



CONFERENCE PROGRAM

(Thursday, August 07, 2025)

Registration (08:30 HRS TO 09:00 HRS)

Venue: [Beside Block A](#)

Coordinator: Engr. M. Waqas Malik

Co-Coordinator: Engr. M. Ilyas

A) Main Session (09:00 HRS TO 10:15 HRS)

INAUGURATION (09:00 HRS TO 09:15 HRS)

Venue: [A1](#)

Session Chair: Dr. M. Usman Farooqi

Session Co-Chair: Engr. Iqbal Ahmed

Time	Activity
09:00 to 09:05	Opening and Recitation
09:05 to 09:10	Welcome by the Vice Chancellor, CUST

KEYNOTE LECTURES (09:10 HRS TO 10:15 HRS)

Venue: [A1](#)

Session Chair: Dr. M. Usman Farooqi

Session Co-Chair: Engr. Iqbal Ahmed

09:10 to 09:30	Double-diffusive salt fingers in the sea and its large-scale influence on local climate	Dr. Harry Lee Assistant Professor, College of Science, Texas A&M University, United States of America
09:30 to 09:50	Shaping Future Sustainability through Durability Modelling and Low Carbon Concrete	Dr. Inam Khan Technical Director, BCRC, Brisbane, Australia
09:50 to 10:10	Sustainable Industrial By-product Utilization in Civil Engineering Applications	Dr. Mohsin Qureshi <i>Associate Professor, Sohar University, Sohar, Oman</i>
10:10 to 10:15	Closing Remarks	Dr. Imtiaz Ahmed Taj <i>Dean, Faculty of Engineering, CUST</i> Dr. Ishtiaq Hassan <i>Director, DSE, CUST</i>

Poster Session and Tea Break: 10:15 HRS TO 10:45 HRS

Venue: [Old Cafeteria](#)

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B) Oral Presentations - Technical Session I (10:45 HRS TO 13:00 HRS)

B1) Oral Presentations Parallel Session 1-1 Venue: B1	
Session Chair: Engr. Faiza Khalid Session Co-Chair: Engr. Sohail Afzal	
Time	Paper
10:55 to 11:15	Eco-Innovation in Construction: Harnessing Industrial Waste for Greener Concrete [KEYNOTE LECTURE] Prof. Ts. Dr. Khairunisa Muthusamy, Universiti Malaysia Pahang, Pahang, Malaysia
11:15 to 11:30	DURABILITY OF GEOPOLYMER CONCRETE WITH RECYCLED SAND IN ACIDIC AND MARINE CONDITIONS (Paper ID: 147) Shahzadi Irum, <i>COMSATS University Islamabad, Wah Campus, Pakistan</i> Faisal Shabbir, <i>UET Taxila, Pakistan</i> Hammad Salahuddin, <i>Shenzhen University, China</i>
11:30 to 11:45	EFFECT OF CURING METHOD ON COMPRESSIVE STRENGTH OF MORTAR CONTAINING TIN TAILING AS FINE AGGREGATE REPLACEMENT (Paper ID: 110) Norasyimah Ahmad, <i>Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia</i> Khairunisa Muthusamy, <i>Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia</i> Nor Rashidah Bahar, <i>Universiti Tun Hussein Onn Malaysia, Malaysia</i>
11:45 to 12:00	ENHANCING CONCRETE SUSTAINABILITY: NATURAL FIBRE REINFORCEMENT FOR SHRINKAGE CRACK MITIGATION IN CONCRETE STRUCTURES (Paper ID: 103) Muhammad Zain Sajid, <i>Frontier Works Organization (FWO), Rawalpindi, Pakistan</i> Faisal Mateen, <i>Structural Works Department, WSP Pvt. Ltd, Sydney, Australia</i>
12:00 to 12:15	SUSTAINABLE SELF-COMPACTING CONCRETE INCORPORATING WHEAT STRAW ASH AND FLY ASH AS CEMENT REPLACEMENTS (Paper ID: 102) Farah Naz, <i>KFUEIT, Rahim Yar Khan, Pakistan</i> Umer Shahzad, <i>KFUEIT, Rahim Yar Khan, Pakistan</i> Shiraz Baloch, <i>KFUEIT, Rahim Yar Khan, Pakistan</i>
12:15 to 12:30	EXPERIMENTAL EVALUATION OF FLEXURAL BEHAVIOR IN CONCRETE BEAMS REINFORCED WITH WASTE HUMAN HAIR FIBERS (Paper ID: 134) Jawad Nasar, <i>Askari Heights V, Housing Directorate, Islamabad, Pakistan</i> Adeer Khan, <i>Korea Advanced Institute of Science & Technology, Daejeon, South Korea</i>
12:30 to 12:45	COTTON FIBERS FOR IMPROVED CONCRETE TENSILE STRENGTH AND CRACK RESISTANCE IN SLABS (Paper ID: 135) Mobeen Anwar, <i>Niazi Design Systems, Islamabad, Pakistan</i> Sadia Sajid Khan, <i>Kinetic International FZE, United Arab Emirates</i>
12:45 to 13:00	ENHANCING THE FLEXURAL STRENGTH OF CONCRETE BEAMS USING NYLON FIBERS AS SUSTAINABLE REINFORCEMENT (Paper ID: 140) Qazi Muhammad Tariq, <i>Cost Umbrella, Islamabad, Pakistan</i> Blawal Hasan, <i>Contracting and Construction Enterprises, Saudi Arabia</i>



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B2) Oral Presentations Parallel Session 1-2 Venue: B2	
Session Chair: Dr. Maria Ghufra Session Co-Chair: Engr. Minhas Shah	
Time	Paper
10:55 to 11:15	Rethinking Soil–Pile Interaction: The Critical Role of Nonlinearity Under Dynamic Vertical Loading [KEYNOTE LECTURE] Dr. Usama Zafar, Saitama University, Saitama, Japan
11:15 to 11:30	COMPARING CONSTRUCTION PROJECT MANAGERS AND MILITARY OFFICERS IN THE UNITED STATES: LEVERAGING VETERAN LEADERSHIP AND SKILLS FOR WORKFORCE DEVELOPMENT IN THE CONSTRUCTION INDUSTRY (Paper ID: 301) Amna Salman, Auburn University, <i>United States of America</i> Gavin Medley, Auburn University, <i>United States of America</i>
11:30 to 11:45	CLASH DETECTION OPTIMIZATION IN BIM: A CASE STUDY ON COORDINATION AND DESIGN EFFICIENCY IN INFRASTRUCTURE PROJECTS (Paper ID: 304) Muhammad Aqib Jahangir, NUTECH, Islamabad, Pakistan Umar Farooq, NUTECH, Islamabad, Pakistan Asim Sultan, University of Rasul, Mandi Bahauddin, Pakistan
11:45 to 12:00	A REVIEW OF MECHANICAL PERFORMANCE AND SUSTAINABILITY OF NYLON FIBER IN CONCRETE BEAM REINFORCEMENT (Paper ID: 139) Qazi Muhammad Tariq, Cost Umbrella, Islamabad, Pakistan Blawal Hasan, Contracting and Construction Enterprises, <i>Saudi Arabia</i>
12:00 to 12:15	BIM-DRIVEN ENERGY OPTIMIZATION: ENHANCING THERMAL PERFORMANCE OF BUILDINGS IN ISLAMABAD'S CLIMATE (Paper ID: 303) Shujahat Anwar, NUTECH, Islamabad, Pakistan Hassaan Bin Raheel, NUTECH, Islamabad, Pakistan
12:15 to 12:30	IMPACT OF MIXED REALITY TECHNOLOGY ON TEACHING AND LEARNING IN STRUCTURAL ENGINEERING (Paper ID: 302) Guangyan Shao, Auburn University, <i>United States of America</i> Salman Azhar, Auburn University, <i>United States of America</i> Busra Yucel, Auburn University, <i>United States of America</i>
12:30 to 12:45	COST–BENEFIT ANALYSIS OF BIM IN LARGE INFRASTRUCTURE PROJECTS: PAKISTAN VS GERMANY (Paper ID: 311) Chaudhry Muhammad Shahram Akbar, NUST, Islamabad, Pakistan Muhammad Ziyad, NUST, Islamabad, Pakistan Mohammad Qasim Bilal, NUST, Islamabad, Pakistan
12:45 to 13:00	ENHANCING CRACK FLEXURAL RESISTANCE IN HYDRAULIC STRUCTURES THROUGH NYLON FIBER REINFORCED CONCRETE (Paper ID: 126) Umar Zakria, Mott MacDonald International, Pakistan Khurram Munir, RMIT University, Melbourne, <i>Australia</i>



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B3) Oral Presentations Parallel Session 1-3	
Venue: B3	
Session Chair: Engr. Shaheed Ullah Session Co-Chair: Engr. Talha Ahmed	
Time	Paper
10:55 to 11:15	Sustainability as a Catalyst for Resilience: Insights from Recent European Research Projects [KEYNOTE LECTURE] Dr Massimo Latour, University of Salerno, Salerno, Italy
11:15 to 11:30	ASSESSING THE ENVIRONMENTAL IMPACT OF BUILDING MATERIALS: A LIFE CYCLE APPROACH TO SUSTAINABLE BUILDING SOLUTIONS (Paper ID: 702) Ruqia Asad, <i>UET Peshawar, Pakistan</i> Fayyaz Ullah, <i>UET Peshawar, Pakistan</i>
11:30 to 11:45	PERFORMANCE ANALYSIS OF LIGHTGBM, XGBOOST, RANDOM FOREST, AND GRADIENT BOOSTING IN PHOTOVOLTAIC ENERGY FORECASTING WITH HYPERPARAMETER OPTIMIZATION (Paper ID: 704) Muhammad Ehtsham, <i>University of L'Aquila, Italy</i> Marianna Rotilio, <i>University of L'Aquila, Italy</i> Federica Cucciella, <i>University of L'Aquila, Italy</i>
11:45 to 12:00	RECYCLED NYLON FIBERS FOR CRACK CONTROL IN HIGH STRENGTH CONCRETE- A USE CASE IN POWERHOUSE (Paper ID: 112) Umar Zakria, <i>Mott MacDonald International, Pakistan</i> Riaz Ul Haq, <i>Salalam Al Jazeera Construction, Saudi Arabia</i>
12:00 to 12:15	AN OVERVIEW ON THE PERFORMANCE OF STEEL FIBER REINFORCED COMPOSITES IN RESTRAINING CONCRETE PLASTIC SHRINKAGE CRACK IN SLAB (Paper ID: 120) Abu Bakar, <i>NESPAK, Islamabad, Pakistan</i> Hamza Khan, <i>Aljafer General Contracting, Saudi Arabia</i>
12:15 to 12:30	SPATIAL DOWNSCALING OF GRACE DATASET USING RANDOM FOREST APPROACH FOR A BETTER UNDERSTANDING OF HYDROLOGICAL DROUGHTS IN PAKISTAN (Paper ID: 403) Mustajab Ali, <i>MUST, Mirpur (AJK), Pakistan</i> Usman Ali, <i>MUST, Mirpur (AJK), Pakistan</i>
12:30 to 12:45	ENHANCING TENSILE PERFORMANCE OF CONCRETE USING STEEL FIBER REINFORCEMENT: AN EXPERIMENTAL STUDY (Paper ID: 133) Awais Sikandar, <i>APCOMS, Rawalpindi, Pakistan</i> Faheem Ahmad Gul, <i>Nanchang Institute of Technology, China</i>
12:45 to 13:00	EXAMINING FREQUENCY-DISPLACEMENT RELATIONSHIP OF PILES IN FINE GRAINED SOIL (Paper ID: 508) Muaaz Duera, <i>The University of Lahore, Pakistan</i> Hamza Shabir, <i>The University of Lahore, Pakistan</i>

Poster Session and Lunch / Prayer Break (13:00 HRS TO 14:00 HRS)

Venue: **Old Cafeteria**

Coordinator: Engr. M. Waqas Malik

Co-Coordinator: Engr. M. Ilyas

All Participants are requested to collect their shields.



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C) Oral Presentations - Technical Session II (14:00 HRS TO 16:00 HRS)

C1) Oral Presentations Parallel Session 2-1	
Venue: B1	
Session Chair: Engr. Faiza Khalid	
Session Co-Chair: Engr. Sohail Afzal	
Time	Paper
14:10 to 14:30	Rheology and Printing Parameters in 3D-Printed Concrete: A Review Toward Improved Printability and Structural Performance. [KEYNOTE LECTURE] <i>Dr. Wen Si, University College Dublin, Ireland</i>
14:30 to 14:45	ANALYSIS AND SIMULATION OF STEEL MEMBERS IN ANSYS AT DIFFERENT TEMPERATURES (Paper ID: 202) <i>Raja Wajahat Zahoor Khan, UET Taxila, Pakistan</i> <i>Raja Shujahat Zahoor Khan, UET Taxila, Pakistan</i> <i>Muhammad Yaqub, UET Taxila, Pakistan</i>
14:45 to 15:00	PREDICTING INITIAL STIFFNESS IN WELDED T-JOINTS FEATURING CHS CHORDS AND LONGITUDINAL THROUGH-PLATE CONNECTIONS (Paper ID: 203) <i>Ali Ajwad, University of Salerno, Italy</i> <i>Massimo Latour, University of Salerno, Italy</i>
15:00 to 15:15	PERFORMANCE EVALUATION AND APPLICATION POTENTIAL OF NYLON FIBERS IN CONCRETE SLAB -A REVIEW (Paper ID: 144) <i>Usama Akhter, Hazara University, Mansehra, Pakistan</i> <i>Hamdan Ullah, Bin Omaira Contracting, Saudi Arabia</i>
15:15 to 15:30	BRIDGE EXPANSION JOINTS REPLACEMENT CHALLENGES – A REVIEW (Paper ID: 204) <i>Furqan Qamar, WSP, United Kingdom</i> <i>Mustafa Zwain, WSP, United Kingdom</i>
15:30 to 15:45	DEVELOPMENT AND PERFORMANCE OF PAPERCRETE AS AN ECO-FRIENDLY CONSTRUCTION MATERIAL (Paper ID: 111) <i>Moiz Ali Haider, NUTECH, Islamabad, Pakistan</i> <i>Subhan Shafique, NUTECH, Islamabad, Pakistan</i> <i>Muhammad Zohaib Asim, NUTECH, Islamabad, Pakistan</i>
15:45 to 16:00	DYNAMIC RESPONSE MODELING OF SDOF SYSTEMS USING NEURAL NETWORKS: A COMPARATIVE STUDY OF ANN AND LSTM (Paper ID: 201) <i>Aaqib Najeeb, College of Civil Engineering, Tongji University, China</i> <i>Muhammad Yousaf Jalal, State Key Laboratory of Disaster Reduction, Tongji University, China</i>



C2) Oral Presentations Parallel Session 2-2	
Venue: B2	
Session Chair: Dr. Maria Ghufraan	
Session Co-Chair: Engr. Minhas Shah	
Time	Paper
14:10 to 14:30	Advancing Sustainability through Timber, Natural Fibres, and Recycled Materials in Concrete [KEYNOTE LECTURE] <i>Dr. Libo Yan, Technical University of Braunschweig, Germany</i>
14:30 to 14:45	EXPERIMENTAL STUDY ON STRENGTH AND WORKABILITY OF SUSTAINABLE CONCRETE INCORPORATING COTTON FIBERS AND MARBLE WASTE (Paper ID: 149) <i>Muhammad Adnan Hanif, MCE, NUST, Risalpur, Pakistan</i> <i>Ali Ejaz, NIT, NUST, Risalpur, Pakistan</i>
14:45 to 15:00	EXPERIMENTAL INVESTIGATION ON THE FLEXURAL BEHAVIOR OF STEEL FIBER IN CONCRETE (Paper ID: 127) <i>Usman Khalid, Public Works Department (PWD), Mirpur, Pakistan</i> <i>Naveed Irshad, Edotco Group, Malaysia</i>
15:00 to 15:15	COMPRESSIVE STRENGTH OF STANDARD CYLINDERS, SPLIT TENSILE STRENGTH OF PRESTRESSED CORES, AND MICROSTRUCTURAL ANALYSIS OF POLYPROPYLENE FIBER REINFORCED CONCRETE (Paper ID: 150) <i>Mohammad Zulqarnain, UET Taxila, Pakistan</i> <i>Muhammad Usman Rashid, UET Taxila, Pakistan</i> <i>Muhammad Awais, IIU, Islamabad, Pakistan</i>
15:15 to 15:30	EFFECTIVENESS OF NYLON FIBERS IN CONTROLLING SHRINKAGE CRACKING IN CONCRETE PAVEMENTS (Paper ID: 121) <i>Abdul Wadood, Fellow Builders, Islamabad, Pakistan</i> <i>Raja Arsalan, Structural Engineer, Estonia</i>
15:30 to 15:45	EXPERIMENTAL STUDY ON THE PERFORMANCE OF DATE PALM SURFACE FIBER REINFORCED CONCRETE UNDER ACIDIC CONDITION (Paper ID: 151) <i>Asad Kareem, UET Taxila, Pakistan</i> <i>Syed Saqib Mehboob, UET Taxila, Pakistan</i>
15:45 to 16:00	A REVIEW ON OPTIMIZING SUSTAINABLE CRACK CONTROL IN SLABS USING COTTON FIBER COMPOSITES (Paper ID: 154) <i>Mobeen Anwar, Niazi Design Systems, Islamabad, Pakistan</i> <i>Sadia Sajid Khan, Kinetic International FZE, United Arab Emirates</i>



C3) Oral Presentations Parallel Session 2-3	
Venue: B3	
Session Chair: Engr. Talha Ahmed Session Co-Chair: Engr. Shaheed Ullah	
Time	Paper
14:10 to 14:30	Lessons from UK research and practice in sustainable ground engineering [KEYNOTE LECTURE] Dr Paul Beetham, Nottingham Trent University, Nottingham, UK
14:30 to 14:45	ECO-FRIENDLY SOLUTION FOR UTILIZATION OF RECLAIMED ASPHALT PAVEMENT MATERIAL (Paper ID: 601) Hamza Afzal, UET Taxila, Pakistan Imran Hafeez, UET Taxila, Pakistan
14:45 to 15:00	MECHANICAL AND MICROSTRUCTURAL ENHANCEMENT OF EXPANSIVE SOILS VIA SUSTAINABLE WGP AND FA BLENDS (Paper ID: 504) Muhammad Usama, Department of Geodesy and Geoinformatics, Hamburg, Germany Ubaid Ullah, University of Wah, Wah Cantt, Pakistan Muhammad Rauf, University of Wah, Wah Cantt, Pakistan
15:00 to 15:15	NUMERICAL ANALYSIS OF Laterally Loaded PILES IN FINE GRAINED SOIL (Paper ID: 507) Ahsan Raza Khan, The University of Lahore, Pakistan Abdullah Khalid, The University of Lahore, Pakistan
15:15 to 15:30	COMPARATIVE STUDY OF NYLON FIBER REINFORCED CONCRETE WITH PCC FOR COMPRESSIVE STRENGTH AND WORKABILITY (Paper ID: 128) Muhammad Mursaleen, Halcrow Pakistan (Pvt) Limited, Islamabad, Pakistan Ameer Turab, Hochschule Stendal Magdeburg, Germany
15:30 to 15:45	ENHANCING FLEXURAL STRENGTH IN CONCRETE ONE-WAY SLABS OF BUILDING THROUGH COTTON FIBER REINFORCEMENT (Paper ID: 125) Abu Bakar Naeem, Maven Projects LLP, Islamabad, Pakistan Syed Ilyas Ali Shah, Steel mains, Australia
15:45 to 16:00	FIBER-REINFORCED CONCRETE FOR CRACK RESISTANCE: A REVIEW STUDY (Paper ID: 136) Usman Khalid, Public Works Department (PWD), Mirpur, Pakistan Emmad Cheema, AtkinsRéalis, Canada

Poster Session and Tea Break: 16:00 HRS TO 16:45 HRS

Venue: **Old Cafeteria**

Coordinator: Engr. M. Waqas Malik

Co-Coordinator: Engr. M. Ilyas



D) Poster Presentations

Paper
MITIGATING FLEXURAL CRACKS IN CONCRETE BEAMS USING DIVERSE FIBERS: A REVIEW (Paper ID: 155) <div style="text-align: right;">Jawad Nasar, <i>Askari Heights V, Housing Directorate, Islamabad, Pakistan</i> Haider Mehmood Khattak, <i>University of Calgary, Canada</i></div>
AN OVERVIEW OF THE EFFECTS OF STEEL FIBER REINFORCED COMPOSITES ON FLEXURAL CRACKING IN CONCRETE (Paper ID: 137) <div style="text-align: right;">Awais Sikandar, <i>APCOMS, Rawalpindi, Pakistan</i> Faheem Ahmad Gul, <i>Nanchang Institute of Technology, China</i></div>
FIBER REINFORCEMENT FOR DRYING SHRINKAGE MITIGATION IN CONCRETE: A COMPREHENSIVE REVIEW (Paper ID: 118) <div style="text-align: right;">Abu Bakar Naeem, <i>Maven Projects LLP, Islamabad, Pakistan</i> Syed Ilyas Ali Shah, <i>Steel mains, Australia</i></div>
NUMERICAL BEHAVIOR OF STEEL SPACE FRAME UNDER INCREMENTAL SEISMIC LOADS (Paper ID: 205) <div style="text-align: right;">Kamran Shaukat, <i>UET Peshawar, Pakistan</i> Muhammad Fahim, <i>UET Peshawar, Pakistan</i></div>
SEISMIC RESISTANT BUILDINGS USING DAMPERS: A COMPARATIVE STUDY (Paper ID: 206) <div style="text-align: right;">Muhammad Bilal Ansari, <i>UET Taxila, Pakistan</i> Muhammad Yaqub, <i>UET Taxila, Pakistan</i></div>
FINITE ELEMENT STUDY ON THE ROLE OF SAND RELATIVE DENSITY ON LATERAL LOAD DISTRIBUTION IN PILED RAFT SYSTEMS (Paper ID: 505) <div style="text-align: right;">Hamad Khan, <i>UET Peshawar, Pakistan</i> Qazi Khurshid Ahmad, <i>GIKI, Swabi, Pakistan</i> Abdullah Khan Jadoon, <i>UET Peshawar, Pakistan</i></div>
SEISMIC CAPACITY ENHANCEMENT OF STONE MASONRY BUILDINGS USING HORIZONTAL TIMBER ELEMENTS (Paper ID: 212) <div style="text-align: right;">Waqas Khan, <i>UET Peshawar, Pakistan</i> Muhammad Fahim, <i>UET Peshawar, Pakistan</i></div>

E) Closing Ceremony (16:45 HRS TO 17:00 HRS)

Venue: **B1**

Session Chair: Dr. Majid Ali (*Conference Chair*)

Session Co-Chair: Engr. Talha bin Tahir (*Conference Secretary*)