



International Conference on Future Technologies (ICFT2026)

BOOKLET

October 18–21, 2026

German Jordanian University · Amman, Jordan

Hosted by the German Jordanian University

Technically co-sponsored by the IEEE Communications Society and the IEEE Systems, Man, and Cybernetics Society

<https://icft.gju.edu.jo> · icft@gju.edu.jo



Venue

German Jordanian University (GJU) Madaba Campus – Jordan

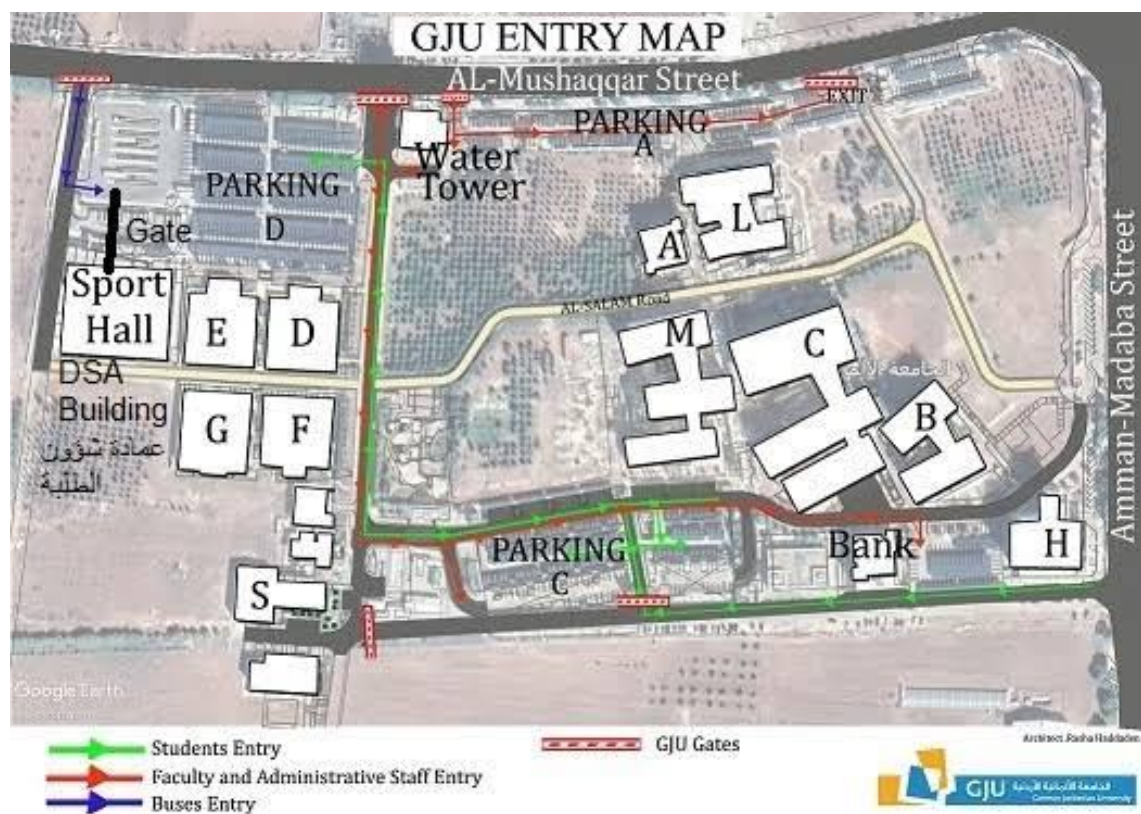


Conference Venue

The **International Conference on Future Technologies (ICFT 2026)** will be hosted at the **German Jordanian University (GJU) – Madaba Campus**, providing a modern academic and technological environment for researchers, academics, industry professionals, and students from around the world.

Conference Facilities

- **Auditorium L** – Keynote and plenary sessions
- **H101–H106** – Parallel technical sessions
- **H301–H302** – Special sessions and technical presentations
- Exhibition and networking areas (Al-Salam Street & sports hall)
- Registration and information desk Building H



Welcome to ICFT 2026



Message from the Honorary Chair

Prof. Dr. Ala'aldeen Al-Halhouli

President, German Jordanian University

It is my great pleasure to welcome you to the inaugural International Conference on Future Technologies (ICFT 2026), hosted by the German Jordanian University.

ICFT 2026 brings together researchers, academics, industry professionals, innovators, and students from Jordan and around the world to exchange knowledge, present emerging research, and explore the technologies shaping our future. The breadth of the conference program reflects the rapid development of fields such as artificial intelligence, cybersecurity, robotics, smart energy systems, digital health, FinTech, and other transformative technologies.-

At the German Jordanian University, we are committed to fostering an environment where academic excellence, innovation, entrepreneurship, and meaningful progress is achieved where universities, industry, researchers, and society work together to address emerging challenges and translate knowledge into practical impact.

I would like to extend my sincere appreciation to the conference committees, reviewers, partners, speakers, and organizing team whose efforts have made ICFT 2026 possible. I also warmly welcome all our international guests to Jordan and to the German Jordanian University. I hope that ICFT 2026 will provide a valuable platform for exchanging ideas, building lasting collaborations, and inspiring new research and innovation. I wish you all a productive and rewarding conference experience.

Prof. Ala'aldeen Al-Halhouli, President, German Jordanian University

General Chair's Welcome



Prof. Raed Mesleh

General Chair, International Conference on Future Technologies (ICFT) · German Jordanian University, Jordan

It is my great pleasure and honor to welcome you to the International Conference on Future Technologies (ICFT), proudly hosted for the first time by the German Jordanian University (GJU). This inaugural edition of ICFT represents an important milestone for our university and reflects our strong commitment to advancing research, innovation, and international collaboration in cutting-edge technological domains. The conference has been carefully designed as a multidisciplinary forum that brings together researchers, academics, industry experts, practitioners, and students to exchange ideas, share recent advances, and discuss emerging challenges and opportunities in future technologies.

ICFT features a rich and diverse technical program covering key tracks such as Artificial Intelligence and Machine Learning, Internet of Things, Cybersecurity and Privacy, FinTech, Health Informatics, Robotics and Autonomous Systems, Smart Grids, Power Systems, and related interdisciplinary areas. These topics reflect not only current research trends but also the pressing societal and industrial needs shaping our future.

The conference is strengthened by the active collaboration with our German partner institutions, reinforcing GJU's unique mission of bridging Jordanian and German academic excellence. We are delighted to host distinguished keynote speakers, engaging panel discussions, in-depth tutorials, industrial exhibitions, and a vibrant student poster session that showcases the creativity and innovation of emerging researchers.

Beyond the technical program, ICFT aims to foster meaningful networking, encourage cross-disciplinary dialogue, and create opportunities for sustainable research and industry partnerships at both regional and international levels. I would like to express my sincere appreciation to the organizing and technical committees, our international partners, sponsors, keynote speakers, and reviewers for their invaluable contributions. Most importantly, I thank all authors and participants for choosing ICFT as a platform to share their work and insights.

I warmly welcome you to ICFT and wish you a stimulating, productive, and memorable conference experience.

Prof. Raed Mesleh, General Chair

ICFT 2026 at a Glance

Conference	International Conference on Future Technologies (ICFT 2026)
Dates	Sunday 18 – Wednesday 21 October 2026
Host and venue	German Jordanian University (GJU), Amman, Jordan
Technical co-sponsors	IEEE Communications Society IEEE Systems, Man, and Cybernetics Society
Accepted papers	206, across 7 regular Tracks and 11 special sessions
Tutorials	3, plus 1 workshop
Keynote speakers	5 confirmed
Publication	Accepted and presented papers will be submitted to IEEE Xplore and indexed in Scopus, subject to IEEE quality requirements.
Contact	icft@gnu.edu.jo · https://icft.gnu.edu.jo

Organizing Committees

Conference Chairs

Role	Name and affiliation
Honorary Chairman	Prof. Ala'aldeen Al-Halhouli, President, German Jordanian University, Jordan
General Chairman	Prof. Raed Mesleh, German Jordanian University, Jordan
International Steering Committee (ISC) Chairman	Prof. Osama Saadeh, German Jordanian University, Jordan
Joint Strategic Organization Chairman	Assoc. Prof. Sahar Qaadani, German Jordanian University, Jordan
Technical Program Committee (TPC) Chairman	Prof. Saud Althunibat, Princess Sumaya University for Technology, Jordan
Palestine Satellite Chairman	Prof. Allam Mousa, An-Najah National University, Palestine

Honorary Committee

Name	Affiliation
Prof. Dr. Ala'aldeen Al-Halhouli	President, German Jordanian University
Prof. Dr. Teena Hassan	Vice President International Affairs and Digital Transformation, Hochschule Bonn-Rhein-Sieg
Prof. Dr. Abdel Naser Zaid	President, An-Najah National University

International Steering / Advisory Committee

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Osama Saadeh (Chair)	Dean of Innovation, Technology Transfer and Entrepreneurship (DI-TECH)
Sahar Qadan	Vice dean of Innovation, Technology Transfer and Entrepreneurship (DI-TECH)
Marco Di Renzo	Paris-Saclay University – CNRS and CentraleSupélec
Daniel Benevides da Costa	King Fahd University of Petroleum & Minerals
Murat Uysal	New York University Abu Dhabi
Khalid Qaraqe	Hamad Bin Khalifa University
Werner Henkel	Constructor University Bremen
Filippo Sanfilippo	University of Agder
El-Hadi Aggoune	University of Tabuk
Axel Sikora	Hochschule Offenburg
Aamir Ahmad	University of Stuttgart
Ahmed Nabil Belbachir	Norwegian Research Centre
Christian Klaes	Ruhr University Bochum
Sen Cheng	Ruhr University Bochum
Pedro Lima	Institute for Systems and Robotics, University of Lisbon
Ghassan Karame	Ruhr University Bochum
Issa Batarseh	University of Central Florida
Alan Mantooth	University of Arkansas
Tom Gedeon	The Australian National University

Name	Affiliation
Hong Yan	City University of Hong Kong
MengChu Zhou	New Jersey Institute of Technology, USA
Giancarlo Fortino	University of Calabria

Technical Program Committee

Name	Affiliation
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Anas Atieh (Co-Chair)	German Jordanian University
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Hongwei Li	University of Electronic Science and Technology of China
Marco Di Renzo	Paris-Saclay University – CNRS and CentraleSupélec
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Jungpil Shin	The University of Aizu
Tom Gedeon	The Australian National University
Hong Yan	City University of Hong Kong
J. Alberto Conejero Casares	Universitat Politècnica de València (UPV)
Kenneth B. Kent	University of New Brunswick
Eirini Eleni Tsiropoulou	Arizona State University
Ankur Gupta	Syracuse University
Yekaterina Strigina	Hochschule Schmalkalden
Niranjan Kannali Ramesha	Hochschule Schmalkalden
Nikhil Meduri	Hochschule Schmalkalden
Frank Schrödel	Hochschule Schmalkalden
Abdelkader Shaaban	AIT Austrian Institute of Technology
Andres Gomez	Costa Rica Institute of Technology
Emanuele Bellini	IEEE Technical Committee on Cyber Humanities; IEEE SMC Society
György Eigner	Óbuda University

Sponsors and Partners

ICFT 2026 is grateful for the generous support of the following organizations.

Technical Co-Sponsors

- IEEE Communications Society (ComSoc)
- IEEE Systems, Man, and Cybernetics Society (SMCS)

Gold Sponsors

- SAP.
- Abdul Hameed Shoman Foundation, Jordan.

Silver Sponsor

- Fahad Bin Sultan University, Saudi Arabia.

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- Hochschule Bonn-Rhein-Sieg, University of applied sciences, Germany.
- Quill Robotics, Jordan.
- National Cyber Security Center, Jordan.

Sponsors and Partners

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National Cyber
Security Center



Hochschule
Bonn-Rhein-Sieg
University of Applied Sciences



General Information

All session times are shown in local time (Jordan, UTC+3).

Registration Desk

Day	Hours and location
Sunday 18 October	Open from 9 : 00 AM
Monday 19 October	Open from 9 : 00 AM
Tuesday 20 October	Open from 9 : 00 AM
Wednesday 21 October	Open from 9 : 00 AM
Thursday 22 October	Trip to Petra

What Your Registration Includes

- Author registration: one paper and one author attendee; one copy of the Proceedings, three lunch tickets, and one gala dinner ticket.
- Attendee registration: one copy of the Proceedings and three lunch tickets.
- Additional tickets: gala dinner and the optional Petra trip on the last day of the conference (paid separately).

Rules and Regulations

Consent to Use of Photographic and Audio-Visual Material

Registration and attendance at, or participation in, **ICFT2026** constitutes an agreement by the registrant, attendee, speaker, exhibitor, or participant to the German Jordanian University and ICFT2026 Organizing Committee's use and distribution, both during and after the conference, of their image, likeness, or voice in photographs, videos, audio recordings, and other electronic reproductions of conference events and activities.

Cameras and Recording Devices

Photography and recording are permitted for personal and documentation purposes during social events and designated conference activities.

To ensure the smooth operation of technical sessions, **professional photography, video recording, or audio recording during oral and poster presentations should not interfere with the presentation or other attendees.**

Exhibitors and sponsors may photograph or record activities within their own booth area, provided that such activities do not disrupt neighboring booths, conference activities, or the privacy of other participants.

The ICFT2026 Organizing Committee reserves the right to restrict or prohibit photography or recording in specific areas or sessions when necessary.

Distributing Commercial Material at ICFT2026

Exhibitors and Sponsors:

Exhibitors and sponsors may distribute promotional, commercial, and informational materials **only within their designated booth or exhibition area**, unless otherwise authorized by the ICFT2026 Organizing Committee.

Promotional activities must not obstruct conference sessions, entrances, walkways, or other exhibitors' spaces.

The ICFT2026 Organizing Committee reserves the right to remove, without prior notice, any materials or activities that do not comply with these guidelines.

Non-Exhibitors and Non-Sponsors:

Individuals, companies, or organizations that are not participating as exhibitors or sponsors may not distribute commercial, promotional, or marketing materials within the conference venue, including conference halls,

meeting rooms, exhibition areas, registration areas, or other designated conference spaces, unless prior authorization has been obtained from the ICFT2026 Organizing Committee.

Unauthorized promotional activities, solicitation, or distribution of commercial materials are prohibited.

The ICFT2026 Organizing Committee reserves the right to remove any unauthorized materials or discontinue activities that do not comply with this policy.

Contact and Emergency Information

For general conference inquiries and assistance, please contact the ICFT2026 Organizing Team:

Email: icft@gju.edu.jo

On-Site Conference Assistance

For assistance during the conference, participants may contact the ICFT2026 Organizing Team or visit the **Registration and Information Desk** at the conference venue.

On-site organizer: Eng. Bara'a Al-Omaishat

Email : baraa.alomaishat@gju.edu.jo

Emergency Services

Unified Emergency Number (Police, Ambulance, Fire & Rescue): 911

The unified emergency number **911** is available 24/7 throughout Jordan and can be dialed from landline and mobile phones.

Emergency service for sign-language users: 114

For medical assistance during the conference, please contact the Registration and Information Desk or a member of the ICFT2026 Organizing Team.

Lost and Found

Lost and found items should be reported to or handed in at the **Registration and Information Desk**. Participants who have lost an item are kindly requested to provide a description of the item and their contact information.

Schedule at a Glance

Sunday, 18 October 2026

Time	Type	Event	Venue	Speakers
09:00–12:00	Tutorial	From Earth's Climate History to Future Impacts and Engineering Challenges	H515	Prof. Dr. René Sonnenberg
12:00–13:00	Lunch			
13:00–16:00	Tutorial	Using IT/AI Tools for modernising and accelerating development process in industrial automation.	Auditorium L	Kusay Tomeh Assoc. Prof. Jumana Ma'touq

Monday, 19 October 2026

Time	Type	Event	Venue	Speakers
All day	Exhibition	Industry Exhibition	Sports Hall	
08:00–18:00	Registration	Conference Registration	Building G	
10:00–10:30	Ceremony	Opening Ceremony	Sports Hall	
10:30–11:15	Start up alley + Industry Exhibition			
11:15–11:45	Keynote	AI Agentic Security: Safeguarding the Next Generation of Autonomous Systems	Auditorium H	Prof. Dr. Elisa Bertino
11:45–13:00	Special session	Real-World AI in a Cancer Centre: The KHCC Experience	Auditorium H	Dr. Iyad Sultan
12:30–13:00	Special session	Future of food systems in light of AI	Auditorium L	Dr. Thaeer Yaseen
13:00–13:45	Lunch			
13:45–17:30	sessions	Parallel sessions	Building H	

Tuesday, 20 October 2026

Time	Type	Event	Venue	Speakers
08:00–18:00	Registration	Conference Registration	Building H	
09:00–09:30	Keynote	Education Revolution and Talent Ecosystem in Embodied AI Era	Auditorium H	Eason Teong Yee Xun
09:30–10:15	Keynote	From Generative AI to Deliberative AI: The Next Generation of Intelligent Systems	Auditorium H	Prof. Dr. Khalid Al-Begain
10:15–11:00	Keynote	Autonomous agents and networked systems	Auditorium H	Prof. Dr. Munther Dahleh
11:00–11:30	Coffee Break			
11:30–12:15	Keynote	Entrepreneurship as a Core University Mission: The MIT Sandbox ModelX	Auditorium H	Dr. Jinane Abounadi
12:15–13:00	Panel	JODDB Pannel Session	Auditorium H	
13:00–13:45	Lunch			
13:45–16:45	Tutorial	Quantum Communications, Quantum AI, and Quantum-Safe Cybersecurity: Foundations, Technologies, and Future Directions	H105	Dr. Khaled Qaraqe

Time	Type	Event	Venue	Speakers
14:00–17:00	sessions	Parallel sessions	Building H	
19:00–21:00	Social	Gala Dinner	Le Royal Hotel Amman	-

Wednesday, 21 October 2026

Time	Type	Event	Venue	Speakers
08:00–18:00	Registration	Conference Registration	Building H	
9:30–10:15	Keynote	The AI-Driven Hospital of the Future: Opportunities and Challenges	Online	Prof. Dr. Pierre Baldi
10:15–11:00	Keynote	The Silicon Carbide Ecosystem for Advanced Electronic Systems	Online	Prof. Dr. Alan Mantooth
11:00–11:30		Coffee Break	Building H	
11:30–13:00	sessions	Parallel sessions	Building H	sessions
13:00–13:45		Lunch	Building H · lunch area	
13:45–15:30	sessions	Parallel sessions	Building H	sessions

Invited Speaker



Prof. Dr. Elisa Bertino

Professor of Computer Science and Research Director at CERIAS, Purdue University, USA

Monday, 19 October · 10:30 AM – 11:15 AM · Auditorium L

Bio : Elisa Bertino is a Samuel D. Conte Distinguished Professor of Computer Science at Purdue University. She has worked for more than 40 years in data security and privacy. Her research interests include machine learning techniques for cybersecurity, security of cellular networks, zero-trust architectures, and agentic AI security. In the area of machine learning for cybersecurity, she led the design of transfer learning techniques for network attack detections and for detection and classification of malware. In the area of cellular network security, she led the design of the LTEInspector and 5Greasoner frameworks to test security properties of cellular networks leading to the identification of ten novel vulnerabilities in the 4G LTE (Long Term Evolution) and 5G standards, and the discovery of new privacy attacks in 4G and 5G cellular protocols. For this work, she was named to the GSMA (Global System for Mobile Communications Association) Mobile Security Research Hall of Fame. More recently she has been working on machine learning techniques for detecting malicious base stations and attacks to synchronization protocols for O-RAN. She is a Fellow member of IEEE, ACM, and AAAS. She received the 2002 IEEE Computer Society Technical Achievement Award, the 2005 IEEE Computer Society Tsutomu Kanai Award, the 2019-2020 ACM Athena Lecturer Award, and the 2021 IEEE Innovation in Societal Infrastructure Award. She is currently serving as ACM President.

Invited Speaker



Prof. Dr. Pierre Baldi

University of California, Irvine; Director, AI in Science Institute

Tuesday, 20 October · 9:30 AM – 10:15 AM · Auditorium L

Bio: Pierre Baldi earned MS degrees in Mathematics and Psychology from the University of Paris, and a PhD in Mathematics from the California Institute of Technology. He is currently Distinguished Professor in the Department of Computer Science, Founding Director of the AI in Science Institute, and Associate Director of the Center for Machine Learning and Intelligent Systems at the University of California Irvine. The long term focus of his research is on understanding intelligence in brains and machines. He has made several contributions to the theory of AI and deep learning, and pioneered the application of AI in the natural sciences, to address problems in physics, chemistry, and biomedicine.

Examples of application problems include the detection of exotic particles in physics, the prediction of protein structures and of reactions in biochemistry, and the analysis of genomes and images in biomedicine. He is currently also studying some of the societal challenges posed by AI, such as the tension between academic and corporate AI research and the quest for AI safety frameworks. He has published ~400 journal articles and five books, including: *Deep Learning in Science*, Cambridge University Press, 2021. His honors include the 1993 Lew Allen Award at JPL, the 2010 E. R. Caianiello Prize for research in machine learning, the 2023 Dennis Gabor Award of the International Neural Network Society, and election to Fellow of the AAAS, AAAI, IEEE, ACM, and ISCB. He serves, or has served, as Associated Editor for Artificial Intelligence, Neural Networks, and the IEEE/ACM Transactions in Computational Biology and Bioinformatics. He has mentored ~100 graduate students and postdoctoral fellows and co-founded several startup companies.

Invited Speaker



Prof. Dr. Khalid Al-Begain

President, Kuwait College of Science and Technology

Tuesday, 20 October · 10:15 AM – 11:00 AM · Auditorium L

BIO: Prof Khalid Al-Begain, the Founding President of the Kuwait College of Science and Technology (KCST), has been instrumental in establishing KCST as a leading private university in Kuwait since its inception in 2015. Under his leadership, KCST has experienced rapid growth in student enrollment and research reputation.

Khalid is the President of the European Council of Modelling and Simulation (ECMS). He was President of the Federation of European Simulation Societies (EuroSim). He also served as a Professor and Founding Director of the £ 6.5 million Centre of Excellence in Mobile Applications and Services (CEMAS) from 2010 to 2015, recognized as Wales' best-managed centre in 2015. His leadership extended to founding the Centre of Excellence in Mobile and Emerging Technologies at the University of South Wales, UK, until 2017.

Khalid's academic credentials include a PhD in Communications Engineering from the Budapest Technical University, Hungary (1989), a Postgraduate Diploma in Management from the University of Glamorgan, UK (2011), and the distinguished "Senior Strategic Leadership" course with The Leadership Foundation (2014).

His contributions to the scientific community have been recognized with numerous awards, including the 2013 IWA Inspire Wales Award for Science, the Wales Innovation Award in 2014, and the Royal Recognition from Her Majesty the Queen in 2006.

He served as a UNESCO Expert in networking on three voluntary missions, a Fellow and Chartered IT Professional of the British Computer Society, a Senior Member of the IEEE, and a member of the UK EPSRC College. In 2023, he was elected a Full Member of Sigma Xi. He served on the Advisory Board of the Leadership Foundation for "Finances for Senior Managers in HE". He has also served as a university ambassador on the Welsh Government Ministerial Advisory Steering Board for national projects such as the National Cybersecurity Academy and ICT in Schools.

Khalid has chaired 35 international conferences to date, holds two granted patents, has co-authored and edited 26 books, and has published over 200 papers in refereed journals and conferences. He is the co-inventor of MOSEL, the Modelling, Specification, and Evaluation Language, and has supervised 28 successful PhD projects. As a demonstration of his entrepreneurial spirit and leadership skills, he acted as an expert witness in major mobile IPR court cases between Nokia-InterDigital and Nokia-HTC. He has also founded and directed three companies.

Invited Speaker



Dr. Jinane Abounadi

Massachusetts Institute of Technology (MIT), USA

Tuesday, 20 October · 10:15 AM – 11:00 AM · Auditorium L

Entrepreneurship as a Core University Mission: The MIT Sandbox Model

Bio: Jinane Abounadi is Executive Director of the MIT Sandbox Innovation Fund Program. She brings a unique combination of experiences, from academic research to senior operational and strategic roles in start-up companies and large businesses. After completing her graduate work, she worked as a research scientist at BBN and as a postdoctoral lecturer at MIT, and advised undergraduate and graduate students.

She held leadership roles in two of the most successful local Boston area start-ups, ITA Software and Kayak, where she gained deep knowledge about the travel technology sector. Most recently, she ran a global portfolio of 3rd party products for Travelport, giving her the opportunity to establish partnerships with companies across the globe and to advise and evaluate a number of start-ups in the travel sector.

Abounadi earned her PhD in electrical engineering and computer science at MIT, a BS in electrical engineering from Caltech, and a BA from Bryn Mawr College. She has several publications in the fields of machine learning and communication networks and is passionate about teaching and working with college students. As a long-time housemaster at MIT, she has gained extensive experience in student life. She lives in Cambridge with her husband and three children. Outside of her professional life, she volunteers at her children's schools. She served on the Board of trustees of Shady Hill School for six years, served on the founding school committee of the Center of Arabic Culture, and spends her free time cheering and supporting her children's sports team.

Invited Speaker



Prof. Dr. Alan Mantooth

Distinguished Professor, The Twenty-First Century Research Leadership Chair in Engineering
University of Arkansas, United States

Wednesday, 21 October · 10:15 AM – 11:00 AM · Online

BIO: H. Alan Mantooth received the B.S.E.E. and M.S.E.E. degrees from the University of Arkansas, and the Ph.D. degree from Georgia Tech. He spent 8 years at Analogy, a startup company in Oregon. He then joined the faculty of the Department of Electrical Engineering at the University of Arkansas, Fayetteville, where he currently holds the rank of Distinguished Professor. He also holds the 21st Century Research Leadership Endowed Chair in Engineering. His research interests now include analog and mixed-signal IC design & CAD, semiconductor device modeling, power electronics, power electronic packaging, and cybersecurity. Dr. Mantooth is the Executive Director of the UA Power Group and has helped to establish several federally-funded centers of excellence at the UA. He is a Past-President of the IEEE Power Electronics Society (PELS) and currently serves as Founding Editor-in-Chief of the IEEE Open Journal of Power Electronics and Division II Director on the IEEE Board of Directors. Dr. Mantooth is a Fellow of IEEE, a member of Tau Beta Pi, Sigma Xi, and Eta Kappa Nu, and registered professional engineer in Arkansas.

Invited Speaker



Eason Teong Yee Xun

Education Revolution and Talent Ecosystem in Embodied AI Era

Agibot, China

BIO: Eason Teong Yee Xun is a Solutions Architect director in education industry at AGIBot, a Shanghai-based leader in humanoid robotics and embodied AI. He works with enterprises, institutions and partners to design and deliver robotics solutions, bridging the gap between frontier technology and real-world deployment. In the education sector, he partners with schools and education providers to develop humanoid robotics learning programmes and experiences, giving students hands-on exposure to embodied AI and the skills it demands. He is driven by a belief that the next generation should not only use intelligent machines, but understand, question and build them, and that education is where this future begins.

Invited Speaker



Prof. Dr. Munther Dahleh

Professor of Electrical Engineering and Computer Science, MIT, USA

Tuesday, 20 October · 10:15 AM – 11:00 AM · Auditorium L

BIO: Munther Dahleh is the William A. Coolidge Professor in Electrical Engineering and Computer Science (EECS) and a member of MIT's Laboratory for Information and Decision Systems (LIDS). Dahleh was the founding director of the Institute for Data, Systems, and Society (IDSS), serving from July 1, 2015 to June 30, 2023. He was previously the associate department head of EECS.

Prof. Dahleh joined LIDS as an assistant professor of EECS in 1987 and became a full professor in 1998. He spent the spring of 1993 as a visiting professor in the Department of Electrical Engineering, California Institute of Technology, and has held consulting positions with several companies in the U.S. and abroad.

Prof. Dahleh is internationally known for his fundamental contributions to robust control theory, computational methods for controller design, the interplay between information and control, the fundamental limits of learning and decision in networked systems, and the detection and mitigation of systemic risk in interconnected and networked systems.

Tutorials, Panels and Special Sessions

Day	Time	Type	Title	Venue	Speakers
Sunday, 18 October 2026	09:00–12:00	Tutorial	From Earth's Climate History to Future Impacts and Engineering Challenges	GJU Main Campus · tutorial room to be confirmed	Prof. Dr. René Sonnenberg
Sunday, 18 October 2026	13:00–16:00	Tutorial	Using IT/AI Tools for modernising and accelerating development process in industrial automation	GJU Main Campus · tutorial room to be confirmed	Kusay Tomeh Assoc. Prof. Jumana Ma'touq
Tuesday, 20 October 2026	12:15–13:00	Panel	Jordan Design and Development Bureau (JoDDB) panel.	Auditorium L	Eng. Radi Wardat
Tuesday, 20 October 2026	13:45–16:45	Tutorial	Quantum Communications, Quantum AI, and Quantum-Safe Cybersecurity: Foundations, Technologies, and Future Directions	H105	Dr. Khaled Qaraqe Dr. Yazan Al-Badarneh Prof. Mohammad Abu Ruz Eng. Rula Ammuri

Special Events and Co-located Events

Startup Alley — 19 October 2026

Startup Alley is GJU's platform for connecting Jordan's startup ecosystem with investors, industry leaders, and the wider ICFT 2026 community, powered by Startup Grind Amman × German Jordanian University and held with Parachute16. Early-stage Jordanian startups exhibit, pitch live on the Showcase Panel, and meet curated investors.

Day program

Session	Topic	Speakers
Session 01	Future of Education	Rami Karmi, Nidal Khallifeh, Ahmad Saif, Ala'aldeen Alhalhouli
Session 02	Do's and Don'ts in Startups	Omar Taweel (Lawyer), Wael Atteli (Kharabeesh), Raed Mdanat (Turab VC), Shahed Jaber (Aumet, CEO of Dermacore.ai)
Session 03	Investors Panel	Eras Majdoubeh (Silicon Badia), Hasan Shami, Tamer Salah (Endeavor), Faisal Hakki (Arab Bank), Manaf Asfour

Industry Partnership Conference (IPC) — 20 October 2026

IPC is GJU's platform for connecting industry, academia, government, and international partners to build strategic collaborations in applied research, consultancy, product development, innovation and commercialization, and talent development. Matchmaking is organized around six sectors, each led by GJU experts:

- Advanced Manufacturing
- Chemical & Pharmaceutical Industries
- Digital Transformation & AI
- Sustainable Technologies & Energy
- Entrepreneurship & Innovation Ecosystems
- Workforce Development & Dual Education

SMART 2026 — 18–21 October 2026

The Fourth International Conference on Sustainable Mobility Applications, Renewables and Technology runs alongside ICFT at GJU. ICFT covers AI, robotics, smart manufacturing, and digital transformation, while SMART focuses on sustainable mobility, renewables, and related green technologies, under a shared program of 10+ keynotes. Details: <https://smart-conf.com>

Gala Dinner

An Evening of Celebration, Connection, and Excellence

The **ICFT 2026 Gala Dinner** will bring together conference participants, distinguished guests, researchers, academics, industry representatives, and partners for a special evening of celebration and networking.

The dinner will take place on the **second day of the conference, 20 October 2026**, at the **Le Royal Hotel Amman Hotel**. It will provide an opportunity to continue the conversations and connections established throughout the conference in a relaxed and elegant setting.

Date: 20 October 2026

Time: 6:00 PM

Venue: Le Royal Hotel Amman Hotel, Amman

Dress Code: Formal / Business Formal

Guests are invited to enjoy an evening of fine dining and meaningful conversations while celebrating the achievements, collaborations, and shared experiences that make ICFT 2026 a memorable gathering.

Gala Dinner Tickets

Gala Dinner tickets can be purchased through the [ICFT 2026 official website](#). Participants who wish to attend are kindly encouraged to secure their tickets in advance.

We look forward to welcoming you to an unforgettable evening and celebrating together in the heart of Amman.



Optional Trip to Petra

Discover the Rose-Red City of Petra

As an optional cultural experience, ICFT 2026 participants will have the opportunity to visit **Petra**, one of Jordan's most iconic landmarks and a UNESCO World Heritage Site.

The trip will be offered on the **last day of the conference** and is available to participants for a **separate fee**. This optional excursion provides an opportunity to explore the remarkable archaeological site of Petra, experience one of Jordan's most celebrated destinations, and enjoy a memorable cultural experience beyond the conference.

Date: 22 October 2026

Fee: Separate fee applies

Participants interested in joining the trip are encouraged to register in advance through the **ICFT 2026 official website**, subject to availability.

We invite you to take this opportunity to discover Petra and experience a remarkable part of Jordan's history and cultural heritage.

Information for Presenters

At least one author must register for each accepted paper. One author registration covers one paper.

Oral Presenters

ICFT 2026 will feature **parallel technical sessions**. Presenters are kindly requested to check the final program in advance and arrive at their **assigned session room before the session begins**.

- **Presentation Duration:** Each oral presentation will have **10 minutes for the presentation, followed by 5 minutes for questions and discussion**.
- **Presentation Format:** Presentations should be prepared in **PowerPoint (PPT/PPTX) or PDF** format.
- **Presentation Slides:** Presenters should have their presentation files ready before entering the session room.
- **Session Room:** Please make sure to attend the room assigned to your paper as indicated in the final program.
- **Technical Check:** Presenters are encouraged to arrive before the beginning of their session to ensure that their presentation is ready and to familiarize themselves with the available equipment.
- **Session Chairs:** Session Chairs will receive a briefing on the session procedures, timing, and moderation guidelines before the conference.

Presenters are kindly requested to **strictly adhere to the allocated presentation time** to ensure the smooth operation of all parallel sessions.

Online Presenters

ICFT 2026 encourages **in-person participation**. Remote presentation arrangements, where applicable, will be communicated directly to approved online presenters by the organizing team.

Online presenters will receive the necessary connection details and technical instructions in advance. They are requested to join the online session **before the scheduled start time** to allow sufficient time for technical checks.

Further information regarding the online platform, connection procedure, and technical requirements will be provided to approved online presenters before the conference.

Important Notes

- Please keep your personal belongings with you at all times. The conference organizers are not responsible for any loss, or damage to personal belongings.
- Please wear your conference badge visibly at all times during the conference. The badge is required for access to conference sessions, activities, and designated areas.

Special Sessions

Each special session is run by its organizers and includes peer-reviewed papers aligned with the ICFT themes. Papers accepted to each session are listed in the Accepted Papers section.

Humanities, Culture, and Education in the Age of Future Technologies (HCE-FT 2026)

Organizers

- Prof. Dr. Monika Pietrzak-Franger, University of Vienna, Austria (Honorary Chair)
- Dr. Bassmah B. AlTaher, German Jordanian University (Organizer, primary contact)
- Prof. Dr. Gordon Mitchell, German Jordanian University (Organizer)
- Dr. Amani Alsarhan, University of Jordan (Co-Organizer)
- Dr. Juhaina Al-Issawi, Middle East University (Co-Organizer)

Focus

Critically examines how artificial intelligence and digital technologies reshape culture, language, identity, and learning, emphasizing human-centered, ethical, and interdisciplinary approaches that bring the humanities together with technological innovation for inclusive and socially responsible digital futures.

Accepted papers: 23. Scheduled: Monday, 19 October · 1:45–3:00 PM (Auditorium H, parallel with 2 other tracks)

Accuracy Beyond Specs: Strategies for High-Accuracy Positioning in Industrial Robots

Organizers

- Prof. Dr.-Ing. Frank Schrödel, Hochschule Schmalkalden, Germany
- M.Eng. Venkata Prashanth Uppalapati, Hochschule Schmalkalden, Germany

Focus

Improving robot positioning precision beyond standard specifications through calibration, sensor feedback, advanced control, and AI-based error compensation for high-precision industrial tasks.

Panel session: “Automated Assembly of Pogo Pin Connectors Using a Mecademic M500 Robot”, Dr. David Sommer, SCS Robotik, Schmalkalden, Germany.

Accepted papers: 9.

Sociomorphic Systems: Collective Cognition, Social Embeddedness, and Adaptive Robotics

Organizers

- Prof. Dr. Jürgen Graf, Trier University of Applied Sciences, Germany
- Prof. Dr. Stefan M. Schulz, University of Trier, Germany
- Prof. Dr. Rami Alazrai, Abdullah Al Salem University, Kuwait
- Assoc. Prof. Dr. Sahar Qaadan, German Jordanian University

Focus

AAAI Community Featured Special Session. Explores collective cognition, socially embedded robotics, neuroadaptive human–robot interaction, and trustworthy intelligent systems for real-world human environments. The session also celebrates the inauguration of the AAAI Jordan Chapter.

Accepted papers: 8.

Trustworthy and Secure AI for Critical Infrastructure

Organizers

- Dr.-Ing. Loui Al Sardy, FAU Erlangen-Nürnberg, Germany
- Prof. Andrea Ceccarelli, University of Florence, Italy
- Dr.-Ing. Uwe Koser, AUDI AG / FAU, Germany

Focus

Security and trustworthiness of AI systems in critical infrastructure, including smart grids, autonomous systems, and industrial automation.

Accepted papers: 7

Next-Generation Intelligent Algorithms Powered by Quantum Computing (NGIA-QC 2026)

Organizers

- Dr. G. Jasper W. Kathrine, Karunya Institute of Technology and Sciences, India
- Dr. J. Dinesh Peter, Karunya Institute of Technology and Sciences, India
- Dr. S. Salaja, Karunya Institute of Technology and Sciences, India
- Dr. Venkatesan, Karunya Institute of Technology and Sciences, India
- Dr. Anitha J, Karunya Institute of Technology and Sciences, India
- Dr. M. Mythily, Karunya Institute of Technology and Sciences, India
- Dr. D. Brindha, Karunya Institute of Technology and Sciences, India

Focus

Bridges quantum computing and intelligent algorithms to address scalability and efficiency challenges, using hybrid architectures and quantum-enhanced methods for practical, high-impact applications.

Accepted papers: 4. Scheduled: Monday, 19 October · 3:30–5:00 PM (Room H, parallel with 2 other tracks)

Hydrogen Technologies and Whole-Energy-System Integration: Technical Advances, Policy Frameworks, and Societal Dimensions (H2-WES 2026)

Organizers

- Dr. Adib Allahham, Northumbria University, Newcastle upon Tyne, UK
- Prof. Dr. Hani Muhsen, German Jordanian University
- Prof. Dr. Arnulf Hörtnagl, Technical University of Applied Sciences Würzburg-Schweinfurt, Germany

Focus

Integration of hydrogen technologies into future sustainable energy systems: production, storage, transport, sector coupling, and applications across power, industry, and mobility, plus the policy, regulatory, market, and societal dimensions of hydrogen deployment.

Accepted papers: 3.

Heritage-Led Recovery for a Resilient and Sustainable Future

Organizers

- Dr. Omaimah Ali, German Jordanian University
- Dr. Leen Fakhoury, German Jordanian University
- Prof. Dr. Naif Haddad, Hashemite University, Jordan
- Prof. Dr. Abir Arkawi, Damascus University / AIU University
- Dr. Giulia Annalinda Neglia, Polytechnic University of Bari, Italy

Focus

How heritage conservation, adaptive reuse, and digital technologies can support resilient and sustainable recovery, highlighting community participation and local knowledge.

Accepted papers: 4.

Technical Program: Accepted Papers

206 accepted papers are scheduled across 47 paper sessions (7 regular tracks and 11 special sessions).

Monday, 19 October 2026

Session 1 — FinTech, Blockchain and Secure Digital Transformation (Finance, Enterprise & HR Analytics Focus)

13:45–15:00 · Room H101

Time	ID	Title / Authors
13:45–13:57	#203	Gold Price Prediction Using Machine Learning: A Leakage-Free, Walk-Forward Validated Approach Own Alansari (nawah)
13:57–14:09	#294	A GA-Optimized Weighted Ensemble Framework for Credit Card Fraud Detection with SHAP-Based Explainability Basel Abudari (Universitat Politècnica de València); Majsja Ammouriova and Angel A. Juan (German Jordanian University)
14:09–14:21	#258	An Analytical Framework for Characterizing and Predicting Operational Budget Execution from ERP Financial Data Feras Al-Hawari (German Jordanian University)
14:21–14:33	#88	Enhancing Risk Profiling and Border Management Performance using Agentic Artificial Intelligence and Smart Customs Operations Omar Shubailat (German Jordanian University)
14:33–14:45	#48	AI-Based Resume Screening with Bias Detection Raushan Kumar (GALGOTIAS UNIVERSITY); Abhijeet Mishra and Meenakshi Sharma (Galgotias University)
14:45–14:57	#198	PRISM: AI-Based Behavioural Recruitment System Nivedha S, Swathi D, Quba Jaslin C, and Kiruba Wesley (St.Joseph's college of Engineering)

Session 2 — Autonomous Robotics, drones and Intelligent Platforms Track (Manipulation & Human-Centred Autonomy Focused)

13:45–15:00 · Room H102

Time	ID	Title / Authors
13:45–14:00	#158	Investigating the Impact of Non-Driving Related Tasks on Situation Awareness and Workload in Level 4 Automated Driving: A Pilot Study Tamer Yared and Saif Al-Zyoud (German Jordanian University)
14:00–14:15	#325	Temporal Granularity of Physiological State Representations for Adaptive Assistance: A Preregistered Reanalysis of Cardiovascular Recovery - final Stefan Schulz (Trier University)
14:15–14:30	#336	LLM-guided object search on QBot3 Abdelrahman Lubbad , Waleed Abublan, Adham Alsharkawi (University of Jordan)
14:30–14:45	#22	Intelligent Drone-Based Photogrammetry for Cultural Heritage Documentation Basim Mahmood and Zohair Al-Ameen (University of Mosul); Julia Schnitzer (Brandenburg University of Applied Sciences)

Session 3 — Biomedical Circuits, Smart Sensing and Digital HealthTrack (A Diagnostic Deep Learning & Omics Focused)

13:45–15:00 · Room H103

Time	ID	Title / Authors
13:45–14:00	#100	Hybrid CNN–VQC for Brain Tumor MRI Classification P Sree Manvitha (B V Raju Institute of Technology)
14:00–14:15	#222	A Hybrid Deep Learning and Texture Feature Fusion Framework for Automated Osteoporosis Classification from Knee Radiographs Srinithi S (St.Joseph's college of engineering); Shifrah Carnelian J and Domilin Shyni I (St.Joseph's College Of Engineering)
14:15–14:30	#279	DermaVision: Transfer Learning for Cancer Classification in Clinical Skin Images Bayan Takruri and Rayan Reno (British Scientific School); Hamed Abdelhaq (An-Najah National University)
14:30–14:45	#305	BioDEG: Streamlining Gene Expression Analysis and Biomarker Identification Tala Abdelhadi (Al Hussein Technical University); Ahmad Barghash (German Jordanian University)

Session 4 — Power Electronics, Smart Energy Systems and StorageTrack (Energy Forecasting & Battery Health Prediction Focused)

13:45–15:00 · Room H104

Time	ID	Title / Authors
13:45–14:00	#40	Cross-Border Electricity Exchange Patterns in Germany: An Exploratory Forecasting Framework Under Renewable Energy Penetration Abrar Al-Wahaibi (Jordan University of Science and Technology); Mohammad Al-Smadi (University of Detroit Mercy); Sahar Qaadani (German Jordanian University); Myrel Tiemann (University of Wuppertal); Haneen Altartouri (Fujairah University); Aiman Alshare (German Jordanian University)
14:00–14:15	#123	Hybrid Deep Learning-Based Frequency Forecasting Algorithms for BESS Operation Systems Marcel Hallmann (Hochschule Magdeburg-Stendal); Przemyslaw Komarnicki (Magdeburg-Stendal University of Applied Sciences)
14:15–14:30	#239	Comparative Evaluation of Machine Learning Models for Short-Term Solar Energy Forecasting Using Public Meteorological Data: A Case Study of Jordan Sameer Altawabini (Alhussein Technical University); Faris Altawabini (Applied Science Private University)
14:30–14:45	#303	Reliability-Informed SOH Prediction for LFP Batteries: A Comparative Study of Statistical, Ensemble, and Neural Approaches Hazem Arar and Sahar Qaadani (German Jordanian University); Benedikt Schmölling and Alexander Popp (University of Wuppertal); Aiman Alshare (German Jordanian University)

Session 5 — Circuits, Embedded Systems, IoT and Hardware Security Track (5G/6G Networks, Free-Space Optics & Field Measurements Focused)

13:45–15:00 · Room H105

Time	ID	Title / Authors
13:45–14:00	#151	OptiLeak: A Low-Cost Optical Sensing System for Heat Exchanger Leak Detection Natheer Almtireen, Mohannad Khader, Meera Arabiyat, Mohammad Harb, Ghaith Al-Refai, and Mutaz Ryalat (German Jordanian University)
14:00–14:15	#300	Robust Free-Space Optical Video Transmission Using Frame Synchronization, Convolutional, and Punctured Turbo Coding Raed Mesleh, Joice Sweiss, and Bashar Alshami (German Jordanian University)
14:15–14:30	#307	Physical-Layer Security Enhancement of Underlay Cognitive Radio Networks Over Generalized $\alpha - \mu$ Fading Channels Using Artificial Noise Injection Ayat M. Alrjoob (German Jordanian University); Rami Mohaisen and Mohammad Muhaisen (Jordan University of Science and Technology); Omar Fayed (King Fahd University of Petroleum and Minerals); Mamoun F. Al-Mistarihi (Jordan University of Science and Technology); Khalid Darabkh (School of Engineering, The University of Jordan); Ala Khalifeh (German Jordanian University)
14:30–14:45	#87	Measurement-Driven Analysis of Resource Allocation Dynamics in Private 5G Standalone Networks Under Progressive Multi-UE Load Ashuqullah Alizai, Mohammad Reza Mousavi, and Stephan Ludwig (Hochschule Aalen)
14:45–15:00	#179	Learning-Free Hierarchical Joint Estimation of AoA, Pointing Error, Receiver Jitter, and Turbulence in Multi-Aperture FSO Systems Mahtab Dashtbozorgi and Meysam Ghanbari (Hamad Bin Khalifa University); Rula Ammuri (Professionals for Smart Technology); Mazen Hasna (Qatar University); Khalid Qaraqe (Hamad Bin Khalifa University)

Session 6 — AI, Machine Learning and Edge Intelligence Systems Track (AI for Transport, Urban & Environmental Risk Focused)

13:45–15:00 · Room H106

Time	ID	Title / Authors
13:45–14:00	#289	Training-Free Vision–Language Framework for Sidewalk Pedestrian Behavior Recognition Ahmed Alia (Forschungszentrum Jülich); Abdallah Al-harrem (AnONajah National University); Yassir Fri (Mohammed VI Polytechnic University)
14:00–14:15	#252	EAD-Net: Edge-Aware Detection Network for Micro-Object Detection in Extreme-Altitude UAV Surveillance Mohammad Bany Taha (The American University of Madaba)
14:15–14:30	#236	Grounding computational urban perception: a multimodal computer-vision and remote-photoplethysmography framework for street-level perception mapping Omairah Ali, Sereen Elamairh, Thekra Al-Banawi, and Batool Alofaishat (German Jordanian University)
14:30–14:45	#255	OlluM: A Bilingual Context-Aware Conversational AI Assistant for Arabic-English Interaction in Oman Dr. Rajani Gupta (UTAS Suvar), Yashvir Antil (JATO APP)
14:45–15:00	#183	Machine Learning-Based Flood Risk Mapping for Urban Planning in African Secondary Cities: A Geospatial Case Study of Akure, Nigeria Peter Idowu (Osun State Polytechnic, Iree)

Session 7 — Accuracy Beyond Specs: High-Accuracy Positioning in Industrial Robots Special Session

13:45–16:00 · Auditorium L

Time	ID	Title / Authors
13:45–14:00	#172	Real-Time Trajectory Execution of a KUKA KR6 R900 via RSI and RoBO-2L: From MATLAB Simulation to the Physical Robot Nick Tiz (Bochum University of Applied Sciences); Jan Falkenhain (Bochum University of Applied Sciences); Rolf Biesenbach (Bochum University of Applied Sciences)
14:00–14:15	#164	A Multi-Sensor Framework for Precision Robotic Laser Engraving Using 2D Laser Profilometry and Vision Venkata Prashanth Uppalapati (Hochschule Schmalkalden); Daniel Garten (GFE GmbH Schmalkalden); Frank Schrödel (Hochschule Schmalkalden)
14:15–14:30	#274	Machine Learning and Deep Learning-Based Predictive Maintenance in CNC Machines Amera Brash (Al-Quds Open University), Yousef Sabbah (Birzeit University, Al-Quds Open University)
14:30–14:45	#231	Design and Development of a Cost-Effective High-Sensitivity Tactile Probe for a 6-Axis Robot Arm Niranjan Ramesha ,Muralidhar Appana, Nikhil Meduri, and Frank Schrödel (Schmalkalden University of Applied Sciences)
14:45–15:00	#173	Modified Depth-Aware IBVS for Precise Robotic Applications Using Dual-Regime Gain Control and Few-Shot Detection via Backbone Freezing Jayabadrinath Krushnan, Sahith Kalisetty, and Frank Schrödel (Hochschule Schmalkalden)
"Automated Assembly of Pogo Pin Connectors Using a Mecademic M500 Robot" by Dr. David Sommer - SCS Robotik , Schmalkalden, Germany		

Session 8 — Hydrogen Technologies and Whole-Energy-System Integration Special Session

15:30–17:30 · Room H202

Time	ID	Title / Authors
15:30–15:45	#327	Competition or Coordination? A Cooperative Game-Theoretic Perspective on Hydrogen Integration Pathways for Great Britain Adib Allahham (Mathematics, Physics, and Electrical Engineering), Sara Louise Walker (University of Birmingham)
15:45–16:00	#193	AI-Assisted Optimal Siting of Green Hydrogen Projects in Jordan Using a Multi-Layer Renewable Energy Dashboard Hani Muhsen (German Jordanian University), Mohammad Alghweri (German Jordanian University) Rashed Tarawneh (German Jordanian University)
16:00–16:15	#347	Hydrogen Supplementation Effects on Lubricants in Dual-Fuel Internal Combustion Engines Ahmad AlFetyani (University of Lancashire), Homer Rahnejat (University of Lancashire)

Session 9 — AI, Machine Learning and Edge Intelligence Systems (Explainable, Efficient & Multimodal Vision Focused)

15:30–17:30 · Room H101

Time	ID	Title / Authors
15:30–15:45	#246	Beyond Heatmaps: A Quantitative Multimodal Explanation for Image Classification Mona Al-Nemrawi, Leen Masa'deh, Ban Al-Qudah, and Ahmad Alzu'bi (Jordan University of Science and Technology)
15:45–16:00	#240	Exploring Quantization for Efficient 3D Object Recognition Nour Shanak (AAUP); Mohammad Jubran (Birzeit University)
16:00–16:15	#219	Opportunities and Challenges in Explainable Artificial Intelligence (XAI): A Survey Mohammad Ahmad (University of Bedfordshire); Mohammad Arafah (University of Petra); Kholoud Nairokh (GJU)
16:15–16:30	#253	Quality-Aware Deep Learning for Ear Presentation Attack Detection Using ConvNeXt V2 Esraa Alqaralleh (Applied Science Private University), Ayman Afaneh (Luminus Technical University College)
16:30–16:45	#127	Real-Time Indian Sign Language Interpretation Using MediaPipe, MobileNetV2 and LSTM Shalini VSR Maraju and Shereesha M (B V Raju Institute of technology Narsapur)
16:45–17:00	#93	Criminal Face Identification Using YOLOv9 and ArcFace Metric Learning Jyoti Kushwaha (medicaps university)
17:00–17:15	#207	An Explainable Multi-Stage Deepfake Detection Framework Using Digital Forensics and Deep Neural Networks Osama Al-Rousan , Faisal Abunameh, Nadia al-rousan , and Mahmoud Al-Sarayreh (German Jordanian University)
17:15–17:30	#287	WiFi CSI-Based In-Vehicle Occupant Counting: Impact of Sensor Location and Cross-Location Generalization Wael Ejkhidem and Mustafa Alshawaqfeh (German Jordanian University)

Session 10 — Circuits, Embedded Systems, IoT and Hardware Security (AI-Enabled Embedded Sensing & Assessment Systems Focused)

15:30–18:30 · Room H103

Time	ID	Title / Authors
15:30–15:45	#102	GNU Radio Framework for Deep Learning Autoencoder Chipless RFID Tag Recognition and IoT LoRaWAN Network Interface Kimberley Gehron and Mohamed El Hadidy (RheinMain University of Applied Sciences)
15:45–16:00	#147	Supervised Machine Learning for Real-Time Audio-Based Pet Detection in IoT Automated Door Systems Ruba Egbaria and Emad Natsheh (An-Najah National University)
16:00–16:15	#308	HydroSense: A Low-Cost AI-Based Leak Detection System for Plastic Water Pipes Talal Jaber, Layan Darwish, Hasan Zeineddin, and Dima Zeidan (German Jordanian University)
16:15–16:30	#204	An AI-Enabled Autonomous Chessboard with Recovery-Aware Motion, Occupancy Sensing, and Sparse Calibration Suleiman Abu Kharmeh, Emad Natsheh, Mohammad Abu Kamla, and Maen Thaher (An-Najah National University)
16:30–16:45	#298	An Agent-Based Model for Manual Date Fruit Grading: Establishing a Performance Benchmark for Human Inspection Abdullah Malahmeh, Aisha Abul Dahab, Mahmoud Varouqa, and Safwan Altarazi (German Jordanian University)

Session 11 —Circuits, Embedded Systems, IoT and Hardware Security (Industrial Communication & Smart-Factory Embedded Systems Focused)

16:45–17:45 · Room H103

Time	ID	Title / Authors
16:45–17:00	#180	A Platform-Independent Bare-Metal IEEE 802.1AS gPTP Library for Deeply Embedded Devices Dominik Welte, Manuel Schappacher, Kedar Naik, and Axel Sikora (Offenburg University of Applied Sciences)
17:00–17:15	#278	Energy Efficiency and Power Signal Behavior in a Smart Factory Testbed: Effects of Carrier Count, Robot Speed, and Workpiece Release Sequence Hisham ElMoaqet (German Jordanian University); Yazan Eltojbjy (German Jordanian University)
17:15–17:30	#232	Experimental Feasibility Study of Ethernet, Wi-Fi, and 5G for Geometric Monitoring in Laser Wire-Feed Metal Additive Manufacturing Mohammad Abuabiah (An-Najah National University)
17:30–17:45	#134	Intelligent Multimodal Audio Feedback for an IO Link Industrial Signal Light Baraa Al-Omaishat (German Jordanian University); Albert Dorneich (Balluff GmbH); Mariam Wajdi (German Jordanian University)

Session 12 — FinTech, Blockchain and Secure Digital Transformation Track (Anomaly, Intrusion & Malware Detection Focused)

15:30–15:00 · Room H102

Time	ID	Title / Authors
15:30–15:45	#42	SHAP-Guided Feature Reduction for IPS Event Categorization SM Mozammel Hossain (University of New Brunswick); Phil Munz (TrojAI); Kenneth B. Kent (University of New Brunswick)
15:45–16:00	#117	An Attention-Based CNN-BiLSTM Framework with Chaotic Greylag Goose Optimization for IoT Cybersecurity and Intrusion Detection Reyaz Basha Shaik (Visa); Fayaz Basha Shaik (Cisco); Sengole Merlin (Strategic Education Inc); Aparna Renganathan (Optum); Vigneshwaran Ganesan (T-Mobile); Giriprasad S (Dr. N.G.P. Institute of Technology)
16:00–16:15	#44	LLM-Augmented Ensemble Learning for Android Malware Analysis and Leave-One-Family-Out Zero-Day Evaluation raneem alkurdi (Yarmouk University); Anas AlSobeh (Utah Valley University); Tom Imboden (Southern Illinois University)
16:15–16:30	#63	Resource-Aware Edge AI for Anomaly Detection in Containerized Microservices Yanal Idrees (PSUT); Sawsan Alshattnawi (Yarmouk University)
16:30–16:45	#174	Comparative Evaluation of Machine-Learning Algorithms for Vibration-based Anomaly Detection in Roller Bearings for Industrial Fans Varun Chebbi and Jan-Christian Kuhr (Hochschule Stralsund); Mustafa Shawaqfeh and Ahmad Almuhtady (German Jordanian University)

Session 13 — Autonomous Robotics, drones and Intelligent Platforms (LLM Agents, RAG & Intelligent Platforms Focused)

15:30–18:30 · Room H104

Time	ID	Title / Authors
15:30–15:45	#223	AI-Powered Multi-Agent Document Intelligence Platform for Enterprise Automation Bhavana Vijayan (Bhavana Vijayan); I Domilin Shyni (St.Joseph's College Of Engineering)
15:45–16:00	#227	An Explainable Multi-Agent AI Framework for Intelligent Research Assistance with Research Gap Detection and Reviewer Recommendation KEERTHIKA ANANTHAN (St. Joseph's College of Engineering)
16:00–16:15	#243	MAPLE: Profit-Aware Online Admission Control for Edge LLM Inference Ammar Gharaibeh (German Jordanian University); Ashraf Gharaibeh (GJU)
16:15–16:30	#101	Secure Multi-Tenant RAG Based Intelligent Document Query System Sai Naga Vamsi Krishna Musti, Kenchali Shivaji Rao, Myadarapu Thrineth, Pinnam Sankeerthana, Maloth Gopi Chand Nayak, and Lanke Pallavi (B V RAJU INSTITUTE OF TECHNOLOGY)

Session 14 — Sociomorphic Systems: Collective Cognition and Adaptive Robotics Special Session

15:30–17:30 · Auditorium G

Time	ID	Title / Authors
15:30–15:42	#187	Sociomorphic Systems: On the Nature, Necessity, and Architecture of Collective Cognitive Machines Jürgen Graf (Trier University of Applied Sciences)
15:42–15:54	#138	From Track IDs to Persistent Identities Jürgen Graf (Trier University of Applied Sciences), Marcel Sauber (Trier University of Applied Sciences)
15:54–16:06	#237	Psychophysiological Stress in Care Teams Jürgen Graf (Trier University of Applied Sciences), Stefan Schulz (University of Trier)
16:06–16:18	#157	Physics-guided Imitation Learning for Reactive Robot Navigation in Non-Convex Obstacle Geometries Ahmad Al-Khammash (German Jordanian University), Sahar Qadan (German Jordanian University) Mohammad Al-Smadi (University of Detroit Mercy)
16:18–16:30	#137	Constraint-Aware Arm–Hand Manipulation on the Unitree G1: Hardware Implementation and Experimental Evaluation Jürgen Graf (Trier University of Applied Sciences), Leon Rößner (Trier University of Applied Sciences)
16:30–16:42	#181	Physico-Geospatial Grounded Scene Interpretation for Mobile Robotics Nicolas Schuler (Trier University of Applied Sciences), Janik Kurtz (Trier University of Applied Sciences) Lea Dewald (Trier University of Applied Sciences), Marcel Sauber (Trier University of Applied Sciences) Félicia Teferle (University of Luxembourg), Jürgen Graf (Trier University of Applied Sciences)
16:42–16:54	#192	Conflict in Motion: Temporal Markers of Driver Attention and Control in Mixed-Traffic Encounters Shrishti Jagtap, Raksha Puthran, Maximilian Wolkersdorfer, Thomas Lachmann, and Omar Jubran (Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau)
16:54–17:06	#276	Mapping Neural Signatures of Place: Passive-BCI Companion for Perceptual Learning in Jordanian Heritage Environments Sereen Elamaireh (German jordan university); Ikrima Amaireh (German Jordan University)
17:06–17:18	#260	Contactless Respiratory Rate Estimation Using Landmark-Guided Nasal and Oral Thermal Signals Sameer Ahmad Hasan, Laith Haimur, and Anas Suyyagh (German Jordanian University)
17:18–17:30	#76	A Self-Supervised Contrastive Learning Framework with Explainable AI for Early Brain Tumour Detection in MRI Divya S, Bhadri Prabhu K, Dhanasri B, Dhanushree S (Bannari Amman Institute of Technology)

Tuesday, 20 October 2026

Session 15 — FinTech, Blockchain and Secure Digital Transformation Track (Human-Centred Threats: Phishing, Deepfakes & AI Misuse Focused)

13:45–15:00 · Room H101

Time	ID	Title / Authors
13:45–14:00	#202	PhisHunter: Context-Aware Email Phishing Detection with Psychological Manipulation Analysis Priyadharsan A, Elakkiya E, and Mithunraj G R (St. Joseph's College of Engineering)
14:00–14:15	#282	Predicting User Susceptibility to Social Engineering with Machine Learning Noora Odeh, Abdallah Rashed, and Emad Natsheh (An-Najah National University)
14:15–14:30	#334	X-DVGNNet: An Explainable CNN–Vision Transformer Framework for Deepfake Video Detection Akshay S, Mohammed Faiz Y, and K. Subha (St. Joseph's College of Engineering)
14:30–14:45	#122	Handling AI crimes And Misuse Abrar Ahamed, Hariharan V, and Varalakshmi K (St Josephs Institute of Technology)
14:45–15:00	#150	DeepTrace: A Unified AI Text Forensics Framework NAdia al-rousan (German jordanian univeristy)

Session 16 — AI, Machine Learning and Edge Intelligence Systems Track (AI in Education, Learning & Talent Platforms Focused)

13:45–15:00 · Room H102

Time	ID	Title / Authors
13:45–13:57	#81	DevBalance AI: An Integrated Academic Intelligence System for Adaptive Learning, Productivity Monitoring, and Burnout Prevention Vineetha Rani Kokutam, Asmitha K, Naveen K, Akhil M, and Vazed Ahmed (B V Raju Institute of Technology)
13:57–14:09	#171	SynapNotes: An AI-Enhanced Browser Extension for Web Annotation, Voice Notes, and Flashcard Generation AMJAD HAWASH, Jana Hassoun, and Shaymaa Snoubar (An-Najah N. University)
14:09–14:21	#199	Skill Swap - A Full Stack Web Application with AI Skill Matching Agent Raja Vaishnavi Nariboyina, Sunitha B, Pranavi Patlolla, Prarthana Chintawar, Sravya Pole, and Pallavi Lanke (B.V.Raju Institute of Technology)
14:21–14:33	#38	Development of a Conceptual Information Exchange Model between a LXP and an Agile Production System Jonas Zimmermann, Daniel Menschulin, Patrick Timm, and Fabian Behrendt (Magdeburg-Stendal University of Applied Sciences)
14:33–14:45	#143	Algorithmic Accents and AI-Mediated English Language Coaching: Perceptions of Linguistic Imperialism and Identity Performance through Chatbot Discourse Dina Hammouri (Applied Science Private University); Ohood Al-Nakeeb and Rose al-Hawamdeh (Al Hussein Technical University)
14:45–14:57	#216	Generate, Verify, and Repair: A Constraint-Aware Framework for Automated EARS-Based Software Requirements Generation Touseef Tahir (University of Roehampton London); Tahreem Ahsan (comsats university islamabad); Mohammad Ahmad (University of Bedfordshire); Kholoud Nairokh (GJU)

Session 17 —Circuits, Embedded Systems, IoT and Hardware Security Track (IoT & Industrial Threat Detection Focused)

13:45–15:00 · Room H103

Time	ID	Title / Authors
13:45–14:00	#64	Robust IoT Threat Detection: A Multi-Layered Approach for Known and Zero-Day Attack Classification Jawaher Alsaket and Muhannad Quwaider (JUST); Ashraf Mashaleh (BAU)
14:00–14:15	#91	Toward Resilient Industrial IoT Security: A Drift-Adaptive, Energy-Efficient Hybrid Edge–Cloud Deep Learning Framework with Robust Federated Consensus. santosh kalshetty (d y patil international university)
14:15 –14:30	#195	Detector-Dependent Security Effects of Denoising Autoencoder Sensor Repair under Missing Industrial IoT Data Nmair Uais and Ghaith Al-Arab (German Jordanian University); Jürgen Graf (Trier University of Applied Sciences); Sahar Qaadani (German Jordanian University)
14:30–14:45	#213	Unstable but Harmless: Feature Redundancy Explains the Non-Transferability of SHAP-Derived Feature Subsets in Flow-Based Intrusion Detection Mahmoud Altarifi (Independent Researcher)
14:45–15:00	#301	A Measured Latency Budget for Closed-Loop Edge Malware Defense: Classification, Simulated Containment, and Self-Healing on BODMAS and EMBER-2018 Zelal Mehmetoglu , Rania Alhalaseh , and Mohammad Abbadi (American University of Madaba (AUM))

Session 18 — Biomedical Circuits, Smart Sensing and Digital Health (Digital Health Systems & Data Security Focused)

13:45–15:00 · Room H104

Time	ID	Title / Authors
13:45–13:55	#89	Blockchain Based Secure Healthcare Data Sharing Using Smart Contracts Raj Kumar Gupta (JIMS Engineering Management Technical Campus Greater Noida)
13:55–14:05	#108	Secure Digital Health Record System with Consent-Based Access Control Menda Thanusree (BV Raju Institute of Technology, Narsapur)
14:05–14:15	#133	Non-Functional Requirements Classification for Remote AI-Assisted Self-Triage Applications Yousra Odeh (Al-Zaytoonah University of Jordan)
14:15–14:25	#281	A Deep Transformer Model to Detect Systemic Hypertension in Sleep Apnea Patients Using PPG Signals Hisham ElMoaqet, Ghassan Aljayyousi and Rami Janini (German Jordanian University)
14:25–14:35	#283	Predicting Systemic Hypertension in Sleep Apnea Patients: A Machine Learning Approach Using Electrocardiogram Signal. Hisham ElMoaqet and Rami Janini (German Jordanian University)
14:35–14:45	#140	Molecular Prognosis: Machine Learning and R Programming Language-Based Prediction and Treatment of Cardiovascular Disease Muhammad Ibtasam (Government Collage University of Hydrabad)

Session 19 — Special Session Trustworthy and Secure AI for Critical Infrastructure

13:45–15:30 · Auditorium H

Time	ID	Title / Authors
13:45–14:00	#36	RUSE: A Risk-Based Framework for Modeling AI Uncertainty in Cyber-Physical Systems Natasha Edeh (Framatome GmbH)
14:00–14:15	#163	Solar Energy Under Threat: Cyber-Physical Security, Adversarial AI, and Grid Resilience in Photovoltaic Systems Siddique Reza Khan (GWC), Sadeque Reza Khan, PhD (Electronic Engineer, Edinburgh)
14:15 –14:30	#177	New Joint Cybersecurity - Channel Coding Scheme via Homeomorphism and Lattice Grids Anas Al-Rabadi (The University of Jordan)
14:30–14:45	#249	MemCapture: Event-Driven Machine Learning-Based Selective Memory Acquisition for Real-Time Digital Forensics Masa Al-Ansari ,Omar Ramahi and Salina Yamak (Al-Hussein Technical University), Fawaz Khasawneh and Eyad Taqieddin (Jordan University of Science and Technology)
14:45–15:00	#220	Adaptive Security Scanner Orchestration in CI/CD: An Empirical Comparison of Fixed, Heuristic, and Offline-LLM Planning Imran Al Munyeem (Nottingham Trent University); Mohammad Ahmad (University of Bedfordshire); Kholoud Nairokh (GJU)
15:00-15:30	#337	Towards Integrating Threat Modelling and Intrusion Detection in Cyber-Physical Systems Abdelkader Shaaban (Center for Digital Safety & Security AIT Austrian Institute of Technology), Mamdouh Muhammad (Friedrich-Alexander-Universität (FAU)),Christoph Schmittner (AIT Austrian Institute of Technology),Loui Al Sardy (Friedrich-Alexander-Universität (FAU))

Session 20 — Special Session Heritage-Led Recovery for a Resilient and Sustainable Future

13:45–16:30 · Auditorium G

Time	ID	Title / Authors
13:45–14:00	#340	Heritage under Urbicide: Everyday Life and Sumud in Hebron Old City Sana'a Abu Awwad (German Jordanian University),Omairah Ali (German Jordanian University)
14:00–14:15	#341	Heritage as a Catalyst for Post-Conflict Urban Recovery in Syria: Towards Safe Housing, Social Stability, and Resilient Communities Abir Arkawi(Damascus University)
14:15 –14:30	#339	Beyond Project Completion: A Persistence Framework for Heritage-Led Recovery in Historic Cities Affected by Conflicts Mohammad AlFar (German Jordanian University (GJU)),Omairah Ali (German Jordanian University (GJU))
14:30–14:45	#342	Heritage-Led Recovery: Linking Open Spaces to Social Resilience in Salt, Jordan Leen Fakhoury (German Jordan University)
14:45–15:00	#343	Water Infrastructure Led Recovery for Resilient and Sustainable Public Spaces and Heritage Sites Giulia Neglia and Roberto Simone (Politechnic University of Bari)
15:30-15:45	#344	Digital Capacity and Community Participation: The DCH Puglia Skills Lab Alessandra Scarcelli (Politechnic University of Bari)
15:45-16:00	#345	Towards a Strategic Framework Dialogue for Socio-Cultural Sustainability of Resilience and Digital Recovery: The Case of Historic Theatrical Complexes in Urban and Living Heritage Naif Haddad (Hashemite University),Leen Fakhoury (German Jordan University)

Session 21 —Biomedical Circuits, Smart Sensing and Digital Health Track (AI for Medical Imaging & Clinical Prediction Focused)

15:30–17:00 · Room H101

Time	ID	Title / Authors
15:30–15:45	#95	Automatic Volumetric 3D Medical Image Annotation using View Based Image Information Farhat Patel (Matoshri College of Engineering and Research Centre,Nashik); Varsha Patil (Matoshri College of Engineering & Research Centre)
15:45–16:00	#175	Adaptive Noise-Aware Preprocessing Algorithm for Improved Brain Tumor Detection in MRI Images Naveena Muthukrishnan (PSG College of Arts and Science)
16:00–16:15	#99	An Explainable AI-Powered Clinical Decision Support System Using Hybrid CNN-SVC and Large Language Models for Personalized Healthcare Mary Jasper Epsibha Robert (Chennai Institute of Technology)
16:15–16:30	#214	Comparative Study of Gradient Boosting Algorithms for Heart Disease Prediction Mohammed Sholi (An-Najah National University); Mohnish Vidyarthi and Shekhar Chander (JECRC University)
16:30–16:45	#221	Machine Learning in Dementia-Friendly Homes: Towards Robust AI-Driven Thermal Comfort Predictions for People with Dementia and Their Family Caregivers Ahmad Aladawi (Loughborough University); Mohammad Arafah (University of Petra); Mohammad Ahmad (University of Bedfordshire); Feda'a Al-Tawara (University of Petra); Kholoud Nairokh (GJU)

Session 22 — Power Electronics, Smart Energy Systems and Storage Track (Machine Learning for Engineering & Energy Prediction Focused)

15:30–17:00 · Room H102

Time	ID	Title / Authors
15:30–15:45	#185	Accurate Prediction of First Natural Frequency Using Spectral Collocation and Optimized Machine Learning Models Sameer Al-Dahidi and Ma'en S Sari (German Jordanian University)
15:45–16:00	#312	Physics-Informed Neural Networks for Spacecraft RUL Prediction Under Sparse Observations and Uncertain Radiation Environments muhamad Alrabi and Salma Alkurdi (German Jordanian University)
16:00–16:15	#329	AGWO-GA: Attention-Guided Grey Wolf Framework with Genetic Refinement Maria Yousef and Zaid Alhalhouli (Middle East University); Amjad Hudaib (University of Jordan); Ghayda Alhyasat (g.alhyasat@psut.edu.jo); Malak Ayoub (Zarqa University)
16:15–16:30	#136	A Hybrid Deep Learning Framework Integrating Multi-Modal Attention for Photovoltaic Power Forecasting Mobarak Abumohsen (University of Vigo); Amani Owda (AAUP); Majdi Owda (Arab American University); Ahmad Abumihsan (Universidade de Vigo)
16:30–16:45	#296	Building HVAC Load Prediction Using AI Techniques Aysar Yasin (An-Najah National University)

Session 23 — Circuits, Embedded Systems, IoT and Hardware Security Track (Wireless Sensor Networks & IoT Connectivity Focused)

15:30–17:00 · Room H103

Time	ID	Title / Authors
15:30–15:45	#182	LoRa Mesh Wireless Network: Multi-Source Single-Destination Model Analysis and Performance Evaluation Medyen Albarari (German Jordanian University (GJU)) and Ala khalifeh (German Jordanian University (GJU))
15:45–16:00	#263	Stabilizing the Coati Optimization Algorithm (COA): A Robust Energy-Efficient Clustering and Routing Protocol for Large-Scale IoT Wireless Sensor Networks Khalid Darabkh and Muna Al-Akhras (School of Engineering, The University of Jordan); Ala' Khalifeh (German Jordanian University),Iacovos Ioannou (University of Cyprus)
16:00–16:15	#310	Performance Analysis of Social Network Search (SNS) for Controller Placement in Dynamic SDN-IoT Networks Rami Mohaisen and Mohammad Muhaisen (Jordan University of Science and Technology); Omar Fayez (King Fahd University of Petroleum and Minerals); Ayat M. Alrjoob (German Jordanian University); Mamoun F. Al-Mistarihi (Jordan University of Science and Technology); Khalid Darabkh (School of Engineering, The University of Jordan); Ala Khalifeh (German Jordanian University)
16:15–16:30	#322	A Lightweight Speed-Test Framework for Communication Channel Assessment in IoT Devices Ala Khalifeh (gju), Omar AbuOmar (GJU), Iacovos Ioannou (Neapolis University Paphos),Khalid A. Darabkh (The University of Jordan)
16:30–16:45	#144	Deterministic Analysis of Embedded Radio Altimeter Susceptibility to 5G C-Band Exposure motaz Al-Hamarsheh and Lena Abu-El-Haija (German Jordanian University)

Session 24 — Autonomous Robotics, Drones and Intelligent Platforms Track (Autonomous Ground Vehicles & Mobile Robots Focused)

15:30–17:00 · Room H104

Time	ID	Title / Authors
15:30–15:45	#159	Development and Initial Validation of a ROS 2 High-Level Control Architecture for a Full-Scale Autonomous Electric Vehicle Omar Aldabbas, Ibrahim Hjeij, Ahmad Hanoun, and Tarek Tutunji (Al Hussein Technical University)
15:45–16:00	#170	A Modular ROS 2 / Gazebo Harmonic Simulation Framework for Ackermann-Steered Autonomous Ground Vehicles: Lane Keeping, Sign Recognition, and Intersection Negotiation on a 2014 Kia Soul Platform Ahmad Hanoun (Al Hussein Technical University)
16:00–16:15	#66	An Educational Mobile Robot Platform for Real-Time Object Detection, Stereo Depth Estimation, and Parking Assistance Ghaith Al-refai (German Jordanian University)
16:15–16:30	#96	Classical-to-Learned Perception for a Real-Time Camera-Based Line-Following Robot Mutaz Ryalat (German Jordanian university); Omar Al-Shishani, Mutaz Al-Momani, Gaith Al-Refai, Natheer Almtireen, and Hisham ElMoaqet (German Jordanian University)

Session 25 — FinTech, Blockchain and Secure Digital Transformation Track (FinTech, Financial Risk & Compliance Focused)

15:30–17:00 · Room H202

Time	ID	Title / Authors
15:30–15:45	#156	Stock Trend Prediction in the Brazilian Equity Market Using Fundamental Indicators: A Comparative Study of Random Forest, XGBoost and CatBoost Walter Horta Motta Filho (ITA)
15:45–16:00	#129	A Two-Lens Retrospective Validation of the Latent Systemic Fragility and rSPACE Frameworks Through Documented Financial Infrastructure Failures Viren Meghani (Pace University)
16:00–16:15	#128	An Integrated Framework for Compliance-Aware Engineering in Regulated Enterprise Viren Meghani (Pace University)
16:15–16:30	#280	Beyond Parseability: A Multi-Level Evaluation Framework for AI-Generated Data Contracts Waleed Abuzaina and Hamed abdelhaq and Moamin Abughazaleh (An Najah University); Ghulam Mudassir (University of Buckingham); Henry Muccini (L'Aquila University)
16:30–17:00	#155	Recovering a Typed Register Map from Passive Modbus RTU Observation: A Reproducible Method Validated on a Commercial Energy Meter Adnan Kujovic and Rahamatullah Khondoker (Technische Hochschule Mittelhessen)

Session 26 — AI, Machine Learning and Edge Intelligence Systems Track (Robust Visual Detection: Agriculture, Low-Light & Thermal Imaging Focused)

15:30–17:00 · Room H106

Time	ID	Title / Authors
15:30–15:45	#205	Plant Disease Detection For Tomato & Potato Leaves In The Golden Age of AI Mohammad Obiedat, Maryam Alghoshah, and Mahmoud Al-Sarayreh (German Jordanian University); NAdia al-rousan (German jordanian univeristy)
15:45–16:00	#244	Evaluating Cross-Region Generalization of DenseNet121 for Olive Leaf Disease Classification Maryam Alghoshah (German Jordanian University)
16:00–16:15	#206	A Lightweight, Decoupled Enhancement Pipeline for Low-Light Object Detection: An Empirical Study on the ExDark Benchmark Rana Alrahaifeh (German Jordanian University); NAdia al-rousan (German jordanian univeristy); Mahmoud Al-Sarayreh (German Jordanian University)
16:15–16:30	#248	Comparative Analysis of Visible–Thermal Fusion Levels for Low-Light Pedestrian Detection Mahmod Al-Sarayreh, Omran Shtiwi, Abdulqader Dada, and Nadia AL-Rousan (German Jordanian University)
16:30–16:45	#186	Repository-Specific Stylistic Conformance as a Measure of AI Coding Agent Reliability Haya Samanaa (An Najah National University)
16:45–17:00	#348	An AI-Based Hybrid Pipeline for Automated Extraction of Borehole Information from Geotechnical Reports Rabee Al-Gharableh (Technische Hochschule Mannheim)

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Session 27 — Circuits, Embedded Systems, IoT and Hardware Security Track (Vision-Based Industrial Inspection & Recycling Focused)

11:30–13:00 · Room H101

Time	ID	Title / Authors
11:30–11:45	#67	Stage-Wise Evaluation of YOLOv11s for PCB Surface Defect Detection: Input, Backbone, Neck, Head, and Inference-Level Modifications Yasmin Alhendawy, Ramez Al-Masadeh, and Ghaith Al-refai (German Jordanian University)
11:45–12:00	#313	Automated PCB defects detection using OV20i AI camera Anas Atieh (German Jordanian University); Balaji Nammalvar (Michigan Technological University); Jeevan Devagiri (Overview AI); Nathir Rawashdeh (Michigan Technological University)
12:00–12:15	#326	PVision EL: Dual-Mode YOLO26-Based Photovoltaic Electroluminescence Defect Detection and Desktop Deployment Seif Al Zyoud, Bara'a Al-Omaishat, Leen Ibrahim, Bahjat Abu-Shaerah (German Jordanian University)
12:15–12:30	#79	Vision-Based Machine Learning Pipeline for Material Stream Characterization in Data-Driven Resource Recovery Ahmad Albadarin (German Jordanian University); Khaled Alzawahreh (Hashemite University); Omar Abulayla and Haitham Albadareen (German Jordanian University)
12:30–12:45	#212	Organic–Recyclable Waste Classification via VGG16 Transfer Learning Syed Mehr Ali Shah (Malaysian university of science and technology)

Session 28 —Autonomous Robotics, Drones and Intelligent Platforms Track (Aerial, Marine & Space Robotics; Multi-Robot Systems Focused)

11:30–13:00 · Room H104

Time	ID	Title / Authors
11:30–11:45		
11:45–12:00	#148	Venturi-Propelled, Sensor-Guided Autonomous Surface Vehicle for Environmental Monitoring Tasks Tarun Parmar (Kompass GmbH); Mayank Patil, Dharam Raj Chetry, Prashant Thommandra, and Frank Schrödel (Schmalkalden University of Applied Sciences); Olaf Mollenhauer, Sebastian Linß, and Ahmad Asmandar (Kompass GmbH)
12:00–12:15	#256	A Digital Twin-Based Framework for Communication and Coordination of UAV–AGV Systems in Heterogeneous Autonomous Environments Anum Iqbal and Sara Zain (National University of Science and Technology); Muhammad Saeed (ARENA2036); Matthias Kreimeyer (University of Stuttgart); Boris Eisenbart (Swinburne University of Technology)
12:15–12:30	#311	ROS 2-Simulation Based Active Fault-Tolerant Control for CubeSat-Oriented Robotic Manipulators: Joint Feedback Monitoring and Control Reconfiguration Murad Haimour and Omar AL-Maaitah (German Jordanian University)
12:30–12:45	#275	A Laboratory Feasibility Study of an Aerial, Ground, and Cloud Robotic Framework for Greenhouse Mapping, Cross Platform Navigation, and Plant Diagnostics Kareem Khraisat, Mohammad Othman, Mera Aljbour, and Mahmod Al-Sarayreh (German Jordanian University)

Session 29 —FinTech, Blockchain and Secure Digital Transformation Track (Digital Transformation: Data Protection, Blockchain & Smart Cities Focused)

11:30–13:00 · Room H105

Time	ID	Title / Authors
11:30 –11:45	#176	A Regulation-Aware AI-based Architecture for Data-Protection-Compliant Automation of Administrative Processes Paul Grimm (Darmstadt University of Applied Sciences); Jan-Torsten Milde (Fulda University of Applied Sciences); Dhiah el Diehn I. Abou-Tair (German Jordanian University)
11:45-12:00	#217	AutismChainBridge: Blockchain-Based Architecture for Secure Information Exchange to Support Pupils with Autism Muhannad Rashaideh (Independent Researcher); Mahmoud Artemi and Mohammad Ahmad (University of Bedfordshire); Kholoud Nairokh (GJU); Nadia Alfriehtat (Middle East University)
12:00-12:30	#114	Toward Smart Cities: 3D Cadaster as a Tool for Making 3D Smart City – The Case Study of Zarqa Yazid Hamodah (Digital Reality Corp), Omamah Ali (German Jordanian University)
12:30-12:45	#106	AI-Powered Smart Eco and Cultural Tourism Platform for Sustainable and Community-Driven Travel Kulakarni Vignesh, Maaz Ahmed, Koyyada Abhigna, and Konda Ajay (B V RAJU INSTITUTE OF TECHNOLOGY)
12:45-13:00	#9	Aegis-Protocol: Digital Media Integrity & Origin Verification System Using SHA-256 Hashing and LSB Steganography Rameez Shamalik, Vedant Salunkhe, Dipti Shinde, Suraj Jadhav, and Ritvick Ghule (MIT ADT)

Session 30 —AI, Machine Learning and Edge Intelligence Systems Track (Arabic Language Technologies & Cultural Heritage Focused)

11:30–13:00 · Room H106

Time	ID	Title / Authors
11:30 –11:45	#273	Fine-Tuning Vision-Language Models for Arabic Handwritten Text Recognition in Resource-Constrained Settings Hamed Abdelhaq and Amjad Awad (An-Najah National University); Mohammad Ateeq (iO Health)
11:45-12:00	#277	Question Answering on Palestinian History Using Context Retrieval and LLM Fine-Tuning Hamed Abdelhaq and Ruba Egbaria (An-Najah National University)
12:00-12:30	#149	Heritage-RestoreNet: A Context-Aware Diffusion Framework for the Digital Reconstruction of Damaged Archaeological Heritage in Jordan and Palestine Nadia al-rousan (German jordanian univeristy)
12:30-12:45	#165	Shared-Policy Deep Reinforcement Learning for Multi-Tethered-UAV Networks in 3D Urban Environments Mikail Erdem and Zain Ali (Hamad Bin Khalifa University); Yazan H. Al-Badarneh (University of Jordan); Meysam Ghanbari (Hamad Bin Khalifa University); Rula Ammuri (Professionals for Smart Technology); Mazen Omar Hasna (Qatar University); Khalid Qaraqe (Hamad Bin Khalifa University)
12:45-13:00	#23	Crash Severity Prediction and Injury Reduction Opportunities in Jordan: A Leakage-Resistant Machine Learning Study Sahar Qaadani, Omar Albatayneh, Dima A Husein Malkawi, and Aiman Alshare (German Jordanian University); Sherif Gaweesh (University of North Dakota); Mohammad Akhtar (Fahad Bin Sultan University)

Session 31 — Special Session Humanities, Culture, and Education in the Age of Future Technologies**11:30–17:00 · Auditorium H**

Time	ID	Title / Authors
11:00–11:15	#41	Media Framing and Personal Values as Drivers of Perceived Customer Experience: The Mediating Role of Boycott Intention in Jordan Marwa Thaher
11:15–11:30	#124	Evaluating the Translation of Islamic Terms by Artificial Intelligence Applications: Accuracy, Contextual Appropriateness, and Terminological Consistency Mahasen Altal (German Jordanian University), Hani Mohammad (German Jordanian University), Haytham Althawbih (German Jordanian University)
11:30–11:45	#319	Designing Micro-Credentials for Translator Education in the Generative AI Era Somia Qudah (Yarmouk University)
11:45–12:00	#139	Generative AI Model for Linguistic En-hancement in Applied English Programmes: A Conceptual Architecture for Adaptive Practice and Personalized Learning Dina Hammouri (Applied Science Private University)
12:00–12:15	#141	Beyond “Beoble” and “Boints”: Developing and Validating a Generative AI-Built Remedial Pronunciation Trainer with Individualised Feedback Ohood Al-Nakeeb (Al Hussein Technical University)
12:15–12:30	#142	Generative AI Dependency and Academic Performance in Higher Education: An I-PACE-Based Study of University Students in Jordan Rana AlBahsh (GJU)
12:30–12:45	#152	Pragmatic Ambiguity in AI-Mediated Academic Communication: A Qualitative Analysis of Student–Instructor Messages in Jordan Razan Al-Adwan (Al-Zaytoonah University of Jordan)
12:45–13:00	#161	The Impact of Using Generative Artificial Intelligence Tools on Enhancing Self-Directed Learning for Engineering Students: Trust and Privacy Concerns as Mediators Saly Khamis (An-Najah National University), Ramiz Assaf (An-Najah National University), Yahya Saleh (An-Najah National University)
13:45–14:00	#169	Generative AI and the Future of Creative Writing Pedagogy: Redefining the Role of the English Language Teacher Hena Iraqui (International Islamic University Malaysia (IIUM))
14:00–14:15	#189	Beyond Access and Skills: Generative AI Dependency, Geopolitics and Equity in Institutions of Higher Education in the Arab Region Amani Al-Serhan (University of Jordan)
14:15–14:30	#201	AI-Powered Design Thinking as an Approach to Enhancing Higher Education Pedagogy Nayfeh Al Qawasmi (UNRWA), Ahmad Tabieh and Juhaina Al-Issawi (Middle East University)
14:30–14:45	#245	Historical Fiction as a Pedagogy for Intercultural Reflection in the German–Jordanian University Context Waed Shakkouri (German Jordanian University), Gordon Mitchell (German Jordanian University)
14:45–15:00	#247	Generative AI as a Tool for Reflective Learning Waed Shakkouri (German Jordanian University), Luna Schwarzer (TU Berlin)
15:00–15:15	#250	AI-Driven Dynamic Public Transport Demand Prediction and Bus Route Optimization System Rameez Shamalik (MITADTU, School of Computing)
15:45–16:00	#257	Factors Influencing Palestinian University Students' Adoption of AI Tools for Academic Writing: A Technology Acceptance Model Approach tareq arda, Kifaya sabbah, ahmad jabbarin, and jihad al_sheikh (arab american university)
16:00–16:15	#346	Reconstructing Japanese Cultural Heritage through Ritual, Landscape, and Play Bassmah AlTaher (German Jordanian University)
16:15–16:30	#261	A Communication Engineering Framework for Human Signal Transmission Networks Mohamed El Hadidy (Hochschule RheinMain)

Time	ID	Title / Authors
16:30-16:45	#286	Faculty Members' Perspectives on Integrating AI Tools into Digital Education in Palestinian Universities Nadia Al-Sheikh, Abeer Abu Mayyaleh and Kifaya Sabbah (Arab American University - AAUP)
16:45-17:00	#291	The Role of AI Tools in Reshaping Instructional Practice: Insights from Palestinian Secondary School Educators Mirna Atalla, Danya Salameh, Yara Qafesheh and Kifaya Sabbah (Arab American University Palestine)
17:00-17:15	#130	Substitution Anxiety and Prosthetic Futures in the Age of AI Bayan AlAmmouri (The University of Jordan)

Session 32 — Circuits, Embedded Systems, IoT and Hardware Security Track (Embedded Monitoring, Sensing & Interactive Systems Focused)

13:45-15:00 · Room H103

Time	ID	Title / Authors
13:30-13:45	#262	Real-Time Wildfire Monitoring and Early Warning Using a Clustered ESP-NOW-MQTT IoT Architecture Khalid Darabkh and Batool H. Adawi (School of Engineering, The University of Jordan); Ala' Khalifeh (German Jordanian University); Iacovos Ioannou (University of Cyprus and CYENS Centre of Excellence)
13:45-14:00	#131	AI-Driven Public Safety Risk Prediction Framework for Crowded Smart Environments Osama Khashan (Rabdan Academy); Samar Mouti and Nour Khafajah (Liwa University)
14:00-14:15	#254	Through-Beam and Line-Scan Vision Leak Detection for Brazed Radiator Cores: A Sensitivity, Economic, and PLC Control Comparison Abdullah Abuzahiya and Mohannad Khader (GERMAN JORDANIAN UNIVERSITY)
14:15-14:30	#302	Interactive Embedded Technologies for Traditional Storytelling: Design and Experimental Evaluation of an Automated Puppet Theatre Lama Dwikat (An-Najah National University)
14:30-14:45	#259	Dual-MCU Communication Architecture for Real-Time Servo Control in Legged Robots: Diagnosing and Resolving I2C Bus Contention via UART Migration Abdullah Abuzahiya and Mahmoud AbuHamdah (GERMAN JORDANIAN UNIVERSITY)
14:45-15:00	#59	Robustness of Discrete-Action Deep Reinforcement Learning for Joint Channel Allocation and Power Control in Wireless Networks Jawaher Alsaket and Muhannad Quwaider (JUST)

Session 33 — AI, Machine Learning and Edge Intelligence Systems Track (AI Applications: Agriculture & Satellite Networks Focused)

13:45–15:30 · Room H101

Time	ID	Title / Authors
13:45–14:00	#62	Pixel-Level Plant Disease Segmentation from RGB Images: A Comparative Study of YOLOv11-seg, U-Net, and DeepLabV3 Omar Obeidat, Omar Al-Shishani, Hasan Al-Zoubi, and Ghaith Al-refai (German Jordanian University)
14:00–14:15	#80	AI-Based Plant Disease Detection with Expert Support System RAJESH KANNAN K (SRM INSTITUTE OF SCIENCE AND TECHNOLOGY)
14:15–14:30	#229	PlantXAI: Explainable Plant Disease Detection with Severity Assessment and Intelligent Recommendation KEERTHIKA ANANTHAN (St. Joseph's College of Engineering)
14:30–14:45	#268	A Global RGB Feature-Based Framework for Tomato Brown Rugose Fruit Virus Infection Classification Mahmod Al-Sarayreh, Ghaith Al-Refai, Marwan Alshawabkeh, and Areej Hussein (German Jordanian University)
14:45–15:00	#270	An Experimental Framework for VNIR Spectral and RGB Image Data Collection from Tomato Plants Inoculated with Tomato Brown Rugose Fruit Virus Ghaith Al-Refai, Mahmod Al-Sarayreh, Marwan Alshawabkeh, and Areej Hussein (German Jordanian University)
15:00–15:15	#97	QoS- and Physics-Aware Routing in Optical LEO Satellite Networks via Deep Reinforcement Learning Mohammadtaghi Dabiri and Meysam Ghanbari (hamad bin khalifa university); Rula Ammuri (Professionals for Smart Technology (PST)); Mazen Hasna (Qatar University); Khalid A Qaraqe (hamad bin khalifa university)
15:15–15:30	#191	Enhancing Arabic Dialect Retrieval with Structure-Aware Graph-Based RAG Rana Al Mahmoud (German Jordanian University)

Session 34 — FinTech, Blockchain and Secure Digital Transformation Track (AI for Marketing, Retail & Business Analytics Focused)

13:45–15:15 · Room H102

Time	ID	Title / Authors
13:45–13:57	#105	Retail Sales Analysis Model using Machine Learning Techniques Rima Alfreihat and Amjad Hudaib (University of Jordan)
13:57–14:09	#166	From Review Text to Marketing Signal: Leakage-Free and Interpretable Prediction of Amazon Review Helpfulness Salma Kassimi (Université Sidi Mohamed Ben Abdellah de Fès); Fayçal Messaoudi, Riad Loukili, and Manal Loukili (Sidi Mohamed Ben Abdellah University)
14:09–14:21	#167	A Pareto Deep Reinforcement Learning Framework for Multi-Objective Campaign Budget Optimization Salma Kassimi (Université Sidi Mohamed Ben Abdellah de Fès); Fayçal Messaoudi, Riad Loukili, and Manal Loukili (Sidi Mohamed Ben Abdellah University)
14:21–14:33	#90	PERFORMANCE EVALUATION OF YOLO VARIANTS FOR RETAIL STORE MONITORING Ashish Fatke, Shilpa Pimpalkar, Yash Garud, and Aditi Ghuge (AISSMSIOIT)
14:33–14:45	#218	Intelligent Multi-Agent Systems for Adaptive Marketing Optimization: A Structured Review of Techniques, Architectures, and Applications Ahmad Aladawi (Loughborough University); Kholoud Nairokh (GJU); Mohammad Arafah (University of Petra); Mohammad Ahmad (University of Bedfordshire); Mahmoud Altarifi (University of Rochester)
14:45–14:57	#160	Robustness of Spam Detection under Character-Level Obfuscation and Hybrid Semantic Escalation Haneen Altartouri (Fujairah University); Sahar Qaadani (German Jordanian University); Mohammed Hamdoun and Tasnim Dalloun (Fujairah University)
14:57–15:09	#242	Towards Intelligent DevSecOps: Integrating Static Analysis, LLMs, and Reinforcement Learning for Python Vulnerability Detection Saed Tarapiah (Najah National University); Linda Abbas (An-Najah National University); Oula Mardawi (An-Najah National University)

Session 35 — Biomedical Circuits, Smart Sensing and Digital Health Track (Wearables, Rehabilitation & Biomedical Devices Focused)

13:30–15:30 · Room H105

Time	ID	Title / Authors
13:45–14:00	#15	EMG Play: An Interactive Game for Muscle Rehabilitation Jumana Matouq, Izzeldeen Alshawwa, Fares Makhlof, Rama Alshammas, Katea Smaerat, Hamza Jafar, and Joud Nassar (German Jordanian University)
14:00–14:15	#35	SMART SIT: Low-Cost Portable System for Monitoring Prolonged Sitting Jumana Matouq, Montaser Oran, Fares Banimehem, Laith Obaed, and Rakan Alinaibsi (German Jordanian University)
14:15–14:30	#77	Transformer-Based Deep Learning Framework for MOSFET Parameter Extraction in Biomedical Sensor Interface Circuits ABINAYA S M and V SHEEJAKUMARI (SAVEETHA SCHOOL OF ENGINEERING)
14:30–14:45	#331	Integrated Multiple Electrodes for Differential Microfluidic Impedance Cytometry on Oocytes Osama Alalul, Jintian Liu, and Markus Böl (Technische Universität Braunschweig); Ala' aldeen Al-Halhouli (German Jordanian University); Andreas Dietzel (Technische Universität Braunschweig)
14:45–15:00	#230	Real-time Radiation Exposure Monitoring System Simulation on Node-RED Eliaana Masri and Ahmed Awad (An-Najah National University)
15:00–15:15	#330	Intelligent Sign Language Gloves Seema Abdalkareem, Jana Abdullah, and Sasha Shapsough (German Jordanian University); NADIA al-rousan (German jordanian univeristy)
15:15–15:30	#338	The Receiver is the Bottleneck: Phase-Coherence Input for Quantum-Classical EEG Motor-Imagery Decoding sahar Qadan, Oula Hatahet, Rami Alazrai, Aiman Alshare (German Jordanian university)

Session 36— Power Electronics, Smart Energy Systems and Storage (PV Systems, Drives, Hydrogen & Sustainable Materials Focused)

13:45–15:15 · Room H106

Time	ID	Title / Authors
13:45–14:00	#125	STANDALONE SOLAR-PV LOW VOLTAGE DC MICROGRID SYSTEM WITH HESS Vishnupreya K (Sri Krishna College of Engineering and Technology)
14:00–14:15	#299	Comparative assessment of solar radiation and temperature effects on Polycrystalline and Thin-Film PV technologies under outdoor conditions Mathhar Bdour (German Jordanian University)
14:15–14:30	#56	Wavelet-Based Multiresolution Analysis for Fault Detection in Nonlinear PMSM Drives: A Finite Element Study Ibrahim Allafi (Jordan University of Science and Technology); Mohammad Alathamneh and Haneen Ghanayem (Al-Balqa Applied University)
14:30–14:45	#45	Design and Validation of a Gas Permeation Unit for Hydrogen Separation Studies Paulo de Araújo (University of São Paulo (USP)), Jaqueline Savoia (University of São Paulo (USP)), Andrea Fernández (University of São Paulo (USP)), Morgana Rosset (University of São Paulo (USP)), Rita Alves (University of São Paulo (USP)), and Claudio Nascimento (University of São Paulo (USP))
14:45–15:00	#43	Evaluating the Operational Potential and Thermal Limits of High Performance Electrically Assisted Turbochargers in Mild Hybrid Sport Cars Fadi Shahatit, Shuruq Shawish, and Mohannad AlQwasmi (German Jordanian University)
15:00–15:15	#288	Comparative Assessment of Natural, Modified Natural, and Synthetic Catalysts for the Depolymerization of Organosolv Lignin Esra'a Alsaleh and Ziad Abu El-Rub (German Jordanian University); Marc Williams (Hochschule Bonn-Rhein-Seig)

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