



XIII International Conference on Applied Internet and Information
Technologies - AIIT 2023

Faculty of ICT, Bitola, N. Macedonia, 13 October 2023

CONFERENCE PROGRAM

Time	Activity	Presenters
9:00 - 10:00	Registration of participants	
10:00 - 10:30	Opening Ceremony	
10:30 - 11:00	Plenary Session 1: "Latest trends in IT project management"	Vesna Makitan - Technical Faculty "Mihajlo Pupin" - Zrenjanin, Serbia (TFZ)
11:00 - 11:30	Plenary Session 2: "Virtual Reality: The Gateway to Next-Generation Skill Development and Talent Attraction"	Nikola Rendeovski - Faculty of Information and Communication Technologies – Bitola, N. Macedonia (FICT)
11:30 - 12:00	Coffee Break	
	<i>Parallel Sessions</i>	
	Session 1: Cyber Security and Social Media	
12:00 - 12:15	Cyber Risk Management Tool for Improving the Cybersecurity Maturity in the Companies	Kire Jakimoski, Oliver Iliev, Gorgi Kakashevski, Biljana Stojchevska, Jelena Gjorgjev, Elena Petrova
12:15 - 12:30	Cyberbullying: characteristics, consequences and impact on Youth in North Macedonia	Marina Dodevska and Nikola Janev
12:30 - 12:45	Internet of Things, Big Data and Privacy Issues	Nebojsa Denić, Sonja D. Radenković, Ana Kovačević, Kostadinka Stojanović
12:45 - 13:00	Leveraging Social Media within Integrated Service Delivery of Personalized Public Services towards Proactive E-government	Mimoza Bogdanoska Jovanovska, Jadranka Denkova, Dragan Grueski, Renata Petrevska Nechkoska, Natasa Blazeska-Tabakovska
13:00 - 13:15	Social Media Algorithms and Their Impact on Sustainable Internet Marketing Strategies	Mihalj Bakator, Dragan Čočkalov, Mila Kavalić, Sanja Stanisavljev and Edit Terek-Stojanović
13:15 - 13:30	Modeling in Social Systems meet Artificial Intelligence	Kalistrat Sandjakoski, Ljubinka Gjergjeska Sandjakoska
	Session 2: Software Techniques, Computer Networks, Sensor Systems	
12:00 - 12:15	Ensuring Web Accessibility of UI Components by following Web Content Accessibility Guidelines	Nikola Mandić, Branko Markoski, Velibor Premcevski

12:15 - 12:30	DIRA Learning Platform as a Learning Management System (LMS) for Roma Adults Gaining Knowledge and Skills in E-Services	Nikola Rendeovski, Dimitar Veljanovski, Andrijana Bocevska, Monika Markovska, Prakash Dhakal and Anca Enache
12:30 - 12:45	Selection of key functionalities for website development with real examples	Predrag Novokment, Vesna Makitan, Dragana Glušac, Eleonora Brtka and Mila Kavalić
12:45 - 13:00	Use of Python and OpenCV in thermal image processing	Sinisa Mihajlović, Dragan Ivetić, Ivana Berković, Dalibor Dobrilović
13:00 - 13:15	Light sensor analyses for usage in open-source hardware platforms for solar data acquisition	Sinisa Mihajlovic, Milica Mazalica, Jovana Borovina, Dalibor Dobrilovic, Jasmina Pekez
13:15 - 13:30	Application of IoT services at Cloud providers	Hristina Dimova Popovska, Filip Popovski
13:30 - 13:45	Smart City - Belgrade: Opportunities and Challenges	Mirjana Tomic, Kostadinka Stojanovic, Dragan Zlatkovic, and Nebojsa Denic
	Session 3: Artificial Intelligence	
12:00 - 12:15	Challenges of knowledge management in Industry 4.0 –preliminary literature review	Jelena Slavić , Zeljko Stojanov
12:15 - 12:30	ChatGPT and AI for Learning – Opportunities and Challenges	Mimoza Anastoska-Jankulovska
12:30 - 12:45	AI and Tracking Data Exchanges on Maps	Marko Blažić , Dubravka Sladić , Višnja Ognjenović , Ivana Berković and Katarina Vignjević
12:45 - 13:00	Revolutionizing Medical Diagnosis and Treatment with IoMT and Advanced ML Algorithms	Anita Petreska, Blagoj Risteovski, Daniela Slavkovska, Saso Nikolovski, Pero Spirov, Nikola Rendeovski, Snezhana Savoska
13:00 - 13:15	Comparative Analysis of ML Algorithms for Breast Cancer Detection	Daniela Slavkovska, Blagoj Risteovski, Anita Petreska
13:15 - 13:30	Future challenges for Object Detection and Image Recognition techniques	Buen Bajrami, Kostandina Veljanovska and Zoran Kotevski
	Session 4: Computer Graphics	
12:00 - 12:15	An Example of Application for Custom Design Automation using SolidWorks Application Programming Interface	Hristijan Stojceski, Andrijana Bocevska, Igor Nedelkovski and Nikola Rendeovski
12:15 - 12:30	Enhancing spatial exploration of outdoor object recognition and tracking with ARToolKit NFT markers	Blagoj Nenovski, Igor Nedelkovski
12:30 - 12:45	NFT marker recognition in multi-marker environment and media integration in ARToolKit	Blagoj Nenovski, Igor Nedelkovski
12:45 - 13:00	Content Based Image Retrieval: Contemporary Trends and Challenges	Buen Bajrami, Zoran Kotevski and Kostandina Veljanovska
13:00 - 13:15	Latest Advances in Video Indexing and Retrieval	Nora Pireci Sejdiu, Zoran Kotevski, Blagoj Risteovski and Kostandina Veljanovska

13:15 - 13:30	VR as a tool for EVs maintenance training	Naile Emini, Konstantin Veljanovski and Nikola Rendevski
13:30 - 14:30	Coctail	
	<i>Paralell Activities</i>	
14:30 - 16:00	Round Table: Strengthening the capacities of Faculty of ICT for the realization of strategic cooperation with companies from the IT industry	
	<i>Paralell Sessions</i>	
	Session 5: Databases and Data Mining	
14:30 - 14:45	Automation and monitoring on integration ETL processes while distributing data	Aneta Trajkovska, Tome Dimovski, Ramona Markoska, Zoran Kotevski
14:45 - 15:00	Finding the Eigenspaces of a Matrix with GeoGebra	Sonja Mančevska, Elena Karamazova Gelova and Mirjana Kocaleva Vitanova
15:00 - 15:15	Exploring the Impact of Pair Programming on Student Achievement: A Comparative Analysis	Ilker Ali, Aybeyan Selim, Blagoj Ristevski and Sonja Mančevska
15:15 - 15:30	Graph-Based Task Management Parameterized by Linguistic Path Attributes	Dalibor Šeljmeši, Vladimir Brtko, Edit Boral and Ivana Berković
15:30 - 15:45	Data Mining and Big Data Analytics using accelerate data	Valmir Sinani, Blagoj Ristevski
15:45 - 16:00	NoSQL database support to Big Data storage systems and specific use cases: A review	Valmir Sinani
	Session 6: ICT in HR, Entrepreneurship, ICT practice (in-person and video session)	
14:30 - 14:45	Human resource management in the function of internet marketing	Duda Balje
14:45 - 15:00	A Model of Problems Related to Scrum Team Communication in Meetings and Their Impact on Job Satisfaction	Maja Gaborov, Željko Stojanov, Srđan Popov
15:00 - 15:15	Navigating the Future: How Information Technologies are Shaping Entrepreneurship Ecosystems in Society 5.0	Dragan Čočkalo , Mihalj Bakator, Sanja Stanisavljev, Melita Čočkalo-Hronjec and Dragana Kovač
15:15 - 15:30	On the applicability of Bloom's taxonomy and teacher digital competencies for learning how to code in primary schools	Maja Videnovik, Ana Madevska Bogdanova, Elena Vlahu Gjorgjievaska and Vladimir Trajkovik
15:30 - 15:45	Development of human resources in the digital age	Svetlana Stojkov, Mila Kavalić, Edit Terek
15:45 - 16:00	An Integrated System for Efficient Student Attendance Management	Piroška Stanić Molcer, Robert Pinter, Sanja Maravić Čisar and Zlatko Čović
16:00 - 16:30	Coffee Break	

	Poster Session 1	
16:30 - 16:45	EasyLoanDecision: A Expert System for consumer loan	Natasha Blazheska-Tabakovska, Lijeta Hodja, Igor Nedelkovski, Mimoza Bogdanoska Jovanovska , Marina Blazekovic-Toshevski
16:45 - 17:00	Intellectual Capital and Its Importance for an Entrepreneurial IT Company in the Period to Come	Bozidar Milenkovski, Sasho Nikolovski, Nikola Rendeovski
17:00 - 17:15	Software Testing Strategies, Approaches, Methods and Techniques - Overview	Zoltan Kazi, Maria Kazi
17:15 - 17:30	Edge Computing System to Form a Data Center on Air Pollution in the Traffic Environment of Smart Cities	Gordana Jotanovic, Aleksandar Damjanovic, Goran Jausevac, Zeljko Stojanov, Vladimir Brtka, Dragan Perakovic, and Miroslav Kostadinovic
17:30 - 17:45	Communication performance of the laboratory system for measuring fuel mass flow	Zoran Ristikić, Svetko Milutinović, Milan Eremija and Ibrahim Badnjar
17:45 - 18:00	Preliminary research on the possibilities of PPG (Photoplethysmogram) signal analysis of medical sensors and smart watch sensors	Ivana Popovic, Sonja Djukic Popovic, Stefan Popovic and Stevan Ivankovic
18:00 - 18:15	ChatGPT for EFL Teachers and Students	Lela Ivanovska
	Poster Session 2	
16:30 - 16:45	Design Considerations for a Generic Graph Database in Archival Document Management	Ilija Hristoski, Jelena Stojanov and Željko Stojanov
16:45 - 17:00	Exploring the Impact of AI-Driven Marketing Strategies on Player Retention in the Video Game Industry	Stefan Ugrinov, Dragan Čočkaló, Mihalj Bakator, Mila Kavalić, Verica Gluvakov
17:00 - 17:15	Overview of E-invoice in Serbia	Milica Mazalica, Biljana Radulovic and Aleksandra Stojkov Loncarski
17:15 - 17:30	Chatbots – Architecture and Applications	Igor Vecštejn, Verica Gluvakov, Maja Gaborov
17:30 - 17:45	Comparative Study of React, Angular, and Vue for Front-end Development	Tamara Milić, Igor Vecštejn, Eleonora Brtka, Maja Gaborov
17:45 - 18:00	Human-Computer Interaction Using XBOX Kinect Technology	Marjana Pardanjac, Snežana Jokić, Aleksandra Karuović, Isidora Jokić and Marija Dunjić
18:00 - 18:15	An overview of metric models for evaluating website security	Vuk Amizic, Ljubica Kazi
19:30	Gala Dinner	