18th *International Conference on*

APPLICATION of INFORMATION and COMMUNICATION
TECHNOLOGIES

CONFERENCE PROGRAM

25-27- September 2024

Time Zone: GMT + 1 (Torino local time)

PROGRAM AT A GLANCE

25 September 2024
Location: Polytechnic of Turin,
Address: Corso Castelfidardo, 42/A, Torino

08:30 – 09:00	**Registration – Room Maxwell**
09:00 – 09:30	**Welcome – Room Maxwell**
09:30 – 11:30	**Keynote Session – Room Maxwell**
11:30 – 12:00	**Coffee Break**
12:00 – 13:00	**Keynote Session – Room Maxwell**
13:00	**Lunch**
14:30 – 16:30	**Session Sustainable Technologies & Energy Management – Room Ciminiera** **Session Healthcare & Medical Technology – Room Lab8**

26 September 2024
Location: Polytechnic of Turin,
Address: Corso Castelfidardo, 34/D, Torino

08:30 – 09:00	**Registration – Room Ciminiera**
09:00 – 09:45	**Welcome – Room Ciminiera**
09:45 – 11:15	**Sessions Artificial Intelligence in Education & Learning – Room Ciminiera** **Natural Language Processing & Linguistics – Room Lab8** **Graph & Data Mining – Room ACSLab**
11:15 – 11:30	**Coffee Break**
11:30 – 13:00	**Sessions Artificial Intelligence in Education & Learning – Room Ciminiera** **Natural Language Processing & Linguistics – Room Lab8** **Graph & Data Mining – Room ACSLab**
13:00 – 14:00	**Lunch**
14:00	**Social Event (Visit to Venaria Reale)**
19:00	**Social Dinner (Arcadia Restaurant)**

27 September 2024	
Location: Polytechnic of Turin, **Address: Corso Castelfidardo, 42/A, Torino**	
09:00 – 09:30	**Registration – Room Ciminiera**
09:30 – 11:30	**Session Cybersecurity & Privacy & Networking – Room Ciminiera** **Session Business Intelligence & Industrial applications – Room Lab8** **Computer Vision & Image Processing – Room ACSLab**
11:30 – 11:45	**Coffee Break**
11:45	**Awards & Closing – Room Ciminiera**

AICT2024 International Conference

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25 September 2024

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For Virtual Participation
ROOM CIMINIERA/MAXWELL
ROOM Lab8

09:00 – 09:30	OPENNING / WELCOMING MESSAGES
ROOM MAXWELL	**Chair: Luca Cagliero**
	Dr. Abzetdin Adamov, *AICT2023 General Chair, ADA University, Azerbaijan*
	Prof. Candido Pirri, *ViceRector of Polytechnic, Italy*
	Prof. Fulvio Corno, *ViceRector of Polytechnic, Italy*
	Prof. Marco Mellia, *ICT Director, Italy*

09:30 – 11:30	KEYNOTE SESSION
ROOM MAXWELL	**Chair: Dr. Abzetdin Adamov**
	Speaker: **Professor Tania Cerquitelli**
	Department of Control and Computer Engineering, Polytechnic of Turin, Italy
	Title: Leveraging AI for Inclusive Writing: A Bias-Free Methodology in NLP
	Speaker: **Professor Rebecca Hwa**
	Chair Computer Science Department, George Washington University, US
	Title: The Impact of Language Models in Persuasive Media

11:30 – 12:00	*Coffee Break*

12:00 – 13:00	KEYNOTE SESSION
ROOM MAXWELL	**Chair: Dr. Abzetdin Adamov**
	Speaker: **Professor Jamal Hasanov**
	School of IT and Engineering, ADA University, Azerbaijan
	Title: The Importance of Features in Specific Computer Vision Problems
13:00 – 14:30	*Lunch*

14:30 – 16:30	**SESSION: Sustainable Technologies & Energy Management**
ROOM CIMINIERA	**Chair: Dr. Abzetdin Adamov**
	FlowCasting: A Dynamic Machine Learning based Dashboard for Bike-Sharing System Management *Andrea Avignone, Davide Napolitano, Luca Cagliero, Silvia Chiusano*
	Sustainable Cultural Tourism Strategy and Promotion: An ICT Management Platform *Shabnam Pasandideh, Kashyap Raiyani, Sajib Ahmed, Pedro Pereira, Joao Martins*
	Implementing Industry 4.0 Tools for Enhancing Residential Energy Management: A Case Study of Kuwait *Abdalrahman Alajmi, Nick Kelly*
	Survey of Machine Learning Applications in Wind Power Implementation: A Comprehensive View *Ilhama Novruzova, Natavan Hasanova, Khalid Mammadov, Samir Mammadov*
	Analysis of Stages and Principles of Frequency Regulation in Energy Systems *Burcu Ramazanli, Sakhavat Rafiyev*
14:30 – 16:30	**SESSION: Healthcare & Medical Technology**
ROOM Lab8	**Chair: Prof. Jamaladdin Hasanov**
	Developing Automated Software for Improving Feedback Analysis and Self-Debriefing in High-Fidelity Medical Simulation *Nazanin Sheykhmohammadi, Denis Zampunieris, Pascal Stammet, Christian Gr´evisse, Sandro Reis*
	A Lower-Limb Exoskeleton Control System based on Brain-Computer Interface with Multiple Motor Imagery Segments Decoding *Zitong Wan, Zheyu Yao, Yuting Zheng, Mengjie Huang, Rui Yang*
	Analyzing the Effectiveness of Smartphone Applications on Disease Management and Healthcare Systems *Wisam Al-Dayyeni, Rabei Raad Ali, Christy Atika Sari, Eko Hari Rachmawanto, Candra Irawan, Omar M. Jihad*
	Fuzzy inference system for detection CT and X- Ray image's edges *Abathar Qahtan Aladi, Shaima Ibraheem Jabbar*
	Diabetes Detection Based on Iridology *Wisam Al-Dayyeni, Farid Taghiyev, Ayyub Mammadli, Leyla Guliyeva*
	Deep Unlearning of Breast Cancer Histopathological Images for Enhanced Responsibility in Classification *Laman Aliyeva, Nihat Abdullayev, Saida Zarbiyeva, Ismayil Huseynov, Umid Suleymanov, Ivan Kanevskyi*

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ROOM CIMINIERA
ROOM Lab8
ROOM ACSLab

09:00 – 09:45	WELCOMING MESSAGES
ROOM CIMINIERA	Chair: Luca Cagliero
	Prof. Fulvio Corno, *ViceRector of Polytechnic, Italy* **Prof. Marco Mellia,** *ICT Director, Italy*

09:45 – 13:00	SESSION Artificial Intelligence in Education & Learning
ROOM CIMINIERA	Chair: Paolo Garza
	Do Teachers Possess the Essential Digital Literacy to Effectively Navigate through the Digital Era? *Sevda Kucuk, Saadettin Ates, Omer Kocak*
	AI English Conversation Coaching Platform in the Metaverse: Focused on Korean Users *Sungyoung Kim, Jaesung Park, Seongeun Yang, Chaewon Yoon, Jongwook Si, Yuchul Jung*
	Exploring the Potential Use of Generative AI in Software Engineering Education *Nuno Pombo*
	Enhanced document retrieval with topic embeddings *Kavsar Huseynova, Jafar Isbarov*

11:15 – 11:30	*Coffee Break*

	SESSION Machine Learning & AI Models
ROOM CIMINIERA	Chair: Paolo Garza
	A Benchmarking Study of Kolmogorov-Arnold Networks on Tabular Data *Eleonora Poeta, Flavio Giobergia, Eliana Pastor, Tania Cerquitelli, Elena Baralis*
	BONES: a Benchmark fOr Neural Estimation of Shapley values *Davide Napolitano, Luca Cagliero*
	Deep Probability Segmentation: Are segmentation models probability estimators? *Simone Monaco, Simone Fassio, Daniele Apiletti*
	Extract User-Generated Content from Spatial Data Provision Services *Sara Migliorini, Mauro Gambini, Alberto Belussi*

09:45 – 13:00	SESSION Natural Language Processing & Linguistics
ROOM Lab8	**Chair: Wisam Al-Dayyeni**
	Large Language Models-aided Literature Reviews: A Study on Few-Shot Relevance Classification *Flavio Giobergia, Alkis Koudounas, Elena Baralis*
	Transforming Legal Documents into Knowledge Goldmines: Application on the Algerian Official Journal *Hamouda Sidhoum Abdellah, Mataoui M'Hamed, Sebbak Faouzi, Ouazene Aymen, Hussine Fedoua, Amrani Mohamed Chakib, Boumediri Takieddine*
	An Approach for Business Email Compromise Detection using NLP and Deep Learning *Lyudmila Sukhostat, Rasim Alguliyev, Ramiz Aliguliyev*
	Contextualized Word Embeddings in Azerbaijani Language *Tural Alizada, Umid Suleymanov, Zaid Rustamov*
11:15 – 11:30	*Coffee Break*
	Transfer Learning of Large Speech Models for Italian Speech Emotion Recognition *Federico Dasaro, Juan Jose Marquez Villacis, Giuseppe Rizzo, Andrea Bottino*
	Enhancing Cross-Lingual Word Embeddings: Aligned Subword Vectors for Out-of-Vocabulary Terms in fastText *Claudio Savelli, Flavio Giobergia*
	A Hybrid Approach to Azerbaijani Lemmatization: Integrating Rule-Based Methods with ML POS Tagging *Fuad Fataliyev, Feray Gulu-zada, Gunel Huseynova, Samir Rustamov*
09:45 – 13:00	**SESSION Graph & Data Mining**
ROOM ACSLab	**Chair: Andrea Avignone**
	Towards Named Entity Disambiguation with Graph Embeddings *Felice Paolo Colliani, Giuseppe Futia, Giovanni Garifo, Antonio Vetrò, Juan Carlos De Martin*
	Graph based visualization and analysis of Azerbaijani web *Anar Shikhaliyev Anar Shikhaliyev,*
	On The Soundness of a Language for Large and Distributed Graph Processing *Cheikh BA, DIOP Alpha Mouhamadou*
	Anomaly detection to infer context changes in temporal data *Anna Dalla Vecchia, Niccolò Marastoni, Elisa Quintarelli*
11:15 – 11:30	*Coffee Break*

	Opinion Score Distribution Prediction via AI-Based Observers in Media Quality Assessment *Antonio Servetti, Lohic Fotio Tiotsop, Enrico Masala*
	A Sparsifier Model for Efficient Information Retrieval *Viacheslav Dobrynin*
	Compact SAT-based Encoding Of Mining Minimal Non Redundant Association Rules *Boudane Abdelhamid, OUZGHARA Riyadh*
	Breaking the Ice: Data-Driven Predictive Modeling for Rail Track Icing Events *Lorenzo D Amico, Cristian Rendina, Dario Salza, Claudio Rossi, Oreste Cattaneo*
13:00 – 14:00	*Lunch*
14:00	*Social Event: Visit to Venaria Reale*
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ROOM CIMINIERA
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09:30 – 11:30	SESSION Cybersecurity & Privacy & Networking
ROOM CIMINIERA	Chair: Sara Migliorini
	MINOS: A Tool to Analyze HTTP Requests For Compliance to GDPR *Lorenzo Laudadio, Riccardo Coppola, Antonio Vetrò, Marco Torchiano, Juan Carlos De Martin*
	A Time-synchronized Framework for Bluetooth Low Energy Wireless Sensor Networks *Andrea Pignata, Vittorio Fra, Enrico Macii, Gianvito Urgese*
	Security Insights at a Glance: An Integrated Data Approach for Application Security *Alexandre Penela, Bernardo Sequeira, Eduardo Piza, Catarina I. Reis, Maria Beatriz Piedade, Rosa Matias*
	Computer networks cybersecurity monitoring based on CNN-LSTM model *Rasim Alguliyev, Ramiz Shikhaliyev*

	SESSION Digital Economy & Socio-economic Development
ROOM CIMINIERA	Chair: Sara Migliorini
	Enhancing Sales Prediction Accuracy Through Incorporation of Expert Knowledge as Constraints Into the Model *Ilknur gur nalcaci, Serhat Agit Satıcı, Fatih Alagöz, Bahadir Onay, Cuneyt Oksuz*
	Governmental effectiveness in the transition to a circular economy: dynamic DEA model *Svetlana Ratner, Svetlana Balashova, Bella Gabrielyan*
09:30 – 11:30	**SESSION Business Intelligence & Industrial applications**
ROOM Lab8	Chair: Silvia Chiusano
	A preliminary study of a co-embodiment approach for welding training *Federico Manuri, Letizia Sacco, Francesco De Pace, Andrea Sanna, Hannes Kaufmann*
	Data Engineering Roadmap for Implementing Business Intelligence in Higher Education *Romeu Sequeira, Arsénio Reis, Frederico Branco, Paulo Alves*
	Solar-Powered Automated Drone for Industrial Safety and Anomaly Detection *Asmine El Moutaouakil, Tamen Mahmoud Omar, Hasan Mohammed Aishehhi, Marwan mohammed Aknauimi, Suood Abdulrahaman Alblooshi*
	Approach to Studying Information Dissemination in Social Networks with Simulation Tools *Alexander Kolesnikov, Elena Zamyatina, Lyudmila Lyadova, Viacheslav Lanin*

	Leveraging Data Mining Techniques to Enhance Curriculum Content Quality *Firudin Aghayev*
	Analyzing technical debt management in an industrial project: diffuseness and actual remediation time of SonarQube issues *Giovanni Garifo, Antonio Vetrò, Luca Maina, Marco Torchiano*
09:30 – 11:30	**SESSION Computer Vision & Image Processing**
ROOM ACSLab	**Chair: Flavio Giobergia**
	ByteREID: an efficient online multi-camera multi-person tracking system *Stefano Bergia, Giuseppe Rizzo, Fabrizio Dominici, Mario Chiesa, Manuel Gaetani*
	A Preliminary Study on Distance and Speed Estimation Using Event-Based Vision *Haensel Leonard, Bertram Torsten*
	Comparative Analysis: Violence Recognition from Videos using Transfer Learning *Dursun Dashdamirov*
	Set Theory and Elementary Algebra in LEAN 4 Theorem Prover *Yagub Aliyev*
	Experimental Setup for Verifying the Funneling Illusion on the Upper Facial Region *Ye-Ji Jun, Dong-Soo Choi*
11:30 – 11:45	*Coffee Break*
11:45	**Awards & Closing**
ROOM CIMINIERA	**Chair: Dr. Abzetdin Adamov**

General Information

Instructions for presenters

Speakers are required to be in the meeting room at least 10 minutes before their session begins.
Sessions are tightly scheduled, the allotted time for presentation must be strictly observed. Each conference room will be equipped with computers. Presentations on USB stick must be loaded in advance (e.g. during breaks). For organizational reasons, use of personal laptops for presentations is discouraged.

Badges

All delegates and exhibitors are kindly requested to always wear their name badge. Entrance to meeting rooms will be limited to regularly enrolled participants.

Language

Official language will be English. No simultaneous translation will be provided.

How to get to... the conference venue

The Politecnico is located close to the city centre. It can be reached from the city centre in a short time by metro or bus. The closest metro station is Vinzaglio.
Many bus and tram lines have stops at the Politecnico.
Bus lines 58, 33, 12 and tram line 10 stop near the Politecnico main building entrance (corso Duca degli Abruzzi 24).
Bus line 12 stops in front of the Cittadella Politecnico entrance (corso Castelfidardo 34/A).
Bus line Star 1 stops at about 300 metres from the same entrance.
Other bus or tram lines (e.g. lines 33, 42 and 15) have also stops not far from the Politecnico. And if you like to walk, it takes about 30 minutes from Porta Nuova railway station in the city centre. 72

Currency

The Euro is the national currency. Automatic cash dispenser and bank exchanges are plentiful. Most hotels, restaurants and shops accept the usual credit cards.

Banks

The nearest bank with cash dispenser is the Banca Unicredit located inside the Politecnico main building. Opening times, from Monday to Friday: from 8.30 to 13.30 and from 14.40 to 16.10.

Post office

The nearest post office is located inside the Politecnico main building. Opening times, from Monday to Friday: from 8:30 to 14:00.