

## Venue: Holiday Inn Hotel

### Day -1: Monday, April 4, 2016

### Main Hall

|                    |  |
|--------------------|--|
| <b>8:30 – 9:30</b> | <b>Registration</b>  |
| <b>9:30-10:30</b>  | <p><b>Opening Ceremony</b><br/>                 Verses from the Holy Quran.<br/>                 Welcome Speech by the Chairman of the Organizing Committee, <b>Prof. Ahmed Al-Salaymeh</b><br/>                 Speech by General Director of Wathba for Renewable Energy Co., <b>Dr. Feras Batarseh</b><br/>                 Speech by General Director of Scientific Research Fund, <b>Prof. Abdullah AlZu'bi</b><br/>                 Speech by the Minister of Energy and Mineral Resources, <b>H.E. Ibraheem Saif</b><br/>                 Welcome Speech by the acting President of the University of Jordan, <b>Prof. Azmi Mahafzah</b><br/>                 Speech by the Patron of the Ceremony, <b>HRH Prince Hamzah Bin Al Hussein</b></p> <p><b>Honoring Ceremony</b><br/>                 HRH Prince Hamzah Bin Al Hussein presenting honor trophies to the conference sponsors, and guests of honor</p> |

**Coffee Break (1)**

**10:30 -11:00**

**Hall (Main)**

### Keynote Speakers Session I

**Chairman: Prof. Ali Badran**

**Rapporteur: Dr. Bashar Qawasmeh**

| Time        | #                   | Paper Title & Author   | Country     |
|-------------|---------------------|--|-------------|
| 11:00-11:25 | Keynote Speaker (1) | <b>Overview about Energy Status in Jordan</b><br><b>Eng. Waleed Shahin</b> , Director of The National Energy Research Center at the Royal Scientific Society   | Jordan      |
| 11:25-11:50 | Keynote Speaker (2) | <b>Household Electricity Consumption and Savings Opportunities in Jordan: Results from USAID-ESCB Household load Survey</b><br><b>Dr. Grayson Heffner</b> , Resident Advisor, USAID Energy Sector Capacity Building (ESCB)   | USA         |
| 11:50-12:15 | Keynote Speaker (3) | <b>Global wind energy technology trends and their impact on Cost of Energy in desert regions</b><br><b>Mr. Bernard Bulder</b> , coordinator of the wind farm services at the Energy Research Centre of the Netherlands (ECN) | Netherlands |
| 12:15-12:40 | Keynote Speaker (4) | <b>Advances on Single-phase and Three-Phase Microinverters for Solar Energy Conversion Technologies</b><br><b>Prof. Issa Batarseh</b> , Professor of Electrical Engineering at the University of Central Florida             | USA         |
| 12:40-13:10 | Keynote Speaker (5) | <b>Carbon, Capture, Conversion and Neutralization (C<sup>3</sup>N)</b><br><b>Mr. Bernard A.J. Stroïazzo-Mougin</b> , CEO and Founder of Bio Fuel Systems (BFS)   | Spain       |

**13:10-13:30**

**Discussion**

**13:30-14:30**

**Lunch Break**

**Hall (1)**  
**Session 2-A**

**Chairman: Prof. Handri Ammari**  
**Rapporteur: Dr. Abdullah Olimat**

| Time        | Paper # | Paper Title & Author   | Country |
|-------------|---------|--|---------|
| 14:30-14:50 | 120     | <b>A Review on Solar Energy Research in Jordan</b><br>O. Akash, A. Abu Abdo, B. Akash, M. Mohsen   | UAE     |
| 14:50-15:10 | 103     | <b>Evaluation general Trend of the Wind in Yanbu, Saudi Arabia</b><br>K. Maayah, E.Khaled  | KSA     |
| 15:10-15:30 | 114     | <b>Co-Firing of Petroleum Coke Waste and Kentucky Coal in an Entrained Flow Gasifier</b><br>Idowu Adeyemi, Isam Janajreh                                     | UAE     |
| 15:30-15:50 | 111     | <b>Development and Forecasting of Conventional and Unconventional Hydrocarbon Reserves as Energy Resource in 21<sup>st</sup> Century</b><br>Gharib M. Hamada | Egypt   |
| 15:50-16:10 | 110     | <b>Energy Analysis for GCC Countries</b><br>Ahmad Sakhrieh   | UAE     |

**Coffee Break (2)**  
**16:10-16:30**

**Hall (2)**  
**Session 2-B**

**Chairman: Dr. Muhannad Hararah**  
**Rapporteur: Eng. Sebastian Timmerberg**

| Time        | Paper # | Paper Title & Author   | Country |
|-------------|---------|--|---------|
| 14:30-14:50 | 212     | <b>Thermal performance of internal space elements of the mosque architecture: An analytical study.</b><br>Hussain H. Alzoubi, Arwa S. Abu Jazar  | Jordan  |
| 14:50-15:10 | 206     | <b>Application AHP in desalination plant technology</b><br>Hamed Mohammed Almaghrabi   | KSA     |
| 15:10-15:30 | 229     | <b>Computational Modeling of the Performance of Shrouded Wind Turbine</b><br>C. Ghenai, and T. Salameh   | UAE     |
| 15:30-15:50 | 211     | <b>Concentrated solar power CSP in Tunisia: Potentials, possibility of interconnection with Europe and simulations based on data of a specific solar meteorological station.</b><br>Moncef Balghouthi, Seif Eddine Trabelsi, Mahmoud Ben Amara, Abdessalem Bel Hadj Ali, Amenallah Guizani | Tunisia |
| 15:50-16:10 | 225     | <b>Testing of Local Jordanian Domestic Heaters using Biodiesel Fuel</b><br>Jehad Yamin, and Zayed Al-Hamamre   | Jordan  |

**Coffee Break (2)**  
**16:10-16:30**

**Hall (3)**  
**Session 2-C**

**Chairman: Prof. Bilal Akash**

**Rapporteur: Eng. Annika Magdowski**

| Time        | Paper #             | Paper Title & Author  | Country |
|-------------|---------------------|---|---------|
| 14:30-14:50 | Keynote Speaker (6) | <b>Using Novel Compressed-Air Energy Storage Systems as Green Strategy in Power Generation</b><br>Yousef S.H. Najjar, Dept. of Mechanical Engineering, JUST | Jordan  |
| 14:50-15:10 | 322                 | <b>Flow patterns and thermal comfort in air-conditioned mosque</b><br>Redhwan N. AL-Gabri, and Essam E. Khalil  | Egypt   |
| 15:10-15:30 | 323                 | <b>Smoke Clearance in an Underground Car Park using the Jet Fan System.</b><br>Prof. Dr. Essam E. Khalil and Eng. Sherif M. Gomaa                           | Egypt   |
| 15:30-15:50 | 228                 | <b>Effects of utilization of solid and semi-solid organic waste using pyrolysis techniques</b><br>S. Alsaqoor, M. Gougazeh, and D.Czajczynska               | Poland  |
| 15:50-16:10 | 207                 | <b>Naphthalene Removal Experiments over a Fixed Bed of Biomass Char</b><br>Z. Abu El-Rub, E.A. Bramer, and G. Brem  | Jordan  |

**Coffee Break (2)**  
**16:10-16:30**

**Hall (1)**  
**Session 3-A**

**Chairman: Dr. Ahmad Sakhrieh**

**Rapporteur: Eng. Helal Abu-Zahra**

| Time        | Paper # | Paper Title & Author   | Country |
|-------------|---------|--|---------|
| 16:30-16:50 | 311     | <b>Energy Audit of HVAC Systems for a Pharmaceutical Plant: A case study in Jordan</b><br>E. Mutlq, A. Smadi, and A. Al-Salaymeh                           | Jordan  |
| 16:50-17:10 | 312     | <b>Comfortable Mobile Shelter</b><br>A. Braweish, A. Al-Shaalan and A. Al-Salaymeh   | Jordan  |
| 17:10-17:30 | 104     | <b>Wind Energy Resource: Onshore and Offshore Wind Energy</b><br>L. AbuHussein, M. Sarsour, A. Salaymeh  | Jordan  |
| 17:30-17:50 | 314     | <b>Towards Net Zero Energy Buildings (NZEB) in Jordan by Integrated Photovoltaic System in Building Façade</b><br>B. Kanaan, F. Haidar, and A. Al-Salaymeh | Jordan  |
| 17:50-18:10 | 317     | <b>An overview of Energy Savings Strategies at the University of Jordan Hospital</b><br>K. Hassouneh, S.Suleiman, and A. Al-Salaymeh                       | Jordan  |
| 18:10-18:20 | 325     | <b>Energy Rating for Residential Buildings in Amman</b><br>B.R. Qawasmeh, A. Al-Salaymeh, Ma'en S. Sari, Nadeen Elian and Nadeen Zahran                    | Jordan  |

**Hall (2)**  
**Session 3-B**

**Chairman: Dr. Osama Ayadi**  
**Rapporteur: Eng. Sonya Darabee**

| Time        | Paper # | Paper Title & Author  | Country |
|-------------|---------|---|---------|
| 16:30-16:50 | 1301    | <b>Investigation of water transport inside polymer electrolyte membrane fuel cells with modified microporous layers</b><br>Saad S. Alrwashdeh , Henning Markötter , Jan Haußmann d, John Banhart , Ingo Manke | Germany |
| 16:50-17:10 | 408     | <b>Maximum PV penetration level integrated to the national transmission grid of Jordan, particularly 132 Kv Busbar</b><br>S. Qutaishat, A. Al-Salaymeh, H. Obeid  | Jordan  |
| 17:10-17:30 | 409     | <b>The Dynamic Behavior of Large Scale Safawi PV plant integrated to the National Transmission Grid of Jordan, Particularly 132 Kv Busbar</b><br>S. Qutaishat, A. Al-Salaymeh, H. Obeid                       | Jordan  |
| 17:30-17:50 | 1003    | <b>Climate change as seen by population of Amman, a Closer look</b><br>M. Al-Qasas, E. Mutlq, and A. Al-Salaymeh  | Jordan  |
| 17:50-18:10 | 231     | <b>Comparison of Aerodynamic characteristics of different solar car models</b><br>Mutaz Elayyan, A. Al- Salaymeh  | Jordan  |
| 18:10-18:20 | 222     | <b>Dust Accumulation Effect on Photovoltaic Panels Power Output under Jordanian Conditions</b><br>A. Alkhalailah, I. Muslih, and A. Al-Salaymeh   | Jordan  |
| 18:20-18:40 | 310     | <b>Energy Audit in commercial buildings in Jordan</b><br>Ishraq Al-Salaheen, K. Hassouneh and Ahmed Al-Salaymeh   | Jordan  |

**Hall (2)**  
**Session 3-C**

**Chairman: Dr. Maher Al-Maghalseh**  
**Rapporteur: Eng. Hanin Samara**

| Time        | Paper # | Paper Title & Author  | Country   |
|-------------|---------|---|-----------|
| 16:30-16:50 | 1206    | <b>Investigate the Natural Convection Heat Transfer in A PCM Thermal Storage System Using ANSYS/FLUENT</b><br>Maher M. Al-Maghalseh                   | Palestine |
| 16:50-17:10 | 112     | <b>The cool flame behavior of Jojoba oil-Biodiesel blends</b><br>Zayed Al-Hamamre, Manar Naerat, Ahmed Al-Salaymeh                                    | Jordan    |
| 17:10-17:30 | 118     | <b>Prediction of Hourly Solar Radiation in Amman-Jordan by Using Artificial Neural Networks</b><br>M. Hamdan, E. Abdelhafez, H. Salem and O. Ghnaimat | Jordan    |
| 17:30-17:50 | 521     | <b>Effect of Optical Liquid Filters on the Performance of PV panel</b><br>M. A. Hamdan  | Jordan    |
| 17:50-18:10 | 522     | <b>Improvement of photovoltaic panel efficiency using nanofluid</b><br>M. A. Hamdan and K. K. Kardasi   | Jordan    |
| 18:10-18:20 | 523     | <b>Enhancement of solar desalination using nanotechnology</b><br>M. A. Hamdan, Anas Momani  | Jordan    |

## Day -2: Tuesday, April 5, 2016

### Hall (1)

#### Usaid Session 4-A

#### Building Incentive Mechanism to Support Jordan's National Energy Strategy

| Time  | Presentation Title & Speaker   |
|-------|--|
| 09:00 | Jordan Renewable Energy & Energy Efficiency Fund (JREEEF)'s Role – Dr. Rasmi Hamzeh (JREEEF – Executive Director)                              |
|       | Building Incentive Mechanisms to Start Demand Side Management (DSM) Projects in Jordan – Eng. Ghassan Naji (USAID - ESCB - Senior DSM Planner) |
|       | Energy Efficiency Action Plan for Governmental Buildings: Energy Audit Outcomes – Eng. Jalal Al-Khasawneh (ECOSOL – Technical Manager)         |

**10:40-11:00**

**Coffee Break (1)**

### Hall (2)

#### Session 4-B

**Chairman: Prof. Nasri Rabadi**

**Rapporteur: Eng. Ayat Salem**

| Time        | Paper # | Paper Title & Author  | Country |
|-------------|---------|---|---------|
| 09:00-09:20 | 513     | <b>Dependency of Forecasting Accuracy for Balancing Power Supply by Weather-Dependent Renewable Energy Sources</b><br>Annika Magdowski, Martin Kaltschmitt  | Germany |
| 09:20-09:40 | 515     | <b>A Cognitive Analytics Framework Potential for the Sustainable Development for the renewable Energy sector: Lessons from Valuation of Electronic Government Services from Stakeholders perspectives</b><br>Ibrahim H. Osman | Lebanon |
| 09:40-10:00 | 514     | <b>Assessment of Renewable Energy Integration Considering the Power-Flow within the Jordanian Electricity Grid</b><br>Sebastian Timmerberg, Martin Kaltschmitt  | Germany |
| 10:00-10:20 | 516     | <b>Optimization of LFC solar concentrator design under Tunisian Conditions</b><br>Mahmoud Ben Amara, Fathia Eddhibi, Louy Qoaider, Moncef Balghouthi, Amenallah Guizani   | Tunisia |
| 10:20-10:40 | 518     | <b>Effect of methods of calculating Weibull distribution parameters on energy output of a wind turbine: a study case</b><br>Abeer Qawasmi and Suhil Kiwan   | Jordan  |

**10:40-11:00**

**Coffee Break (1)**

### Hall (3)

#### Session 4-C

**Chairman: Prof. Mohammad Al-Saad**

**Rapporteur: Dr. Iyad Sartawi**

| Time        | Paper # | Paper Title & Author  | Country |
|-------------|---------|---|---------|
| 09:00-09:20 | 403     | <b>Green Corridor; Example of Reinforcements on Jordan National Grid for integration of Renewables</b><br>Al-Shaima' R. Jaber and Rawan A. Hamaideh | Jordan  |

|             |     |   |            |
|-------------|-----|---|------------|
| 09:20-09:40 | 404 | <b>Grid connection impact study of the wind energy and concentrating solar power project in Jordan (WECSPP)</b><br>Emil Alasisa, Walid Shahinb, Muhieddin Tawalbehb, Christos Alasisc | Jordan     |
| 09:40-10:00 | 402 | <b>Microgrid Protection Challenges Under Vast Deployment of Disseminated Renewable Energy</b><br>Abdulaziz A. Al-Naim and M. A. Abido, IEEE Member                                    | KSA        |
| 10:00-10:20 | 108 | <b>Renewable energy for rural development in Bangladesh</b><br>M. A. Rashid Sarkar, I. Ahmed  | Bangladesh |
| 10:20-10:40 | 117 | <b>Potential of Solar Energy for Photovoltaic Electrical Power Generation in Jordan – Simulation Study</b><br>Mohammad A. Alsaad and Iyad M. Muslih                                   | Jordan     |

**10:40-11:00**  
**Coffee Break (1)**

**Main Hall**

**Keynote Speakers session II**

**Chairman: Prof. Ahmed Al-Salaymeh**

**Rapporteur: Dr. Tia Kansara**

| Time        | #                    | Paper Title & Author   | Country     |
|-------------|----------------------|--|-------------|
| 11:00-11:25 | Keynote Speaker (7)  | <b>Renewables within the Energy System: Case Study Germany</b><br><b>Prof. Martin Kaltschmitt</b> , Head of the Institute for Environmental Technology and Energy at Technical University of Hamburg   | Germany     |
| 11:25-11:50 | Keynote Speaker (8)  | <b>Analysis of fluctuating light on visual comfort for the applications of daylight dimming control systems</b><br><b>Dr. Sooyoung Kim</b> , associate professor of the department of Interior Architecture and Built Environment, Yonsei University | South Korea |
| 11:50-12:15 | Keynote Speaker (9)  | <b>Innovative Holistic Approach to Energy Performance of Green Built Environment</b><br><b>Prof. Dr. Essam E. Khalil</b> , Professor of Mechanical Engineering at Cairo University   | Egypt       |
| 12:15-12:40 | Keynote Speaker (10) | <b>Hydrogen and Fuel Cell Technology in Modern Hybrid New Energy Systems</b><br><b>Dr. Claus Fischer</b> , International Sales Director for Asia & Middle East for Heliocentris and the leading manufacturer of Fuel Cell Training Systems           | Germany     |
| 12:40-13:05 | Keynote Speaker (11) | <b>Assessment of Performance of a Low Temperature Heat Driven for Multi-Beds Silica Gel Water Adsorption Chillers</b><br><b>Prof. Maciej Chorowski</b> , Dean of the Faculty of Mechanical and Power Engineering at Wroclaw University of Technology | Poland      |
| 13:05-13:30 | Keynote Speaker (12) | <b>Energy efficiency, overview and opportunity</b><br><b>Dr. Tia Kansara</b> , Founder and director of Kansara Hackney Ltd. (KH)   | UK          |
| 13:30-14:00 | Discussion           |  |             |

**14:00-15:00**  
**Lunch Break**

**Hall (1)**  
**Session 5-A**

**Chairman: Prof. Mousa Mohsen**  
**Rapporteur: Dr. Mohammad Rasool Qtaishat**

| Time        | Paper # | Paper Title & Author  | Country |
|-------------|---------|---|---------|
| 15:00-15:20 | 233     | <b>Transevaporative Cooling Performance of a Three-Sided Wind Catcher</b><br>Mohammed N. Khan, Isam Janajreh  | UAE     |
| 15:20-15:40 | 220     | <b>Techno-Economic Performance Analysis of a Concentrated Solar Polygeneration Plant in Jordan</b><br>S. Kiwan, R. Damseh, L. Venezia, F. M. Montagnino, F. Paredes   | Italy   |
| 15:40-16:00 | 221     | <b>Techno-Economic Performance Analysis of a Concentrated Solar Polygeneration Plant in Italy</b><br>L. Venezia, F. M. Montagnino, S. Kiwan, F. Paredes and R. Damseh | Italy   |
| 16:00-16:20 | 511     | <b>Techno-economic assessment of integrating renewable energy on the electricity grid in Jordan</b><br>Ahmad T. Abu Dyak, Emad O. Abu-Lehyeh, Suhil Kiwan             | Jordan  |
| 16:20-16:40 | 238     | <b>Design and Testing of Thermal Receiver on Solar Dish System</b><br>S. As'ad, A. Al-Salaymeh, and S. Kiwan  | Jordan  |

**Coffee Break (2)**  
**16:40-17:00**

**Hall (2)**  
**Session 5-B**

**Chairman: Prof. Hussein Al-Zoubi**  
**Rapporteur: Dr. Feras Sharaf**

| Time        | Paper # | Paper Title & Author   | Country |
|-------------|---------|--|---------|
| 15:00-15:20 | 318     | <b>Extracting Sustainable Design Strategies for Hot Arid Region from Vernacular Desert Architecture; Case of Jordan</b><br>Siba Adel Awawdeh   | Jordan  |
| 15:20-15:40 | 305     | <b>Development of Net Positive Buildings in Jordan</b><br>Samer Zawaydeh   | Jordan  |
| 15:40-16:00 | 316     | <b>Performance Study of a Multi-Objective Mathematical Programming Modeling Approach for Energy Optimization in Building Envelopes</b><br>Hussain H. Alzoubi, Mustafa Z. Ali and Yara M. Al Manaseer | Jordan  |
| 16:00-16:20 | 410     | <b>Analysis of An Off-Grid Photovoltaic-Wind Hybrid Power System for Disi Water Pumping Project</b><br>S. Abdul-Rahman and A. Badran   | Jordan  |
| 16:20-16:40 | 411     | <b>Analysis for a Grid-Connected Photovoltaic-Wind Hybrid Power Plant in Jordan</b><br>L. Al-Hiary, A. Badran  | Jordan  |

**16:40-17:00**  
**Coffee Break (2)**

**Hall (3)**  
**Session 5-C**

**Chairman: Prof. Fahmi A. Abu Al-Rub**

**Rapporteur: Dr. Zayed Hamamreh**

| Time        | Paper # | Paper Title & Author   | Country |
|-------------|---------|--|---------|
| 15:00-15:20 | 307     | <b>The impact of increasing temperatures in transition zones in Abu Dhabi on energy demand</b><br>T. Kansara                                       | UK      |
| 15:20-15:40 | 902     | <b>Enhancing the performance of fly ash in a CO<sub>2</sub> capture process</b><br>Abdallah Dindi, Dang Viet Quang, and Mohammad Abu Zahra         | UAE     |
| 15:40-16:00 | 903     | <b>Techno-economic evaluation of simultaneous CO<sub>2</sub> capture and utilization using NaOH solution</b><br>Ahmed Yusuf, Mohammad Abu Zahra    | UAE     |
| 16:00-16:20 | 1202    | <b>Design and experimental investigation of portable solar thermoelectric refrigerator</b><br>S.M.A.Rahman, A. Sara, R. Asmaa, and S. Rasha        | UAE     |
| 16:20-16:40 | 1205    | <b>Physical and Chemical Analysis of Ultrasonic Transesterification through Numerical Simulation</b><br>M. N. Hussain, T. E. Samad and I. Janajreh | UAE     |

**16:40-17:00**  
**Coffee Break (2)**

**Hall (1)**  
**Session 6-A**

**Chairman: Dr. Hashem AlKhaldi**

**Rapporteur: Dr. Nabeel Abu Shaban**

| Time        | Paper # | Paper Title & Author   | Country |
|-------------|---------|--|---------|
| 17:00-17:20 | 234     | <b>Testing of Innovated Solar Sterilizer on Polluted Water Using Solar Concentrated Parabolic Dish Collector</b><br>A. Wazwaz, A. AlMashani and A. Al-Salaymeh           | Oman    |
| 17:20-17:40 | 237     | <b>Solar Desalination of Seawater Using an Innovated Solar Distillator</b><br>A. Wazwaz, A. Al-Salaymeh, L. AL-Mashaikhi, S. AL-Fulaiti and A. AlMashani                 | Oman    |
| 17:40-18:00 | 119     | <b>Analysis of the Measured Direct Solar Irradiation with Relative Humidity and Atmospheric Temperature at Dhofar University</b><br>A. Wazwaz, A. Al-Salaymeh            | Oman    |
| 18:00-18:20 | 107     | <b>The potential of Utilization of Hydropower in Jordan</b><br>Ishraq Al-Salaheen, Alaa Al-shaalan and Ahmed Al-Salaymeh   | Jordan  |
| 18:20-18:40 | 239     | <b>Performance of an Improved Hybrid Inverted Trickle Photovoltaic/Thermal (PV/T) Solar System in the Collector and Desalination Modes</b><br>M. Al Bsoul, and A. Badran | Jordan  |

**Hall (2)**  
**Session 6-B**

**Chairman: Dr. Louy Qoaider**  
**Rapporteur: Dr. Mahmoud Ben Amara**

| Time        | Paper # | Paper Title & Author  | Country |
|-------------|---------|---|---------|
| 17:00-17:20 | 809     | <b>Daylighting Transforming Techniques: An Approach to Reduce Energy Consumption in Residential Buildings</b><br>F. Sharaf, R. Shaban, G. Armala, H. Fawaz, S. Al-Issa  | Jordan  |
| 17:20-17:40 | 1102    | <b>Electrical Energy Storage Systems and Its Importance in Renewable Energy Progress</b><br>A. Abubaker, M. Bani Mustafa, and A. Al-Salaymeh                            | Jordan  |
| 17:40-18:00 | 506     | <b>A comparative of energy efficiency of luminaries for general lighting for the villa – (CFL) vs. (LED) – a case study</b><br>M. Sarsour, M. Qasas, and A. Al-Salaymeh | Jordan  |
| 18:00-18:20 | 507     | <b>Energy Audit for a Power Plant Output and its In-House Load: A Case Study in Jordan</b><br>A. Al-Omari, M. Al-Issawi, A. Al-Salaymeh, O. Ayadi                       | Jordan  |
| 18:20-18:40 | 204     | <b>A Review of the PV Sun Tracking Methods: The Efficiency Impact</b><br>E. Al Smadi, and F. Abu AL-Rub   | Jordan  |

**Hall (3)**  
**Student Session 6-C**

**Chairman: Prof. Suhil Kiwan**  
**Rapporteur: Dr. Sameh AlSaqoor**

| Time        | Paper # | Paper Title & Author  | Country   |
|-------------|---------|---|-----------|
| 17:00-17:20 | 105     | <b>Current Status and Future Potential of Biomass Energy in Jordan</b><br>Arwa Jaradat, Maha Hyari, and Ahmad Al-Salaymeh                                       | Jordan    |
| 17:20-17:40 | 1302    | <b>Design And Optimization Of A PV Power Station With Hydrogen Fuel Cell As A Storage Bank</b><br>M. Bahlawan, I. Sartawi and A. Al-Salaymeh,                   | Jordan    |
| 17:40-18:00 | 106     | <b>Impacts of Connecting Al Tafila Wind farm into Jordanian Power System</b><br>Hanan Abuquba, Hanin Hamidi, Ateka Abualrub, and Ahmad Al-Salaymeh              | Jordan    |
| 18:00-18:20 | 407     | <b>Investigation of Utilizing PV system for auxiliary energy demand in IPP3 power plant in Jordan</b><br>Mohammad Alsmadi, Youssef Dababneh, and A. Al-Salaymeh | Jordan    |
| 18:20-18:40 | 1405    | <b>Photovoltaic – battery power system for brackish water desalination in Jordan valley : design, field test and evaluation</b><br>M. M. Mahmoud                | Palestine |

## Day -3: Wednesday, April 6, 2016

### Hall (1) Session 7-A

**Chairman: Dr. Isam Janajreh**

**Rapporteur: Dr. Mohammad Abu Zahra**

| Time        | Paper # | Paper Title & Author  | Country |
|-------------|---------|---|---------|
| 09:00-09:20 | 802     | <b>Integrated Waste Recycling Systems for Agricultural and Environmental Safety Purposes in Rural Communities</b><br>Eng. Suhaib Ababneh, Eng. Nidal Abdalla, M. Tawalbeh, W. Shahin <sup>a</sup> , E. Alasis | Jordan  |
| 09:20-09:40 | 605     | <b>Investigation of the economic competitiveness of large-scale solar desalination in Jordan</b><br>L. Qoaider and M. Moser   | Jordan  |
| 09:40-10:00 | 1404    | <b>Sustainable Autarky of Food-Energy-Water (SAFE-Water)</b><br>Nirmal Khandan  | USA     |
| 10:00-10:20 | 1403    | <b>Techno-Economic Study of PV Powered Brackish Water Reverse Osmosis Desalination Plant in the Jordan Valley</b><br>A. Alsarayreh, M. Majdalawi, and R. Bhandari   | Germany |
| 10:20-10:40 | 235     | <b>Semi Continuous Solar Drying of Sludge from a Waste Water Treatment Plant</b><br>Hasan Mousa, Awni Al-Otoom, Fahmi Abu Al-Rub, and Mays Shaded   | Oman    |

**10:40-11:00  
Coffee Break**

### Hall (2) Session 7-B

**Chairman: Dr. Jamil Asfar**

**Rapporteur: Prof. Mousa Samara**

| Time        | Paper #       | Paper Title & Author   | Country |
|-------------|---------------|--|---------|
| 09:00-09:20 | 604<br>Arabic | نحو استراتيجية الطاقة المتجددة في الجزائر<br>د. نبيلة عرقوب  | Algeria |
| 09:20-09:40 | 804<br>Arabic | الاحترار العالمي ومستقبل استهلاك الطاقة المنزلية في مصر: الأثر والتكيف<br>ا.د.م محمد توفيق محمد  | Egypt   |
| 09:40-10:00 | 704<br>Arabic | الأسس القانونية والمؤسسية لتنفيذ سياسة وإستراتيجية استخدام<br>الطاقة الذرية للمجالات السلمية<br>د.بخوش هشام  | Algeria |
| 10:00-10:20 | 113<br>Arabic | <b>Study ways of filtering and compression of biogas resulting from fermented located in Sanowbar Jablah (Latakia, Syria) in order to get the best terms and characteristics of the product gas</b><br>M. Alsmara, G. Kinjrawi | Syria   |
| 10:20-10:40 | 324           | <b>The Thermal Mass Effect on the Energy Consumed During Cooling and Heating Processes</b><br>F. Sharaf, Nail Alimat, Aaish Shdafat  | Jordan  |

**10:40-11:00  
Coffee Break**

**Hall (3)**  
**Session 7-C**

**Chairman: Prof. Mahmoud Hammad**  
**Rapporteur: Dr. Ziad Abu rub**

| Time        | Paper # | Paper Title & Author  | Country      |
|-------------|---------|---|--------------|
| 09:00-09:20 | 606     | <b>Feasibility of Double Skin Façade for the weather of Kuwait</b><br>L. Al-Dihani, and A. Al-Anzi  | Kuwait       |
| 09:20-09:40 | 612     | <b>Renewable Energy and Cooperative Production and Marketing for Sustainable Desert Community Development: New Basaisa, Sinai, Egypt Case</b><br>Salah Arafa                                | Egypt        |
| 09:40-10:00 | 525     | <b>Comparative Study of Fresnel Lenses and Mirrors in Concentrated Solar Applications</b><br>Asal Ibrahim , Ahmad Sakhrieh  | Jordan & UAE |
| 10:00-10:20 | 1501    | <b>High Solar Conversion Efficiency and Stability by Metal Chalcogenide Nano-Film Electrodes Modified with Special Coatings</b><br>Hikmat S. Hilal, Ahed Zyoud, Rola AlKerm and Rana AlKerm | Palestine    |
| 10:20-10:40 | 1002    | <b>Optimal Architectural Design for Low Carbon Dioxide Emissions for Domestic Buildings in Jordan</b><br>Hussain Alzoubi, Jamal Qutaishat, Aseel Radaideh                                   | Jordan       |

**10:40-11:00**  
**Coffee Break**

**Hall (1)**  
**Session 8-A**  
**USAID**

**Women in Jordan's Energy Sector: Achievements and Opportunities**  
**Moderator: Katia Abbasi, CEO of Elegant Export House and Chairperson of Jordan Women Industrial Community Association**

| Time        | Presentation Title & Speaker   |
|-------------|--|
| 11:00-11:15 | <b>Women in Energy Animated Video</b>  |
| 11:15-11:30 | <b>Presentation and Discussion Led by WIE Chapter at Jordan University</b>   |
| 11:30-11:45 | <b>Presentation and Discussion Led by Council on Women in Energy and Environmental Leadership (CWEEL) Jordan</b>   |
| 11:45-12:00 | <b>Brief about USAID-ESCB Gender Work + Forum/Networking Event Video</b>   |
| 12:00-12:30 | <b>Discussion: Embracing the Opportunities: Increasing Women's Participation in the Energy Sector</b> <ul style="list-style-type: none"> <li>- Nancy Dabain – CEO Reliance Power Services</li> <li>- Nancy Remawi – Donor Advisor, Ministry of Energy and Mineral Resources</li> <li>- Alaa Gharaibeh –CEO and Co-founder, Be Solar</li> <li>- Ahmed Al-Salaymeh – The University of Jordan</li> </ul> |

**Hall (2)**  
**Session 8-B**

**Chairman: Dr. Ala'aldeen Al-Halhouli**

**Rapporteur: Dr. Samer Asaad**

| Time        | Paper # | Paper Title & Author  | Country     |
|-------------|---------|---|-------------|
| 11:00-11:20 | 524     | <b>The Quay Crane Scheduling Problem with Energy Consumption Consideration</b><br>Ali Diabat  | UAE         |
| 11:20-11:40 | 517     | <b>Description of Industrial Energy Consumption in Jordan</b><br>F. Abu Al-Rub, Q. Damra, Q. Khasawneh  | Jordan      |
| 11:40-12:00 | 520     | <b>Techno-Economic Study of PV System to Provide Electricity for a Household under Almadinah AlMunawwarah climatic conditions: SOLAR Powered Air conditioning SYSTEM CASE study</b><br>Khaled S. AlQdah | KSA         |
| 12:00-12:20 | 519     | <b>Modeling and Optimization of Transparent Thermal Insulation Material</b><br>Sameh Alsaqoor, Ali Alahmer, Marek Lewkowicz   | Poland      |
| 12:20-12:40 | 501     | <b>System performance of photoelectric dimming controls for configurations of lightshelves in an office</b><br>Younju Yoon, Jin Woo Moon, Jina Kim, Hussain H. Alzoubi, and Sooyoung Kim                | South Korea |

**Hall (3)**  
**Session 8-C**

**Chairman: Dr. Ibrahim Odeh**

**Rapporteur: Dr. Ahmad Awwad**

| Time        | Paper #        | Paper Title & Author  | Country |
|-------------|----------------|---|---------|
| 11:00-11:20 | 1203<br>Arabic | <b>Conversion of Natural Gas to Liquids using Syrian Zeolities</b><br>A. Ghata , I.Rishi, H.Ali, A. Shech Hamoud                                    | Syria   |
| 11:20-11:40 | 601<br>Arabic  | <b>The energy trend toward Shale Gas in Algeria between the economic bet and environmental obsession</b><br>K.Boudjadar, H.Saidi Sief               | Algeria |
| 11:40-12:00 | 512<br>Arabic  | <b>Renewable Energy and Sustainability in Syria</b><br>M. Al-Samara B. Neameh, M. M. Mahmoud  | Syria   |
| 12:00-12:20 | 526            | <b>Experimental Investigation of Performance Characteristics of Hybrid Cars</b><br>B. Qawasmeh, A. Al-Salaymeh, A. Swaity, A. Mosleh and S. Boshmaf | Jordan  |
| 12:20-12:40 | 508            | <b>Re-powering of wind farms: State of art</b><br>Siraj Ahmed   | India   |

**Hall (4)**  
**Session 8-D**

**Chairman: Prof. Amine Stambouli**

**Rapporteur: Mr. Mouldi Miled**

| Time        | Paper #       | Paper Title & Author   | Country |
|-------------|---------------|--|---------|
| 11:00-11:15 | 1601          | Activities and Plans of the Desertec University Network:<br>pilot projects implementation<br>Mouldi Miled  | Tunisia |
| 11:15-11:30 | 304<br>Arabic | حساب وتحليل الأحمال الكهربائية لمنزل سكني<br>م. عبدالرزاق ليز  | Libya   |
| 11:30-11:45 | 201           | Stem Technology Initiative by Sahara Solar Breeder<br>Project: Chemistry and Electronics of Oxides as Stem<br>Material for Future Energy and Environment<br>A. Boudghene Stambouli, S. Flazi, H. Koinuma | Algeria |
| 11:45-12:00 | 309           | Sustainable aspects of vernacular single family houses in<br>three regions in Libya<br>Abdrahman Shahrhan, and Darko Reba  | Serbia  |
| 12:00-12:15 | 701           | How Sahara potentials can contribute to a sustainable<br>development and agriculture productions of Algeria<br>S. Flazi, A. Boudghene Stambouli and M. Siali   | Algeria |
| 12:15-12:30 | 602           | تجربة دولة البرازيل في انتاج الوقود الحيوي كبديل للبترول: وانعكاساتها على<br>الامن الغذائي وعلى هيكل سوق الطاقة العالمي (دراسة تطبيقية)<br>فاطمة حسن   | KSA     |
| 12:30-12:40 | 226           | Experimental investigation of hybrid Pv-wind systems for<br>electrical production in Jordan".<br>B. R. Qawasmeh, M. S. Sari and A. Al-Salaymeh   | Jordan  |

### Closing and Recommendations Session

12:40- 13:20

Chairmen: Prof. Ahmed Al-Salaymeh, Prof. Ali Badran, Eng. Waleed Shahin

Light Lunch

13:20-14:00

**Day-4: Thursday, April 7, 2016**

**Scientific and Social Trip**  
**Ma'nn Solar Plant, Tafileh Wind Plant, Petra**