



1ST INTERNATIONAL CONFERENCE ON

ENERGY SYSTEMS FOR SUSTAINABLE DEVELOPMENT

Lahore

● 20-22 May 2015



ESSD-2014

PROGRAM

CONFERENCE SECRETARIAT

Dr. Asad U. Khan	Chair
Dr. Aqeel Ahmed Bazmi	Co-Chair
Engr. Abdul Waheed Bhutto	Co-Chair
Prof. Dr. Robina Farooq	Member
Assoc. Prof. Dr. Moinuddin Ghauri	Member
Dr. Javed Iqbal	Member
Dr. Asim Laeeq Khan	Member
Dr. Mazhar Amjad Gillani	Member
Dr. Zakir Khan	Member
Mr. Tariq Raza	Member
Dr. Muhammad Saif-ur-Rehman	Member
Dr. Muhammad Rizwan	Organizing Secretary
Mr. Amjad Riaz	Secretary

CONFERENCE VENUE

COMSATS Institute of Information Technology,
1.5 km Defense Road, Off Raiwind Road,
Lahore, Pakistan.
Tel: +92(042)-111-001-007
Email: ESSD@ciitlahore.edu.pk

LANGUAGE

The official conference language is English.
No translation service will be provided.

REGISTRATION HOURS

Tuesday, May 19	5:00 PM – 7:00 PM
Wednesday, May 20	8:30 AM – 9:30 AM

INTERNET ACCESS

No Internet Service is available inside conference rooms.

PROGRAM

The technical program includes invited plenary and keynote lectures, oral sessions and poster presentations.

ORAL PRESENTATIONS

Oral presentations are scheduled for 15 minutes of presentation and 5 minutes of Q&A.

All presentations should be in PowerPoint or PDF formats. A laptop and LCD projector will be available in all sessions. Each presenter is requested to bring the presentation in a USB storage device and upload it to the laptop before the session begins. All presentations will be destroyed at the end of the session.

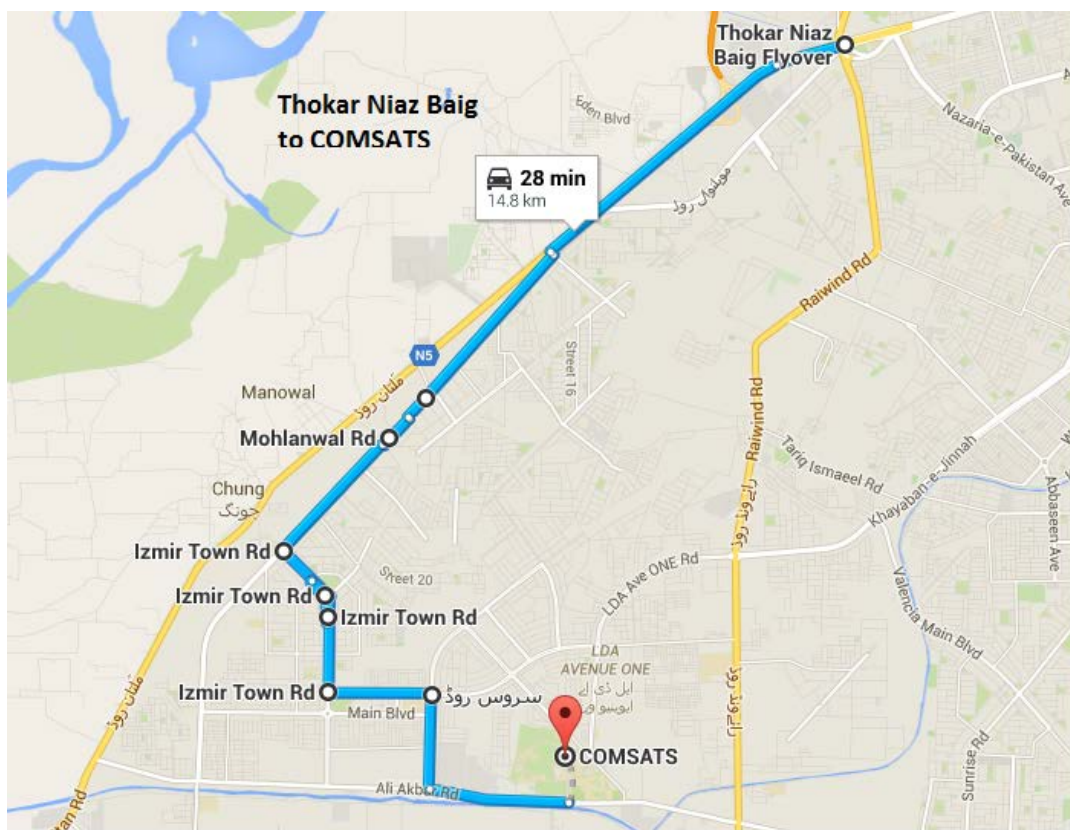
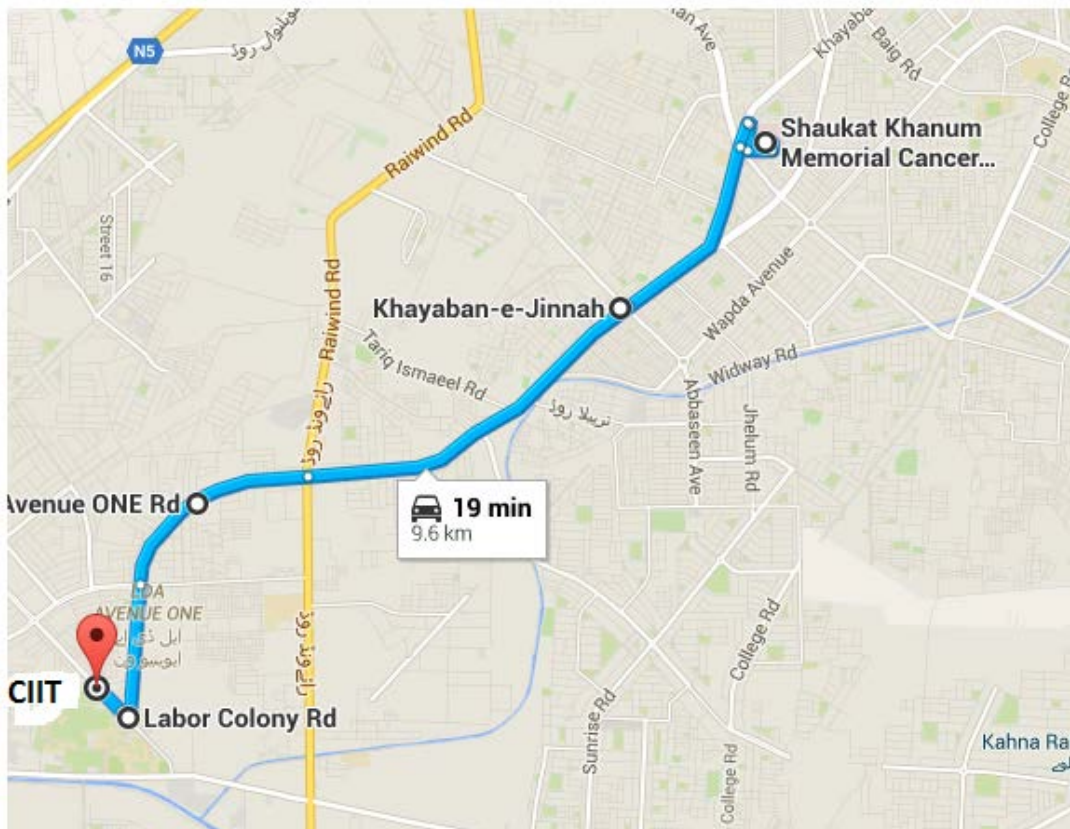
We urge all presenters to use the provided laptop for presentation so as to minimize changeover times.

Since we have a very tight and fully packed program, we request all the delegates to be punctual and respect the allocated timeslots.

In case of absence of some presenter, next presenter shall be called for presentation.

POSTER SESSION

The dimensions of the poster board will be 594 mm (Width) x 841 mm (Height) (or equivalently 23.3 in (W) x 35 in (H)). This corresponds to A1 Size in portrait layout. Posters are to be put up according to the assigned Paper IDs shown in the detailed program. The posters can be put up from Tuesday, 19th May 2015 06:00 PM, and must be removed after the poster session. Posters left on the boards will be taken down and disposed of.





Prof. Dr. Shahid Munir

University of the Punjab

10:40 AM – 11:10 AM, Wednesday, May 20

Indigenous Coal for Clean Power Production

Mr. Robert Schenk

SMEC

11:40 AM – 12:10 PM, Wednesday, May 20

A Road Map to Energy Efficiency



Prof. Dr. Khanji Harijan

Mehran University of Engineering & Technology

12:10 PM – 12:40 PM, Wednesday, May 20

Prof. Dr. Muhamamd Nasim

Institute of Southern Punjab

12:40 PM – 01:10 PM, Wednesday, May 20



Mr. Khalid Saeed

COMSATS Institute of Information Technology

02:15 PM – 02:45 PM, Wednesday, May 20, Seminar Room-A block

Dr. Muhammad Shahbaz

COMSATS Institute of Information Technology

04:25 Pm – 04:55 PM, Wednesday, May 20, Seminar Room-A block

Measuring Economic Cost of Electricity Shortage: Current Challenges and Future Prospects in Pakistan



Prof. Dr. Nadeem Feroz

University of Engineering & Technology

09:30 PM – 10:00 PM, Thursday, May 21, Seminar Room-A block

Dr. Muhammad Awais

Lahore University of Management Sciences

09:30 PM – 10:00 PM, Thursday, May 21, Room # A-6, A block

Prof. Dr. Muhammad Abid

COMSATS Institute of Information Technology

11:40 AM – 12:10 PM, Thursday, May 21, Seminar Room-A block

Prof. Dr. Asif Ali Qaiser

University of Engineering & Technology

02:00 PM – 02:30 PM, Thursday, May 21, Seminar Room-A block



Prof. Dr. Muhammad Arshad, T.I.

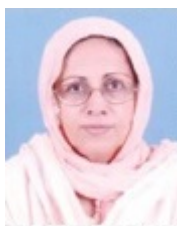
University of Agriculture

02:00 PM – 02:30 PM, Thursday, May 21, Room # A-6, A block

Prof. Dr. Tahir Jamil

University of the Punjab

04:30 PM – 05:00 PM, Thursday, May 21, Seminar Room-A block



Prof. Dr. Firdaus-E-Bareen

University of the Punjab

04:30 PM – 05:00 PM, Thursday, May 21, Room # A-6, A block

Chelate-Assisted Heavy Metal Phytoextraction

Prof. Dr. Jawaid Askari

Dawood University of Engineering & Technology

09:00 AM – 09:30 AM, Friday, May 22, Seminar Room-A block

Sustainability and Energy Independence



Tuesday, May 19

17:00 – 19:00	Registration
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Wednesday, May 20

08.30 – 09.30	Registration	
09:30 – 10:40	Inauguration/ Opening Ceremony	
	10:10	Welcome Address by Conference Chair
	10:20	Inaugural Address by the Chief Guest
	10:40	Address by Director CIIT, Lahore
10:40 – 11:10	Plenary 1	
	INDIGENOUS COAL FOR CLEAN POWER PRODUCTION	
	Shahid Munir (<i>University of the Punjab</i>)	
11:10 – 11:40	Coffee/Tea Break	
11:40 – 12:10	Plenary 2	
	A ROAD MAP TO ENERGY EFFICIENCY	
	Robert Schenk (<i>SMEC</i>)	
12:10 – 12:40	Plenary 3	
	Khanji Harijan (<i>Mehran University of Engg & Tech</i>)	
12:40 – 13:10	Plenary 4	
	Muhammad Nasim (<i>Institute of Southern Punjab</i>)	
13:00 – 14:15	Lunch Break	
	<u>Technical Session-A</u>	Seminar Room-A block
	Title :	Energy Management, Policy & Economics
	Chair :	Shahid Munir
14:15 – 14:45	<u>ED-120</u>	
	BRIQUETTING OF CHAMLANG COAL FINES WASTE USING MOLASSES BINDER	
	Javaid Akhtar	

14.45-15.05	<u>ED-46</u> MICROBUBBLE MEDIATED MASS TRANSFER- A COST EFFECTIVE WAY TO INCREASE PROCESS EFFICIENCY Fahad Rehman	
15.05-15.25	<u>ED-06</u> ECONOMIC ANALYSIS OF ALTERNATIVES WITH SPECIAL REFERENCE TO ENERGY SECTOR: AN ANALYSIS OF FACTORS MATRIX Ejaz Gul	
15.25-15.45	<u>ED-14</u> ECONOMIC ANALYSIS AND PAYBACK PERIOD EVALUATION OF A SOLAR THERMAL DESALINATION SYSTEM USING PASSIVE VACUUM Muhammad Ihsan Ul Haq	
15.45-16.05	<u>ED-20</u> ENERGY CONSUMPTION IN THE BUILDING SECTOR IN PAKISTAN Irshad Ahmed	
16.05-16.25	Tea/Coffee Break	
16.05-16.25	Poster Session – A Venue : Room # A-7, A-Block	
	<u>Technical Session-B</u>	Room: Seminar Room-A block
	Title : Energy Management, Policy & Economics Chair : Muhammad Shahbaz	
16.25-16.55	<u>Key Note: (KN-02)</u> MEASURING ECONOMIC COST OF ELECTRICITY SHORTAGE: CURRENT CHALLENGES AND FUTURE PROSPECTS IN PAKISTAN Muhammad Shahbaz (CIIT)	
16.55-17.15	<u>ED-63</u> MAGNETIC REFRIGERATION: AN ECONOMICAL REFRIGERATION SYSTEM Saqib Munawwar	
17.15-17.35	<u>ED-48</u> POWER SCHEDULING IN HOME ENERGY MANAGEMENT SYSTEMS Akram Rashid	

17.35-17.55	<p><u>ED-65</u></p> <p>END OF LIFE SCENARIOS FOR MUNICIPAL SOLID WASTE MANAGEMENT OF DEFENCE HOUSING AUTHORITY LAHORE</p> <p style="text-align: right;">Azhar Ali</p>
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Thursday, May 21

09.00-09.30	Registration
	<p><u>Technical Session - C</u> Room: Seminar Room-A block</p> <p>Title : Energy Systems Design</p> <p>Chair : Nadeem Feroze</p>
9.30-10.00	<p><u>Key Note: (KN-03)</u></p> <p style="text-align: right;">Nadeem Feroz (<i>UET</i>)</p>
10.00-10.20	<p><u>Invited Talk : (IV-01)</u></p> <p>STUDY OF HYDRODYNAMICS OF BIOMASS-SAND MIXTURE IN A COLD FLUIDIZATION COLUMN</p> <p style="text-align: right;">Mahmood Saleem (<i>PU</i>)</p>
10.20-10.40	<p><u>ED-93</u></p> <p>SMART USE OF ENERGY BY USING HEAT INTEGRATION IN METHANOL PLANT: SIMULATED ON ASPEN HYSYS</p> <p style="text-align: right;">Asfa Javed</p>
10.40-11.00	<p><u>ED-24</u></p> <p>PYROLYSIS OF BIOMASS: AN EXPERIMENTAL STUDY OF THE EFFECT OF FEED PARTICLE SIZE ON YIELD OF BIO-OIL</p> <p style="text-align: right;">Rana Mujahid Saleem</p>
11.00-11.20	<p><u>ED-13</u></p> <p>DESIGN AND FABRICATION OF COMPRESSED AIR VEHICLE ENGINE SYSTEM</p> <p style="text-align: right;">Bilal Yousaf</p>
	<p><u>Technical Session - D</u> Room: Room # A-3, A block</p> <p>Title : Bioenergy</p> <p>Chair : Muhammad Awais</p>
9.30-10.00	<p><u>Key Note : (KN-07)</u></p> <p style="text-align: right;">Muhammad Awais (<i>LUMS</i>)</p>

10.00-10.20	<u>ED-53</u> GREEN BUILDING: AN EFFICIENT AND ECONOMICAL CONCEPT Saqib Munawwar	
10.20-10.40	<u>Invited Talk : (IV-02)</u> INDUSTRIAL SOLUTIONS FOR ENERGY CONSERVATION AND PROCESS Usman Khalid (<i>Avanceon</i>)	
10.40-11.00	<u>ED-111</u> PRODUCTION OF BIOPLASTIC AN INNOVATIVE TECHNIQUE FOR BIODEGRADABLE AND BIOCOMPATIBLE POLYMERS Gugan Shafi	
11.00-11.20	<u>Invited Talk (IV-03)</u> CO ₂ CAPTURE FROM COAL GASIFICATION THROUGH CHEMICAL LOOPING COMBUSTION Muhammad Younas	
11.20-11.40	Tea/Coffee Break	
	Technical Session - E	Room: Seminar Room-A block
	Title : Renewable Energy Technologies Chair : Muhammad Abid	
11.40-12.10	<u>Key Note: (KN-04)</u> Muhammad Abid (<i>CIIT</i>)	
12.10-12.30	<u>ED-08</u> DEVELOPMENT OF INDIGENOUS MOULAR FLOATING DOME TYPE BIOGAS PLANT FOR DOMESTIC USE IN PAKISTAN Kashif Mushtaq	
12.30-12.50	<u>ED-05</u> BIOFUEL PRODUCTION COMBINED WITH WASTEWATER TREATMENT THROUGH ALGAE Agha Danish Ilyas	
12.50-13.10	<u>ED-108</u> OPTIMIZATION OF BIOGAS PRODUCTION FROM FOOD WASTE IN SPECIALLY DESIGNED ANAEROBIC DIGESTER Noman Younis	

	Technical Session - K	Room: Room # A-3, A block
	Title : Energy & Environment Chair : Arifa Tahir	
11.40-12.10	<u>Invited Talk (IV-13)</u> UTILIZATION OF DOMESTIC SEWAGE SLUDGE FOR THE PRODUCTION OF BIO ENERGY AND BIO FERTILIZER Arifa Tahir	
12.10-12.30	<u>Invited Talk (IV-04)</u> EVALUATION OF BIRD COMMUNITY AND ITS IMPACTS ON AIR CRAFTS AT ALLAMA IQBAL INTERNATIONAL AIRPORT LAHORE, PAKISTAN Abdul Qadir	
12.30-12.50	<u>ED-113</u> ASSESSMENT OF GROWTH AND CARBON FIXATION POTENTIAL OF BOTRYDIOPSIS ARHIZA IN A PHOTOTROPHIC SYSTEM UNDER NATIVE ENVIRONMENTAL CONDITIONS Umarah Mubeen	
12.50-13.10	<u>ED-114</u> ANAEROBIC DIGESTION OF ORGANIC SOLID WASTE IN A SOLAR BIOREACTOR AND FERTILIZER PERSPECTIVES OF ITS RESIDUE Sana Irshad	
13.10-14.00	Lunch Break	
	Technical Session-F	Room: Seminar Room-A block
	Title : Membrane Technology & Application Chair : Asif Ali Qaiser	
14.00-14.30	<u>Key Note : (KN-05)</u> Asif Ali Qaiser (UET)	
14.30-14.50	<u>Invited Talk : (IV-05)</u> Rahma Tamime (LSE)	
14.50-15.10	<u>ED-122</u> SIMULATION OF CO ₂ REMOVAL THROUGH ALKANOLAMINE SOLUTION IN HOLLOW FIBER MEMBRANE CONTACTOR Amjad Ali	

15.10-15.30	<u>ED-43</u> CONCENTRATION OF POMEGRANATE JUICE IN HOLLOW FIBER MEMBRANE CONTACTOR THROUGH OSMOTIC DISTILLATION Qaiser Ali Khan
15.30-15.50	<u>ED-103</u> SYNTHESIS OF ELECTROCHEMICAL COMPOSITE MEMBRANES BASED ON INTRINSICALLY CONDUCTING POLYMERS Muhammad Aamir Shehzad
15.50-16.10	<u>ED-47</u> ZIFS, A POTENTIAL FILLER FOR MIXED MATRIX MEMBRANES Muhammad Tayub Raza
	Technical Session - G Room: Room # A-3, A block
	Title : Energy & Environment Chair : Muhammad Arshad (T.I.)
<u>14.00-14.30</u>	<u>Key Note : (KN-08)</u> Muhammad Arshad, T.I. (UAF)
14.30-14.50	<u>ED-107</u> SUSTAINABLE PRODUCTION OF BIOETHANOL BY USING AUGMENTED BACTERIAL CELLULASES Maham Tabassum
14.50-15.10	<u>ED-110</u> HIERARCHICAL CHROMIUM BIOMAGNIFICATION STUDY AROUND KASUR TANNERY WASTE WATER TREATMENT PLANT Tahira Shouket
15.10-15.30	<u>ED-106</u> SUSTAINABLE MANAGEMENT OF PARTHENIUM HYSTEROPHORUS INTO COMPOST AND BIOCHAR Qurat Ul Ain
15.30-15.50	<u>ED-22</u> ROLE OF WOMEN IN ENERGY CONSERVATION: EXPLORING LINK BETWEEN ENERGY CONSERVATION AND WOMEN ECONOMIC EMPOWERMENT

	Saima Imran	
15.50-16.10	<u>ED-23</u> POSTULATION OF ENERGY CONSERVATION LITERACY IN THE HIGHER EDUCATION STUDENTS OF ABBOTTABAD, PAKISTAN Neelam Wathra	
16.10-16.30	Tea/Coffee Break	
16.10-16.30	Poster Session – B Venue : Room # A-7, A-Block	
	Technical Session-H	Room: Seminar Room-A block
	Title : Material Science & Engineering Chair : Saeed Gul (JET, Peshawar)	
16.30-17.00	<u>Key Note : (KN-06)</u> Tahir Jamil (PU)	
17.00-17.20	<u>Invited Talk : (IV -10)</u> Rizwan Raza (CIIT)	
17.20-17.40	<u>ED-41</u> COMPOSITE POLYMER ELECTROLYTE MEMBRANES FOR LOW TEMPERATURE (MICROBIAL) FUEL CELLS Tauqir Ali Sherazi	
17.40-18.00	<u>Invited Talk : (IV-06)</u> Asma Tufail Shah (CIIT)	
18.00-18.20	<u>ED-17</u> ALTERNATIVE TO OIL & GAS; WIND POWER IN PAKISTAN Faisal Ashfaq	
	Technical Session-I	Room: Room # A-3, A block
	Title : Energy & Environment Chair : Firdaus-E-Bareen	
16.30-17.00	<u>Key Note : (KN-09)</u> Firdaus-E-Bareen (PU)	

17.00-17.20	<p><u>Invited Talk : (IV-07)</u> SOCIO-ECONOMICS PROSPECTS OF SOLAR TECHNOLOGY UTILIZATION IN ABBOTTABAD, PAKISTAN Musarat Jabeen (CIIT)</p>
17.20-17.40	<p><u>ED-85</u> HEAVY METAL REMOVAL FROM INDUSTRIAL WASTEWATER BY CONSTRUCTED WETLANDS AND THE POTENTIAL RE-USE OF TREATED EFFLUENT FOR IRRIGATION Saad Shahid</p>
17.40-18.00	<p><u>ED-105</u> SUSTAINABLE MANAGEMENT OF SOIL REQUIREMENTS IN RICE CROP SYSTEM BY COMBINED APPLICATION OF BIOCHAR & COMPOST Sidrah Saleem</p>
18.00-18.20	<p><u>ED-09</u> SHALE GAS: AN ULTIMATE POWER DESTINATION OF PAKISTAN Sadaqat Ali</p>
18.20-18.40	<p><u>ED-19</u> PHYSICO-CHEMICAL PROFILE OF MALIR RIVER AND CHINNA CREEK Sadia Tariq</p>

Friday, May 22

	<p>Technical Session-J Room: Seminar Room-A block</p>
	<p>Title : Power Systems Chair : Jawid Askari</p>
09.00-09.30	<p><u>Keynote talk: (KN-10)</u> Jawaid Askari</p>
09.30-09.50	<p><u>Invited Talk : (IV-08)</u> BIOMASS POWER GENERATION IN PUNJAB PROVINCE OF PAKISTAN Ghaffar Dogar (CIIT)</p>

09.50-10.10	<u>ED-60</u> APPLICATION OF FINITE VOLUME SCHEME ON UNSTRUCTURED GRID TO A WATER QUALITY MODEL Sidrah Ahmed	
10.10-10.30	<u>ED-124</u> IMPROVING STEAM POWER PLANT EFFICIENCY WITH DIFFERENT OPERATING CONDITIONS OF THERMAL POWER PLANT Naveed Husnain	
10.30-10.50	<u>ED-75</u> ROLE OF ICT (INFORMATION AND COMMUNICATION TECHNOLOGIES) IN MAKING SMART ENERGY VIABLE Faran Hameed	
10.50-11.10	<u>Invited Talk : (IV-09)</u> Ayesha Jamil (CIIT)	
11.10-11.30	<u>ED-78</u> OVERVIEW OF BACNET: AN EFFICIENT AND ECONOMICAL ASHRAE STANDARD Saqib Munawwar	
	Technical Session-L	Room: Room # A-3, A block
	Title : Energy & Sustainability Chair : Robina Farooq	
09.30-09.50	<u>Invited Talk (IV-11)</u> COMPOSTING AND DECENTRALIZED MUNICIPAL SOLID WASTE MANAGEMENT; A POTENTIAL ENVIRONMENTAL CAPITAL FOR PAKISTAN Muhammad Shafiq	
09.50-10.10	<u>Invited Talk (IV-12)</u> CHALLENGES IN PHYTOREMEDIATION OF TANNERY WASTES MANAGEMENT; POTENTIAL ROLE OF FUNGAL BIOSTIMULANTS IN HEAVY METAL ALLEVIATION Aisha Nazir	

10.10-10.30	<u>ED-123</u> ECONOMIC VIABILITY OF SOLAR PV WATER PUMP FOR SUSTAINABLE AGRICULTURE GROWTH IN PAKISTAN <p style="text-align: right;">Aamir Mehmood</p>	
10.30-10.50	<u>ED-129</u> TO ADVANCE AND PUBLICIZE A BIOGAS WITH THE VITAL GOAL TO ESTABLISH A COMMERCIAL BIOGAS SECTOR IN PAKISTAN AS A RENEWABLE ENERGY RESOURCE <p style="text-align: right;">Neelofar Shaukat Khan</p>	
10.50-11.10	<u>ED-137</u> PRODUCTION OF SUSTAINABLE BIODIESEL FROM LOCALLY GROWN JATROPHA SEEDS <p style="text-align: right;">Muhammad Tahir Khattak</p>	
11.10-11.30	<u>Invited Talk (IV-14)</u> <p style="text-align: right;">Moinuddin Ghauri</p>	
11.30-11.50	Tea/Coffee Break	
	Technical Session-M	Room: Seminar Room-A block
	Title : Power Systems Chair : Jawid Askari	
11.50-12.10	<u>ED-87</u> OPTIMIZING MULTI-KNAPSACK PROBLEM FOR SMART GRID SCHEDULING USING BINARY INTEGER PROGRAMMING <p style="text-align: right;">Umer Fiaz Abbasi</p>	
12.10-12.30	<u>ED-26</u> GENERATION EXPANSION PLANNING CONSIDERING INTEGRATION OF DER GENERATION-MIX <p style="text-align: right;">Asad Waqar</p>	
12.30-12.50	<u>ED-27</u> USE OF DENDROCHRONOLOGY IN HYDRO POWER <p style="text-align: right;">Mohammad Amjad Sabir</p>	

12.50-13.10	<u>Invited Talk (IV-15)</u> OPTICAL PROPERTIES OF CdS QUANTUM DOTS FOR OPTOELECTRONIC DEVICES Samia Aslam
13.10-14.30	Lunch Break
14.30-15.00	Poster Session – C Venue : Room # A-7, A-Block
15.00	Closing Ceremony and Awards Distribution

16.05-16.25	Poster Session – A Venue : Room # A-7, A-Block
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- 29 Protein Profiling of Various Plant Tissues In Response To Chromium Stress In Maize
Rushaan Kiani
- 44 Elimination of Textile Dye (Reactive Turquoise Blue) through Nanotechnology
Farah Nadeem
- 49 Combined effect of 2,4- Dichlorophenoxy acetic acid and Benzyl amino purine on enhanced in vitro growth of *Foeniculum vulgare* Mill. from leaf explants
Iqra Rasheed
- 55 Optimal clarification of apple juice using crossflow microfiltration under different operation modes
Fawad Khan
- 42 Protocols for the Synthesis of Hoechst Analogues and their Structural Elucidation
Aqeel Ahmad Khan
- 36 Unveiling the role of indigenous bacteria in salinity stress alleviation in celery
Wajeeha Afzal
- 54 Mixing Characteristics of External Loop Airlift Bioreactor Using Electrical Resistance Tomography (ERT)
Mian Hamood Ur Rehman
- 116 Distribution of sand fly a vector of Leishmaniasis with special reference to climate change in Pakistan
Ayesha Akram
- 117 Use of Eresid spider web as an indicator of atmospheric deposition of pollutants
Saba Nadeem
- 102 Comparative study of proximate analysis of Bt and non Bt rice
Shabnum Shaheen
- 112 Wild vegetables; An Alternative source of food
Nidaa Harun

- 76 Prevalence of Sick Building Syndrome (SBS) in centralized air-conditioned building by investigating the Indoor Air Quality in Lahore.
Ayesha Shahid
- 90 Leaching and recovery of precious metals from e-waste
Umair Javed
- 98 Biodecomposition of textile reactive dyes by Rotating biological disc contractor (RBC)
Masoom Fatima
- 99 Treatment of reactive black-5 azo-dye in suspended and attached growth batch bioreactor using *Pseudomonas aeruginosa* strain ZM24
Zahid Maqbool
- 101 A Study on In Vitro Proliferation of *Petunia Hybrid* Vilm
Qudsia Firdous
- 104 An Efficient Method of Extraction of Phenolics and Flavonoids from *Cassia occidentalis*
Sumera Javad
- 73 Effect of Salinity and different media on growth of *Oryza sativa* L. and *Triticum aestivum* L.
Mariya Rashid
- 79 MgO and ZnO doped Montmorillonite Nano-composite used for the Efficient Removal of Dyes from the Textile Wastewater
Ambreen Lateef
- 81 Removal of Reactive Dye from industrial wastewater by using Kaolinite Nano-Particles doped with Zinc and Copper-Cadmium
Maria Abdullah Butt
- 82 Color removal from industrial wastewater by using Zinc doped green Nano-Particles
Maham Shahid
- 84 A Sustainable Method to Produce Uv Resistant, Water Repellent ,Dust Repellent AND Antibacterial Textile by Nano Tio2 Coating
Zahra Khan
- 86 Novel self cleaning and sustainable tents for pilgrimage and tourists
Zahra Khan

16.10-16.30	Poster Session – B Venue : Room # A-7, A-Block
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- 30 Optimization of Biogas Resources for Pakistan
Hafiz Muhammad Uzair
- 31 Optimization of Renewable Energy Mix for Pakistan
Zaman Tahir
- 35 Conversion of rice husk biomass to synthesize d-xylose for the effective utilization of biomass and optimization of the involved process parameters.
Ashfaq Ahmed
- 40 316L Stainless Steel as Sustainable Solution for Green Energy
Hasan Qayyum Chohan
- 70 Development of Bubbling Fluidized Bed coal Gasifier
Muhammad Shoaib
- 92 Antioxidative phytochemical additives for sustainable and green biofuels
Iram Nadeem
- 51 Prospects of Terminalia bellerica Roxb. Extracts as Green Source of Antioxidant
Lubna Sherin
- 113 Assessment of growth and carbon fixation potential of Botrydiopsis arhiza in a phototrophic system under native environmental conditions
Umarah Mubeen
- 28 An Overview of V2G Technology in the Development of Sustainable Electric Energy Systems
Mohammad Faizan
- 57 Pressure-Retarded Osmosis - A potential solution of energy for power scarcity.
Muhammad Kashif Ur Rehman
- 91 Production of Biodiesel from Castor oil using micro bubbles
Muhammad Shahzad

- 34 Polysulfone and functionalized mesoporous MCM-41 nanosilica mixed matrix membranes for CO₂ separations
Azeem Mushtaq
- 56 Green Recovery of Hydrogen from Ammonia purge gas using membrane Technology
Muhammad Abdul Qyyum
- 58 Designing of pervaporation based membrane system as an alternate to azeotropic distillation
Amin Khan
- 61 Chromium removal by modified nano filtration membrane
Moshin Ali
- 97 Fabrication of ionic liquid based polymeric membrane for CO₂/CH₄ separation
Rashid Ur Rehman
- 69 Synthesis & characterization of novel polyurethane elastomers as PU-PVA-PEG blend membranes for water treatment
Mehwish Batool
- 33 Evaluation of different models for flow through paper material.
Arif Hussain
- 45 Removal of Reactive dye (Blue 221) from wastewater using charcoal doped with Magnesium oxide nanoparticles
Farah Nadeem
- 95 Corrosion Resistance and Mechanical Behavior of Super-Hydrophobic Aluminium Alloy 6061
Naila Riaz
- 119 Fabrication of Dust and Water Repellent Glass for Super hydrophobic Coatings
Umbreen Fatima
- 118 Study of Chemically Synthesized Rare-earth Terbium Substituted BaM Hexagonal ferrites
Muhammad Imran Asghar
- 62 Photocatalytical degradation of Congo Red (CR) dye via nano Titanium dioxide coated glass beads exposed to UV light irradiation
Khurram Tahir

14.30-15.00	Poster Session – C Venue : Room # A-7, A-Block
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- 121 The Impact of Emerging Technologies on Human Values
Kanwal Bilal
- 126 Estimation of Pollution Load in The Lahore Branch Canal and its remediation through Constructed
Iqra Javaid
- 127 Use of hybrid constructed wetland systems with some native hydrophytes to treat tannery waste water
Rubab Khalid
- 128 Improving performance of copper in marine environment
Tahir Saif
- 133 Extraction and Characterization of Biofuel from Jatropha Curcus
Arifa Tahir
- 136 Prospects of Terminalia bellerica Roxb. Extracts as Green Source of Antioxidants
Lubna Sherin
- 138 Development of Solar Systems: a systemic review on the evaluation of socio economic consideration by business analysis tools
Fareeha Javaid
- 140 Production of Bio Oil from Bio Mass
Hassan Tariq
- 141 Studies on the Microbial Production of Saccharilytic Enzyme for Ethanol Production from Wheat Straw
Arifa Tahir
- 142 Concentration of Pomegranate Juice in Hollow Fibre Membrane Contactor through Osmotic Evaporation
Q. A. Khan
- 143 Sustainable Development and the Chemical Industry
Riaz Ud Din

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