



IEEE SIST 2024

2024 IEEE 4TH INTERNATIONAL
CONFERENCE ON SMART INFORMATION
SYSTEMS AND TECHNOLOGIES

CONFERENCE
PROGRAM

<https://sist.astanait.edu.kz>

May 15-17, 2024
Astana, Kazakhstan

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**2024 IEEE 4th International Conference on
Smart Information Systems and Technologies (SIST)**

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**2024 IEEE 4th International Conference on
Smart Information Systems and Technologies (SIST)
Astana IT University**

**55/11 Mangilik Yel av., EXPO Pavilion, Block C1
Astana, Kazakhstan**

CONFERENCE PROGRAM

Time	Event	Venue, participants
15 May (Wednesday)		
09:00 – 10:00	Participants registration	offline – online
09:30 – 10:00	Welcome coffee	Near the Assembly Hall
10:00 – 12:30	Official opening, Plenary session	offline – online Assembly Hall Conference participants
13:00 – 14:30	Lunch	
14:30 – 18:00	Concert program	Assembly Hall
19:00	Gala dinner	
16 May (Thursday)		
09:00 – 10:00	Participants registration	offline – online
09:30 – 10:00	Welcome coffee	Near the Assembly Hall
10:00 – 12:00	Plenary session	Assembly Hall Conference participants
12:00 – 13:00	University tour, excursion	
13:00 – 14:30	Lunch	
14:30 – 16:00	Section presentations	Laboratories of vendors Conference participants
16:00 – 16:20	Coffee break	
16:20 – 18:00	Section presentations	Laboratories of vendors Conference participants
19:00	City tour (optional)	
17 May (Friday)		
09:00 – 10:00	Participants registration	offline – online
09:30 – 10:00	Welcome coffee	Near the Assembly Hall
10:00 – 13:00	Plenary session	Assembly Hall Conference participants
13:00 – 14:30	Lunch	
14:30 – 16:00	Section presentations	Laboratories of vendors Conference participants
16:00 – 16:20	Coffee break	
16:20 – 18:00	Section presentations	Laboratories of vendors Conference participants
18:00	Plenary session: conference results. Conference closing	Assembly Hall Conference participants
19:00	Culture program	

PLENARY SESSION
15 May 2024 (Wednesday)

Venue: Assembly Hall, Astana IT University

Online: Zoom session (*Time zone UTC+5 Astana time)

<https://us06web.zoom.us/j/89239420437?pwd=yqVcGHqu9ZDMaC3O3iihu2m7vZkjPh.1>

09:00	Participants registration
09:30	Welcome coffee
10:00	<p>Greetings <i>Serik Omirbayev, Doctor of Economics, Professor, Acting Rector of Astana IT University, Kazakhstan</i> <i>Darkhan Akhmed-Zaki, Doctor of Technical Sciences, Professor, Vice-Minister of the Ministry of Science and Higher Education of the Republic of Kazakhstan, (TBC)</i> <i>Ilesanmi Adesida, PhD, Professor, Acting President of Nazarbayev University (TBC)</i> <i>Margulanuly Alkey, Deputy Executive Director of the N. Nazarbayev Foundation, Kazakhstan</i> <i>Abay Serikkanov, Candidate of Physical and Mathematical Sciences, Vice-president of the National Academy of Sciences of the Republic of Kazakhstan under the president of the Republic of Kazakhstan, Kazakhstan</i></p>
10:30-12:30	Plenary session
10:30	<i>Michael G. Hinchey, PhD, Professor, IEEE Region 8 Director-Elect, Lero, the Science Foundation Ireland Research Centre for Software University of Limerick (Limerick, Ireland)</i>
10:45	<i>Elhadj Benkhelifa, PhD, Professor, Staffordshire University (UK)</i> « Cloud Data Governance, I Don't Mean Data Management »
11:00	<i>Ling Tian, PhD, Professor, University of Electronic Science and Technology of China</i> « Knowledge Hypergraphs and Reasoning for Smart Systems »
11:15	<i>Carsten Wolff, Doctor of Engineering, Professor of Computer Science at Dortmund University of Applied Sciences and Arts (FH Dortmund), Director of the Institute for the Digital Transformation of Application and Living Domains (IDiAL, Dortmund, Germany)</i> « Managing the Digital Transformation with Maturity Models »
11:30	<i>Bohdan Haidabras, Associate Professor, IPMA, Riga Technical University (Riga, Latvia)</i> « Generative AI in Agile, Project and Delivery Management »
11:45	<i>Orken Mamyrbayev, PhD, Associate Professor, Deputy Director Institute of Information and Computational Technologies (Almaty, Kazakhstan)</i> « Method of speech recognition Kazakh language »
12:00	<i>Kartik Derasari, Google developers expert in Cloud (India)</i> « Building Multi-Modal Experiences for Your Business with Gemini »
12:15	<i>Pakizar Shamoï, PhD, Professor, School of Information Technology and Engineering, Kazakh-British Technical University (Almaty, Kazakhstan)</i> « Fuzzy Image Processing: Methods, Applications, and Future Directions »
13:00	Lunch
14:30-18:00	Concert program
19:00	Gala Dinner

PLENARY SESSION
16 May 2024 (Thursday)

Venue: Assembly Hall, Astana IT University

Online: Zoom session (*Time zone UTC+5 Astana time)

<https://us06web.zoom.us/j/87973946235?pwd=Jg1HoHXDhBtG15apvZszYZRbNBtbaB.1>

09:00	Participants registration
09:30	Welcome coffee
10:00	<p>Greetings <i>Askar Khikmetov, Candidate of Physical and Mathematical Sciences, Chairman of the Management Board – Rector of International University of Information Technology (Kazakhstan)</i> <i>Carlo Molardi, PhD, Assistant Professor in the Electrical and Computer Engineering Department at Nazarbayev University, IEEE Kazakhstan Subsection Chair (Kazakhstan)</i></p>
10:00-13:00	Plenary session
10:15	<i>Andrejs Romanovs, Dr, MBA, Associate Professor, IEEE Region 8 Professional and Educational Activities Chair, Head of Department of Modelling and Simulation at the Riga Technical University (Riga, Latvia)</i>
10:30	<i>Ardashir Mohammadzadeh, PhD, Multidisciplinary Center of Infrastructure Engineering, Shenyang University of Technology (Shenyang, China) Associate Professor at University of Bonab (Bonab, Iran)</i> « AI and fuzzy neural networks in automation and control systems »
10:45	<i>Mourat A. Tchoshanov, PhD, Professor, University of Texas at El Paso (UTEP)(Texas, USA)</i> « Designing and Studying STEM Learning in Digital Age »
11:00	<i>Mohammad Alhuyi Nazari, PhD, University of Tehran (Tehran, Iran)</i> « Thermal Management of Electronic Devices and Applications of Intelligent Methods for Modeling of These Systems »
11:15	<i>Oleksandr Mitsa, Doctor of Science, Professor, Head of Department of Information Control Systems and Technologies, Uzhhorod National University (Uzhhorod, Ukraine)</i> « A comparative study of machine learning algorithms and the prompting approach using GPT-3.5 turbo for text categorization »
11:30 (online)	<i>Sergiy Bushuyev, Doctor of Technical Sciences, Professor, Head of the Department of Project Management, Kyiv National University of Construction and Architecture (Kyiv, Ukraine)</i> <i>Murzabekova Svetlana, Candidate of Economic Sciences, IPMA, MBA, Director of the Public Foundation “Education Fund of Nursultan Nazarbayev”, (Astana, Kazakhstan)</i> <i>Khusainova Maira, Candidate of Economic Sciences, IPMA, Professor, NNEF Public Foundation (Astana, Kazakhstan)</i> « Transformation of the education landscape in an AI environment »
11:45	<i>Çetin ELMAS, Doctor, Professor, Gazi University (Ankara, Turkey)</i> « Artificial Intelligence in Project Management »
12:00	Excursion at Astana IT University
13:00	Lunch
14:30-16:00	Section presentations
16:00-16:20	Coffee break
16:20-18:00	Section presentations
19:00	City tour (optional)

PLENARY SESSION
17 May 2024 (Friday)

Venue: Assembly Hall, Astana IT University

Online: Zoom session (*Time zone UTC+5 Astana time)

<https://us06web.zoom.us/j/87696378465?pwd=AZ4m5DiXbAj3WdSvqfVNhtHMGa4Cu1.1>

09:00	Participants registration
09:30	Welcome coffee
10:00-13:00	Plenary presentations
10:00	<i>Dinh-Dung Nguyen, PhD, Professor, Le Quy Don Technical University (Hanoi, Vietnam)</i> « Applications of drones in smart cities: A comprehensive overview of security vulnerabilities and countermeasures for data communication »
10:15	<i>İlhami Çolak, PhD, Professor, Istinye University (Istanbul, Turkey)</i> « Electric Vehicles »
10:30	<i>Korhan Kayışlı, PhD, Associate Professor, Gazi University (Ankara, Turkey)</i> « Artificial Intelligent Applications On Smart Cities »
10:45	<i>Sergiy Bronin, Candidate of Technical Sciences, Taras Shevchenko National University of Kyiv (Ukraine), Associate Professor on IST department, international projects coordinator, Tel-Aviv University (research fellow by internship)</i> « Artificial Intelligence and other smart tools in frame of Digital University »
11:00	<i>Guangxi Lu, PhD, School of Computer Science and Engineering, UESTC (Chengdu, China)</i> « Intelligent Drone Path Planning: An Autonomous Task Execution System Based on Onboard Image Processing »
11:15	<i>Dr. Huseyin Atakan Varol, PhD, Professor, School of Engineering and Digital Sciences, Nazarbayev University (Astana, Kazakhstan)</i> <i>Madina Abdrakhmanova, School of Engineering and Digital Sciences, Nazarbayev University (Astana, Kazakhstan)</i>
11:30	<i>Şeref Sagiroglu, PhD, Professor at Gazi University, Director of AI & Big Data Analytics & Security R&D Center (Ankara, Turkey)</i> « Ai in Health and Turkish Brain Project »
11:45	<i>Ibraheem Shayea, PhD, Assistant Professor, Istanbul Technical University (ITU), Faculty of Electrical and Electronics Engineering, Electronics & Communications Engineering Department (Istanbul, Turkey)</i> « Drivers and Key Issues of Massive Mobile Data Traffic Growth in Mobile/Cellular Communication Networks »
12:00	<i>Minsoo Hahn, PhD in Electrical Engineering, Professor of Astana IT University (Astana, Kazakhstan)</i> « Some Audio- and Speech-related researches »
12:15 (online)	<i>Sadok Ben Yahia, Professor, University of Southern Denmark (SDU, Odense, Denmark)</i> « Towards Vision-Zero: A Resilient Data-Driven framework for Road safety »
13:00	Lunch
14:30-16:00	Section presentations
16:00-16:20	Coffee break
16:20-18:00	Section presentations
18:00	Plenary session: conference results. Conference closing
19:00	Culture program

SECTION PRESENTATIONS

16 May 2024 (Thursday)

*Time zone UTC+5 Astana time

- Section 1** <https://us06web.zoom.us/j/83989476002?pwd=Hu9iJvTFIJbloobab8i8vqiYsVFmha.1>
- Section 2** <https://us06web.zoom.us/j/84713191343?pwd=z5J28NEP9fy5AyLFAqamBjAhEW9aa2.1>
- Section 3** <https://us06web.zoom.us/j/84200017577?pwd=tVk2tVaKBSPQEEQ13tKsFZn0U4zRfb.1>
- Section 4** <https://us06web.zoom.us/j/87976892745?pwd=ivO1UUTztWpb7SI8nozhChKX8kqWfp.1>

09:00	Participants registration
09:30	Welcome coffee
10:00	Greetings
10:30	Plenary presentations (Venue: Assembly Hall)
13:00	Lunch
14:30	Section presentations
14:30 16:00	SECTION 1. Technology and Engineering Management
ID 10	<p>1) Kateryna Semenchuk, Management and Marketing State University of Intelligent Technologies and Telecommunications, Ukraine</p> <p>2) Kateryna Kolesnikova, International University of Information Technology, Kazakhstan</p> <p>3) Liubava Chernova, Admiral Makarov National University of Shipbuilding, Ukraine</p> <p>Designing of inventory control processes based on the strategy of risk pooling in supply chains</p>
ID 12	<p>1) Ihor Berezutskyi, Kyiv National University of Construction and Architecture, Ukraine</p> <p>2) Tetyana Honcharenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>3) Galyna Ryzhakova, Kyiv National University of Construction and Architecture, Ukraine</p> <p>4) Olha Tykhonova, Kyiv National University of Construction and Architecture, Ukraine</p> <p>5) Vadym Pokolenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>6) Illia Sachenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Methodological Approach for Choosing Type of IT Projects management</p>
ID 13	<p>1) Gulzat Ziyatbekova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>2) Sholpan Jomartova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>3) Maksat Kalimoldayev, Al-Farabi Kazakh National University, Kazakhstan</p> <p>4) Talgat Mazakov, Al-Farabi Kazakh National University, Kazakhstan</p> <p>5) Aigerim Mazakova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>6) Inkar Suleimen, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Development of river flow modeling methodology</p>

ID 22	1) Bagdat Kozhakhmetova, G.Daukeyev Almaty University of Power Engineering and Telecommunications, Kazakhstan Development and Research of Phased Array Antenna Control Unit for Educational Purposes
ID 29	1) Kateryna Lavrukhina, Kyiv National University of Construction and Architecture, Ukraine 2) Viktoriya Tytok, Kyiv National University of Construction and Architecture, Ukraine 3) Khrystyna Chupryna, Kyiv National University of Construction and Architecture, Ukraine 4) Svitlana Biloshchytska, Astana IT University, Kazakhstan Kyiv National University of Construction and Architecture, Ukraine 5) Innola Novykova, Kyiv Agrarian University of the National Academy of Agrarian Sciences of Ukraine, Ukraine 6) Anton Maksyiuta, Kyiv National University of Construction and Architecture, Ukraine Scientific research of the impact of globalization challenges on the process of innovative and informational development of cluster structures of the construction industry of Ukraine
ID 43	1) Oleksandr Terentiev, Kyiv National University of Construction and Architecture, Ukraine 2) Olha Serpinska, Kyiv National University of Construction and Architecture, Ukraine 3) Alex Zabarylo, Kyiv National University of Construction and Architecture, Ukraine 4) Yulia Korotkikh, Kyiv National University of Construction and Architecture, Ukraine 5) Pavlo Zabarylo, Kyiv National University of Construction and Architecture, Ukraine Development of clustering methods based on interval fuzzy sets of the second type and genetic algorithms
ID 47	1) D. Dung Nguyen, Le Quy Don Technical University, Vietnam 2) Sergey Kinzhikeyev, Astana IT University, Kazakhstan An investigation of sensing and technologies for supporting the intelligent transport management system in urban area
16:00	Coffee break
16:20 18:00	SECTION 1. Technology and Engineering Management
ID 55	1) Sapar Toxanov, Astana IT University, Kazakhstan 2) Dilara Abzhanova, Astana IT University, Kazakhstan 3) Andrii Biloshchytskyi, Astana IT University, Kazakhstan. 4) Saltanat Sharipova, Astana IT University, Kazakhstan Development of a Method for Finding Scientific Partners Based on Document Clustering in the Form of Key Phrase Vectors
ID 72	1) Gulmira Bazil, G.Daukeyev Almaty University of Power Engineering and Telecommunications, Kazakhstan 2) Nursultan Sultanuly, G.Daukeyev Almaty University of Power Engineering and Telecommunications, Kazakhstan Simulation of motion control of a cylindrical robot manipulator

ID 111	1) Rustem Abdrakhmanov, International University of Tourism and Hospitality, Kazakhstan Optimizing Microclimate Comfort in Smart Constructions Using an Intelligent Fuzzy-PID Temperature Regulation System
ID 164	1) Batyrzhan Akhmetzhanov, Astana IT University, Kazakhstan 2) Bauyrzhan Akhmetzhanov, Ministry of Internal Affairs of the Republic of Kazakhstan 3) Nurkhat Zhakiyev, Astana IT University, Kazakhstan 4) Aidos Askhatuly, Al-Farabi Kazakh National University, Kazakhstan 5) Dinara Berdysheva, Al-Farabi Kazakh National University, Kazakhstan Development of a Security and Monitoring System for Server Equipment Utilizing IoT Technologies
ID 180	1) Serik Igbayev, Astana IT University, Kazakhstan 2) Aiman Kadyrova, Astana IT University, Kazakhstan 3) Anel Malik, Astana IT University, Kazakhstan Strategies for digital transformation: Case study for Astana IT University
ID 195	1) Hanna Shpakova, Kiev National University of Construction and Architecture, Ukraine 2) Andrii Biloshchytskyi, Astana IT University, Kazakhstan 3) Iurii Chupryna, Kyiv National University of Construction and Architecture, Ukraine 4) Myroslava Zinchenko, Kyiv National University of Construction and Architecture, Ukraine 5) Iryna Ivakhnenko, Kyiv National University of Construction and Architecture, Ukraine 6) Natali Plys, Kyiv National University of Construction and Architecture, Ukraine Tools for Assessing the Competitiveness of a Construction Company as a Contractor in Public-Private Partnership Projects
ID 233	1) Alexandr Neftissov, Astana IT University, Kazakhstan 2) Lalita Kirichenko, Astana IT University, Kazakhstan 3) Ilyas Kazambayev, Astana IT University, Kazakhstan 4) Alexey Zvontsov, Toraigyrov University, Kazakhstan 5) Valeryi Lisnevskyi, National Defence University of Ukraine Development of a prototype of fiber-optic health monitoring of the system of extended reinforced concrete facilities
ID 235	1) Praveen Kumar, Astana IT University, Kazakhstan 2) Kamlesh Sharma, School of Engineering and Technology, Manav Rachna International Institute of research and studies, India 3) Richa Khera, School of Engineering and Technology, Manav Rachna International Institute of research and studies, India 4) Ashish Grover, School of Engineering and Technology, Manav Rachna International Institute of research and studies, India Exploring Speech Emotion Recognition with MLP Classifier: A Comprehensive Study on the CREMA-D Dataset
19:00	City tour (optional)
14:30 16:00	SECTION 2. IT in Education and Research
ID 14	1) Olha Yudicheva, Kyiv National University of Construction and Architecture, Ukraine

	<p>2) Olesia Romanenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>3) Oksana Bondar-Pidhurska, Poltava University of Economics and Trade, Ukraine</p> <p>4) Liudmyla Alaverdian, Kyiv National University of Construction and Architecture, Ukraine</p> <p>5) Alla Glebova, National University «Yuri Kondratyuk Poltava Polytechnic», Ukraine</p> <p>6) Yurii Khlaponin, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Overview and Prospects of IT Education in Ukrainian Universities</p>
ID 15	<p>1) Andrii Yerukaiev, State University of Trade and Economics, Ukraine</p> <p>2) Svitlana Tsiutsiura, State University of Trade and Economics, Ukraine</p> <p>3) Mykola Tsiutsiura, State University of Trade and Economics, Ukraine</p> <p>4) Ihor Mirko, State University of Trade and Economics, Ukraine</p> <p>5) Nataliia Mirko, State University of Trade and Economics, Ukraine</p> <p>6) Rostyslav Zakharov, State University of Trade and Economics, Ukraine</p> <p>Quantum Computing in the Object-Oriented Model of Quality Management</p>
ID 36	<p>1) Aruzhan Mektepbaeva, Astana IT University, Kazakhstan</p> <p>2) Almasbek Medarov, Astana IT University, Kazakhstan</p> <p>3) Aitolkyn Kulmuratova, Astana IT University, Kazakhstan</p> <p>Analysis of Penetration Testing Methods for Specific IoT Device: IP Camera</p>
ID 39	<p>1) Aizat Dildabek, Al-Farabi Kazakh National University, Kazakhstan</p> <p>2) Kymbat Momynzhanova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>3) Zukhra Abdiakhmetova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>4) Zhanerke Temirbekova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>5) Gulzat Turken, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Study of Cardiovascular Diseases in the Retina, Obtained by Optical Coherence Tomography</p>
ID 44	<p>1) Olena Kryvoruchko, State university of trade and economics, Ukraine</p> <p>2) Dmytro Hnatchenko, State university of trade and economics, Ukraine</p> <p>3) Aliona Desiatko, State university of trade and economics, Ukraine</p> <p>4) Ihor Karpunin, State university of trade and economics, Ukraine</p> <p>5) Yaroslav Shestak, State university of trade and economics, Ukraine</p> <p>6) Yuliia Kostiuk, State university of trade and economics, Ukraine</p> <p>Methodology for Developing an Information System for Internal Audit Support</p>
ID 54	<p>1) Serhii Chernov, National Ship Building University named after Admiral Makarov, Ukraine</p> <p>2) Serhii Titov, National Ship Building University named after Admiral Makarov, Ukraine</p> <p>3) Liudmyla Chernova, National Ship Building University named after Admiral Makarov, Ukraine</p> <p>4) Liubava Chernova, National Ship Building University named after Admiral Makarov, Ukraine</p> <p>5) Tolganay Chinibayeva, International University of Information Technology, Kazakhstan</p> <p>6) Eugeniy Trushliakov, National Ship Building University named after Admiral Makarov, Ukraine</p> <p>Game-Theory Model of a Two-Level Hierarchical Game with Distributed Control</p>
16:00	Coffee break

<p>16:20 18:00</p>	<p>SECTION 2. IT in Education and Research</p>
<p>ID 56</p>	<p>1) Liubava Chernova, National Ship Building University named after Admiral Makarov, Ukraine 2) Serhii Chernov, National Ship Building University named after Admiral Makarov, Ukraine Iryna Zhuravel, National Ship Building University named after Admiral Makarov, Ukraine 3) Lyudmila Chernova, National Ship Building University named after Admiral Makarov, Ukraine 4) Anatoliy Zubarev, National Ship Building University named after Admiral Makarov, Ukraine 5) Kateryna Kolesnikova, International University of Information Technology, Kazakhstan 1) Structural analysis in the methodology of building an IT project model</p>
<p>ID 57</p>	<p>2) Nurbolat Tasbolatuly, Astana International University, Kazakhstan 3) Keylan Alimhan, L.N. Gumilyov Eurasian National University, Kazakhstan 4) Aigerim Yerdenova, Astana International University, Kazakhstan 5) Aizhan Nazyrova, Astana International University, Kazakhstan 6) Gulnaz Bakhadirova, Astana International University, Kazakhstan 7) Mira Kaldarova, Astana International University, Kazakhstan Using Computer Modeling for Tracking high-order Nonlinear Systems with Time-Delay</p>
<p>ID 59</p>	<p>1) Bahadirova Gulnaz, Astana International University, Kazakhstan 2) Zhambulatova Aigerim, L.N. Gumilyov Eurasian National University, Kazakhstan 3) Tasbolatuly Nurbolat, Astana International University, Kazakhstan 4) Keylan Alimhan, L.N. Gumilyov Eurasian National University, Kazakhstan 5) Alisheva Sandugash, Mukhtar Auezov South Kazakhstan University, Kazakhstan 6) Shaimerdenova Guldana, Mukhtar Auezov South Kazakhstan University, Kazakhstan Control of nonlinear system by means of feedback using the Python-control library</p>
<p>ID 64</p>	<p>1) Beken Arymbekov, Al-Farabi Kazakh National University, Kazakhstan 2) Mussa Turdalyuly, Satbayev University, Kazakhstan 1) Elmira Tursanova, Satbayev University, Kazakhstan 2) Tolganay Turdalykyzy, Satbayev University, Kazakhstan 3) Madina Issametova, Al-Farabi Kazakh National University, Kazakhstan Effects of Augmentation of Reality App to Enhance the Didactic Methodology in Schooling Physics</p>
<p>ID 73</p>	<p>1) Zukhra Abdiakhmetova, Al-Farabi Kazakh National University, Kazakhstan 2) Zhanerke Temirbekova, Al-Farabi Kazakh National University, Kazakhstan 3) Gulzat Turken, Al-Farabi Kazakh National University, Kazakhstan 4) Zhannat Nurmakhanova, Asfendiyarov Kazakh National Medical University, Kazakhstan Intelligent monitoring system based on Atmega microcontrollers in healthcare with stress reduce effect</p>
<p>ID 81</p>	<p>1) Raushan Amanzholova, Kazakh-British Technical University, Kazakhstan 2) Dani Sarsekova, Kazakh National Agrarian Research University, Kazakhstan 3) Catalin Stefan, Technische Universität Dresden, Germany</p>

	<p>4) Janay Sagin, Kazakh-British Technical University, Kazakhstan 5) Sagynbek Orunbaev, American University of Central Asia, Kyrgyzstan 6) Kuantar Alikhanov, National Academy of Sciences, Kazakhstan</p> <p>TVET IT technologies support for the Kyrgyz-Kazakh water resources sustainability</p>
ID 84	<p>1) Iryna Aznaurian, Kyiv National University of Construction and Architecture, Ukraine 2) Yurii Pohrebniak, Kyiv National University of Construction and Architecture, Ukraine 3) Yuliia Riabchun, Kyiv National University of Construction and Architecture, Ukraine 4) Maksym Delembovskyi, Taras Shevchenko National University of Kyiv, Ukraine 5) Nataliia Poltorachenko, Kyiv National University of Construction and Architecture, Ukraine 6) Oleksiy Panko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Human-Computer Testing of Students' Knowledge</p>
19:00	City tour (optional)
14:30 16:00	SECTION 3. Emerging Trends and Technologies in IT Application
ID 9	<p>1) Saida Beknazarova, Tashkent University of Information Technologies, Uzbekistan 2) Dinara D.K. Kozhamzharova, International Information Technology University, Kazakhstan 3) Mexriban Jaumitbaeva, Tashkent University of Information Technologies, Uzbekistan 4) Farruh Saidov, Tashkent University of Information Technologies, Uzbekistan 5) Aigul Shaikhanova, L.N. Gumilyov Eurasian National University, Kazakhstan</p> <p>Regression and Machine Learning Methods for Predicting Human Movements Based on Skeletal Data</p>
ID 16	<p>1) Marzhan Kussainova, S.Seifullin Kazakh Agro Technical Research University, Kazakhstan 2) Zhanat Toleubekova, S.Seifullin Kazakh Agro Technical Research University, Kazakhstan 3) Asset A Akhmadiya, S.Seifullin Kazakh Agro Technical Research University, Kazakhstan 4) Kanshaim Nurmukhanova, S.Seifullin Kazakh Agro Technical Research University, Kazakhstan 5) Nabi Nabiyev, S.Seifullin Kazakh Agro Technical Research University, Kazakhstan 6) Aizada Kapassova, S.Seifullin Kazakh Agro Technical Research University, Kazakhstan</p> <p>Logical Sum of NDWI & NDPI Data for Detecting Flooded Houses: A Case of Atbasar Town, 2017</p>
ID 34	<p>1) Inna Rozlomii, Bohdan Khmelnytsky National University of Cherkasy, Ukraine 2) Andrii Yarmilko, Bohdan Khmelnytsky National University of Cherkasy, Ukraine 3) Serhii Naumenko, Bohdan Khmelnytsky National University of Cherkasy, Ukraine</p>

	<p>4) Pavlo Mykhailovskyi, Bohdan Khmelnytsky National University of Cherkasy, Ukraine</p> <p>Cloud Computing and Data Security: The Role of Encryption in Information Protection</p>
ID 50	<p>1) Aigul Adamova, Astana IT University, Kazakhstan 2) Tamara Zhukabayeva, L.N. Gumilyov Eurasian National University, Kazakhstan 3) Nurgalym Adamov, Astana International University, Kazakhstan</p> <p>Attack Detection in IoT using RF and ANN</p>
ID 51	<p>1) Choon Liang Ngo, Sunway University, Malaysia 2) Ha Jin Hwang, Astana IT University, Kazakhstan 3) Monowar Mahmood, KIMEP University, Kazakhstan 4) Mahadi Hassan, Curtin University, Malaysia 5) Norazryana Mat Dawi, Universiti Malaya, Malaysia 6) Leila Salykova, Astana IT University, Kazakhstan</p> <p>Developing Intelligent Supply Chain System Adopting Lean and Agile Attributes for Construction Projects in Malaysia</p>
ID 71	<p>1) Zeynep Galymzhankyzy, Astana IT University, Kazakhstan 2) Ildar Rinatov, Astana IT University, Kazakhstan 3) Aliya Abdiraman, Astana IT University, Kazakhstan 4) Shynbolat Unaybaev, Astana IT University, Kazakhstan</p> <p>Assessing Electoral Integrity: Paillier’s Partial Homomorphic Encryption in E-Voting System</p>
ID 91	<p>1) Mazen Mohammed Farea, Al-Madinah International University, Malaysia 2) Sharaf Alzoubi, Amman Arab University, Jordan 3) Abdilahi Liban, MEDIU, Malaysia 4) Firas Tayseer Mohammad Ayasrah, Al Ain University, UAE 5) Waheed Ali H. M. Ghanem, Universiti Malaysia Terengganu, Malaysia 6) Yousef A. Baker El-Ebiary, UniSZA, Malaysia</p> <p>Blockchain-Enabled Mobility Services in Smart Cities</p>
16:00	Coffee break
16:20 18:00	SECTION 3. Emerging Trends and Technologies in IT Application
ID 110	<p>1) Aigerim Altayeva, Al-Farabi Kazakh National University, Kazakhstan 2) Nurzhan Omarov, Al-Farabi Kazakh National University, Kazakhstan 3) Zeinel Momynkulov, International Information Technology University, Kazakhstan</p> <p>CNN-RNN Hybrid Model for Dangerous Sound Detection in Urban Area</p>
ID 113	<p>1) Bakhytzhhan Kulambayev, Turan University, Kazakhstan</p> <p>Navigating Autonomously with Deep Learning-Powered Lane Line Detection for Vehicles</p>
ID 115	<p>1) Aigerim Altayeva, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Development of Indoor Air Quality Control System Using BPNN-PID</p>
ID 116	<p>1) Nurzhan Omarov, Al-Farabi Kazakh National University, Kazakhstan</p> <p>A Multilayered Approach to Hazardous Sound Identification Using Deep Convolutional Neural Networks in Dense Metropolitan Environments</p>
ID 121	<p>1) Zhan Batyr, Al-Farabi Kazakh National University, Kazakhstan 2) Sharipa Temirgazyeva, Al-Farabi Kazakh National University, Kazakhstan 3) Bauyrzhan Omarov, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Development of Deep Convolutional Neural Network for Road Sign Detection</p>

ID 125	<p>1) Azhar Tursynova, Al-Farabi Kazakh National University, Kazakhstan 2) Aivar Sakhypov, Astana IT University, Kazakhstan 3) Islam Omirzak, Astana IT University, Kazakhstan 4) Madina Yermaganbetova, Astana IT University, Kazakhstan 5) Alexey Fedenko, Astana IT University, Kazakhstan 6) Diar Begisbayev, Astana IT University, Kazakhstan</p> <p>Classification of Brain Strokes in Computed Tomography Images Utilizing Deep Learning</p>
ID 126	<p>1) Azhar Tursynova, Al-Farabi Kazakh National University, Kazakhstan 2) Aivar A Sakhypov, Astana IT University, Kazakhstan 3) Yersultan Tulebayev, Astana IT University, Kazakhstan 4) Altynbek Seitenov, Astana IT University, Kazakhstan 5) Aliya Tazhigaliyeva, Astana IT University, Kazakhstan</p> <p>Enhanced UNet Approach for Detecting Stroke Lesions in Computed Tomography Brain Scans</p>
19:00	City tour (optional)
14:30 16:00	SECTION 4. Data Science and Advanced Analytics
ID 21	<p>1) Yerkin Abdildin, Nazarbayev University, Kazakhstan 2) Fatima Nabidollayeva, Nazarbayev University, Kazakhstan 3) Dmitriy Viderman, Nazarbayev University, National Research Oncology Center, Kazakhstan</p> <p>Statistical analysis of the pecto-intercostal fascial plane block on pain-related outcomes in cardiac surgery</p>
ID 24	<p>1) Elena Gorda, Kyiv National University of Construction and Architecture, Ukraine 2) Yuliia Riabchun, Kyiv National University of Construction and Architecture, Ukraine 3) Volodymyr Khrolenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Cognitive Technologies for Object Detection and Topology of the Environment's Information Space</p>
ID 28	<p>1) Aisha Kozhamseitova, Astana IT University, Kazakhstan</p> <p>Development of the method of blood clot origin classification in ischemic stroke</p>
ID 40	<p>1) Zhakupova A.Y., L.N. Gumilev Eurasian National University 2) Abilova A.A., L.N. Gumilev Eurasian National University, Kazakhstan 3) Assylkhan K.K., L.N. Gumilev Eurasian National University, Kazakhstan</p> <p>Spatial Analysis of Turkey 2023 Seismic Activity: Geographical Distribution Research</p>
ID 41	<p>1) Aruzhan Amangeldieva, Astana IT University, Kazakhstan 2) Chingis Kharmyssov, Astana IT University, Kazakhstan</p> <p>A hybrid approach for a movie recommender system using Content-Based and Collaborative Filtering method</p>
ID 46	<p>1) Aiganysh Sayakbaeva, Kyrgyz National University named after J.Balasagyn, The Kyrgyz Republic 2) Nelli Akylbekova, Kyrgyz National University named after Jusup Balasagyn, Kyrgyz Republic 3) Maria Taalaibek, International Academy of Management, Law, Finance and Business, Kyrgyz Republic</p>

	<p>4) Temirlan Taalaibek, International University of Innovative Technologies, Kyrgyz Republic</p> <p>5) Tilek Sayakbaev, Academy of Public Administration under the President of the Kyrgyz Republic named after Zhusup Abdrakhmanov Bishkek, Kyrgyz Republic</p> <p>6) Ainura Kenzhekaraeva, Kyrgyz Economic University of named Musa Ryskulbekov", Kyrgyz Republic</p> <p>Some aspects of the influence of environmental factors for the development of human capital</p>
ID 49	<p>1) Nursultan Zhantileuov, Kazakh-British Technical University, Kazakhstan</p> <p>2) Serik Ospanov, National Center for Space Research and Technology KazCosmos, Kazakhstan</p> <p>A Comparative Study of Supervised Machine Learning and Deep Learning Techniques with Feature Selection Methods for Classifying Parkinson's Disease Based on Speech Impairments</p>
ID 58	<p>1) Yerkin Abdildin, Nazarbayev University, Kazakhstan</p> <p>2) Dastan Kaldybayev, Nazarbayev University, Kazakhstan</p> <p>3) Meiram Tungushpayev, Nazarbayev University, Kazakhstan</p> <p>4) Dmitriy Viderman, Nazarbayev University, National Research Oncology Center, Kazakhstan</p> <p>Statistical analysis of outcomes of basivertebral nerve radiofrequency ablation for vertebrogenic chronic low back pain management</p>
ID 68	<p>1) Dinmukhammed Zhasulanov, Astana IT University, Kazakhstan</p> <p>2) Bekarys Marat, Astana IT University, Kazakhstan</p> <p>3) Kuanush Erkin, Astana IT University, Kazakhstan</p> <p>4) Ruslan Omirgaliyev, Astana IT University, Kazakhstan</p> <p>5) Nurkhat Zhakiyev, Astana IT University, Kazakhstan</p> <p>Enhancing Gameplay Experience Through Reinforcement Learning in Games</p>
ID 69	<p>1) Ruslan Omirgaliyev, IEEE Member, Astana IT University, Kazakhstan</p> <p>2) Asylai Arystanbekova, Astana IT University, Kazakhstan</p> <p>3) Arman Alzhanov, Astana IT University, Kazakhstan</p> <p>4) Arstan Makatov, Astana IT University, Kazakhstan</p> <p>Mobile Application of Convolutional Neural Networks for Melanoma Classification</p>
16:00	Coffee break
16:20 18:00	SECTION 4. Data Science and Advanced Analytics
ID 70	<p>1) Zhanseri Ikram, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Hybrid Deep Neural Network for Face Liveness Detection in Real-Time Video</p>
ID 74	<p>1) Dias Nessipkhanov, International Information Technology University, Kazakhstan</p> <p>2) Bauyrzhan Omarov, Al-Farabi Kazakh National University, Kazakhstan</p> <p>3) Inkar Bazarkulova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Development of Pneumonia Detection System on X-Ray Images Using Deep Learning</p>
ID 76	<p>1) Vladyslav Kotsovsky, Uzhhorod National University, Ukraine</p> <p>2) Tetiana Lisovska, Uzhhorod National University, Ukraine</p> <p>3) Volodymyr Sabadosh, Uzhhorod National University, Ukraine</p> <p>Multithreshold Neural Units for Multiclass Classification</p>

ID 77	<p>1) Tamerlan Mendybayev, Bolashak Research Lab, Hungary 2) Abulkhaiyr Mendybayev, Bolashak Research Lab, Hungary</p> <p>Assessing Urbanization Levels Using GeoData: Implications for Kazakhstan Regional Development Planning</p>
ID 78	<p>1) Zhanseri Ikram, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Dual-Domain Face Anti-Spoofing with Integrated Spatial and Frequency Analysis Neural Network</p>
ID 80	<p>1) Aigerim Toktarova, International Kazakh-Turkish University, Kazakhstan 2) Daniyar Sultan, Al-Farabi Kazakh National University, Kazakhstan 3) Zhanar Azhibekova, S.D.Asfendiyarov Kazakh National Medical University, Kazakhstan</p> <p>Review of Machine Learning Models in Cyberbullying Detection Problem</p>
ID 83	<p>1) Yurii Hodlevskiy, Zhytomyr Polytechnic State University, Ukraine 2) Tetiana Vakaliuk, Zhytomyr Polytechnic State University, Ukraine</p> <p>Optimal Gradient Descent Algorithm for LSTM Neural Network Learning</p>
ID 106	<p>1) Nurzhan Omarov, Al-Farabi Kazakh National University, Kazakhstan 2) Zeinel Momyнкуlov, International Information Technology University, Kazakhstan</p> <p>Detection of Dangerous Situations by Sounds in Real-Time Using Deep Learning</p>
ID 114	<p>1) Daniyar Sultan, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Development of Deep Hybrid Neural Network for Cyberbullying Detection on Online Social Networks</p>
ID 119	<p>1) Denis Valyayev, Almaty University of Power Engineering and Telecommunication, Kazakhstan 2) Assel Mukasheva, Kazakh-British Technical University, Kazakhstan 3) Didar Yedilkhan, Astana IT University, Kazakhstan 4) Bolshibayeva Aigerim, International IT University, Kazakhstan 5) Dinargul Mukhammejanova, Almaty University of Power Engineering and Telecommunications, Kazakhstan</p> <p>FMEA variables of software failure risks based on journals and metrics</p>
ID 122	<p>1) Maksat Kanashev, Almaty University of Power Engineering and Telecommunications, Kazakhstan 2) Sergiy Gnatyuk, National Aviation University, Ukraine 3) Assel Mukasheva, Kazakh-British Technical University 4) Sabina Rakhmetulaeva, International University of Information Technologies, Kazakhstan 5) Didar Yedilkhan, Astana IT University, Kazakhstan 6) Mirambayeva Nazym, Almaty University of Power Engineering and Telecommunications, Kazakhstan</p> <p>Research and development of an information system for speech recognition based on neural network algorithms metrics</p>
19:00	City tour (optional)

SECTION PRESENTATIONS

17 May 2024 (Friday)

***Time zone UTC+5 Astana time**

- Section 1** <https://us06web.zoom.us/j/89597662058?pwd=T1aqPqUnWTCWA110vgPMCrD7iEgpOb.1>
- Section 2** <https://us06web.zoom.us/j/82311185273?pwd=nOpDPvAY90FV32spZX9kbIsEYAvuKb.1>
- Section 3** <https://us06web.zoom.us/j/85193070714?pwd=xfXvadgVIHVEwAhcBtDP8HYaVHVz95.1>
- Section 4** <https://us06web.zoom.us/j/84894584304?pwd=AyUQRyNL5PksjfU3O4bhh2Zhvy8C4x.1>

09:00	Participants registration
09:30	Welcome coffee
10:00	Plenary presentations (Venue: Assembly Hall)
13:00	Lunch
14:30	Section presentations
14:30 16:00	SECTION 1. Technology and Engineering Management
ID 236	<p>1) Alexey Zvontsov, Toraigyrov University, Kazakhstan 2) Alexandr Neftissov, Astana IT University, Kazakhstan 3) Lalita Kirichenko, Astana IT University, Kazakhstan 4) Ilyas Kazambaev, Astana IT University, Kazakhstan 5) Aubakirova Aliya, Astana IT University, Kazakhstan 6) Oleh Serbin, Kyiv National University of Culture and Arts, Taras Shevchenko National University of Kyiv, Ukraine</p> <p>Analysis of the transfer characteristics of refractive indices and nonlinear effects in optical optical fibers using the example of chromatic dispersion</p>
ID 263	<p>1) Andrii Rosynskyi, Kyiv National University of Construction and Architecture, Ukraine 2) Lesia Sorokina, Kyiv National University of Construction and Architecture, Ukraine 3) Davyd Kalashnikov, Kyiv National University of Construction and Architecture, Ukraine 4) Aigerim Akizhanova, Eurasian National University, Kazakhstan 5) Ruslan Tormosov, All-Ukrainian Charitable Organization “Municipal Development Institute”, Ukraine 6) Mykhailo Malykhin, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Real Estate Price Management Through Fuzzified Time Impact Factors Using MATLAB: Development Companies’ Approach</p>
ID 278	<p>1) Valentyn Tshelnyi, Kyiv National University of Construction and Architecture, Ukraine 2) Svitlana Terenchuk, Kyiv National University of Construction and Architecture, Ukraine 3) Vitaliiy Ploskyi, Kyiv National University of Construction and Architecture, Ukraine 4) Mykola Tereschuk, Kyiv National University of Construction and Architecture, Ukraine</p>

	<p>5) Ihor Bosenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>6) Oleg Chertkov, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Information Technology of the Agro-Industrial Complex's Design Objects Organization</p>
ID 255	<p>1) Tetiana Fesenko, Kharkiv National University of Radio Electronics, Ukraine</p> <p>2) Galyna Fesenko, O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine</p> <p>3) Hryhorii Fesenko, Volodymyr Dahl East Ukrainian National University, Ukraine</p> <p>4) Gennadii Golovko, National University "Yuri Kondratyuk Poltava Polytechnic", Ukraine</p> <p>5) Natalya Bibik, O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine</p> <p>6) Andrii Bortnyk, Kharkiv National University of Radio Electronics, Ukraine</p> <p>Conceptualizing the ICT project management in the sustainability context</p>
ID 271	<p>1) Igbal Babayev, Azerbaijan University of Construction and Architecture, Azerbaijan</p> <p>Genetic models of project management</p>
ID 274	<p>1) Malika Shamgunova, Astana IT University, Kazakhstan</p> <p>2) Andrii Biloshchytskyi, Astana IT University, Kazakhstan</p> <p>3) Oleksandr Kuchanskyi, Astana IT University, Kazakhstan</p> <p>4) Faizullin Adil, Astana IT University, Kazakhstan</p> <p>A method for clustering scientific publications based on natural language for the purpose of strategic planning of partnerships in interdisciplinary research</p>
16:00	Coffee break
19:00	Culture programme
14:30 16:00	SECTION 2. IT in Education and Research
ID 85	<p>1) Meirzhan Baikuekov, Al-Farabi Kazakh National University, Kazakhstan</p> <p>2) Zeinel Momynkulov, International Information Technologies University, Kazakhstan</p> <p>Development of a Digital Stethoscopy System for Detection of Heart Diseases</p>
ID 87	<p>1) Pushpanjali Pandey, Gyancity Research Consultancy Greater Noida, India</p> <p>2) Keshav Kumar, Gyancity Research Consultancy Greater Noida, India</p> <p>3) Bishwajeet Pandey, Astana IT University, Kazakhstan</p> <p>4) Hardik Gohel, University of Houston Victoria, USA</p> <p>5) Leila Rzayeva, Astana IT University, Kazakhstan</p> <p>HSTL IO Standards Based Low Power Implementation of Elliptic Curve Cryptography (ECC) on FPGA</p>
ID 88	<p>1) Spandiyar Abutalip, Al-Farabi Kazakh National University, Kazakhstan</p> <p>2) Meirzhan Baikuekov, Al-Farabi Kazakh National University, Kazakhstan</p> <p>A Machine Learning Approach for Detection of Heart Diseases Using Wearable Devices</p>
ID 89	<p>1) Spandiyar Abutalip, Al-Farabi Kazakh National University, Kazakhstan</p> <p>2) Meirzhan Baikuekov, Al-Farabi Kazakh National University, Kazakhstan</p> <p>A Deep Learning for Cardiovascular Diseases Detection on Wearable Devices Data</p>

ID 159	<p>1) Alua Myrzakerimova, International University of Information Technology, Kazakhstan</p> <p>2) Askar Khikmetov, International University of Information Technology, Kazakhstan</p> <p>3) Kateryna Kolesnikova, International University of Information Technology, Kazakhstan</p> <p>Comparative effectiveness of models and methods for diagnosing diseases of internal organs</p>
ID 187	<p>1) Maral Zhanarstanova, Astana IT University, Kazakhstan</p> <p>2) Aidana Kaldybekova, Astana IT University, Kazakhstan</p> <p>3) Yermek Alimzhanov, Astana IT University, Kazakhstan</p> <p>4) Yenglik Dossymkhan, Astana IT University, Kazakhstan</p> <p>The Role of Learning Analytics in Assessing the Effectiveness of Blended Education: A Case Study of Astana IT University</p>
ID 222	<p>1) Arailym Tleubayeva, Astana IT University, Kazakhstan</p> <p>2) Alina Mitroshina, Astana IT University, Kazakhstan</p> <p>3) Alpar Arman, Astana IT University, Kazakhstan</p> <p>4) Arystan Shokan, Astana IT University, Kazakhstan</p> <p>5) Shaikhanova Aigul, L.N. Gumilyov Eurasian National University, Kazakhstan</p> <p>Systemic approach to optimizing natural language processing technologies in Astana IT University's admissions process</p>
16:00	Coffee break
16:20 18:00	SECTION 2. IT in Education and Research
ID 246	<p>1) Mariya Utarbayeva, Nazarbayev Intellectual School, Kazakhstan</p> <p>2) Makpal Mukanova, Nazarbayev Intellectual School, Kazakhstan</p> <p>Integrated Computer Network Security System: Intrusion Detection and Threat Prediction Using Machine Learning Algorithms</p>
ID 253	<p>1) Mykyta Poliakov, Kyiv National University of Construction and Architecture, Ukraine</p> <p>2) Oleksii Stetsyk, Kyiv National University of Construction and Architecture, Ukraine</p> <p>3) Bogdan Yeremenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Modeling of the System for the Electronic Estimation of Adolescents' Special Abilities</p>
ID 264	<p>1) Olha Bielienskova, Kyiv National University of Construction and Architecture, Ukraine</p> <p>2) Tetiana Kishchenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>3) Matsapura Olena, Kyiv National University of Construction and Architecture, Ukraine</p> <p>4) Abay Aryn, Astana IT University, Kazakhstan</p> <p>5) Galyna Ryzhakova, Kyiv National University of Construction and Architecture, Ukraine</p> <p>6) Oleksiy Mostovenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Institutional measurement of structural characteristics of residential real estate markets using the method of cluster analysis</p>

ID 270	<p>1) Kateryna Kolesnikova, International University of Information Technology, Kazakhstan</p> <p>2) Lyazat Naizabayeva, International University of Information Technology, Kazakhstan</p> <p>3) Ayaulym Myrzabayeva, International University of Information Technology, Kazakhstan</p> <p>4) Rostyslav Lisnevskiy, International University of Information Technology, Kazakhstan</p> <p>Use the neural networks in prediction of environmental processes</p>
ID 272	<p>1) Igor Ruban, Kharkiv National University of Radio Electronics, Ukraine</p> <p>2) Edyta Plebankiewicz, Crakow University of Technology, Poland</p> <p>3) Renata Kozik, Crakow University of Technology, Poland</p> <p>4) Tetiana Fesenko, Kharkiv National University of Radio Electronics, Ukraine</p> <p>5) Galyna Fesenko, O. M. Beketov National University of Urban Economy in Kharkiv, Ukraine</p> <p>6) Hryhorii Fesenko, Volodymyr Dahl East Ukrainian National University, Ukraine</p> <p>STEM education in Poland and Ukraine: exploring the contextual data of the GGG Index</p>
19:00	Culture programme
14:30 16:00	SECTION 3. Emerging Trends and Technologies in IT Application
ID 147	<p>1) Oleksandr Derevenko, Taras Shevchenko National University of Kyiv, Ukraine</p> <p>2) Olha Kravchenko, Taras Shevchenko National University of Kyiv, Ukraine</p> <p>3) Sergiy Bronin, Taras Shevchenko National University of Kyiv, Ukraine</p> <p>4) Myroslava Gladka, Taras Shevchenko National University of Kyiv, Ukraine</p> <p>Methods and models of decision-making regarding energy saving in communal facilities based on Delphi method</p>
ID 148	<p>1) Gulnara Abitova, Astana IT University, Kazakhstan</p> <p>2) Abu Said Manap, Astana IT University, Kazakhstan</p> <p>3) Korlan Kulniyaziva, L.N. Gumilyov Eurasian National University, Kazakhstan</p> <p>Design of Technology for Secure File Storage Based on Hybrid Cryptography Methods: Short Overview</p>
ID 154	<p>1) Yelnaz Rysbek, Nazarbayev University, Kazakhstan</p> <p>2) Md. Hazrat Ali, Nazarbayev University, Kazakhstan</p> <p>3) Nursultan Jyeniskhan, Nazarbayev University, Kazakhstan</p> <p>4) Essam Shehab, Nazarbayev University, Kazakhstan</p> <p>Development of Augmented Reality System for Additive Manufacturing</p>
ID 160	<p>1) Oleksii Matsiievskiy, Kyiv National University of Construction and Architecture, Ukraine</p> <p>2) Tetyana Honcharenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>3) Olga Solovei, Kyiv National University of Construction and Architecture, Ukraine</p> <p>4) Tamara Liashchenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>5) Igor Achkasov, Kyiv National University of Construction and Architecture, Ukraine</p> <p>6) Volodymyr Golenkov, Kyiv National University of Construction and Architecture, Ukraine</p>

	Using Artificial Intelligence to Convert Code to Another Programming Language
ID 163	1) Akzhan Adilzhan, Al-Farabi Kazakh National University, Kazakhstan 2) Nurlan Omarov, Al-Farabi Kazakh National University, Kazakhstan Development of Augmented Reality Game Using Computer Vision Technology
ID 167	1) Katipa Chizhimbayeva, G.Daukeyev Almaty University of Power Engineering and Telecommunications, Kazakhstan 2) Kadirbayeva Gulim, G.Daukeyev Almaty University of Power Engineering and Telecommunications, Kazakhstan 3) Yuliya Garmashova, G.Daukeyev Almaty University of Power Engineering and Telecommunications, Kazakhstan 4) Mukhabbat Khizirova, G.Daukeyev Almaty University of Power Engineering and Telecommunications, Kazakhstan 5) Andrey Potseluev, LinkMaster Kazakhstan LLP, Kazakhstan Possibility of using the Brillouin reflectometry method to determine deformations in bridge structures
ID 171	1) Nurgül Gürler, Istanbul Technical University, Turkiye 2) Emre Arslan, Istanbul Technical University, Turkiye 3) Ibraheem Shayea, Istanbul Technical University, Turkiye 4) Ardak Mukhamedrakhimova, Astana IT University, Kazakhstan Diabetes Risk Prediction with Different Machine Learning Algorithms
ID 182	1) Meliha Çağla Kara, Istanbul Technical, Turkiye 2) Mohamed Elamine Benlakehal, University of M'hamed Bougara Bumerdes, Algeria 3) Ibraheem Shayea, Istanbul Technical, Turkiye 4) Akhmet Tussupov, Astana IT University, Kazakhstan 5) Leila Rzayeva, Astana IT University, Kazakhstan Data Caching in Edge Computing: A Survey
16:00	Coffee break
16:20 18:00	SECTION 3. Emerging Trends and Technologies in IT Application
ID 185	1) Aidos Askhatuly, Al-Farabi Kazakh National University, Kazakhstan 2) Dinara Berdysheva, Al-Farabi Kazakh National University, Kazakhstan 3) Didar Yedilkhan, Astana IT University, Kazakhstan 4) Azamat Berdyshev, International Information Technology University, Kazakhstan 1) Security Risks of ML Models: Adversarial Machine Learning
ID 191	2) Ruhi Zafer Caglayan, TED University, Turkiye 3) Korhan Kayisli, Gazi University, Turkiye 4) Resul Coteli, Firat University Elazig, Turkiye 5) Ruslan Omirgaliyev, Astana IT University, Kazakhstan 6) Nurkhat Zhakiyev, Astana IT University, Kazakhstan Artificial Intelligent Applications in Smart Cities
ID 212	1) Nurtugan Azatbekuly, Al-Farabi Kazakh National University, Kazakhstan 2) Aksultan Mukhanbet, Al-Farabi Kazakh National University, Kazakhstan 3) Samson Dawit Bekele, Al-Farabi Kazakh National University, Kazakhstan Development of an Intelligent Video Surveillance System Based on YOLO Algorithm
ID 225	1) Bilal Saoud, Bouira University, Algeria

	<p>2) Akhmet Tussupov, Astana IT University, Kazakhstan 3) Ibraheem Shayea, Istanbul Technical University, Turkiye 4) Leila Rzayeva, Astana IT University, Kazakhstan</p> <p>Community structure detection in complex network based on MST and modularity</p>
ID 254	<p>1) Vasyl Lytvyn, Lviv Polytechnic National University, Ukraine 2) Nazar Oleksiv, Lviv Polytechnic National University, Ukraine 3) Mariia Nazarkevych, Lviv Polytechnic National University, Ukraine</p> <p>Tanks detection and recognition based on custom dataset model</p>
ID 258	<p>1) Mikhail Suchkov, Kazakh-British Technical University, Kazakhstan 2) Bekzat Bekturgan, Kazakh-British Technical University, Kazakhstan 3) Amandyk Kartbayev, Kazakh-British Technical University, Kazakhstan</p> <p>Gamification Effects on Employee Engagement and Business Process Risk Evaluation</p>
ID 276	<p>1) Liubov Kubiavka, Taras Shevchenko National University of Kyiv, Ukraine 2) Viktoria Zarembo, Taras Shevchenko National University of Kyiv, Ukraine 3) Vadym Ziuziun, Taras Shevchenko National University of Kyiv, Ukraine</p> <p>Application of Game Theory Methods to Optimize the Stakeholder Management Process</p>
19:00	Culture programme
14:30 16:00	SECTION 4. Data Science and Advanced Analytics
ID 123	<p>1) Yegor Matveyas, Almaty University of Power Engineering and Telecommunications, Kazakhstan 2) Assel Mukasheva, Kazakh-British Technical University, Kazakhstan 3) Didar Yedilkhan, Astana IT University, Kazakhstan 4) Arailym Keneskanova, Almaty University of Power Engineering and Telecommunications, Kazakhstan 5) Dastan Kambarov, Almaty University of Power Engineering and Telecommunications, Kazakhstan 6) Dinargul Mukhammejanova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Research and development of sign language recognition system using neural network algorithm</p>
ID 129	<p>1) Temirkhan Darbek, Almaty university of power engineering and telecommunications, Kazakhstan 2) Assel Mukasheva, Kazakh-British Technical University, Kazakhstan 3) Alibek Bissembayev, Kazakh British Technical University, Kazakhstan 4) Sergiy Gnatyuk, National Aviation University, Ukraine 5) Dinargul Mukammejanova, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Research and development of two-factor authentication methods using neural networks</p>
ID 141	<p>1) Artur Dossatayev, International Information Technology University, Kazakhstan</p> <p>Deep Learning based Framework for Option Price Forecasting</p>
ID 144	<p>1) Aron Karatayev, Kazakh-British Technical University 2) Anna Ogorodova, Kazakh-British Technical University 3) Pakizar Shamoj, Kazakh-British Technical University</p> <p>Fuzzy Inference System for Test Case Prioritization in Software Testing</p>
ID 177	<p>1) Irina Mukambaeva, J. Balasagyn Kyrgyz National University, Kyrgyz Republic</p>

	<p>2) Aiganysh Sayakbaeva, J. Balasagyn Kyrgyz National University, Kyrgyz Republic</p> <p>3) Nelli Akylbekova, J. Balasagyn Kyrgyz National University, Kyrgyz Republic</p> <p>4) Nurbek Mukambaev, J. Balasagyn Kyrgyz National University, Kyrgyz Republic</p> <p>5) Asel Ermekova, J. Balasagyn Kyrgyz National University, Kyrgyz Republic</p> <p>6) Erkeaim Shambetova, J. Balasagyn Kyrgyz National University, Kyrgyz Republic</p> <p>Influence of the state investment budget on the Kyrgyz agricultural sector through data analysis</p>
ID 179	<p>1) Serhii Dolhopolov, Kyiv National University of Construction and Architecture, Ukraine</p> <p>2) Tetyana Honcharenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>3) Olena Fedusenko, Taras Shevchenko National University of Kyiv, Ukraine</p> <p>4) Volodymyr Khrolenko, Kyiv National University of Construction and Architecture, Ukraine</p> <p>5) Vladyslav Hots, Kyiv National University of Construction and Architecture, Ukraine</p> <p>6) Volodymyr Golenkov, Kyiv National University of Construction and Architecture, Ukraine</p> <p>Neural Network Threat Detection Systems for Data Breach Protection</p>
ID 181	<p>1) Hemayet Hossain Tuhin, Daffodil International University, Bangladesh</p> <p>2) Shah Md Tanvir Siddiquee, Daffodil International University, Bangladesh</p> <p>3) Md Abdul Kayum, Daffodil International University, Bangladesh</p> <p>4) Bishwajeet Pandey, Astana IT University, Kazakhstan</p> <p>5) Md Rahmatul Kabir Rasel Sarker, Daffodil International University, Bangladesh</p> <p>Identifying the Coconut Leaf Disease Using Deep Transfer Learning Approach</p>
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ID 189	<p>1) Aibagarov Serik, Al-Farabi Kazakh National University, Kazakhstan</p> <p>2) Aksultan Mukhanbet, Al-Farabi Kazakh National University, Kazakhstan</p> <p>Predicting Oil Recovery Coefficient with Machine Learning Methods on Data Generated from the Buckley-Leverett Model</p>
ID 197	<p>1) Yuriy Yashchuk, Ivan Franko National University of Lviv, Ukraine</p> <p>2) Yuliana Yurchenko, Ivan Franko National University of Lviv, Ukraine</p> <p>3) Nataliia Yurchenko, Uzhhorod National University, Ukraine</p> <p>4) Yurii Andrashko, Uzhhorod National University, Ukraine</p> <p>Enhancing OCR Model Training with Synthetic Data: A Case Study with SROIE Dataset</p>
16:00	Coffee break

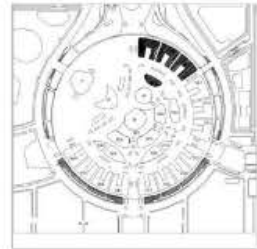
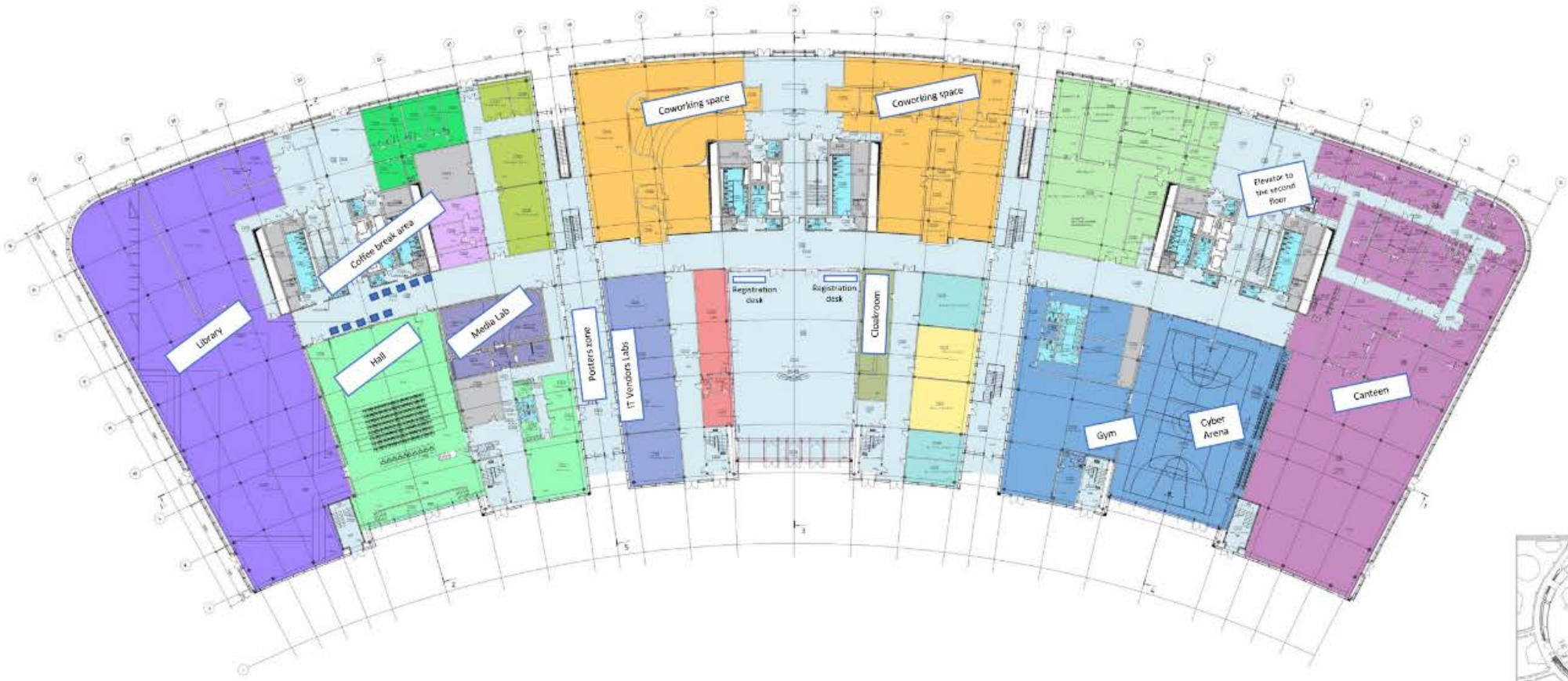
16:20 18:00	SECTION 4. Data Science and Advanced Analytics
ID 198	1) Rustem Imanbek, Al-Farabi Kazakh National University, Kazakhstan 2) Zholdas Buribayev, Al-Farabi Kazakh National University, Kazakhstan 3) Ainur Yerkos, Al-Farabi Kazakh National University, Kazakhstan 4) Saida Shaikalamova, Al-Farabi Kazakh National University, Kazakhstan 5) Zemfira Abdirazak, Al-Farabi Kazakh National University, Kazakhstan 6) Daniyar Dauletiya, Astana IT University, Kazakhstan HRBwSD: Hybrid radial based with standard deviation
ID 205	1) Bekir Okudurlar, Istanbul Technical University, Türkiye 2) Ibraheem Shayea, Istanbul Technical University, Türkiye 3) Assiya Sarinova, Astana IT University, Kazakhstan 4) Ibrahim Yazici, Turk Telekom, Türkiye A Machine Learning Approach for Predicting Temperature and Precipitation Patterns
ID 219	1) Dilara Abzhanova, Astana IT University, Kazakhstan 2) Sapar Toxanov, Astana IT University, Kazakhstan 3) Batyrbek Bakytkeireuly, Astana IT University, Kazakhstan 4) Alexandr Neftissov, Astana IT University, Kazakhstan Development of a database for the main stationary sources of pollution with regulation of emissions quotas
ID 230	1) Gaukhar Toktagulova, Astana IT University, Kazakhstan 2) Aigul Mimenbayeva, Astana IT University, Kazakhstan Analysis of Machine Learning Algorithms for Forecasting Harvest Data in Kazakhstan
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ID 251	1) Temirlan Meiramkhanov, Astana IT University, Kazakhstan 2) Bogdan Savitskiy, Astana IT University, Kazakhstan 3) Yerbol Irgaliyev, Astana IT University, Kazakhstan Analyzing and Responding to the Spread of COVID-19
ID 262	1) Aliya Nugumanova, Astana IT University, Kazakhstan 2) Kurmash Apayev, D. Serikbayev East Kazakhstan Technical University, Kazakhstan 3) Aldiyar Saken, Astana IT University, Kazakhstan 4) Sultaniyar Quandyq, Astana IT University, Kazakhstan 5) Aigerim Mansurova, Astana IT University, Kazakhstan 6) Alibek Kamiluly, Astana IT University, Kazakhstan 7) Nurkhat Zhakiyev, Astana IT University, Kazakhstan Developing a Kazakh question-answering model: standing on the shoulders of multilingual giants

ID 266	1) Jagtap Sharad Sarjerao, Bharath Institute of Higher Education and Research, India 2) Dr. G. Sudhagar, Bharath Institute of Higher Education and Research, India Hybrid ABC-WOA based Machine Learning Approach for smart irrigation system
ID 268	1) Assylzhan Izbassar, Kazakh-British Technical University, Kazakhstan 2) Pakizar Shamoï, Kazakh-British Technical University, Kazakhstan Image-Based Dietary Assessment: A Healthy Eating Plate Estimation System
19:00	Culture programme


**Excursion program at the University for participants of
2024 IEEE International Conference on
Smart Information Systems and Technologies
16 May 12:00 – 13:00**

№	Venue	Time
1	Visit to the Scientific Library	4 min
2	Visit to the Media Laboratory	4 min
3	Visit to Coworking Space	4 min
4	Visit to the gym, Cyber Arena	4 min
5	Visit to scientific-innovation centers: Smart City, Industry 4.0, Big Data and Blockchain Technologies	10 min
6	Visit to FabLab	4 min

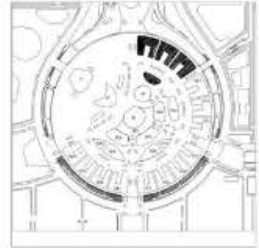
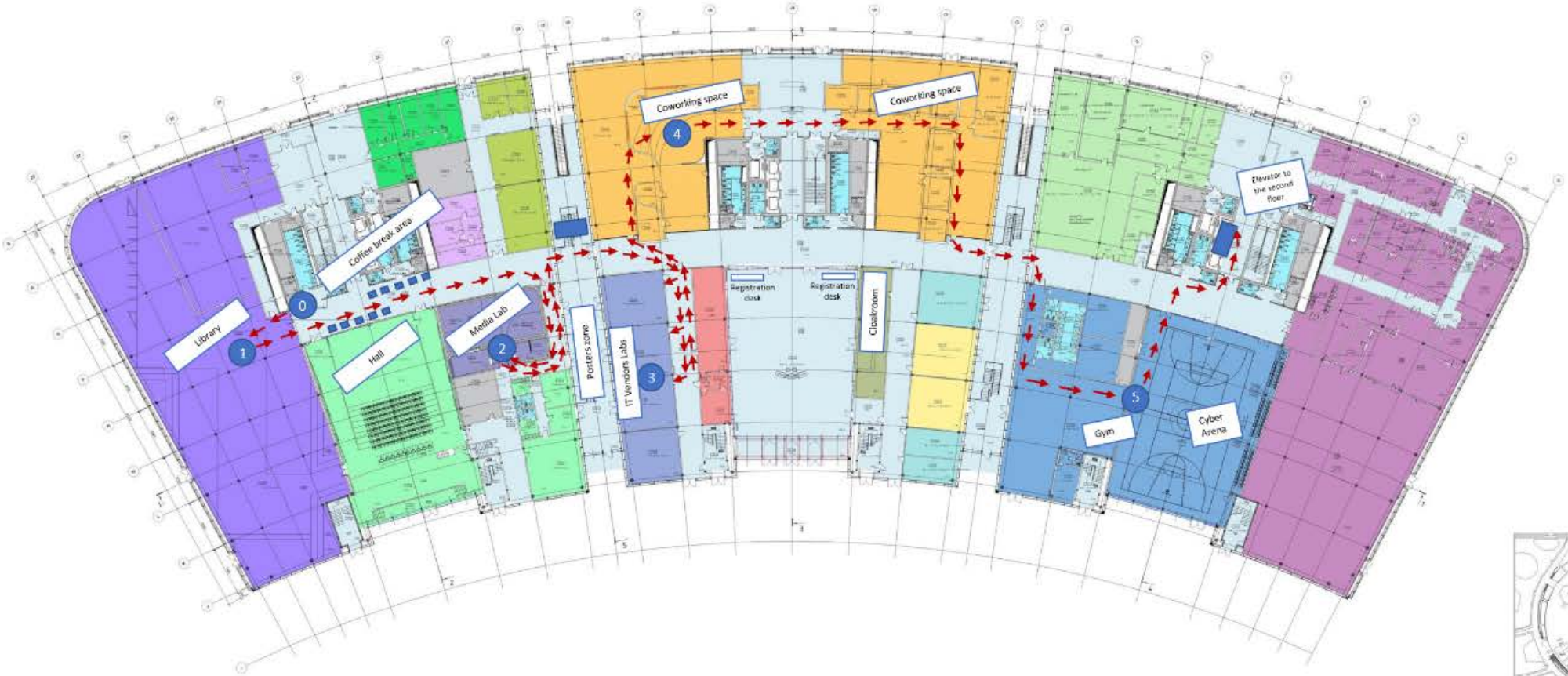
План-схема 1-этажа



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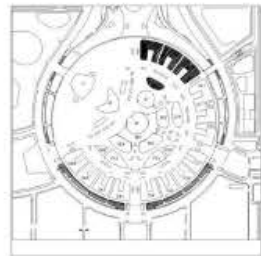
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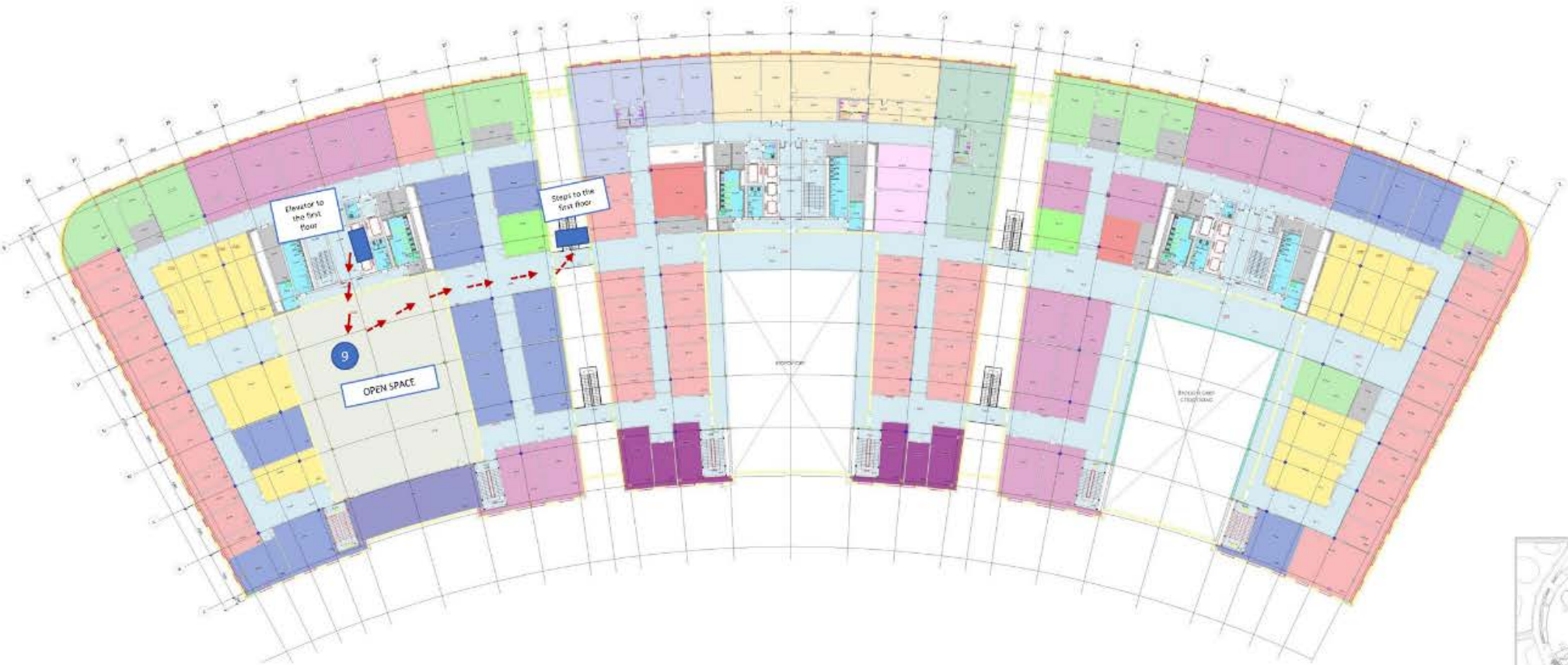
План-схема 2-этажа



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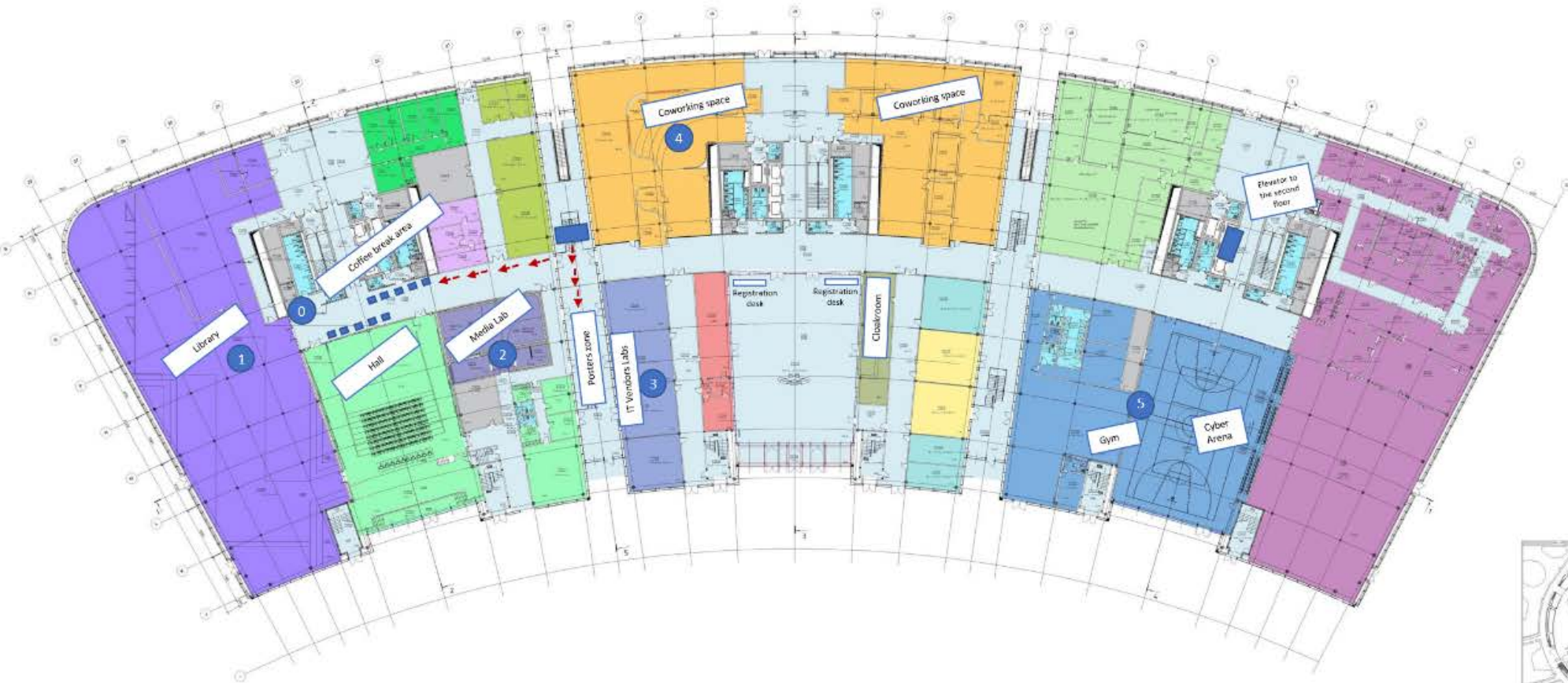
План-схема 3-этажа






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