



ENGINEERING For Palestine

AGENDA

Engineering for Palestine

29/30 - SEP - 2025

Day 1: September 29, 2025 — Program Summary

08:00–09:30	Registration
09:30–11:00	Opening Session
11:00–12:00	Keynote Session I
12:00–12:30	Coffee Break
12:30–14:00	Parallel Sessions (PS11, PS12, PS13, PS14)
14:00–15:30	Poster Session and Lunch
15:30–17:00	Parallel Sessions (PS21, PS22, PS23)

Keynote Session I (11:00–12:00)

Location: Main Hall | **Chairs:** Prof. Maher Jabari, Dr. Ghandi Manasra

11:00–11:30 KS11: *Future of Transportation in Palestine: What Needs to be Done?* (ID: 149). Sameer Abu Aisheh, Khaled Al-Sahili, Nidal Aburajab

11:30–12:00 KS12: الورقة الوطنية للعلاقة بين الأكاديميا والصناعة نحو رؤية معرفية (ID 172). Zain ElAbideen Tahboub, Mahmoud Nassar, Mohamad Abu Eram, Khalid Tahboub

Session 1.1: Land Ownership and Surveying I (Hall 1)

Chairs: Dr. Ghadi Zakarneh, Dr. Ziad Qannam

12:30–12:50 PS111: *The Palestinian Land Administration: Challenges and Pathways to Modernization.* (ID 143). Ghadi Younis, Mutaz Qafisheh

12:50–13:05 PS112: *The Challenges Facing the Engineers Working in the Land Administration Sector and Ways to Address Them from Their Perspectives.* (ID 119). Ziad Qannam, Amara Abu Hawwash

13:05–13:20 PS113: *The Effects of the Israeli War on Land Ownership in Gaza Strip.* (ID 156). Walla Alkhayyat

13:20–13:35 PS114: *Assessing the Expansion of Quarries and Land Cover Dynamics Using Satellite Imagery and GIS in Hebron and Bethlehem Districts, Palestine.* (ID 39). Rahaf Abu-Jwaed, Mukarram Arafah, Nidal Aburajab

13:35–13:50 PS115: *Changes In Military Orders and Decisions and Their Impact on Land Ownership and Use in the West Bank.* (ID 128). Duaa AL-Tamimi

Session 1.2: Waste Management (Hall 2)

Chairs: Dr. Bilal Masri, Dr. Abdelrahim Abusafa

12:30–12:45 PS121: *Evaluation of Plastic Waste Recycling in the West Bank, Palestine.* (ID 57). Issam A. Al-Khatib, Ayah Alassali

12:45–13:00 PS122: *AI-Driven Multi-Class Waste Classification for Sustainable Recycling Infrastructure in Post-Conflict Zones Using CNN, IoT, and AR.* (ID 58). Divyajyothi M G

13:00–13:15 PS123: *Utilization of Recycled Materials in Concrete Production: Investigating the Mechanical Properties and Environmental Impact of Recycled Aggregate Concrete (RAC).* (ID 24). Omar Ahmad, Mohammad Sehwal

13:15–13:30 PS124: *Sustainable Biodiesel Production from Waste Cooking Oil Using Eggshell-Derived CaO Catalyst.* (ID 126). Leen Sous, Maysam Majadli, Sara Rabaya, Abdelrahim Abusafa

13:30–13:45 PS125: *Conversion of Municipal Solid Wastes into Fuels and Chemicals by Pyrolysis: Tulkarm Transfer Station as a Case Study.* (ID 122). Sabreen Ibrahim, Abdelrahim Abusafa

Session 1.3: Water and Sanitation (Hall 3)

Chairs: Dr. Nidal Mahmoud, Dr. Itissam Abuiziah

12:30–12:45 PS131: *Water Generation from Ambient Air Using Blue Silica Gel* (ID 106). Omar Nazzal, Micheal Hussary, Mohammad Hababeh, Afif Akel

12:45–13:00 PS132: *Geotechnical Assessment of Seepage and Rainwater Harvesting Feasibility at Beit Al Rush Earth Dam, Southwest Bank, Palestine.* (ID 52). Amjad Issa, Radwan El-Kelani, Isam Jardaneh, Ashraf Zaben

13:00–13:15 PS133: *Carbon Transformation in Biofouling During Membrane Filtration: A Review of Challenges and Solutions in Palestine.* (ID 41). Juhaina Albahri

13:15–13:30 PS134: *Optimizing Rotating Biological Contactor Technology for Sustainable Wastewater Treatment: A Case Study from North Gaza.* (ID 17). Amjad Mizyed

13:30–13:45 PS135: *A Novel Model for Assessing and Managing the Challenges in the Palestinian Water Sector.* (ID 104). Samah Jabari

13:45–14:00 PS136: *Investigating Water Harvesting Interventions for Enhanced Agricultural Resilience Amidst Geopolitical and Climate Challenges in Palestine.* (ID 87). Mutaz Qafisheh

Session 1.4: AI in Engineering Education (Main Hall)

Chairs: Prof. Karim Tahboub, Dr. Hashim Tamimi

12:30–13:00 PS141: *Generative AI: History and foundations.* (ID 173). Alaa Halawani

13:00–13:15 PS142: *HEAR: A Human-Centered AI Framework for integrating Retrieval-Augmented Generation into Engineering Education.* (ID 56). Haytham Hijazi

13:15–13:30 PS143: *Challenges of Teaching Software Engineering in the Age of AI: A Case Study from Birzeit University.* (ID 74). Mamoun Nawahdah

13:30–13:45 PS144: *Rethinking Engineering Education in the Age of GenAI: Policy Guidelines on Ethics, Integrity, Competency, and Evaluation.* (ID 165). Karim Tahboub

13:30–14:00 PS145: *Enhancing Software Engineering Education with Emotion-Aware AI Chatbots.* (ID 170). Hadeel Sawalha, Hadeel Jebara, Mamoun Nawahdah

Session 2.1: Urbanism and reconstruction I (Hall 1)

Chairs: Dr. Bader Alatawneh, Dr. Shireen Qadi

15:30–15:45 PS211: *Towards Sustainable Housing: Sample Design Strategies for Gaza.* (ID 77). Hiba Dofish, Bader Alatawneh, Aya Dofish

15:45–16:00 PS212: *Applying the 15-Minute City Theory Considering Context Specific Characteristics: Ramallah Metropolitan as a Case.* (ID 167). Shireen Qadi

16:00–16:15 PS213: *Reconstruction as a Catalyst for Security, Stability, and Urban Resilience: A Case Study of Murzuq.* (ID 108). Ahmed Alhodairi, Mohamed Al-Sharief

16:15–16:30 PS214: *Design Thinking for Humanitarian Urbanism: Interior Design Student Proposals for Post-War Recovery and Refugee Sheltering in Gaza.* (ID 111). Fatema Qaed, Reem Sultan

16:30–16:45 PS215: *Post-Conflict Reconstruction: Reimagining Khan Younis City Center, Gaza Strip.* (ID 83). Husam Shweik, Yasaman Gheidari, Amine Kocer

Session 2.2: Industry (Hall 2)

Chairs: Dr. Amjad Khalili, Dr. Mahmoud Nassar

15:30–15:45 PS221: *Examining the nexus: soft knowledge management, continuous improvement and Green Innovation through SEM approach.* (ID 168). Amjad Khalili

15:45–16:00 PS222: *Utilizing Digital Twin to reduce fault diagnosis time of a reconfigurable machine built on the concepts of Industry 4.0.* (ID 102). Bashir Salah, Sajjad Khan

16:00–16:15 PS223: *Predictive Modeling of CO₂ Emissions Based on Economic and Demographic Factors.* (ID 34). Abed ALRaouf Sharabati, Majdi Owda, Amani Owda

16:15–16:30 PS224: *Using a Hybrid ESG-BCG model to Guide Real Estate Strategy in Politically Fragile Markets: The Case of Palestine.* (ID 141). Aqeed Ghazal, Israa Amro, Muawia Ramadan

16:30–16:45 PS225: *Engineers' Needs for Achieving Effective Managerial Performance* (ID 84). Haneen Naser, Wasim Sultan

16:45–17:00 PS226: *Increasing Accuracy of Spur Gear by Gear-Shaving Operation.* (ID 13). Mohammed Hamdan

Session 2.3: Renewable energy I (Main Hall)

Chairs: Prof. Ahmed Abu Hanieh, Dr. Maher Maghalseh

15:30–15:45 PS231: *Implementation of a Modified PSO for MPPT Tracking in Partially Shaded PV Systems using PIC18F4550 in Proteus Software.* (ID 19). Jafar Jallad

15:45–16:00 PS232: *Economic Impact of Partial Shading on Solar PV System Real Case Study.* (ID 11). Sameer Khader, AbdelKarim Daud

16:00–16:15 PS233: *Real-Time Design and Analysis of a Hybrid Renewable Energy System (PV/Wind/Battery) for Self-Consumption Residential building.* (ID 32). Abdulhafiz A. Aqila, Yasser F. Nassar, ala J. El-Khozondar, Monaem Elm-nifi, Mohamed Khaleel, Sassi Rekik, Esmaeel Belal, Maher Al-Maghalseh, Rifa J. El-Khozondar

16:15–16:30 PS234: *Hybrid Unit: Photovoltaic Solar Panels and Biogas Digester for Domestic Energy Generation.* (ID 38). Ahmed Abu Hanieh, Afif Hasan

Day 2: September 30, 2025 — Program Summary

08:00–09:00	Registration
09:00–11:00	Parallel Sessions (PS31, PS32, PS33)
11:00–11:30	Brunch Break
11:30–13:00	Parallel Sessions (PS41, PS42, PS43)
13:00–13:30	Coffee Break
13:30–14:30	Keynote Session II
14:30–15:30	Closing Session (CS)
15:30	Lunch

Session 3.1: Cybersecurity (Hall 1)

Chairs: Dr. Liana Tamimi, Dr. Mousa Farajallah

09:00–09:15 PS311: *Mobile Forensics Solution for Cloud Permission Challenges: Xiaomi Smartphones Case Study.* (ID 33). Ammar Dawabsheh, Majdi Owda, Amani Owda, Raed Amayra, Hasan HajHamad

09:15–09:30 PS312: *OSMH: An Optimized Steganography Model for Healthcare CT Images Using AES Encryption and Adaptive Huffman Coding.* (ID 36). Rushdi Hamamreh, Ibrahim Hoshiya

09:30–09:45 PS313: *A Mixed Methods Case Study Exploring The Impact Of The Virtual Reality On Upper Extremity Function Post Stroke (LimbMotion).* (ID 92). Yaffa Jaradat, Shaima Ghaith, Mohammed Abutaha, Zeenat Mesk

09:45–10:00 PS314: *Simulating AI-Driven Social Engineering Attacks in Ethical Hacking Using Microsoft 365 Defender.* (ID 91). Yazan M. Abu Aisheh, Mousa M. Farajallah, Ibrahim R Al-Sharif

10:00–10:15 PS315: *An Analytical Study of Information Security Awareness in Palestinian Institutions in the West Bank.* (ID 68). Tahany Kmail, Mousa Farajallah, Ibrahim Al-Sharif

10:15–10:30 PS316: *Strategic Gap Analysis of Palestine Cybersecurity Performance in the Context of GCI, Kingdom of Saudi Arabia Cybersecurity Posture and Anti-Cybercrime Law, and Council of Europe Convention.* (ID 142). Amr Atrash, Mousa Farajallah, Ibrahim Alsharif, Nedal Shanti

10:30–10:45 PS317: *Legal Regulation of Ethical Hacking in Palestine: A Comparative Study with International Frameworks.* (ID 67). Marah Hawa, Mousa Farajallah, Ibrahim Al-Sharif

Session 3.2: Renewable Energy II (Main Hall)

Chairs: Dr. Nassim Iqteit, Dr. Jafar Jallad

09:00–09:15 PS321: *Management System for Sensitive Loads by Integration of Online UPS and Grid-Tie PV Source.* (ID 10). Sameer Khader, Jamal Sultan, Abdelwadood Sultan, Nassim Iqteit

09:15–09:30 PS322: *Static Analysis of Energy Storage Systems in Electric Vehicle Case Study: Lithium-Ion Battery.* (ID 7). Omnia Ali, Ahmed A. Hafez, Yasser Fathi Nassar, Hala J. El-Khozonda, Alaa A. Mahmoud

09:30–09:45 PS323: *Challenges of Electric Vehicle Adoption in Palestine: Barriers and Pathways for Market Penetration.* (ID 64). Zeedan Taha, Kadir Aydın, Tamer Atrash

09:45–10:00 PS324: *Radial Unified Grid versus Microgrids study case: Distressed Territories.* (ID 70). Mahmoud Ibrahim Mohamed, Ahmed A. Hafez, Abdullah Ibrahim Alsubaihi

10:00–10:15 PS325: *Optimal Configuration of Resilient and Reliable Hybrid Power System for Hassled Territories: Gaza Strip a Study Case.* (ID 78). Ahmed Ezzat, Alaa Mahmoud, Ahmed Hafez

10:15–10:30 PS326: *Vehicular energy electrification in Palestine oriented to enhance socio-economic development: A focus on solar electrical energy potential for powering PHEVs and EVs.* (ID 153). Momen Sughayyer, Diya Arafah

10:30–10:45 PS327: *Energy Innovative of Waste to Energy Enhancement in Palestine/Hebron Case Study.* (ID 154). Makawi Hraiz, Iyad Hashlamon, Dania Kurd, Yumna Allami

10:45–11:00 PS328: *The Impact of Using Phase Change Material as a Seasonal Energy Storage for Enhancing Thermal Performance of Residential Building's Envelope.* (ID 113). Bayan Iwidat, Khaled Tamizi

Session 3.3: Telecommunications and Information Technology (Hall 2)

Chairs: Dr. Murad Abusubaih, Dr. Anas Salhab

09:00–09:15 PS331: *The Telecom Sector in Palestine: Current Challenges and Solutions.* (ID 116). Murad Abusubaih

09:15–09:30 PS332: *An Efficient Post-Disaster Communication System: Performance Analysis and Optimization.* (ID 72). Khaled Alshehri, Anas Salhab, Ali Nasir

09:30–09:45 PS333: *Challenges and Prospects of E-Learning in Engineering Education: A Case Study from Palestinian Universities Post-COVID-19.* (ID 79). Wa'ed Salama, Haneen Dweik

09:45–10:00 PS334: *Boatnet Border Alert System for Fishermen: Enhancing Maritime Safety and Legal Compliance.* (ID 21). Bazeer Ahamed, Faheem Ahmad, Mohamed Gassali Fajlul Kareem, Nura Said Mohsin Alsaifi

10:00–10:15 PS335: *Estimating Insulin Dose for Diabetic Patients from Food Images Using Artificial Intelligence.* (ID 148). Asma Sbaih

10:15–10:30 PS336: *Enhanced Real-Time DDoS Detection and Mitigation in SDN Using ONOS Controller.* (ID 65). Bessan Irtaish, Mohammad M. N. Hamarsheh

10:30–10:45 PS337: *Fuzzy Inference System for Automated ECG Signal Classification: A Robust Approach to Cardiac Diagnostics.* (ID 35). Rushdi Hamamreh, Tarteel Seder

Session 4.1: Roads and Transportation (Main Hall)

Chairs: Prof. Khaled Al-Sahili, Eng. Nidal Aburajab

11:30–11:45 PS411: *Planning and Design of the First Tramway System in the Westbank Nablus City* (ID 160). Abdulrahman Rawajbeh, Husam Salameh, Sameer Abu Eishah

11:45–12:00 PS412: *Integrating Large Language Models for Traffic Crash Classification in Data-Constrained Regions.* (ID 163). Huthaifa Ashqar, Ahmed Jaber, Khaled Al-Sahili, Mujahid Ashqer, Fady Hassouna

12:00–12:15 PS413: *Towards a Walkable City: Evaluating the Design and the Physical Conditions of Urban Sidewalks in Nablus City Using GIS.* (ID 121). Emad Dawwas

12:15–12:30 PS414: *Agile Transportation Networks for Conflict-Affected and High-Risk Areas.* (ID 159). Yarah Basyoni

12:30–12:45 PS415: *Comparison of Road Geometric Design Standards in the Palestinian Guidelines with AASHTO from a Safety Perspective.* (ID 161). Deema Karajeh, Sameer Abu-Eishah

Session 4.2: Land Ownership and Surveying II (Hall 1)

Chairs: Dr. Mutaz Qafisheh, Dr. Sameh Monna

11:30–11:45 PS421: *Identification Of Risk Factors Affecting Infrastructure Projects In Complex Geopolitical Context: Application To Palestine* (ID 98). Muwafak AbuZeineh, Isam Shahrour, Maria Pastora Revuelta Marchena, A. Ramirez DE-Arellano, Mutaz Qafisheh

11:45–12:00 PS422: *The development of the Geodetic Reference Frame of Palestine (PAL-GRF2023)*. (ID 127). Ghadi Younis, Mutaz W. Qafisheh, Saed Ideas, Omar Abu Shara, Mohammad Maraheel

12:00–12:15 PS423: *Dust Pollution Assessment and Mitigation by Green Belts in BaniNa'im, Palestine – An Applied Environmental Research*. (ID 86). Mutaz Qafisheh, Ghadi Zakarneh, Mohanad Nassar, Rami Arafah

12:15–12:30 PS424: *GIS-Based Model for Land Appraisal in Palestine*. (ID 129). Ghadi Younis, Jana Rajabi

12:30–12:45 PS425: *Combining Survey and Satellite Data to Obtain Small Area Estimates of the USLE C-factor*. (ID 124). Abdulhakeem Eideh, Emily Berg

Session 4.3: Urbanism and Reconstruction II (Hall 2)

Chairs: Dr. Abdelrahman Halawani, Dr. Fajer Tawayaha

11:30–11:45 PS431: *Design and Implementation of a Fire Fighting System for a High-Rise Residential Building: A Case Study of SAMA Tower*. (ID 3). Mohammed Amer, Jihad Yaghmour

11:45–12:00 PS432: *Validating CFD Results of Natural Ventilation in Typical Patient Ward in Summer Using CO₂ Decay Method*. (ID 49). Shadi Maraqa, Andre De Herde, Geoffrey Van Moeseke, Francois Allard, Cecile Goffaux, Kevin Seau

12:00–12:15 PS433: *Foldable and Transportable House Unit: An Approach for a Socio-Environmental Model Design in Al-Araqib Village, Palestine*. (ID 75). Aya Dofish, Bader Alatawneh, Hiba Dofish

12:15–12:30 PS434: *Rebuilding Lives: An Assessment of Renovation Strategies for Temporary Shelters in Gaza*. (ID 89). Bara A. obayyat, B. M. Alatawneh, Dalia S. Jaddu'

12:30–12:45 PS435: *Evaluation of Pedestrian Wind Comfort in Contemporary Residential Complexes. Residential Complex Sample in Hebron – Palestine*. (ID 107). Abdallah Dweik, Abdelrahman Halawani, Maria Germana

Day 2 — Keynote Session II (13:30–14:30)

Location: Main Hall | **Chairs:** Prof. Mahmud Al Haddad, Dr. Yousef Sweiti

13:30–14:00 KS21: *Assessment of Water Crisis in Palestine: Resources, Challenges, and Practical Solutions.* (ID 171). Sameer Shadeed, Itissam Abuiziah, Nidal Mahmoud, Hassan Sawalha

14:00–14:30 KS22: *Recycling Demolition Debris into Sustainable Construction Materials: A Comprehensive Review Study.* (ID 151). Belal ALmassri, Bassam Tayeh, Fahed Qawasma, Ahmed Tamimi

Day 2 — Closing Session (14:30–15:30)

Session Title: Concluding Remarks and Recommendations | **Location:** Main Hall | **Chair:** Dr. Iyad Hashlamon

14:30–15:30 CS: *Engineering for Palestine Conference Concluding Remarks and Recommendations.* Scientific Committee

