATIONS THEORY

Petar Lakčević
ANALYSIS OF LLMS AND CLASSICAL NLP SYSTEMS FOR INVESTMENT SENTIMENT

Vladimir Vincan, Ognjen Kundačina, Dragiša Mišković
ACTIVE LEARNING IN AUTOMATIC SPEECH RECOGNITION

15:00 – 16:30 Room 102

DMPS2 - Decision Making and Problem Solving 2

Chair:

Aleksandar Peulić, Kristina Vasić
HYBRID CPU-FPGA ARCHITECTURES FOR EFFICIENT EXECUTION OF AI ALGORTHMS

Luka Matijević
HYBRIDIZATION OF METAHEURISTICS WITH MACHINE LEARNING METHODS

Nemanja Vučićević, Nataša Krejić, Nataša Krklec Jerinkić, Tijana Ostojić
ASPEN: SOLVING NONLINEAR EQUALITY-CONSTRAINED LEARNING PROBLEMS IN MACHINE LEARNING

Nevena Mijajlović, Ajlan Zajmović, Miodrag J. Mihaljević, Lianhai Wang, Shujiang Xu, Wei Shao
ON A MACHINE LEARNING APPROACH FOR THE MINIMUMS EVALUATION OF COMPLEX MULTIDIMENSIONAL FUNCTIONS

15:00 – 16:45 Room 103

AIS - AI in Security

Chair:

Ana Kovačević
ANALYZING AI INCIDENTS TO ENHANCE SYSTEM SECURITY

Marija Milošević, Vladimir Ćirić, Leonid Stoimenov, Ivan Milentijević
DEVELOPMENT OF AN ADVANCED INTRUSION DETECTION SYSTEM USING AUTOENCODERS

Miodrag J. Mihaljević, Lianhai Wang, Shujiang Xu, Wei Shao
AN APPROACH FOR SECURITY SUPPORT OF FEDERATED MACHINE LEARNING AGAINST BACKDOOR ATTACK

Stefan Rasovic
POTENTIAL APPLICATIONS OF ARTIFICIAL INTELLIGENCE FOR COUNTERING CYBER-TERRORISM

Zoran Keković, Ozren Džigurski, Vuk Keković
GAMIFIED AI-DRIVEN MODELS FOR ENHANCING THE PROTECTION OF CRITICAL INFRASTRUCTURE SYSTEMS