

PROGRAM – At a Glance

Time	Mon 19 th Nov (Opening Day)	Tue 20 th Nov	Wed 21 nd Nov
0900-0930	Registration	Registration	Registration
0930-0955	Guests to be Seated		
1000-1125	<p style="text-align: center;">Opening Session</p> <p>1000-1002 Arrival of Chief Guest 1005-1010 Recitation of Holy Qur'an 1010-1015 National Anthem 1015-1025 Conference Introduction 1025-1035 Welcome Note by Vice Chancellor 1035-1100 Keynote by Prof. Dr M. Pavlova 1100-1115 Address by Chief Guest 1115-1125 Souvenirs and Photo Session</p>	10:00-11:40 Technical Sessions 3, 4 & 5	10:00-12:00 Technical Sessions 9 & 10
1125-1145	Refreshments	11:40-11:50 Refreshments	12:00-12:15 Refreshments
1145-1210	KN1: Dr. Asif Arastu "The Nuclear Promise for Clean Energy"	11:50-13:30 Technical Sessions 6, 7 & 8	Conference Tour
1210-1235	KN2: Dr. Ansar Parvez "Electricity resource options: the Varied Past and Unresolved Future"		
1235-1300	KN3: Mr. Christopher Kajjala "Micro-grid Solar Power Systems"		
1300-1400	Lunch/Prayer Break	1330-1430 Lunch/Prayer Break	
1400-1415	Introductory Note by Dr. Afzaal Malik	<p style="text-align: center;">Closing Session</p> 1445-1455 Seating in Main Auditorium 1500-1505 Arrival of Chief Guest 1505-1510 National Anthem 1510-1515 Recitation of Holy Qur'an 1515-1535 Keynote (Prof. D. Ashall) 1535-1555 Concluding Remarks (Dr. Asif Arastu) 1555-1610 Address Vice Chancellor 1610-1625 Address by Chief Guest	
1415-1440	KN4: Prof. Dr. Naser Vosoughi "Progresses in Power reactor Noise Analysis and Noise Source Diagnosis in last one decade in DOEE"	Technical Sessions 1 & 2	
1440-1505	KN5: Prof. Dr. Bilal Khan "Energy without Borders"		
1505-1530	KN6: Prof. Dr. A. S. Syed "Advanced PV Technologies"		
1530-1555	KN7: Prof. Dr. Sohail Zaki		
1555-1610	Closing by Dr. Zafar Ullah Koreshi		
1615-1630	Refreshments	1615-1645 Souvenirs; Photo Session and Tea	
1800-1930	Conference Dinner		

DETAILED PROGRAM 19TH – 21ND NOV 2018

FUNCTIONS IN MAIN AUDITORIUM, AND PARALLEL SESSIONS IN LTC HALL, FMC AUDITORIUM,
AUSOM AUDITORIUM & IAA G-02 CONFERENCE ROOM

Technical Session - 1

MONDAY 19TH NOVEMBER 2018 (14:15 – 16:05)

RENEWABLE ENERGY-I, VENUE: LTC Hall

Session Coordinator: Dr. Rana Iqtidar, Air University.

Session Chair: Mr Christopher Kaijala, Process Technology Consulting, Michigan, USA

Session Co-Chair: Engr. Ahmed Sohail, Technical Adviser, United States Pakistan Center for Advanced Studies in Engineering (USPCAS-E) based at UET-Peshawar.

14:15-14:35 Safdar Raza, Rabbia Siddique, Abdul Mannan, *NFC Inst. of Engg. And Tech.*, Optimal Allocation of distributed generation for hybrid system using Particle Swarm Optimization (ICRANET-180133)

14:35-14:55 M. Hassam Aziz, Pervez Akhter, Kamran Iqbal, Abdul Hameed Babar, Umer Khan, *NUST*, Performance Evaluation of an on-grid 100 MW Quaid-e-Azam Solar Power Bahawalpur (ICRANET-180155)

14:55-15:15 M Abubakar (*COMSATS*), Hafiz M Ali (*UET Taxila*), Faizan Younas (*COMSATS*), M Wasim Akhtar (*COMSATS*) and A Faraz (*COMSATS*), Effect of water as a rays filter on the performance of PV Module (ICRANET-180130)

15:15-15:35 Saim Saher, M Sabah ud din Ersum, Rizwan M. Gul, Waleed Hassan, M Shaheer, *UET Peshawar*, Anti-soiling coating of Solar Panels to increase their efficiency (ICRANET-180126)

15:35-15:55 Mehwish Mirza and Tanweer Hussain, *Mehran UET Jamshoro, Sindh*. Control and Analysis of Drip Irrigation System (ICRANET-180110)

15:55-16:10 Dr. Meesam Abbas, Wind Turbine Analysis and Blade Optimization

Technical Session - 2

MONDAY 19TH NOVEMBER 2018 (14:15 – 16:05)

ELECTRICAL POWER-I, VENUE: AUSOM Auditorium

Session Coordinator: Dr. M. Habib Mahmood, Air University.

Session Chair: Prof. David Ashall, Robert Gordon University, Aberdeen, Scotland.

Session Co-Chair: Dr Fida M Khan

14:15-14:35 Muhammad Bilal*, Hamza Zaman, Muhammad Hassan, Badar Ali, Muhammad Umair Alam, Syed Asim Ali Shah, *Bahria University*, Design and Development of a Variable Electric Field Generator (ICRANET-180703)

14:35-14:55 Muhammad Awais (*North China Electric Power University*), Nian Liu (*North China Electric Power University*), Muhammad Jamshed Abbas (*Riphah International University*), Ali Waqar (*North China Electric Power University*), Jibrán Hashim (*Riphah International University*), Arslan Hameed (*Riphah International University*), A Distributed Optimal Solution Of Economic Dispatch Problem (ICRANET-180720)

15:05-15:25 Safdar Raza, Nashitah Alwaz, Sadaqat Ali, *NFC Institute of Engineering & Technology Multan, Punjab*, Modified Decentralize Control Strategy for Accurate Reactive Power Sharing In Islanded Microgrid (ICRANET-180712)

15:25-15:45 Usman Hameed, Muhammad Umer Khan, Husnain Sadiq, Muhammad Nauman Rafique, Arsalan Habib Khawaja, Hassan Abdullah Khalid, *USPCAS-E NUST*, Technical Analysis of Current Controllers in Grid Tied Multi-level Converters (ICRANET-180713)

15:45-16:05 Saqlain Ahmad, Awais Arshad, Syed Ali Abbas Kazmi, *USPCAS-E NUST*, Frequency Stability Analysis of Radial and Looped Distribution Network with Distributed Generation Considering Loadability (ICRANET-180716)

Technical Session - 3

TUESDAY 20TH NOVEMBER 2018 (10:00-11:45)

ENERGY SYSTEMS AND POLICY-I, VENUE: LTC Hall

Session Coordinator: Mr Akhtar Khurshid, Air University.

Session Chair: Prof. Dr. M. Bilal Khan, Founding Dean and Principal USPCASE NUST and Senior Fellow, NUST Institute of Policy Studies

Session Co-Chair: Mr Sohail Kiyani

10:00-10:15 Engr. Zain Qureshi, Member OGRA, Regulatory Issues

10:15-10:30 Engr. N. A. Zuberi, CPEC Energy and Infrastructure

10:30-10:45 Mr Mansoor Sheikh, Clean Coal prospects

10:45-11:00 Mr M Raziuddin, KPOGCL, Petroleum exploration in KPK

11:00-11:15 Prof. Dr. M. Bilal Khan, National Energy Policy

11:15-11:30 Prof. Dr. M Afzal Khan, Nuclear Power Plant Equipment

11:30-11:45 Dr. Arif Ahmed (former DG PAEC), Invited Talk

Technical Session - 4

TUESDAY 20TH NOVEMBER 2018 (10:00-11:40)

RENEWABLE ENERGY-II, VENUE: AUSOM Auditorium

Session Coordinator: Mr Umer Farooq, Air University.

Session Chair: Prof. David Ashall, Robert Gordon University, Aberdeen, Scotland.

Session Co-Chair: Engr. Akmal Shah, Air University, Islamabad, Pakistan.

10:00-10:20 Muneeb Hussain and Pervaiz Akhter, Efficiency Analysis of hydro-turbine used in Mini/Micro Hydrel Plants (MHPs): A case study of Gilgit-Baltistan (ICRANET-180132)

10:20-10:40 Fahd Syed, Safdar Raza, M. Salik Siddique and Waleed Syed, Stand-alone hybrid energy generation for remote telecom towers (ICRANET-180131)

10:40-11:00 Kamran Mehboob, M. Irfan, Ahsan Ali, Farman Ali, Hassan Mehmood and Awais Khan, UET Lahore & Chenab College of Engineering and Technology Gujranwala, Design and Analysis of 50 MWe Solar Power Plant in Multan using Solar Power Tower Technology (ICRANET-180142)

11:00-11:20 Rashid Miandad, Hizbullah Khan, Shahla Nazneen, Saeeda Yousaf, Sanya Kiran, Aqil Shah, *University of Peshawar*, Catalytic Pyrolysis of Polyethylene Plastic with Natural and Synthetic Zeolite (ICRANET-180120)

11:20-11:40 Muhammad Usman Afridi, Tanvir Ahmad, Rizwan Kamal, Inzamam ul Haq, Abdul Basit, *USPCAS-E, UET Peshawar*, Performance and Economic Analysis of Grid-connected Residential Consumers in Pakistan having PV DG Systems under Net Metering (ICRANET-180123)

Technical Session - 5

TUESDAY 20TH NOVEMBER 2018 (10:00-11:40)

ENERGY STORAGE AND CONVERSION, FOSSIL, NUCLEAR ENERGY, VENUE: IAA, G-02

Session Coordinator: Mr Atiq-ur-Rehman, Air University.

Session Chair: Dr Syed Arif Ahmed, former DG PAEC.

Session Co-Chair: Dr Sohail Zaki, USPCASE, Peshawar.

10:00-10:20 Muhammad Ishaq Khan, Adeel Javed, *NUST*, System Design of A High-Speed E-Turbine System for Waste Heat Recovery in Automotive VEHICLES (ICRANET-180202)

10:20-10:40 Khalid Mahmood, Arshi Khalid, *U.E.T Lahore*, Highly Efficient Perovskite Solar Cells based on Low-temperature Solution-Processed Electron Transporting Layers (ICRANET-180401)

10:40-11:00 Ayaz Muhammad (*UET Peshawar*), Muhammad Awais Khan (*UET Peshawar*), Syed Riaz ul Hassnain (*UET Peshawar*), Mehmoona Gul (*UET Peshawar*), Syed Azam Hassnain (*Sui Northern Gas Pipelines*), A Comprehensive Study Of High Frequency Inductive Power Transfer Technology Based On Parallel Transmitting Coils (ICRANET-180403)

11:00-11:20 Syed Muneef Ali Shah, Dr. Majid Ali, Dr. Adeel Javed, *USPCAS-E NUST*, Thermal Management of Electric Vehicles Batteries using Phase Change Material (ICRANET-180405)

11:20-11:40 Hafiz Harun Jamil, Dr. Fida Muhammad Khan, Muhammad Adil Khan, Muhammad Waleed Shujha, Muhammad Insaf Butt, *Air University*, Sliding Mode Control Of Llc (Inductance Inductance & Capacitance) Dc-Dc Resonant Converter (ICRANET-180410)

Technical Session - 6

TUESDAY 20TH NOVEMBER 2018 (11:50-13:30)

RENEWABLE ENERGY-III, VENUE: LTC Auditorium

Session Coordinator: Mr Ehtisham Hasan, Air University

Session Chair: Dr Asif Arastu, Unisont, USA.

Session Co-Chair: Dr Majid Ali, United States Pakistan Center for Advanced Studies in Engineering (USPCAS-E) NUST, Islamabad, Pakistan.

11:50-12:10 Qais Ali, Rida Fatima and Syed Ali Abbas Kazimi, *USPCAS-E NUST*, Islamabad. Studying the impact of solar PV integration in medium voltage radial distribution network (ICRANET-180135)

12:10-12:30 Mohsin Mumtaz and Husain Sarwar Khan, Muhammad Aamir, Muhammad Ali and Ali Rehman, *Bahria Univ. Islamabad*. Load Flow Analysis of CIGRE Benchmark Model using ETAP (ICRANET-180138)

12:30-12:50 Kamran Mehboob, Saqib Tanveer, Farman Ali, Fahad bin Naeem, Hamza Khalid and Awaaid Khan, *UET Lahore/Chenab College of Engg. And Tech., Gujranwala*, A review of types of renewable energy technologies and its impact on environment in Pakistan (ICRANET-180140)

12:50-13:10 Irfan Shah, Rohana Adam (Univ. Sains Malaysia), Haq Nawaz Bhatti, Umar Farooq and Muhammad Ashraf, (*Univ. of Agriculture, Faisalabad*), Environmentally benign catalytic conversion of waste cooking oil into biodiesel using iron impregnated activated carbon (ICRANET-180141)

13:10-13:30 Abdul Hameed Babar, Muhammad Hassam Aziz, Pervaiz Akhtar and M. Umer Khan, *USPCAS-E, NUST*, Proposal of Canal Top Solar PV for Extraction of Solar Energy in Pakistan (ICRANET-180143)

Technical Session - 7

TUESDAY 20TH NOVEMBER 2018 (11:50-13:30)

COMBINED SESSION (New Energy Tech., CPEC, Energy Systems and Policy, Smart & Sustainable Built Environments), VENUE: IAA G02

Session Coordinator: Dr. M. Habib Mahmood, Air University.

Session Chair: Prof. David Ashall, Robert Gordon University, Aberdeen, Scotland.

Session Co-Chair: Dr Fida M Khan, Air University.

11:50-12:10 Rawail Haseem, Adeel Javed, *NUST*, Computational Investigation of Drag Reduction On an Ahmed Body Using Square Grooves (ICRANET-180513)

12:10-12:30 Haseeb Taj, Dr. Rao Arsalan Khushnood, Ali Janjua, Hasnain Khan, Siraj ud Din, Sufian Ahmad, *NUST*, Applications of Lightweight Foam Concrete in Cold Formed Steel Construction for Affordable Housing in Pakistan (ICRANET-180904)

12:30-12:50 Dr. Seeme Mallick, *HEC – NRP*, Energy Mix – Change of Focus for the Energy Sector of Pakistan (ICRANET-180807)

12:50-13:10 Dr. Muzammil Khurshid (*University of Central Punjab, Sialkot*), Athar Rashid (*Izmir University of Economics, Turkey*), R.M. Ammar Zahid (*Virtual University Pakistan*), Impact of CPEC Energy Projects On Socio-Economic Development of Pakistan (ICRANET-180602)

13:10-13:30 Zoonia Naseeb, *University of the Punjab Lahore*, China Pakistan Economic Corridor: An opportunity to development of energy sector in Pakistan (ICRANET-180603)

Technical Session - 8

TUESDAY 20TH NOVEMBER 2018 (11:50-13:35)

ENERGY SYSTEMS AND POLICY II, VENUE: AUSOM

Session Coordinator: Ms. Amna Khan, Air University.

Session Chair: Prof. Dr. Margarita Pavlova, Hong Kong.

Session Co-Chair: Mr. Sohail Kiyani

11:50-12:05 Dr M. Tariq, Challenges and Opportunities in Super Smart Grids, National University of Computer and Emerging Sciences, FAST, Peshawar

12:05-12:20 Dr Margarita Pavlova, Green Economies, Hong Kong.

12:20-12:35 Mr Ahmed Sohail, Solar hybrid industrial water heating system in Lahore Pakistan, USPCASE, Peshawar.

12:35-12:50 Muhammad Salik Siddique (*Institute of Southern Punjab, Multan*), Waleed Syed (*Islamia University Bahawalpur, Multan*), Fahad Syed (*Institute of Southern Punjab, Multan*), Talha Aakif Hanif (*University of Lahore*), Infrastructure and Important Functions of Smart Home Energy Management System (ICRANET-180903)

12:50- 13:05 Prof Dr A. S. Shuja, IIUI, Solar Technologies

13:05- 13:20 Dr Asif Arastu, Gen IV Reactor, Unisont, California, USA.

13:20- 13:35 Mr Sohail Kiyani, Invited Talk

Technical Session - 9

WEDNESDAY 21ST NOVEMBER 2018 (10:00-12:00)

RENEWABLE ENERGY-IV, VENUE: IAA G02

Session Coordinator: Ms Samina Jamil, Air University.

Session Chair: Prof. Naser Vosoughi, Sharif University, Iran.

Session Co-Chair: Dr. M. Tariq, FAST, National University of Computer and Emerging Sciences, Peshawar.

10:00-10:20 Engr. G. A. Sabri, Petroleum Policy of Pakistan

10:20-10:40 Ali Shan Siddiqui, Abdul Hameed Memon, Muhammad Alam, Syed Nadeem Mian, Rehan Khursheed and Anwar Anis Ahmad, Hamdard University Karachi, A Review Study: Distinct recent advancements in H-type Darrieus Wind Turbine to improve aerodynamic Performance (ICRANET-180144)

10:40-11:00 Maria Kanwal and Nadia Shahzad, USPCAS-E NUST, Islamabad, Effectively transparent contacts with low temperature reactive silver ink, (ICRANET-180146)

11:00-11:20 Hussain Ali, Kafait ullah, M. Umer Khan, Shehroz Azam and Jawad Habib ullah, Measuring sustainability of energy conservation and efficiency in Pakistan (ICRANET-180147)

11:20-11:40 Mazhar Ali, Muhammad Umer Khan, Hussain Ali, M. Haseeb Nawaz, Usman Hameed, Rashid Wazir, *NUST*, Feasibility Study for Designing a Hybrid Energy System for Removing Energy Poverty in Rural Areas of Pakistan (ICRANET-180150)

11:40-12:00 Jalal Uddin Sadiq, Naseer Sadiq, *JD Aviation Sourcing & Engineering Services*, Solar Thermal Energy Systems (ICRANET-180157)

Technical Session - 10

WEDNESDAY 21ST NOVEMBER 2018 (10:00-12:00)

NEW ENERGY TECHNOLOGIES, VENUE: LTC Hall

Session Coordinator: Mr Umair Aziz, Air University.

Session Chair: Prof. Dr Margarita Pavlova, Hong Kong.

Session Co-Chair: Dr Rubina Nasir, Air University, Islamabad, Pakistan

10:00-10:20 Uzma Perveen (*Air University*), Asghari Maqsood (*Air University*), M. Anis-ur- Rahman (*COMSATS*), Enhancement of Conductivity of Hydrothermally Synthesized Doped Ceria for Fuel Cell Applications (ICRANET-180501)

10:20-10:40 Rakeel Mahmood (*Air University*), Asghari Maqsood (*Air University*), M. Anis-ur-Rehman (*COMSATS*), Synthesis and Dielectric Properties of Holmium Doped Strontium Ferrite for High Frequency Applications (ICRANET-180502)

10:40-11:00 Shehzar Shahzad Sheikh, *USPCASE-NUST*, Technical and Economic Challenges for Flow Batteries in Grid-scale Energy Storage (ICRANET-180407)

11:00-11:20 Fahad Syed (*Institute of Southern Punjab, Multan*), Muhammad Salik Siddique (*Institute of Southern Punjab, Multan*), Waleed Syed (*Islamia University Bahawalpur*), Safdar Raza (*NFC Institute of Engineering and Technology*), Advance Metering Infrastructure Technology and Challenges in Pakistan (ICRANET-180508)

11:20-11:40 Syed Umer Bin Arif, Dr. Adeel Javed, *USPCASE-NUST*, Design and Analysis of Micro Gas Turbine as a Range Extender in an Electric Vehicles (ICRANET-180511)

11:40-12:00 Kamran Mahboob (*UET Lahore*), Farman Ali, Hassan Mehmood, Muhammad Irfan, Saqib Tanveer (*Chenab College of Engineering and Technology Gujranwala*), Awais Khan (*UET Lahore*), Design, analysis and optimization of 50MWe solar thermal power plant in Multan using CSP Parabolic Trough technology (ICRANET-180510)