



8th INTERNATIONAL CONFERENCE



**Women in
Data Science
Worldwide**

Riyadh
@Prince Sultan
University

مؤتمر المرأة في علم البيانات

April 13-14, 2025

Prince Sultan University, Riyadh
Building 105, Auditorium
Ground Floor

IEEE Eighth International Conference for Women in Data Science (WiDS)

Prince Sultan University, Riyadh
Building 105, Auditorium Ground Floor

April 13-14, 2025
Time Zone-KSA

Day 1- April 13, 2025	
08:30 AM	REGISTRATION
09:00 AM	WiDS at Stanford University, Margot Gerritsen , Executive Director
09:15 AM	Opening Message: Dr. Ahmed Yamani , President of PSU
09:30 AM	WiDS at Prince Sultan University: Dr. Heba Khoshaim , Vice President, Campus for Women, Executive Supervisor
09:45 AM	Elaine Grunewald , Future Outlook: AI & Sustainability, President, Tonomus Venture Studio and Chief Sustainability Officer
10:00 AM	Buthayna Al-Wehaibi , Trends and Predictions for the AI Era, Director of Partners and Sales Operations, CISCO
10:15 AM	SPARK CHALLENGE ANNOUCEMENT
Coffee Break (10:30 AM)	
10:45 AM	Noha Al-Harathi , Beyond Boundaries: Women Shaping the Future of Science, Industry & Emerging Technologies, Head of Emerging Technologies, NEOM
11:00 AM	Elham Dannoun , The Integration of AI-ChatGPT into Physics and STEM Education: Potential Benefits and Limitations, Vice Dean, College of Humanities and Sciences, Prince Sultan University
11:15 AM	Panel Discussion The Impact of Interdisciplinary AI on Employment, Business, Education, and Cybersecurity <ul style="list-style-type: none"> • Reem Alsuhaibani, Moderator, Assistant Professor of Computer Science & Software Engineering • Helene Panova, Head of Ecosystems, NEOM • Hala Al-Hejin, Director of Innovation and Commercial Partnerships, NEOM • Atheer Almogbil, Lead Principal Investigator, Cybersecurity Institute KACST
Poster Presentations - Lobby Building 105 (11:45-12:15)	
Break (12:15 PM – 01:00 PM)	
1: Conference Session (1) / Parallel (Auditorium Ground Floor (Building 105) Session Chair: Dr. Fatima Alshannaq, Assistant Professor, College of Computer & Information Sciences	
01:00 PM	The Next-Gen E-commerce Platform: Merging Vendor, Inventory, and Payment Gateway Solutions <ul style="list-style-type: none"> • Shifana Begum, Srinivas University, India
01:15 PM	Korpus.id: A Database-Driven Approach to Linguistic Annotation and Analysis <ul style="list-style-type: none"> • Suwanto Raharjo, • Ema Utami, and • Edhy Sutanta, Universitas AKPRIND Indonesia, Indonesia
01:30 PM	Time series analysis with machine learning for smart meter-based appliances categorization <ul style="list-style-type: none"> • Saeed Mian Qaisar and • Ugur Madran, Institute National Polytechnic of Grenoble and American University of the Middle East, France
01:45 PM	Credit Approval Scoring using Ensemble Learning <ul style="list-style-type: none"> • Rabia Qaisar, • Saeed Mian Qaisar, and • Abbas Malik, Institute National Polytechnic of Grenoble and American University of the Middle East, France
02:00 PM	The effect of leadership style on organizational performance: integrating emotional intelligence and artificial intelligence <ul style="list-style-type: none"> • Ali Kadhim Saddam and • Roya Anvari, School of Business and Administrative Studies, The University of Georgia, Tbilisi, Georgia
02:15 PM	Collaborative synergy between humans and artificial intelligence: impact on team performance <ul style="list-style-type: none"> • Roya Anvari and • Saba Khergiani, School of Business and Administrative Studies, The University of Georgia, Tbilisi, Georgia
02:30 PM	Affective Organizational Commitment and Artificial Intelligence Strategy in the Relationship between Emotional Intelligence, Effective Communication, and Organizational Performance <ul style="list-style-type: none"> • Ali Kadhim Saddam, • Roya Anvari, and • Rokhsareh Mobarhan, College of Industrial Management for Oil and Gas, Basra University for Oil and Gas, Basra, Iraq
WORKSHOP REGISTRATION & BREAK	
2: Conference Session (2) / Parallel (Auditorium First Floor (Building 105) Chair: Dr. Abeer Mirda, Assistant Professor, College of Computer & Information Sciences	
01:00 PM	Saudi Arabia's Vision 2030: Leveraging Generative Artificial Intelligence to Enhance Software Engineering <ul style="list-style-type: none"> • Elham Albaroudi, • Taha Mansouri, • Ali Alameer, and • Mohammad Hatamleh, University of Salford, Manchester, United Kingdom
01:15 PM	Generative AI-Enabled Virtual Twin for Meeting Assistants <ul style="list-style-type: none"> • Anupa Sajikumar, • Aiswarya Satheesh, • Parvathi P.K., • Akash Ranjan, • Umashankar Subramaniam, and • Divya Udayan, Amrita Vishwa Vidyapeetham, Amritapuri Campus, India

01:30 PM	Revolutionizing Healthcare Management through Artificial Intelligence: A Comprehensive Literature Review • Alaa Abdulrahman Mamieh, • Hiba Hatim Hummada Eltayeb, • Nadin Ahmed Mohammed Istaitia, • Zeina Omar Mallat, and • Siavash Hosseinpour Chermahini, School of Health Sciences, The University of Georgia, Georgia
01:45 PM	Unleashing the Power of AI Technologies for Enhanced Higher Education Process • Dr. Rasha A. Moussa, Architecture Department, Prince Sultan University, Saudi Arabia
02:00 PM	Intelligent Energy Management: Machine Learning-Based Electricity Consumption Prediction for Various University Buildings • Munirah Alanazi, • Norah Alkhamshi, • Raghad Alghaslan, • Hadeel Alsahly, • Alhanouf Aldossary, • Zuhaira Zain, and • Badr Aldaihani, College of Computer and Information Sciences, Princess Nourah bint Abdulrahman University, Saudi Arabia
02:15 PM	Building Trust in AI-Driven HR Systems • Aftab Ara and • Ali Khursheed Siddiqui, Assistant Professor, Business Department, University of Hail, Saudi Arabia
02:30 PM	Automatic Microaneurysm Segmentation for Early Diabetic Retinopathy Using A Modified Attention U-Net • Muhammad Zeeshan Tahir, • Mudassar Ali, • Wengan He, • Sanyuan Zhang, • Noor Ayesha, and • Samia Allaoua Chelloug, Department of Computer Science and Technology, Zhejiang University, Hangzhou, China
WORKSHOPS – PARALLEL SESSIONS (1:00 – 5:00 PM)	
Unlocking Automation: A Workshop on Robot Process Automation(RPA), AI Integration, and Hands-On Bot Building - Ashwag Shoubily, RPA Project Manager, & Nora Almutair National, RPA Developer; Public Investment Fund(PIF) (12:00-2:00 pm- G-A13)	
Accelerate your startup with Microsoft for Startups Founders Hub- Nawal Almuajel, Cloud Solution Architect, Tech Startups Microsoft (12:15-12:50 pm- Seminar Room)	
Cybersecurity Track	
Penetration Testing - Jerzy 'Yuri' Kramarz, Principal Engineer & Director Talos Incident Response Team, CISCO (12:00-12:50 pm- Auditorium first Floor)	
Bayan Barry, Cybersecurity Account Executive,CISCO (1:00-1:45 pm- Auditorium First Floor)	
Capture the Flag - Competition (Win Prizes) (2:00-5:00 pm- G-A13)	
Day 2- April 14, 2025	
3: Conference Session (1) / Parallel (Auditorium Ground Floor (Building 105) Chair: Dr. Najia Saqib , Associate Professor, College of Business Administration	
09:00 AM	EEG Processing for Brain-Computer Interface using Wavelet-Decomposition Ant Colony Optimization and Machine Learning • Saeed Mian Qaisar, Institute National Polytechnic of Grenoble and American University of the Middle East, France
09:15 AM	Wavelet decomposition with machine learning for PPG signal quality detection • Saeed Mian Qaisar, • Aristotelis Triantafyllopoulos, and • Tarek Khalifa, Institute National Polytechnic of Grenoble and American University of the Middle East, France
09:30 AM	Blockchain Technology in Malaysian Agriculture: A Bibliometric and Topic Modelling Analysis • Nor Hasliza Md Saad, • Kun Zhu, • Ghada Elsayad, and • Wai Peng Wong, School of Management, Universiti Sains Malaysia, Malaysia
09:45 AM	PPG Signal Processing and Artificial Intelligence-based Non-Invasive Diabetes Identification • Saeed Mian Qaisar, • Abdulhamit Subasi, and • Abdulmalik Khan, Institute National Polytechnic of Grenoble and American University of the Middle East, France
10:00 AM	Addressing Indoor Environmental Quality in an Educational Building in Saudi Arabia: A Case Study of the CAD College in Prince Sultan University-Female Campus • Ghada Najjar, • Donia Abdelgawad, and • Nora Aji, Prince Sultan University, Saudi Arabia
10:15 AM	Simulating Shadows and Solar Irradiance on Green Roofs: Analysis of Geometric Patterns Applying Hexagon Modules Fitted with Vertical Edge Fins • Deborah Middleton and • Steven Alexander, Dept Architecture, Xi'an Jiaotong-Liverpool University, China
10:30 AM	Smart Academic Advisors: Exploiting AI Chatbots as Virtual Advisors for Personalized Student Guidance • Eman Yaseen Khader, • Hanan Khader, • Sarah Naif Alotaiby, and • Sarah Ayad, AOU, Saudi Arabia
10:45 AM	Predicting Hospital Readmissions Using XLNet-BiGRU-Attention on Patient Clinical Notes • Anugrayani Bustamin, • Annisa Darwis, • Ingrid Nurtanio, • Tyanita Marindah, • Intan Sari Areni, and • Arliyanti Nurdin, Department of Informatics, Hasanuddin University, Makassar, Indonesia
11:00 AM	Multi-Tiered RAG-Based Chatbot for Mental Health Support • Sadia Siddique and • Fatimah Alsayoud, Arab Open University (KSA), Saudi Arabia
11:15 AM	Predictive Modeling of Drug Release from Liposomal Nano-Anticancer Drugs Using Advanced Machine Learning Techniques and TreeSHAP for Interpretability • Saba Shiranirad and • Zeynab Barzegar, Pharm.D., PhD candidate at Department of AI in Medicine, Iran University of Medical Science, Tehran, Iran
11:30 AM	Enhancing Low-Resolution Person Attribute Recognition through the Integration of Super Resolution and Attribute Learning • Ramin Abbaszadi and • Niayesh Gharaei, Ostim Technical University, Turkey
11:45 AM	A Review of Artificial Intelligence and Data Science in Shaping Sustainable Architecture • Amany Salman, Architecture Department, Prince Sultan University, Saudi Arabia
Lunch & Prayer Break	

4: Conference Session (2) / Parallel (Auditorium First Floor (Building 105) Chairs: Dr. Anees Ara, Assistant Professor, College of Computer and Information Sciences and Dr. Abrar Wafa, Assistant Professor, College of Computer and Information Sciences	
09:00 AM	Suhail The Guiding Star: A Sustainable Chatbot for Saudi Arabia Culture • Wahaj Saidam, • Lina Alnasi, • Sarah Ayman, • Rasha Alnaji Alqahtani, • Heyfa Ammar, and • Anis Koubaa, Prince Sultan University, Saudi Arabia
09:15 AM	Preserving Ghasiba's Heritage Site in Riyadh through Digital Tools and Modern Technologies • Monica Moscatelli, • Shams Aljarba, • Asmaa Alhadi, and • Shahad Alqahtani, Architecture Department, College of Architecture and Design, Prince Sultan University, Saudi Arabia
09:30 AM	Blending Generative AI and Traditional Pedagogy in Architecture and Engineering Education • Amal Abdelsattar, • Eman Abowardah, • Marwa Abdelalim, and • Wafa Labib, Prince Sultan University, Saudi Arabia
09:45 AM	Architectural education in the age of AI: A review and Future Directions: The case of CAD at PSU • Malathe Hamid, • Hala Sirror, and • Zeinab Alhassan, Prince Sultan University, Saudi Arabia
10:00 AM	Leveraging CNN-Transformer Hybrid Architecture for Accurate Breast Tumor Segmentation in Mammograms • Mudassar Ali, • Muhammad Zeeshan Tahir, • Iqra Mariam, • Khadija Nawaz, • Tariq Mahmood, and • Samia Allaoua Chelloug, College of Information Science and Electronic Engineering, Zhejiang University, Hangzhou, China
10:15 AM	The Art of Perception: Cross-Modality Learning for Accurate Tumour Segmentation in Breast Imaging • Mudassar Ali, • Iqra Mariam, • Kainat Wajahat, • Ghulam Murtaza, • Muhammad Awais, and • Muhammad Ahsan Qureshi, Walton Institute, South East Technological University, Waterford, Ireland
10:30 AM	Computationally Distinguishing Quran and Pre-Islamic Arabic Poetry • Md. Ahsanur Rahman and • Rushmila Shehreen Khan, North South University, Bangladesh
10:45 AM	Challenges in Underwater Video Data Processing • Amani Homoud, • Saptarshi Das, and • Stuart Townley, University of Exeter, United Kingdom
11:00 AM	Microscopy Image Analysis of Butterfly Wing and Moth Eyes using Statistical Feature Learning • Megan Lyons, • Saptarshi Das, and • Katie Shanks, University of Exeter, United Kingdom
11:15 AM	A Review of the Role of Urban Observatories in Manipulating Big Data and Ensuring Sustainable Urban Governance in Saudi Arabia & Middle Eastern Countries • Amani Derbali, • Salma Dwidar, • Amal Abdelsattar, • Hala Sirror, and • Donia Abdelgawad, Prince Sultan University, Saudi Arabia
11:30 AM	Towards Ergonomic Typing: Real-Time Typing Posture Classification on WatchOS • Fetoun Alzahrani, • Arwa Ghouti, and • Tanzila Saba, Artificial Intelligence and Data Analytics (AIDA) Lab, CCIS, Prince Sultan University, Saudi Arabia
11:45 AM	Leveraging Deep Learning for Cyberbullying Detection in Arabic Tweets • Fatima Alshannaq, • Sawsan Alhalawani, • Heba Al-Jarrah, and • Mohammad Shehab, College of Computer Sciences and Informatics, Amman Arab University, Jordan
Lunch & Prayer Break	
5: Conference Session (1) / Parallel (Auditorium Ground Floor (Building 105) Chair: Ms. Roohi Jan, Lecturer College of Computer & Information Sciences Director of Quality Assurance Centre, Deanship of Quality Assurance and Development, PSU	
01:00 PM	Immersive Classic Literature with VR: A Study of Emotional and Thematic Engagement Through Embodied Cognition • Orchida Ismail and • Amany Alkhayat, Columbia University, United States
01:15 PM	Predicting Timely Diagnosis of Metastatic Breast Cancer: A Stack Ensemble Classification Approach • Saima Jabeen, • Sajid Shah, • Mohamed A. Bahloul, • Ishrat Khan, and • Mohammed Elaffendi, EIAS Lab, CCIS, Prince Sultan University, Riyadh, Saudi Arabia
01:30 PM	From Soil to Skyline: Edible Insects and Big Data Analytics for Sustainable Construction in Smart Cities • Selma Hussein, • Abdalbasit Adam Mariod, • Randa A. Mahmoud, • Elkhawad Ali Elfaki, and • Ahmed Fathi Mohamed, PSU, Egypt
01:45 PM	Beyond Fear: Unleashing the Power of AI in Ethical and Psychological Growth • Tahira Hoke, Prince Sultan University, Saudi Arabia
02:00 PM	Adapting Artificial Intelligence Towards Managing Sustainable Construction • Wafa Labib and • Dr. Moayad Alhasan, Prince Sultan University, Saudi Arabia
6: Conference Session (2) / Parallel (Auditorium First Floor (Building 105) Chair: Prof. Fatima Azmi , Professor, College of Humanities and Sciences.	
01:00 PM	PERCEVO: AI-powered Smart Cane with Dynamic Object Recognition to Support People with Disabilities • Haifa Ammar Zeineddin, • Asma Vaheed Khan, • Raneem Alsoby, • Aisha Ashworth, • Anees Ara, and • Tanzila Saba, Department of Computer Science, Prince Sultan University, Saudi Arabia
01:15 PM	ClusterLDA: Clustering-Based Topic Extraction for Online News • Juan Kenichi Sutan, • Jumanah Alshehri, • Rafaa Aljurbua, and • Zoran Obradovic, Temple University, United States
01:30 PM	C.A.L.I.X: Leveraging Hybrid RAG for Responsible AI in the Medical Field • Muddassir Khalidi, • Zainab Mariya Mohiuddin, • Asma Vaheed Khan, • Arwa Bawazir, • Saeed Lababidi, • Abdul Rahman Mamdouh, • Tanzila Saba, and • Anees Ara, Prince Sultan University, Saudi Arabia
01:45 PM	Predictive Machine Learning Models for the Management of Pharmaceutical Drugs • Abeer Mirdad, Information Systems / Artificial Intelligence, Saudi Arabia
02:00 PM	Deep Learning Framework for Structural Faults Classification of a Nano Quadcopter • Zeashan Khan, • Shahad Jeza Alamri, • Rema Yasir Albarakati, • Shatha Turki Alsaidy, • Rawan Yasser Albarakati, • Salha Nasser Alyami, and • Samir Mekid, KFUPM, Saudi Arabia
CLOSING CEREMONY (02-30 PM)	