Conference Programme

General Conference Programme

Thursday, December 11, 2025

9:30-10:00	Conference Registration, Faculty of Electrical Engineering and Computer Science, Lublin University of Technology, 38A Nadbystrzycka str., Lublin, Poland, room: E301
Conference Opening (E301), Eng.	
10:00-10:05	Vice-Rector for Science, Prof. Wojciech Franus
10:05-10:10	Vice-Rector for Digitalization and Commercialization, Prof. Konrad Gromaszek
10:10-10:15	Dean of Faculty of Electrical Engineering and Computer Science, Prof. Paweł Węgierek
Opening Session (E301), Eng.	
10:15-12:15	Chairman: Prof. Tomasz Zientarski (LUT) Vice-Chairman: Prof. Dilbar Mukhamedowa (NUU, UZ)
Coffee Break	
12:15-13:00	*Coffee Break*
Parallel Sessions	

	Session A (E301), Eng.	Session B (E212), Rus.
13:00-15:00	**Session A (E301), Eng.**	**Session B (E212), Rus.**
	Chairman: Dr. Małgorzata Plechawska-Wójcik (LUT) Vice-Chairman: Dr. Nurzada Amangeldy (ENU, KZ)	Chairman: Prof. Marek Miłosz (LUT) Vice-Chairman: Rakhim Kayumov (SamSU, UZ)
15:00-17:00	**Session C (E301), Eng.**	**Session D (E212), Rus.**
	Chairman: Dr. Grzegorz Kozieł (LUT) Vice-Chairman: Prof. Nella Israilova (KSTU, KG)	Chairman: Dr. Elżbieta Miłosz (LUT) Vice-Chairman: Prof. Bakhodir Eshchanov (ChiSPU, UZ)

Friday, December 12, 2025

Poster Session (E403b), Eng.	
9:00-10:00	Chairman: Prof. Małgorzata Charytanowicz (LUT)
Virtual Session (E212), Eng.	
10:00-10:30	Chairman: Dr. Kamil Żyła (LUT)
Book Promotion (E403b), Eng./Rus.	
10:30-11:30	Chairman: Dr. Mariusz Dzieńkowski (LUT) Vice-Chairman: Dr. Aziz Mullayev (Academy of Science, UZ)
	Promotion of the monograph: *Protection, Sharing and Management in the Area of Cultural Heritage and in the Field of Digital History*/edit. by Aziz Mullaev, Mariusz Dzieńkowski. Lublin, Wydawnictwo Politechniki Lubelskiej, 2025, 270 p.
Old Town of Lublin Walking Tour	
12:00-…	*Old Town and Lublin Underground Route*

Detailed Plan of Sessions

Opening Session (Thursday, December 11, 2025, room E301, 10:15-12:15)

Chairman: Prof. **Tomasz Zientarski** (LUT)

Vice-Chairman: Prof. **Dilbar Mukhamedowa** (NUU, UZ)

1. **The Use of AI and 3D Printing in the Reconstruction of Historical Monuments on the Examples of Krzyżtopór Castle in Ujazd and the Palace in Bychawa**
   Bożena Zgardzińska, Karol Standzikowski
2. **One Approach to Improve Stroke Segmentation: a 3D U-Net Ensemble on Non-Contrast CT**
   Lyailya Cherikbayeva, Zarina Melis, Arman Yeleussinov, Aisulu Ataniyazova, Aigerim Yerimbetova
3. **On the Usability of Isolation Forest for 3D Mesh Analysis and Watermarking**
   Marcin Matczuk, Dominika Sulowska, Konrad Gromaszek
4. **Intelligent Revision Algorithms: Current State and Challenges**
   Łukasz Gałka
5. **Digital Technologies in Cultural Heritage Preservation: a Case Study of Confucius and Confucianism Museums in China**
   Nargiza Ismatullaeva
6. **Interactive Platforms for Studying the History of Central Asia: From School Courses to Virtual Museums**
   Mamlakat Jumaniyozova
7. **Universal Design of a 3D Water Tower Model for the Blind**
   Krzysztof Dziedzic, Marcin Barszcz, Sylwester Korga, Patryk Baliński, Damian Bogusz, Paweł Ciszewski, Łukasz Chudy
8. **From the Ancient Silk Road to the Digital Era: Artificial Intelligence and Regional Integration in Central Asia**
   Aziz Mullaev
9. **A Unified Comparative Framework for Video Dictionaries, Notation-to-Animation, Writing-to-Animation, and the Keypoint Approach of SignBridge**
   Nurzada Amangeldy, Aigerim Yerimbetova, Elmira Daiyrbayeva, Nazira Tursynova, Bekbolat Kurmetbek, Bakzhan Sakenov

Session A (Eng.) (Thursday, December 11, 2025, room E301, 13:00-15:00)

Chairman: Dr. **Małgorzata Plechawska-Wójcik** (LUT)

Vice-Chairman: Dr. **Nurzada Amangeldy** (ENU, KZ)

1. **Development of a Speech-to-Sign Language Translation System to Support People with Hearing and Speech Impairments**
   Aigerim Yerimbetova, Marek Miłosz, Bakzhan Sakenov, Bekarystankyzy Akbayan, Ulmeken Berzhanova, Madina Sambetbayeva, Elmira Daiyrbayeva, Ainur Bayekeyeva
2. **The Digital Library of the Hieronim Łopaciński Provincial Public Library in Lublin as a Tool for the Protection and Promotion of the Region's Cultural Heritage**
   Marlena Radwan, Barbara Ostowska

3. **Creating a Digital Archive on the History of Scientific Expeditions and Natural Science Research in Turkestan (19th–20th Centuries): Structure and Prospects**
   Oksana Pugovkina
4. **Information Technologies in Storytelling About Lublin on the Example of a Local Government Cultural Institution**
   Łukasz Kowalski, Jakub Kuna
5. **The Role of Artificial Language and Communication in Social Networks of the Information Society**
   Ravshonbek Khudayberganov, Abdurakhmon Ismadiyarov
6. **Cognitive Transformation of Negotiation Processes in the Age of Artificial Intelligence**
   Anorakhon Akhmedova
7. **Changes in Self-Esteem and Personal Responsibility in the Use of Artificial Intelligence**
   Diyora Khojakulova

Session B (Rus.) (Thursday, December 11, 2025, room E212, 13:00-15:00)

Chairman: Prof. **Marek Miłosz** (LUT)

Vice-Chairman: **Rakhim Kayumov** (SamSU, UZ)

1. **Using Geographic Information Systems (GIS) in the Study of the History of Polish Schools in Uzbekistan During the Second World War**
   Saodat Pirimkulova
2. **Digital Modelling of the Cultural Heritage of the Silk Road: Experience and Prospects of Uzbekistan**
   Utkir Abdullaev, Mardon Khasanov, Mansurbek Sabirov
3. **Digital History of Central Asia: 3D Technologies and Virtual Methods of Cultural Heritage Preservation**
   Dilafruz Atamuratova, Mokhira Matnazarova, Asila Ramanova
4. **Creating a Digital Map of Cultural Centres of the Silk Road in Central Asia**
   Utkir Abdullaev, Gulandom Abdullaeva, Mokhira Matnazarova
5. **Using Artificial Intelligence to Study the Gender History of Science in Central Asia**
   Bakhodir Eshchanov, Oybek Makhmudov
6. **3D Reconstruction of the Mausoleum of Amir Temur: Integrating Cultural Heritage with Technology**
   Masud Samibayev, Bobur Rakhimov, Alisher Rakhimov
7. **Artificial Intelligence as a Tool for Historical and Cultural Analysis: Studying Masculinity in Russian Travels to the Pamirs through the Case of Bronislav Grombchevsky**
   Firuza Abdyusupova
8. **Ayazkala, the Historical and Legendary Fortress of Ancient Khorezm**
   Utkir Abdullaev, Bakhodir Satimov
9. **Information Technologies as a Factor in the Personal Development of Female University Students in Uzbekistan**
   Dilbar Mukhamedova, Diera Azimova
10. **Integration of Humanities and Digital Technologies in Historical Research (on the Example of the Republic of Uzbekistan)**
    Dilbar Mukhamedova, Kozimbek Tukhtabekov, Jasur Tagayev

Session C (Eng.) (Thursday, December 11, 2025, room E301, 15:00-17:00)

Chairman: Dr. **Grzegorz Kozieł** (LUT)
Vice-Chairman: Prof. **Nella Israilova** (KSTU, KG)

1. **IT Technologies in the Study and Preservation of Christian Churches in Samarkand**
   Mukaddas Hashimova
2. **The Phenomenon of Beauty in Mathematics**
   Dilfuza Makhmudova, Gulshad Gaipova
3. **The Use of Artificial Intelligence Technologies to Study the History of Russian Explorers and Expeditions to the Pamir Mountains in the Last Quarter of the 19th and Early 20th Century**
   Nargiza Kenjaeva
4. **The Phenomenon of Digital Anonymity and the Manifestation of the Shadow in Online Space in the Context of C. G. Jung's Analytical Psychology**
   Javokhirbek Obidjonov
5. **Information Technology as a Means of Developing Reflective Culture**
   Mukhamedova Dilbar, Rukhsora Kudratullaeva
6. **A Review of Computational Models of Vowel Harmony in the Kazakh Language**
   Ualsher Tukeyev, Marek Miłosz, Zhansaya Segizbayeva
7. **Speech Generation Models for the Kazakh Language**
   Aidana Karibayeva, Vladislav Karyukin, Balzhan Abduali
8. **Multimedia Education for the Mental Well-being of Girls and Young Women**
   Mukhamedova Dilbar, Turakullova Aziza
9. **Application of Artificial Intelligence and Machine Learning in Medicine: Current Status and Future Prospects**
   Sayyora Mullaeva

Session D (Rus.) (Thursday, December 11, 2025, room E212, 15:00-17:00)

Chairman: Dr. **Elżbieta Miłosz** (LUT)
Vice-Chairman: Prof. **Bakhodir Eshchanov** (ChiSPU, UZ)

1. **Digital Platforms on the History and Cultural Heritage of Uzbekistan: National and International Significance**
   Dildora Alinazarova
2. **The Use of AR and VR Technologies in Teaching History in General Education Schools**
   Begzod Khodjaev, Rasuljon Atamuratov
3. **Digital Mapping of the Territorial Distribution of Nomadic Herders in Ancient Khorezm**
   Mokhira Matnazarova
4. **The Role of Social Networks in Representing the Ethnic Culture of the Khorezm Oasis Population**
   Jasur Abdullaev, Jaloliddin Yusupov, Mamlakat Jumaniyozova, Furqat Jumaniozov
5. **Information Technologies in Service of Society: Digital Tools for Understanding Migration Trends in Uzbekistan**
   Utkir Abdullaev, Samandar Samandarov
6. **The Phenomenon of Identity Crisis in Adolescence in the Context of Gaming Activities and Virtual Worlds: Can Cyberspace Supplement Essential Elements for Resolution?**
   Kamila Ismoilova
7. **Digital Religion and the Organisation of Online Religious Rituals on Internet Platforms**
   Furqat Jumaniyozov, Mamlakat Jumaniyozova, Jaloliddin Yusupov

8. **Inclusive Education in Uzbekistan's Higher Education System**
   Khursida Yunusova
9. **A Stable Model of Steganography in Digital Communication Systems**
   Elmira Daiyrbayeva, Aigerim Yerimbetova

Poster Session (Friday, December 12, 2025, room E404b, 9:00-10:00)

Chairman: Prof. **Małgorzata Charytanowicz** (LUT)

1. **3D Archiving of Historic Architectural Structures for Conservation and Redevelopment: a Case Study of the H. Łopaciński Provincial Public Library Building in Lublin**
   Jerzy Montusiewicz, Jacek Kęsik, Grzegorz Figiel
2. **3D Models of the Silk Road Small Artefacts in ICT Education**
   Kamil Żyła, Jacek Kęsik, Anna Liliana Dakowicz
3. **A Culture of Spatial Education Supported by 3D Printing Technology**
   Bożena Zgardzińska, Marcin Skrzypek, Jan Kamiński, Marek Gorgol
4. **Analysis of Interface Quality in Selected Computer Games**
   Monika Korzeniewska, Karolina Rybak, Małgorzata Plechawska-Wójcik, Mariusz Dzieńkowski
5. **Analysis of Phishing Detection Possibilities in Text Messages**
   Natalia Majkowska, Oliwia Mańko, Grzegorz Kozieł
6. **Assessing the User Experience Dimensions in a Gamified Health Application**
   Karol Łazaruk, Marek Miłosz, Małgorzata Plechawska-Wójcik, Piotr Tokarski, Mariusz Dzieńkowski, Sergio Luján-Mora
7. **Comparative Analysis of Offline Reinforcement Learning Models for Book Recommendation Systems**
   Mateusz Łuszczyk, Grzegorz Kozieł
8. **Comparative Analysis of Software Security Mechanisms in Salesforce and Microsoft Dynamics 365**
   Adrian Rojek, Dawid Rutkowski, Marta Dziuba-Kozieł
9. **Comparative Evaluation of Human-Designed and AI-Created Interfaces in Scientific Journal Websites**
   Piotr Tokarski, Karolina Rybak, Karol Łazaruk, Małgorzata Plechawska-Wójcik, Mariusz Dzieńkowski
10. **Cooperation Between IT Specialists and Society in the Digitization of Cultural Heritage – Experiences from Two Projects**
    Elżbieta Miłosz, Marek Miłosz
11. **Deep Learning Application in Polarisation Plane Rotation Measurement with TFBGs Cascade**
    Krystian Jankowski, Mateusz Domański, Marta Dziuba-Kozieł
12. **Detection of Automated and Fake Accounts on Social Media Using Behavioural Analysis and Language Models**
    Katarzyna Magryta, Jakub Marciniuk, Marta Dziuba-Kozieł
13. **Digital History of Art – Prospects and Opportunities as Exemplified by Polish Sacred Cultural Heritage in the USA**
    Irena Rolska, Jacek Kęsik
14. **Extraction of Features from the Spectrum of a Tilted Fibre Bragg Gratings (TFBG) Using Artificial Intelligence Methods**
    Szymon Kozyra, Jakub Kurkiewicz, Jakub Lidak, Marta Dziuba-Kozieł
15. **From Stone to Screen: Digital Heritage Preservation in Open-Air Petroglyph Museums**
    Nella Israilova, Marek Miłosz

16. **Generating 3D Models of Historic Liturgical Vestments - Challenges and Practical Applications**
    Jacek Kęsik, Agnieszka Bender, Jerzy Montusiewicz
17. **Impact of Intellectual Property Protection Measures on the Reception of the Game**
    Oliwier Majewski, Tomasz Marek, Marta Dziuba-Kozieł
18. **Light Polarisation Plane Rotation Angle Measurement**
    Grzegorz Kozieł
19. **Manual and Automated Testing: A Comparative Evaluation of Efficiency and Defect Detection**
    Piotr Paluszkiewicz, Marcin Badurowicz
20. **The Impact of Interface Design and Styling on Information Readability and Retention**
    Jakub Pióro, Daniel Piszcz, Karol Łazaruk, Piotr Tokarski, Małgorzata Plechawska-Wójcik, Mariusz Dzieńkowski
21. **Tilted Fibre Bragg Grating Spectrum Features Extraction**
    Marta Dziuba-Kozieł
22. **Use of TLS Scanning Technology for a 3D Inventory of Relief Changes in the Loess Gully Catchment Area in Mareczki (Nałęczów Plateau, Poland)**
    Leszek Gawrysiak, Renata Kołodyńska-Gawrysiak, Jerzy Montusiewicz, Jacek Kęsik
23. **Machine Learning Methods for Analysing Haematological Parameters in Patients with Chronic Kidney Disease**
    Uladzislau Dzerzhanovich, Małgorzata Charytanowicz
24. **Towards the Democratisation of 3D Archiving – iPhone LiDAR System: Lemko Gravestones in the Village of Bałucianka (Poland) – a Case Study**
    Jerzy Montusiewicz
25. **Polish National Dance Music Identification Based on a Convolutional Neural Network Utilizing Adaptive Feature Fusion**
    Kinga Chwaleba, Weronika Wach
26. **The VR Animation of Rigid Bodies with Dedicated Motion Development in Immersion Study**
    Weronika Wach, Kinga Chwaleba
27. **Spatial Data Processing in Pathfinding on Grid Graphs**
    Maria Kamińska, Paweł Jaskuła, Marcin Barszcz

Virtual Session (Friday, December 12, 2025, room E212, 10:00-10:30)

Chairman: Dr. **Kamil Żyła** (LUT)

1. **Developing a Color Discrimination Model for Heritage Apparel and Accessories Based on Computational Algorithms**
   Yu Zhao, Yan Cheng, Yuxiang Zhang, Yi Xiang
2. **Some Considerations on the Importance of 3D Modelling Technology in the Study of the Archaeological Heritage of Southern Uzbekistan**
   Anatoliy Sagdullaev, Jasur Togaev
3. **Some Reflections and Considerations on the Problem of Modelling Historical Processes**
   Surayyo Sultonmurodova
4. **The Role of IT Technologies in Promoting Tourist Routes and Restaurant Services: The Case of Samarkand**
   Boburbek Kurbanov
5. **Modern Trends and Prospects for the Development of the Tourism Industry in the Republic of Uzbekistan**
   Sadriddin Rakhimov
6. **Interactive Online Platform for Learning Art History: Digital Education of Artists and Artworks**
   Shalola Shakarova