

TECHNICAL PROGRAMME



IC[⚡]PE[🌿]CC[⌚]23

International Conference on Energy, Power, Environment, Control and Computing

8th-9th March 2023

Technical Collaborators

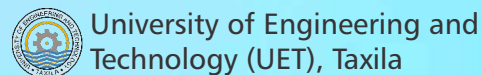




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About Conference

The 2nd International Conference on Energy, Power, Environment, Control, and Computing (ICEPECC-2023) will be held on 8th to 9th March 2023 at University of Gujrat and GIFT University. The conference is organized by University of Gujrat in partnership with GIFT University and University of Sialkot. The conference will be technically sponsored by IEEE Lahore section, Universiti Sains Malaysia, and UET Taxila. The objectives of the conference are to provide high quality research and professional interactions for the advancement of science and technology. Therefore, the conference will provide an ideal platform for researchers to share novel ideas and experiences in the research areas related to Energy, Power, Environment, Control, and Computing. The conference features keynote talks, technical papers and poster presentations. The conference will be conducted in hybrid mode, allowing both face-to-face and virtual presentations. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements.

Conference Topics

The conference invites researchers and industry professionals to present new and original research results on different aspects of energy, power and environmental, which includes but not limited to the following topics:

Energy

- ❖ Energy efficient devices and systems
- ❖ Energy conversion, conservation, storage, and management
- ❖ Renewable energy sources and systems
- ❖ Sustainable green energy solutions
- ❖ Waste to energy conversion and heat recovery systems
- ❖ Fuel cells, hydrogen generation, storage, and transportation

Power

- ❖ Power system planning, operation, protection, control, and quality
- ❖ Power system stability, security, reliability, and economics
- ❖ Diagnostics, condition monitoring and asset management; Demand response and demand side management
- ❖ Power electronics, machines, drives, and electrical vehicles
- ❖ FACTS, HVDC transmission systems, high voltage engineering, and insulation techniques
- ❖ Smart grids, microgrids, DC distribution grids, medium/low voltage DC systems, and utility applications

Environment

- ❖ Air/Water Quality and Climate Change
- ❖ Water Quality, Wastewater Treatment and Management
- ❖ Ecotoxicity and remedies
- ❖ Nanotechnology, Biomaterials, and Energy Storage Materials
- ❖ Solid Waste Treatment and Management
- ❖ Sustainable Systems for Energy and Environment

Computing

- ❖ Cloud Computing and Computer Networks
- ❖ Web Engineering
- ❖ Computational Intelligence
- ❖ Natural Language Processing
- ❖ Software Engineering
- ❖ Blockchain and transactive energy systems
- ❖ Data analytics and cyber security
- ❖ IoT and ICT for smart grid

Control

- ❖ Fuzzy and Neural Systems
- ❖ Industrial instrumentation and process control
- ❖ Machine learning
- ❖ Intelligent and AI Based Control
- ❖ Non-Linear Control Systems and Applications
- ❖ Robotics and Mechatronics
- ❖ Machine Vision

Message from Patron-in-Chief

It is indeed a great pleasure and honor for me to welcome all the honorable delegates and participants to the 2nd International Conference on Energy, Power, Environment, Control and Computing (ICEPECC 2023). This conference is a step towards achieving our vision in becoming a world-class academic and research institution to produce human capital and vibrant communities through research innovations.

I would like to express my appreciation to all committee members of ICEPECC 2023 especially from Faculty of Engineering and Technology, University of Gujrat for their hard work and relentless effort. Without their commitment and contributions, this event would not have been possible. I am certain that this conference will provide a platform towards strengthening our relationships in knowledge sharing with national and international institutes of higher learning while at the same time will provide the necessary thrust in joint research collaborations and product commercialization.

I sincerely believe that this conference will go a long way in growth of new and innovative ideas toward better tomorrow. Last but not the least, I would also like to express my gratitude to all the conference sponsors and collaborating institutes. With your continued support and interest, I am sure that this event will become an annual feature and a hallmark for research collaborations.



Prof. Dr. Shabbar Atiq
Patron-in-Chief ICEPECC 2023/
Vice Chancellor
University of Gujrat

Message from Patron



It is my great pleasure to welcome you all on behalf of GIFT University, Gujranwala to the International Conference on Energy, Power, Environment, Control, and Computing 2023. The theme of this

year's conference is particularly timely and relevant as it centers on Energy, Power, Environment, Control, and Computing. By exploring this topic from diverse perspectives and engaging in productive dialogue, I believe we can generate innovative solutions and ideas that have the power to shape our collective future. In this regard, the efforts of GIFT University's team in collaboration with University of Gujrat are commendable. Last but not the least, I would like to draw the attention of all the participants of the conference to put more focus on applied research creating entrepreneurial opportunities for the youth of Pakistan.

Prof. Dr. Shahid Qureshi

Patron ICEPECC 2023

Rector

GIFT University

Message from Conference Chair



On behalf of the Organizing Committee, it gives me great pleasure to welcome you to ICEPECC 2023. This is the 2nd Conference being organized by the Faculty of Engineering and Technology, University of Gujrat in collaboration with GIFT University, Gujranwala, and University of Sialkot. It is a broad range conference that covers all engineering and science fields related to energy, power, environment, control, and computing. The objective of the conference is to stimulate a broader discussion on the opportunity and challenges of

current technological innovation in the topic areas of conference and towards achieving a sustainable future.

This year, we have accepted 75 papers for oral presentation at this conference. The accepted papers have been peer-reviewed by experts and will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements. Furthermore, the organizing committee has invited distinguished keynote/invited speakers to share their experiences and knowledge. I would like to extend a special welcome to our keynote/invited speakers, representing leading experts from academia and industry.

Finally, I would like to thank all participants, reviewers, sponsors, and the organizing committee for their immense contribution towards the success of this conference. I wish you a fruitful and rewarding experience at ICEPECC 2023.

Prof. Dr. Shahid Iqbal

Chair ICEPECC 2023

Dean of Faculty of Engineering & Technology
University of Gujrat

Conference Organizing Committee

Steering Committee

- Prof. Dr. Shabbar Atiq (Patron-in-Chief)
- Prof. Dr. Shahid Qureshi (Patron)
- Prof. Dr. Shahid Iqbal (Conference Chair)
- Prof. Dr. Amjad Hussain (Co-Chair)
- Dr. Muhammad Ziad Nayyar (Technical Chair)

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- Mr. Kashif Bashir, UET Lahore (Co-Chair)

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- Dr. Hassan Imran, GIFT University, Gujranwala, Punjab
- Dr. Imran Shahzad, Federal Urdu University of Arts, Science and Technology
- Dr Sajjad Miran, University of Gujrat
- Dr Muhammad Wasif, University of Gujrat
- Dr. Waseem Arif, University of Gujrat
- Dr. Abdul Hannan Zahid, University of Gujrat
- Dr. Tayybah Kiren, UET Lahore
- Dr. Shahid Iqbal, National University of Technology, Islamabad,
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- Dr. Hanan Bin Liaqat, University of Education
- Dr. Jehanzeb Irshad, University of Gujrat
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- Dr. Usama Ahmad, GCU Faisalabad
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- Dr. Salman Haider, University of Gujrat
- Dr. Hassan Jamal, COMSATS University Islamabad, Lahore Campus
- Dr. Imran Raza, COMSATS University Islamabad, Lahore Campus
- Dr. Ghulam Abbas, University of Gujrat
- Dr. Abdul Basit, University of Gujrat
- Dr. Abdul Ghani Abro, NED University of Engineering and Technology
- Dr. Naeem Kalair, University of Gujrat
- Dr. Nazam Siddique, University of Gujrat

- Dr. Umar Shoaib, University of Gujrat
- Dr. Tiang Tow Leong, Universiti Malaysia Perlis
- Prof. Dr. Aun Haider, University of Gujrat
- Dr. Khoo Be Ee, Universiti Sains Malaysia
- Dr. Sze Sing Lee, Newcastle University
- Dr. Sohaib Alvi, University of the Punjab, Gujranwala Campus
- Dr. Mohamad Kamarol Mohd Jamil, Universiti Sains Malaysia
- Dr. Abdur Rehaman, University of Gujrat
- Dr. Ansar Siddique, University of Gujrat
- Dr. Shoaib Rauf, University of Gujrat
- Dr. Muhammad Faheem, GIFT University
- Dr. Fizza Ghulam Nabi, University of the Punjab
- Prof. Dr. Tahir Mehmood, UET Taxila
- Assoc. Prof. Nauman Zafar, LUMS
- Dr. Fiaz Majeed, University of Gujrat
- Prof. Dr. Syed Waqar Ul Qounain, Punjab University
- Prof. Dr. Muzaffar Ali, UET Taxila

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- Prof. Dr. Shahid Iqbal, University of Gujrat
- Dr. Waseem Arif, University of Gujrat
- Dr. Muhammad Awais, GIFT University
- Dr. Muhammad Najwan Hamidi, Universti Sains, Malaysia
- Engr. Shahid Zulfiqar, UET Lahore
- Engr. Majid Ali, Aalborg University

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- Dr. Qamar Askari, GIFT University

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- Dr. Aqeel, GIFT University
- Dr. Nameeqa Firdos, GIFT University
- Dr. Mohammad Khairunaz Mat Desa, Universti Sains Malaysia
- Engr. Ahsan Waseem, University of Gujrat
- Mr. Mian Muhammad Nadeem, Senior Graphic Artist, UOG
- Mr. Kashif Mehmood, Graphic Designer

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- Engr. Muhammad Tahseen Sadiq, University of Gujrat
- Engr. Murad Hassan, University of Gujrat
- Dr. Waseem Khalid, GIFT University
- Dr. Zulfiqar Ahmed, GIFT University

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- Dr. Nazam Siddique, University of Gujrat
- Mr. Ghulam Safdar Malik, Additional Treasurer, University of Gujrat

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- Dr. Salman Haider, University of Gujrat (Chair)
- Mr. Abulkhair Muhammad Umar, Web Manager, University of Gujrat
- Dr. Abdul Basit, University of Gujrat
- Dr. Suhaib Umer Ilyas, University of Gujrat
- Engr. Zubair Mehmood, University of Gujrat

Registration Committee

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- Engr. Zubair Mehmood, University of Gujrat
- Engr. Yumna Bilal, University of Gujrat

Conference Secretariat

Usman Ali Saraaf, Office of Dean

Faculty of Engineering and Technology, University of Gujrat, HH-Campus, Gujrat, Pakistan

Email: lcepe2023@uog.edu.pk, Tel. +92 (053) 3643326, Ext. 153

Organizing Committee Chair



Prof. Dr. Shahid Iqbal
University of Gujrat
Conference Chair



Dr. Muhammad Ziad Nayyar
GIFT University
Chair Technical Program Committee



Assoc. Prof. Dr. Naeem Abas
University of Gujrat
Chair Publication Committee



Assoc. Prof. Dr. Ghulam Abbas
University of Gujrat
Chair Exhibition and Sponsorship Committee



Dr. Sajjad Miran
University of Gujrat
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Dr. Shoaib Rauf
University of Gujrat
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Dr. Muhammad Wasif
University of Gujrat
Chair Finance Committee



Dr. Salman Haider
University of Gujrat
Chair Website Committee



Dr. Nazam Siddique
University of Gujrat
Chair Registration Committee

International Keynote Speakers



Prof. Dr. Jan Kratzer
Technische Universität Berlin,
Germany



Prof. Dr. Khurram Khan Afridi
Cornell University,
USA



Prof. Dr. Yuto Lim
Japan Advanced Institute of
Science and Technology.
Japan



Prof. Dr. Lim Chee Peng
Deakin University, Geelong, VIC,
Australia



Prof. Dr. John Littlewood
Cardiff School of Art and Design,
UK



Dr. Saher Javaid
Japan Advanced Institute of
Science and Technology,
Japan



Dr. Pooja Singh
SIES Graduate School of
Technology, India

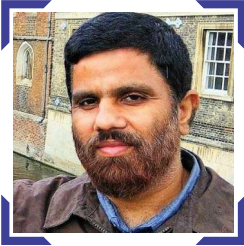


Prof. Carolyn S. Hayles
Cardiff School of Art and Design,
UK



Professor Ir. Ts. Dr. Shahrel Azmin Suandi
Universiti Sains Malaysia

National Invited Speakers



Prof. Dr. Gulistan Raja
UET Taxila



Prof. Dr. Muhammad Akhyar
University of Central Punjab,
Lahore



Prof. Dr. Muzaffar Ali
UET Taxila



Assoc. Prof. Dr. Tazien Rashid
Government College University,
Faisalabad



Prof. Abdul Rauf Bhatti
Government College University,
Faisalabad



Assoc. Prof. Dr. Shahzad Younis
SEECS-NUST, Islamabad



Prof. Dr. Nadeem Ahmed
International Islamic University,
Islamabad



Dr. Waheed Miran
NUST, Islamabad



Dr. Muhammad Afzal
National Institute for
Biotechnology and Genetic
Engineering (NIBGE) Faisalabad



Dr. Nayyar Hussain Mirjat
MUET, Jamshoro

PROGRAMME

Wednesday 8 March 2023 (Day 1)

Venue: University of Gujrat

Time	Program	Venue
08:30AM	Registration and Reception of Guests	Auditorium
09:00AM	Recitation of Holy Quran, Naat and National Anthem	Auditorium
09:10AM	Welcome remarks by Prof. Dr. Shahid Iqbal (Conference Chair)	Auditorium
09:20AM	Opening Speech by Prof. Dr. Shabbar Atiq (Vice chancellor University of Gujrat)	Auditorium
09:30AM	Address by Chief Guest: Engr. Najeeb Haroon (Chairman Pakistan Engineering Council)	Auditorium
09:50AM	Keynote talk by Prof. Dr. Khurram Khan Afridi (Online)	Auditorium
10:20AM	Keynote talk by Prof. Dr. Jan Kratzer	Auditorium
10:50AM	Tea Break	
11:20AM	Technical Session 1 Track A: Power (P-1) Track B: Energy (E-1) Track C: Environment (En-1)	Auditorium EH-1 EH-2
01:10PM	Lunch Break, Prayer & Poster Session	
02:10PM	Technical Session 2 Track A: Power (P-2) Track B: Control Track C: Computing (C-1)	Auditorium EH-1 EH-2
04:15PM	End of Day 1	

Thursday 9 March 2023 (Day 2)

Venue: GIFT University, Gujranwala

Time	Program	Venue
09:00AM	Registration and Reception of Guests	Seminar Hall
09:30AM	Recitation of Holy Quran, Naat and National Anthem	Seminar Hall
09:40AM	Speech by Prof. Dr. Shahid Qureshi (Rector GIFT University)	Seminar Hall
09:55AM	Keynote talk by Prof. Dr. Yuto Lim	Seminar Hall
10:25AM	Keynote talk by Prof. Dr. Lim Chee Peng (Online)	Seminar Hall
10:55AM	Keynote talk by Prof. Dr. John Littlewood (Online)	Seminar Hall
11:20AM	Tea Break	
11:50AM	Technical Session 3 Track A: Power (P-3) Track B: Energy (E-2) Track C: Computing (C-2)	Seminar Hall G-2 G-3
01:40PM	Lunch Break, Prayer	
02:40PM	Technical Session 4 Track A: Power (P-4) Track B: Environment (En-2) Track C: Computing (C-3)	Seminar Hall G-2 G-3
04:30PM	Closing remarks by Dr. Muhammad Ziad Nayyar (Chair Technical Program Committee)	Seminar Hall
04:35PM	End of Day 2	

Wednesday 8 March 2023 (Day 1)

Technical Session 1 (Track A)

Date 8th March 2023 (Wednesday)
Time 11:20 AM – 01:10 PM
Room Auditorium, Quaid Azam Library, University of Gujrat
Session Title Power (P-1)
Chairs Assoc. Prof. Dr. Naeem Abas, Dr. Shoaib Rauf

Time	Paper ID	Paper Title	Presenter	Presentation Mode
11:20AM	Invited Talk	Management of Electrical Energy for Improved Operation of Power System	Prof. Dr.Abdul Rauf Bhatti GCUF Faisalabad	Online
11:40AM	5782	Condition-Based Maintenance of Bearing Faults in Rotary Machine	Waqar Ahmad UET Peshawar	In-Person
11:55AM	8845	Vulnerability Assessment for Primary-Backup Overcurrent Relay Coordination Deprivation Due to Virtual Power Plant	Mian Rizwan Southeast University, Nanjing, China	In-Person
12:10PM	6342	Minimizing Energy Loss for Multiple Load Power Flow Assignment in Smart Homes	Yuto Lim Japan Advanced Institute of Science and Technology	In-Person
12:25PM	330	Voltage Profile Enhancement of an IEEE 14 Bus System by using SVC	Muhammad Tayyab Tariq NED UET, Karachi	Online
12:40PM	4689	Comparison of Dielectric Properties of Treated Shea Nut Oil with Mineral Oil Under AC Voltage.	Obande Jonathan Ochigbo University Sains Malaysia	Online
12:55PM	7730	Optimal Sizing and Techno-economic Analysis of Hybrid Renewable Energy System for Off-grid Remote Areas in Indonesia	Didik Sudarmadi Universitas Indonesia	Online

Wednesday 8 March 2023 (Day 1)

Technical Session 1 (Track B)

Date 8th March 2023 (Wednesday)
Time 11:20 AM – 01:10 PM
Room Exhibition Hall-1 (1st Floor), Quaid Azam Library, University of Gujrat
Session Title Energy (E-1)
Chairs Assoc. Prof. Dr. Sajjad Miran, Dr. Waseem Arif

Time	Paper ID	Paper Title	Presenter	Presentation Mode
11:20AM	Invited Talk	Recovering Energy from Waste using power cycle based on super critical CO ₂ based binary mixtures	Prof. Dr. Nadeem Ahmed Professor, International Islamic University, Islamabad	In-Person
11:40AM	2271	Numerical and experimental analysis of second-generation biodiesel for the emission reduction and sustainable environment applications	Yasir Hussain University of Gujrat	In-Person
11:55AM	6537	Performance enhancement of a Peltier device as a cooling source	Fawad Mehboob GIKI, TOPI	In-Person
12:10PM	9128	Experimental Determination of Thermal Conductivity of CNTs-H ₂ O based Nanofluids	Hafiz M. Rizwan GIKI, TOPI	In-Person
12:25PM	3403	Effect of Air, TIM and PCM Based Window on Indoor Temperature	Ubaid ur Rehman UET Taxila	In-Person
12:40PM	1006	Performance Enhancement of Sodium Sulfate Decahydrate for Low-Temperature Thermal Energy Storage System	Salman Khan GIKI, TOPI	In-Person
12:55PM	384	Numerical Simulation and Optimization of CsSnI ₃ Perovskite PV Cell Using SCAPS-1D	M. Mofazzal Hossain University of Liberal Arts Bangladesh	Online

Wednesday 8 March 2023 (Day 1)

Technical Session 1 (Track C)

Date 8th March 2023 (Wednesday)
Time 11:20 AM – 01:10 PM
Room Exhibition Hall-2 (1st Floor), Quaid Azam Library, University of Gujrat
Session Title Environment (En-1)
Chairs Dr. Suhaib Umer Ilyas, Dr. Salman Haider

Time	Paper ID	Paper Title	Presenter	Presentation Mode
11:20AM	Invited Talk	Wonders of electricity producing bugs	Dr. Waheed Miran NUST, Islamabad	In-Person
11:40AM	Invited Talk	Green synthesis of metals and metal oxides doped graphene derivatives nanomaterials for wastewater treatment	Prof. Dr. M. Akhyar Farrukh University of Central Punjab, Lahore	Online
11:55AM	1276	Physicochemical and Microbial analysis of groundwater in periurban areas of Islamabad	Arwa Raza NUST, Islamabad	In-Person
12:10PM	409	Rheological Behavior Predictions of Non-Newtonian Nanofluids via Correlations and Artificial Neural Network for Thermal Applications	Nawal Noshad University of Gujrat	In-Person
12:25PM	3173	Prediction of Rheological and Filtration Loss Properties of Nano-Zirconium-dioxide Drilling Fluids via Machine Learning Techniques for Energy Exploration	Umaira Saher University of Gujrat	In-Person
12:40PM	8536	Response Surface Methodology-based modeling for prediction of Methane-Carbon dioxide Solid-Vapor phase equilibrium	Anas Ahmed/ Saudia University of Jeddah	Online
12:55PM	3342	Modeling and optimization of cryogenic CO ₂ capture from flue gas using Response Surface Methodology	Abdulkader S. Hanbazazah University of Jeddah	Online

Wednesday 8 March 2023 (Day 1)

Technical Session 2 (Track A)

Date 8th March 2023 (Wednesday)
Time 02:10 PM – 04:00 PM
Room Auditorium, Quaid Azam Library, University of Gujrat
Session Title Power (P-2)
Chairs Assoc. Prof. Nauman Zafar, Dr. Jehanzeb Irshad

Time	Paper ID	Paper Title	Presenter	Presentation Mode
02:10PM	Invited Talk	Energy and Power Policies of Pakistan: Prospects of Energy Transition	Dr. Nayyar Hussain Mirjat MUET, Jamshoro	Online
02:30PM	5521	Non-Isolated LED Driver For Industrial Lighting Applications	Maryam Irshad University of Gujrat	In-Person
02:45PM	7040	Techno-Economic Analysis & Optimal Sizing for Rooftop Photovoltaics Utilizability: A Case Study for UET Taxila	M. Aasher UET Taxila	Online
03:00PM	2003	Evaluation of SEPIC-Boost Converter's Stability Under Constant and Chaotic Input Conditions	Mohd Nadzri Mamat University Sains Malaysia	Online
03:15PM	2404	Optimized Sizing and Analysis of Grid-tied Renewable Energy Based EV Charging System	Ghulam Murtaza Bahalkani/ MUET, Jamshoro	Online
03:30PM	6521	Design and Analysis of Wireless Power Transfer (WPT) using Stacked Coil PCB for Inductive Power Charging	Eko Ramadhan Institut Teknologi Sepuluh Nopember, Surabaya 60111, Indonesia	Online
03:45PM	4823	Three-phase MLI with Reduced Number of Switches and Hybrid Optimized Switching	Taha Ahmed Hussain Northern Technical University, Mosul, Iraq	Online
04:00PM	7150	Comparative Evaluation and Analysis of Six- and Four-Switch Drivers for PMBLDC Motor Control	Musa Mohammed Gujja/ Malaysia	Online

Wednesday 8 March 2023 (Day 1)

Technical Session 2 (Track B)

Date 8th March 2023 (Wednesday)
Time 02:10 PM – 04:00 PM
Room Exhibition Hall-1, Quaid Azam Library, University of Gujrat
Session Title Control
Chairs Dr. Muhammad Wasif, Dr. Nazam Siddique

Time	Paper ID	Paper Title	Presenter	Presentation Mode
02:10PM	Invited Talk	Keynote Speaker	Professor Ir. Ts. Dr. Shahrel Azmin Suandi Universiti Sains Malaysia	Online
02:30PM	6783	Development of Visual Smooth Pursuit Model Using Inverse Reinforcement Learning for Humanoid Robots	Hammad Ud-Din University of Gujrat	In-Person
02:45PM	2135	Hybrid Saliency-Based Visual Perception Model for Humanoid Robots	Anum Naveed University of Gujrat	In-Person
03:00PM	2884	Simultaneous Localization and Mapping of UAV For Precision Agricultural Application	Abdul Rauf University of Gujrat	In-Person
03:15PM	7474	Bayesian Inference Based Generation of Human-Like Anthropomorphic Arm Movements	Mohammad Shoaib Babar University of Gujrat	Online
03:30PM	7016	Vision-Based Velocity Estimations for Autonomous Mobile Robots	Siti Juliana Abu Bakar Universiti Teknologi MARA, Malaysia	Online
03:45PM	566	Robot Path Planning via Harris Hawks Optimization	Anbalagan Loganathan University Sains Malaysia	Online
04:00PM	9546	Biometric Electroencephalogram Based Random Number Generatorz	Fan Boon Lee University Sains Malaysia	Online

Wednesday 8 March 2023 (Day 1)

Technical Session 2 (Track C)

Date 8th March 2023 (Wednesday)
Time 02:10 PM – 04:00 PM
Room Exhibition Hall-2 (1st Floor), Quaid Azam Library, University of Gujrat
Session Title Computing (C-1)
Chairs Dr. Fiaz Majeed, Dr. Ansar Siddique

Time	Paper ID	Paper Title	Presenter	Presentation Mode
02:20PM	Invited Talk	Distributed Power Balancing: Concepts, Application and Research Challenges	Dr. Sahar Javaid	In-Person
02:35PM	Invited Talk	Keynote Speaker	Prof. Carolyn S. Hayles Cardiff School of Arts and Design, UK	Online
02:50PM	9717	ptimized Focused Crawling for Web page Classification	Nazifa Fatima GIFT University	In-Person
03:05PM	3904	Multiclass Classification of Gastric Cancer using Artificial Neural Network	Dr. M. Aqeel Aslam GIFT University	In-Person
03:20PM	2100	Carcinoembryonic Antigens Segmentation and Quantitative Analysis from Fluorescent Images using Principal Component Analysis and Adaptive K-means Clustering	Dr. M. Aqeel Aslam GIFT University	In-Person
03:35PM	3112	Decentralized Coordination Control Scheme for the Complex Transactive Energy Prosumers	Muhammad Ikram UET Peshawar	In-person
03:50PM	6909	Number Recognition System-based Virtual Sketch with Hand Gestures Using Attentional Convolutional Network	Putri Rahayu Ningtiyas/ Universitas 17 Agustus 1945 Surabaya, Indonesia	Online
04:05PM	1334	Attention-Based Approach for Cassava Leaf Disease Classification in Agriculture	Simon Peter Khabusi National Taipei University of Technology	Online
04:20PM	2211	Hand Gesture Recognition System for Recognizing of Indonesian Sign Language Number Using Attentional Convolutional Network	Arief Rahman Hakim Universitas 17 Agustus 1945 Surabaya, Indonesia	Online

Thursday 9 March 2023 (Day 2)

Technical Session 3 (Track A)

Date 9th March 2023 (Thursday)
Time 11:50 AM – 01:40 PM
Room Seminar Hall, GIFT University, Gujranwala
Session Title Power (P-3)
Chairs Dr. Muhammad Aqeel, Engr Humble Hassan

Time	Paper ID	Paper Title	Presenter	Presentation Mode
11:50AM	Invited Talk	Opportunities and Challenges of EV Charging Stations on Existing Power Infrastructure: A Convex Optimization Approach	Dr. M. Shahzad Younis, SEECs-NUST, Islamabad	In-Person
12:10PM	2336	Seasonal Impact on the Storage Capacity Sizing in a Renewable Energy System Under the Condition of Safe Operation	Dr. Saher Javaid Japan Advanced Institute of Science and Technology	In-Person
12:25PM	727	Ad-Hoc Microgrids Planning for Rural Communities Under Natural Disasters	Majid Ali CROM, AAU Energy, Aalborg University, Denmark	In-Person
12:40PM	6008	Effect of PV System Design and Financial Variables on Systems Performance and Financial Feasibility	Abdul Kashif Janjua, and M. Musadiq Ahmed NUST, Islamabad	In-Person
12:55PM	1398	Design and Development of Net-Metering based Energy Meter	M. Shoaib Saleem UMT Sialkot	In-Person
01:10PM	9432	Optimising PMU Placement using Integer Linear Programming for Complete Network Observability with Zero Injection Bus and N-1 Contingency	M. Musadiq Ahmed IUB Bahawalpur	In-person
01:25PM	6935	Electrical Substation Environment Monitoring System Using Energy Efficient Algorithm For WSN	Saddique Haroon UET Lahore	Online

Thursday 9 March 2023 (Day 2)

Technical Session 3 (Track B)

Date 9th March 2023 (Thursday)
Time 11:50 AM – 01:40 PM
Room G-2, GIFT University, Gujranwala
Session Title Energy (E-2)
Chairs Prof. Dr. Muzaffar Ali, Dr. Abdul Hannan Zahid

Time	Paper ID	Paper Title	Presenter	Presentation Mode
11:50AM	Invited Talk	Design and Development of an innovative passive building envelope integrated with Phase Change and Insulating Materials: Advancement towards future buildings	Prof. Dr. Muzaffar Ali UET Taxila	In-Person
12:10PM	5907	Numerical Investigation of Best Possible Phase Change Material for PV Panels in Malaysian Climatic Conditions	Asif Durez NUTECH, Islamabad	In-Person
12:25PM	836	Rare earth ion doped zinc oxide as a viable photoanode material for dye-sensitized solar cells: optoelectrical and wettability aspects.	Altamash Shabbir UPCASE, NUST, Islamabad	In-person
12:40PM	6742	Designing a Solidworks model for Low-Cost Air Purifier; Effective for Indoor Air Quality Control	Syeda Rida Zehra Hadmani Riphah International University	In-person
12:55PM	3903	Comparative analysis of thin reflex airfoil for micro air vehicles	Hamid Iftikhar University of Lahore	Online
01:10PM	1049	Experimental investigation of the vibration transmission of a motorbike (CD-70) to hands and back	M. Ahmed Rabbani, GIKI, TOPI	In-person
01:25PM	7525	Optimal Selection of Candidate Wind Farms Capacity for Generation Expansion Planning	Maliha Shah NUST, Islamabad	Online

Thursday 9 March 2023 (Day 2)

Technical Session 3 (Track C)

Date 9th March 2023 (Thursday)
Time 11:50 AM – 01:40 PM
Room G-3, GIFT University, Gujranwala
Session Title Computing (C-2)
Chairs Dr. Muhammad Ziad Nayyer, Dr. Qamar Askri

Time	Paper ID	Paper Title	Presenter	Presentation Mode
11:50AM	Invited Talk	Multimodal Brain Image Fusion for Disease Diagnosis	Prof. Dr. Manhua Liu	Online
12:10PM	8579	Survivability Period Prediction in Colon Cancer Patients using Machine Learning	Anoosha Tahir UET Lahore	In-Person
12:25PM	7239	Few Shot Spatio-Temporal Anomaly Detection Model For Suspicious Activities	Nouman Aziz University of Gujrat	In-Person
12:40PM	2307	Design Face Spoof Detection using Deep Learning	Rajeetha Thaneeshan Uva Wellassa University, Sri Lanka	Online
12:55PM	7100	Environmental Impacts of ICEVs and BEVs in Dhaka City based on Vehicle Fleet Modelling and Machine Learning Technique	Mirza Rasheduzzaman University of Liberal Arts Bangladesh	Online
01:10PM	2621	An Applied Artificial Intelligence Aided Technique for effective classification of Breast Cancer	Sabeen Javaid University of Sialkot	In-Person
01:25PM	5705	Forecasting Cryptocurrency Prices Using an Improved Gated Recurrent Unit Neural Network	M. Shahzeb Khan BUIEMS, Quetta	Online

Thursday 9 March 2023 (Day 2)

Technical Session 4 (Track A)

Date 9th March 2023 (Thursday)
Time 02:40 PM – 04:30 PM
Room Seminar Hall, GIFT University, Gujranwala
Session Title Power (P-4)
Chairs Dr. Hassan Imran, Engr. Ali Arshad

Time	Paper ID	Paper Title	Presenter	Presentation Mode
02:40PM	Invited Talk	The Role of Video Coding in Efficient Communication and Storage	Prof. Dr. Gulistan Raja UET Taxila, Pakistan	In-Person
03:00PM	3479	Design of 120 GHz Balun for 5G Transceiver Chips	Zubair Mehmood University of Gujrat	In-Person
03:15PM	916	Which Simulator to Choose for Next Generation Wireless Network Simulations? NS-3 or OMNeT++	M. Akbar Kayani MUST, AJK	In-Person
03:30PM	6314	Design and Miniaturization of Dual Band Filter based on Quarter Wavelength Resonators	M. Kamran Saleem UCP Lahore	In-Person
03:45PM	813	Design and Implementation of Prepaid Energy Meter with Home Automation and Peak Load Management with Android Application	Zainab Mubeen Tahir University of Gujrat	In-Person
04:00PM	3954	Evaluation and Characterization of Power Generation Trainer EM-PRT-EG3 for Laboratory Education	Mian Rizwan, University of Gujrat	In-Person
04:15PM	3929	A Novel Ultra-Wideband Fractal Antenna with Defected Ground Structure for W-band Applications	Talha Shahid Alvi NUST, Islamabad	Online

Thursday 9 March 2023 (Day 2)

Technical Session 4 (Track B)

Date 9th March 2023 (Thursday)
Time 02:40 PM – 04:30 PM
Room G-2, GIFT University, Gujranwala
Session Title Environment (En-2)
Chairs Assoc. Prof. Dr. Ghulam Abbas, Dr. Abdul Basit

Time	Paper ID	Paper Title	Presenter	Presentation Mode
02:40PM	Invited Talk	Application of floating treatment wetlands in Pakistan for the treatment and reuse of wastewater	Dr. Muhammad Afzal NIBGE, Faisalabad	In-Person
03:00PM	Invited Talk	Energy from Biomass	Dr. Tazien Rashid Associate Professor, Government College University, Faisalabad	In-Person
03:20PM	993	Life Cycle of Grid Connected Photo-Voltaic Panels	M. Saleh Rashid GIFT University	In-Person
03:35PM	9007	An Investigation of Valorization Potential of Fecal sludge for Anaerobic Treatment from Onsite Sanitation Facilities	Nida Maqbool IESE NUST, Islamabad	Online
03:50PM	5232	Detection of Plant Stress Condition With Deep Learning Based Detection Models	Mohd Shahrimie Mohd Asaari/ University Sains Malaysia	Online
04:05PM	3694	Smart Pipeline Monitoring System: A Review	Mahaman Djamilou Yahaya Moussa Federal University of Technology Minna Niger State, Nigeria	Online
04:20PM	5617	Evaluation of indoor air quality, air exchange rates and thermal comfort parameters in dormitories	Ayesha Asif NUST, Islamabad	Online
04:35PM	9625	Determining Historic (1950 - 2000) Average Precipitation and Temperature for Pakistan by Using Climate Downscaling Technique	Ibadullah Safdar Riphah University	Online

Thursday 9 March 2023 (Day 2)

Technical Session 4 (Track C)

Date 9th March 2023 (Thursday)
Time 02:40 PM – 04:30 PM
Room G-3, GIFT University, Gujranwala
Session Title Computing (C-3)
Chairs Dr. Muhammad Faheem, Dr. Naveed Anwer Butt

Time	Paper ID	Paper Title	Presenter	Presentation Mode
02:40PM	Invited Talk	Reliability analysis of safety critical cyber physical systems	Dr. Pooja Singh	Online
03:00PM	3902	Trust-aware Cloudlet Federation Model for Secure Service Selection	Vaneeza Shahid GIFT University	In-Person
03:15PM	3531	Dynamic Denoising Mirroring Filter for Periodic Noise Removal from 2D Medical Images	Umair Shafique University of Gujrat	In-Person
03:30PM	5593	Generative Adversarial Networks (GANs) Video Framework: A Systematic Literature Review	M. Imran Ghafoor Pakistan Television Lahore	In-Person
03:45PM	1065	Smart Scheduling in Cloudlet Federation	Sherrjel Asim GIFT University	In-Person
04:00PM	1646	Forecasting resource dynamics for collaborating clouds	M. Hassan Mursal Govt College University Faisalabad	In-Person
04:15PM	3335	An Integrated Machine Learning Framework for Effective Classification of Water	Sabeen Javaid University of Sialkot	In-Person
04:30PM	7124	A Systematic Literature Review: Evaluating Effects of Adversarial Attacks and Attack Generation Methods	Saira Akram/ Balochistan, BUIITEMS, Quetta	Online

CLOSING CEREMONY

Thursday 9 March 2023

Time	Program	Venue
04:15pm	Closing remarks by Chair Technical Program Committee Dr. Muhammad Ziad Nanyar	Seminar Hall
04:30pm	Closure of Conference	Seminar Hall

Poster Session

Paper ID	Paper Title	Authors
1817	Towards Reducing Handoff Times in Next Generation Wireless Networks	Sohaib Manzoor, Muhammad Akbar Kayani, Ali Raza, Mahak Manzoor and Hira Manzoor
8643	A study comparing the use of data mining and machine learning to assess criminal threats	Abdullah Abbas, Muhhammad Shahzaib Toor, Mubashra Sadaqat, Fiaz Majeed, Hafiz Usman Zia and Samina Naz
5766	Heuristic-based malware detection for Android using Machine learning	Muhammad Shahzaib Toor, Mubashra Sadaqat, Abdullah Abbas, Fiaz Majeed and Mah Amara
8307	Transition of Signals from Time Sampled Form to Frequency Sampled Form using Transformation Methods	Ahmed Faraz and Shumaila Usman
2682	Feature Extraction Approaches for Malicious URLs Detection: Review	Javeria Ahmed, Hafiz Usman Zia, Ayyaz-UI-Haq Qureshi, Fiaz Majeed and Umair Shafique
1383	Attack detection in fog layer on Selected Features of NSL-KDD using Machine learning Classifiers	Tahmina Ehsan, Usman Zia, Alvena Ehsan, Fateha Minahil, Mustabeen Aziz and Mubashra Sadaqat

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