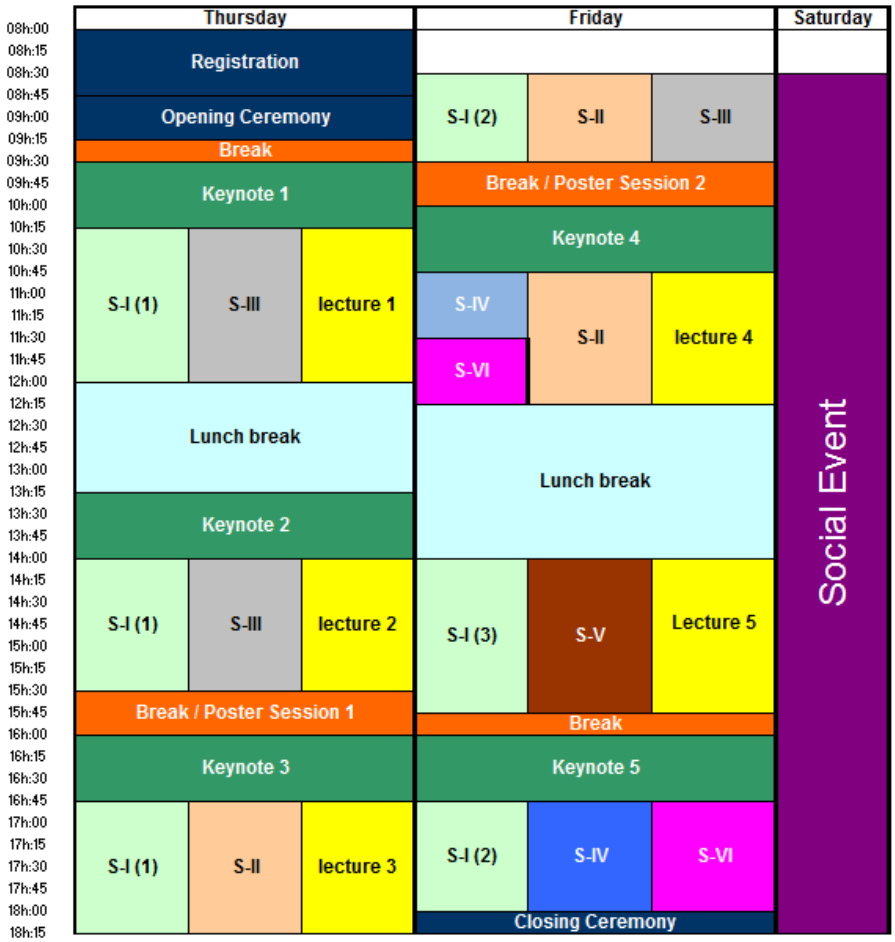
Program Overview



S-I	Solar Energy
S-II	Wind Energy
S-III	Eco-Design
	Energy efficiency
S-IV	Energy harvesting
	Distribution Power System
	Transportation generation
	Electricity storage
	Power electronics and motor drives for renewable energy
S-V	Thermal and Recycling
	Green technology
	Biomass
S-VI	Renewable energy for IT equipments
	Smart Grid

Keynote Talks

Keynote 1 **Thursday 09h30-10h15**	**Assuring Adequate Primary Frequency Response in Power Systems with High Levels of Wind Power** *(Prof. Nicholas W Miller, General Electric Company, USA)*
Keynote 2 **Thursday 13h15-14h00**	**Research trends and future direction of chalcogenide thin-film solar cells** *(Dr. Takashi Minemoto, Ritsumeikan University, Japan)*
Keynote 3 **Thursday 16h00-16h45**	**Research opportunity in Metal Chalcogenide Films and nanostructure for PV** *(Prof. Ahmed Ennaoui, Helmholtz-Zentrum Berlin, Germany)*
Keynote 4 **Friday 10h00-10h45**	**Bio-mimetics of Energy Systems: What Can We Learn for Technology?** *(Prof. Helmut Tributsch, Carinthian University for Applied Sciences, Austria)*
Keynote 5 **Thursday 16h00-16h45**	**The Use of Power Electronics in Harvesting Solar Energy** *(Prof. Nasrudin Abd Rahim, University of Malaya, Kuala Lumpur, Malaysia)*

Lectures for PhD students

Lecture 1 **Thursday 09h30-10h15**	**Continuous improvement in sustainability through energy efficiency.** *(Prof. Bhaskaran Gopalakrishnan, West Virginia University, IMSE, Morgantown , USA)*
Lecture 2 **Thursday 09h30-10h15**	**Operational economics of systems with high penetration of wind and solar.** *(Prof. Nicholas W Miller, General Electric Company, USA)*
Lecture 3 **Thursday 09h30-10h15**	**Bio-mimetics of Energy Systems: an Overview.** *(Prof. Helmut Tributsch, Carinthian University for Applied Sciences, Austria)*
Lecture 4 **Friday 09h30-10h15**	**Solar Photovoltaic Technology from atoms to arrays.** *(Prof. Ahmed Ennaoui, Helmholtz-Zentrum Berlin, Germany)*
Lecture 5 **Friday 09h30-10h15**	**Device design and operation mechanism of chalcogenide thin film solar cells.** *(Dr. Takashi Minemoto, Ritsumeikan University, Japan)*

Presentation guidelines :

- All presentations should be in English.
- The time provided for oral presentations is 15 min (10 min for the presentation and 5 min for the discussion).
- The speakers should give their slides to the session chair before the beginning of each session.
- For poster presentations, the posters should be displayed one hour before the beginning of the poster session and any explanation required should be provided to session chairs and visitors.

S-I (1)	**Solar Energy (PV)**
	Session Chairs : *Ahmed Ennaoui*, Helmholtz-Zentrum Berlin, Germany ***Ikeda Shigeru***, Osaka University, Research Center for Solar Energy Chemistry – Japan
Thursday 10h15-12h:00 and 14h00-15:30 and 16h45-18h15	**Dust Effects on the Performance of PV Street Light in Baghdad City** *Abd Salam Al-Ammri, Areej Ghazi, Falah Mustafa* **Wet processes for the preparation of CZTS thin films** *L. Alahyane, H. Kirou, E. EL Hamri, A. Elfanaoui, E. Ihalane, K. Bouabid, L. Laanab, A. Ihlal* **Structural and optical properties of the nanocrystalline ZnO films prepared by successive ionic layer adsorption and reaction** *E. EL Hamri, A. Elfanaoui, L. Boulkadat, E. Ihalane, L. Alahyane, H. Kirou, K. Bouabid, A. Ihlal, L.Laanab* **Parametric identification by minimizing the squared residuals (Application to a photovoltaic cell)** *Benyounes OUKARFI, Fayrouz DKHICHI, Abderrahim FAKKAR* **Role of electrode buffer layers in organic solar cells** *Takeaki Sakurai, Shenghao Wang, Susumu Toyoshima, Katsuhiro Akimoto* **Estimating the photovoltaic MPPT by artificial neural network** *Sadik Farhat, Rachid Alaoui, Abdelilah Kahaji, Lahoussine Bouhouch* **Electrochemical Synthesis of Cu_2ZnSnS_4 and $Cu_2ZnSnSe_4$ Thin Films for Solar Cells** *Shigeru Ikeda, Wilman Septina, Yixin Lin, Akio Kyoraiseki, Takashi Harada, Michio Matsumura* **Analysis of Cd_{1-x} Zn_xS window effect on CdTe solar cells** *Abderrahmane Belghachi, Naima Limam* **Design and realization of an emulator of photovoltaïc generator** *Mustapha Elyaqouti, Rachid Alaoui, Ahmed Ihlal, Lahoussine Bouhouch* **Simulation, optimization and performance analysis of an analog, easy to implement, perturb and observe MPPT technique to be used in a 1.5 KWp photovoltaic system** *KHELIF Messaoud, M'RAOUI Abdelhamid, MALEK Ali* **Elaboration and characterizations of In2S3 thin films by Spray Pyrolysis with [S]/[In] = 3 ratio** *Thierno Sall, Bernabe Mari, Mollar Miquel, Larbi Laanab, Bouchaib Hartiti, Mounir Fahoume* **Calix[4]pyrrole; a potential dye for Dye Sensitised Solar Cells** *Abdelaziz El Gamouz, Angela F Danil de Namor* **Comparative study of H-bridge multilevel inverters dedicated to PV** *Abdelaziz Fri, Rachid El Bachtiri, Abdelaziz El Ghzizal* **A five-level diode clamped inverter for grid connection PV generation system** *Kamal Himour, Kaci Ghedamsi, ElMadjid Berkouk* **Structural and optical properties of CdS thin films prepared by SILAR method** *Fouad Benmalek, Abderrahim Raidou, Thierno Sall, Larbi Laanab, Ahmed Qachaou, Mounir Fahoume* **Effect of structural variations in $CuIn_{(1-x)}Ga_xSe_2$ based solar cells from numerical analysis** *E. Ihalane, L. Atourki, L. Boulkaddat, E. El hamri, H. Kirou, L. Alahyane, A. Elfanaoui, A. Ihlal, K. Bouabid, X. Portier* **Modelling of the photovoltaic system using the present state simulation models** *Akila Gherbi Djoudi, Amar Hadj Arab, Badia Amrouche* **Improved performance in bilayer-CIGS solar cell** *Manel Mezghache, Bouzid Hadjoudja* **Simulation of In0.52Ga0.48N solar cell using AMPS-1D** *B. Dennai, H. Benslimane, A. Helmaoui* **Optimization photovoltaic pumping system based BLDC using Fuzzy logic MPPT control** *Ouada Mahdi, Meridjet Mohamed Salah, Talbi Nabil* **Metastability versus irreversibility in a-Si:H degradation under illumination** *El Mahdi El Mhamdi, Stefaan De Wolf, Bénédicte Demaurex, Jakub Holovsky and Christophe Ballif*

S-I (2)	**Solar Energy - Case Study** **- Modelling**
	Session Chairs : ***Alan S. Weber***, Weill Cornell Medical College, Doha-Qatar
Friday 08h30-09h30 and 16h45-18h00	**A mean hourly global radiation prediction in Moroccan sites** *R. MEJDOUL, M. TAQI* **Review of Sustainable and Renewable Energy Activities in the State of Qatar** *Alan S. Weber* **Tilt Angle Optimization for Maximum Solar Energy Collection - Case Study for Ifrane, Morocco** *Driss Lahjouji, Hassane Darhmaoui* **Feasibility Study of a Solar Power Tower in Algerian Sites** *A. Aichouba, M. Merzouk, N. Said, N. Kasbadji Merzouk* **Modeling the Variation of Optimum Tilt Angles for Flat-Plate Solar Collectors in Ifrane, Morocco** *Houda Ennaceri, Khalid Loudiyi* **A compararative study between sliding mode controller and P&O controller applied to MPPT** *Afghoul Hamza, Chikouche Djamel, Krim Fateh, Beddar Antar* **Automation of a solar adsorption refrigeration system** *Abdellah El Fadar, Mohamed Becherif, Ali Haddi, Jacques Jay* **Robust Control approach for Photovoltaic Conversion System** *Menad DAHMANE, Jérôme BOSCHE, Ahmed EL-HAJJAJI* **Wall shear stress in transient turbulent pipe flow** *H. ZIDOUH, L. ELMAIMOUNI* **Heat transfer enhancement with vortex generators in a solar low delta-T Stirling engine** *Noureddine BOUTAMMACHTE, Ahmed ALMERS, bdelfatah BOUATEM*

S-I (3)	**Solar Energy : - Tracking** **- Thermal**
	Session Chairs : *Nasrudin Abd Rahim, University of Malaya, Kuala Lumpur, Malaysia*
Friday 14h00-15h45	**A Closed Pneumatic-based Solar Tracking System** *Mouad Jaafari, Izgh Hadachi, Meriem Elwarari , Sara Boualila, Yassine Salih-Alj* **Fuzzy controller to extract the maximum power of a photovoltaic system** *Mohamed Ajaamoum, Mustapha Kourchi, Rachid Alaoui, Lahoussine Bouhouc* **Study and Comparison of Several Maximum Power Point Tracking Algorithms** *Badia AMROUCHE, Akila DJOUDI* **Command and algorithm of Maximum Power Point Tracking MPPT** *Mohammed ELalami, Mohamed Habibi, Seddik Bri* **The effects of light intensity and collector surface on the performance of a solar thermal collector** *R. Ihaddadene, N. Ihaddadene, M. Bey* **Temperature – Time Mathematical Practical Model of Melting Lead Metal in Graphite Crucible by Concentrator Solar Furnace** *Falah Mustafa, Mohamed Saleh, Khalil Alwan, Hassen Isaa, Aied Ibrahim, Salah Subhe, Husam Sabeeh, Hatim Ali, Tariq Yaseen, Saad Abd Alhussein, Abass Hussein* **Solar Cooling: Experiences and Lessons Learned with two Different Systems** *Ahmed Hamza H. Ali* **Prediction of daily solar energy by optimizing the model MLP neural networks** *Abdelilah Kahaji, Rachid Alaoui, Sadik Farhat, Lahoussine Bouhouch*

S-II	**Wind Energy**
	Session Chairs : Ouadie Bennouna, ESIGELEC/IRSEEM, France **Salma El Aimani**, FPO - Ibn Zohr University -Morocco **Nachida Kasbadji Merzouk,** EPST/CDER - Tipaza, Algeria ***Mohammed Ouassaid***, ENSA- Safi, Cadi Ayyad University-Morocco
Thursday 16h45-18h15 Friday 08h30-09h30 and 10h45-12h15	**State-Model Based Time-Domain Diagnosis of Internal Faults for Permanent Magnet Synchronous Machine -Wind Application** *Abdelhalim Lalami, Abderrazak El-Ouafi, René Wamkeue* **Fuzzy Controller for Self-Excited Induction Generator used in Wind energy conversion** *Ahmed ABBOU, Mohamed BARARA, Mohamed AKHERRAZ, Hassan MAHMOUDI, Mohamed MOUTCHOU* **Effect of diffuser configuration on the flow field pattern inside wind concentrator** *Ashraf Amer, Ahmed Hamza H. Ali, Yehia ElMahgary, Shinichi Ookawara* **Maximum Power Point Tracking of a Wind Power System Based on The PMSG Using Sliding Mode Direct Torque Control** *Youssef ERRAMI, Mohammed OUASSAID, Mohamed MAAROUFI* **Towards a knowledge base for a wind electric pumping system design** *Abdelaziz ARBAOUI, Mohamed Allae BENNINI, Mohamed ASBIK* **A MPPT Vector Control of Electric Network Connected Wind Energy Conversion System Employing PM Synchronous Generator** *Youssef ERRAMI, Mohammed OUASSAID, Mohamed MAAROUFI* **Effect of Obstacles on the Wind Speeds Spatial Interpolation** *Ahmed Hadji, Nachida Kasbadji Merzouk and Mustapha Merzouk* **Detection and Isolation of Sensor Faults of Wind Turbines using Sliding Mode Observers** *Jian Zhang, Ouadie Bennouna, Akshya Swain, Sing Kiong Nguang* **Numerical characterization of pressure drop through a low speed wind tunnel: Some design aspects** *IvanTorranoa, Manex Martinez-Agirrea, Mustafa Tutara* **Development of real time Wind Turbine Emulator based on DC Motor controlled by hysteresis regulator** *KOUADRIA Selman, BELFEDHAL Seifeddine, BERKOUK El Madjid, MESLEM Youcef* **Improvement of Transient Stability of Algerian Power System Network with Wind Farm** *Naimi Djemai, Bouktir Tarek* **Wind Powered Water Desalination** *Youssef Dahioui, Khalid Loudiyi* **The Effect of Wind-Based Generation Inclusion on Economic Load Dispatch Problem** *Farid Benhamida, Yacine Salhi, Slimane Souag, Abdelber Bendaoud, Houari Sayah* **Optimal sizing of an autonomous hybrid system** *Fatima Zahra Kadda, Smail Zouggar, Mohammed Larbi Elhafyani* **Boost Converter analysis to optimise variable speed PMSG Wind Generation System** *Abdelouahed Mesbahi, Abdellah Saad, Mohamed Khafallah, Omar Bouattane, Abdelhadi Raihani* **Faults diagnosis of wind enrgy conversion chain based on doubly fed induction generator by principal components analysis method** *Jacques Fanjason Ramahaleomiarantsoa, Nicolas Héraud, Eric Jean Roy Sambatra, Jean Marie Razafimahenina*

S-III	**- Eco-Design** **- Energy efficiency**
	Session Chairs: ***Lee Seung Joo***, Dongguk University, Seoul, Korea ***Nicholas W Miller***, General Electric Company, USA ***Rachid El Bachtiri***, EST, Fez University, Morocco ***Brahim Benhamou***, Faculty of Sciences Semlalia, Marrakech, Morocco
Thursday 10h45-12h00 and 14h00-15h30 Friday 08h30-09h30	**Comparing Socioeconomic & Environmental Impacts of Building 2GW PV Power Plant (PP) in Both Sides of the Mediterranean** *Ahmed M.A.M. Serag ElDin, Yehia El-Mahgary, Ahmed Hamza H. Ali, Ahmed Khairy* **A Technical Reading of the 13-09 Law on Renewable energy in Morocco** *Rachid El Bachtiri, Ernest Matagne* **Introduction of Concentrating Solar Power Based on the use of Parabolic Trough Mirrors in the Evaluation of the Moroccan Power Grid Adequacy** *Mohamed Oukili,Smail Zouggar, Mohammed Seddik, Fatima Zahra Kadda, Mohamed El hafyani, Taoufik Ouchbel, François Vallée* **An intelligent approach for evaluating losses power on energy production of large-scale photovoltaic plants** *Adel Mellit, Alessandro Massi Pavan* **Increase the photovoltaic conversion efficiency using Neuro-fuzzy control applied to MPPT** *Afghoul Hamza, Krim Fateh, Chikouche Djamel* **Analysis by Differential Scanning Calorimetry of concrete modified with microencapsulated phase change materials** *Anissa Eddhahak-Ouni, Sarra Drissi, Johan Colin, Jamel Néji* **Electronic and optical properties of ZnO quantum well structures** *Hee Chang Jeon, Tae Won Kang, and Seung Joo Lee* **Energy requirement, fuel consumption and environmental impact of heating residential building** **Case study of Fez** *Rachida Idchabani, Mohamed Garoum, Abou-bakr CHERKI, Abdelhamid KHABBAZI* **Energy Efficiency In Continuous Galvanizing Lines** *Subhasis Bhadra, Bhaskaran Gopalakrishnan, Subodh Chaudhari* **Valorization of thermal insulation properties, energy storage capacity and lightness of a new ecological building material based on granular cork** *Abou-bakr Cherki, Abdelhamid Khabbazi, Rachida IDCHABANI, Mohamed GAROUM* **Comparative Study of Internal and External Thermal Insulations Based on PET Waste Bottles** *Youssef Afkir, Hassane Darhmaoui, Khalid Loudiyi, Abdessadek Sesbou, Said Dahous* **Energy consumption optimization in real time applications for WSN using IR-UWB technology** *Anouar Darif, Driss Aboutajdine, Rachid Saadane* **Numerical simulation of a parabolic trough collector in a humid ambience** *N.Basbous, N.Belouaggadia, M.Taqi* **Sensitivity Factor for Power System Security Analysis Using LabVIEW** *Slimane Souag, Farid Benhamida, Yacine Salhi, Abdelber Bendaoud, Fatima Zohra Gherbi* **Numerical Simulation of Drag Reduction over Rotationally Oscillating Cylinder** *Liu Su, Isam Janajreh* **Energy efficiency in buildings: thermophysical characterization of building materials** *Mustapha Boumhaout, Lahcen Boukhattem, Fatima Ait Nouh, Hassan Hamdi, Brahim Benhamou* **TVAC based PSO for Solving Economic and Environmental Dispatch considering Security constraint** *Salhi Ahmed, Naimi Djemai, Bouktir Tarek* **RafriBAT: a Project to Introduce Energy Efficiency in Buildings in Marrakech Area by means of Passive and Low Exergy Air-Conditioning Systems** *Brahim BENHAMOU, Hassan HAMDI, Abderrahim BRAKEZ, Amin BENNOUNA* **Reference Current Computation for Three-Level Shunt Active Filter Under Distorted and Unbalanced Conditions** *Ahmed Ouari, Nadhir Mesbahi and Amar Omeiri* **Experimental Study of Building Envelope Insulation Performance** *F. Mokhtari, K. Imessad, R. Kharchi, L.Loukarfi, L. Deradji*

S-IV	- Energy harvesting - Distribution Power System - Transportation generation - Electricity storage - Power electronics and motor drives for renewable energy
	Session Chairs: ***Adelino Jorge Lopes Ferreira***, University of Coimbra, Portugal ***Driss Yousfi***, ENSA, Marrakech- Morocco
Friday 10h45-11h30 and 16h45-18h00	**A New Pavement Energy Harvest System** *Francisco Duarte, Filipe Casimiro,Diogo Correia, Rui Mendes, Adelino Ferreira* **Secondary energy sources recovery with a new type of the multistage microturbine** *Kiril Levkov* **Oriented Energy-Aware Scheme used in Heterogeneous Wireless Sensor Networks** *Mostafa SAADI, Moulay Lahcen HASNAOUI, Abderrahim BENI HSSANE, Mohamed LAGHDIR* **Optimal energy management of an autonomous hybrid system by using the linear programming method** *Fatima Zahra Kadda, Smail Zouggar, Mohamed Larbi Elhafyani* **Cascaded DC/DC Converters as a Battery Charger and MPPT for PV System** *Ahmad H. El Khateb, Nasrudin Abd.Rahim, Jeyraj Selvaraj* **Storage and restoring the electricity of renewable energies by coupling with natural gas grid** *Youssef Redissi, Hanaâ Er-rbib, Chakib Bouallou* **PMSM Sensorless Control using Back-EMF Based Position and Speed Estimation Method** *Youness Aite driss, Driss Yousfi* **Simultaneous Estimation of Rotor Speed and Rotor Resistance in Sensorless IFOC of an Induction Motor Using Robust MRAS** *Dj. Cherifi, Y. Miloud, M. Atig, A. Tahri*

S-V	- Thermal and Recycling - Green technology - Biomass
	Session Chairs: **Isam Janajreh**, Masdar Institute of Science and Technology – Emirates **Zahira Yaakob**, *University of Kebangsaan-Malaysia*
Friday 14h00-15h45	**Recycling of Cross-link Polyethylene: Mechanical & Chemical Pathways** *Mohammed Al Shrah, Isam Janajreh* **Convetive Boiling in Minichannels** *Boudouh Mounir, Louahlia-Gualous Hasna, Si Ameur Mohamed* **Single Step Production of Biodiesel from Used Cooking Oil** *Surya unni K, Zahira Yaakob, Manoj Pudukudy, Masita Mohammed, Binitha N Narayanan* **Three-dimensional numerical study of SOFC temperature field: Polarization heat source effect** *Slimane Saighi, Zitouni Bariza* **Low Energy Direct Contact Membrane Distillation: Towards Optimal Flow Configuration** *Mohammad Awad, Isam Janajreh, Hassan Fath* **Bioethanol Production Process using the Non-conventional Yeast Candida tropicalis** *Latifa Jamai, Mohamed Ettayebi* **Numerical simulation of Gasification: Effect of injection velocity on the feedstock conversion and syngas composition** *Syed Shabbar Raza, Isam Janajreh* **Alternative Technologies for Controlling CO2 Emissions and Energy Costs Minimization in Manufacturing Processes** *Ilham Kissani* **Sulphuric acid modified biomass: a novel acid catalyst for effective esterification of free fatty acids for biodiesel production** *Sathya Selva Bala Vasanthakumar, Isam Janajreh* **GASIFICATION OF TIRE CRUMBS INSIDE A DROP TUBE REACTOR: SEEKING OPTIMAL CONVERSION CONDITIONS** *Idowu Adeyemi, Isam Janajreh*

S-VI	- Renewable energy for IT equipments - Smart Grid
	Session Chairs: **Chuzo Ninagawa**, Gifu University, Japan ***Mohamed Bakhouya***, Aalto University, Finland
Friday 11h30-12h15 and 16h45-18h00	**Data Transmission of IEEE1888 Communication for Wide-area Real-time Smart Grid Applications** *Chuzo Ninagawa, Hiroki Yoshida, Seiji Kondo, Hiroyuki Otake* **Design, realization and characterization of a photovoltaic system equipped with digital command control and acquisition** *Mustapha Melhaoui , Rajae Gaamouche, Elhadi Baghaz, Kamal Hirech, Faysal Yaden, Khalil Kassmi* **Screening phenomenon and hopping in two dimensional GaAs holes system** *S. Dlimi, A. El kaaouachi, L. Limouny, A. Narjis, M. Errai, E. Daoudi, A. Sybous, G.Biskupski* **Circular Polarized Square Patch Antenna Array for Wireless Power Transmission** *M.A. Sennouni, J. Zbitou, A. Tribak, A. Benaissa, M. Latrac* **Performances Analysis of Grid connected PV system in the perspective of use in a smart house in Algeria** *Adel Ghouari, Chaâbane Hamouda, Aziz Chaghi* **Homeostatic control in grid-connected microgeneration power systems: A means to adapt to changing scenarios while preserving energy sustainability** *Fernando Yanine, Felisa M. Córdova* **Towards an Optimal Assignment and Scheduling for Charging Electric Vehicles** *Azizbek Ruzmetov, Ahmed Nait-Sidi-Moh, Mohamed Bakhouya, Jaafar Gaber, Maxime Wack* **Demand side management algorithms and modeling in smart grids A customer's behavior based study** *El Hassan ET-TOLBA, Mohammed OUASSAID, Mohamed MAAROUFI* **Experimental Study and Design of Smart Energy Meter for the Smart Grid** *Anmar Arif, Muhannad Al-Hussain, Nawaf Al-Mutairi, Essam A. Al-Ammar*

	Posters Session I
	Session Chairs:
Thursday 15h30-16h00	**Detailed analysis of surface recombination in crystalline silicon solar cells** *Abderrahmane BELGHACHI* **Application of Fuzzy Robust Controller for Photovoltaic Systems** *Noureddine Ould-Cherchali, Abdelkader Morsli, Mohamed-Seghir Boucherit, Linda Barazane* **Study of the effect of the partial shadow on a photovoltaic module** *Mohamed DHARIF, Abdelhaquim EL MOUSSAOUI, Abdellah AIT OUHMAN* **Investigation on the use of solar thermal energy in the agro food industry in Algeria** *Badreddine Boutaghriout, Amina Bouakaz, Chaâbane Hamouda, Hacene Smadi, Ali Malek* **Study of the statistical correlation of the global radiation** **Case study of Tetuan in northern Morocco** *Abdelbari Redouane, Driss Taoukil, Abdelmajid El Bouardi ,Taïb Ajzoul, Hassan Ezbakhe* **A Very Low Cost System Tracking Solar Irradiance** *Abdelaziz El Ghzizal, Rachid El Bachtiri* **Analysis of Experimental Test Results for the Solar Water Heater of UDES** *A. Arbane, R. Sellami, M. Merzouk, N.Kasbadji Merzouk* **Implementation of Moroccan map solar cooling based on the dynamic study by a solar adsorption refrigeration machine working with activated carbonammonia pair using a sensor plane** *Hanae El Kalkha, Abdelaziz Mimet* **Fuzzy modeling magnetizing curve of a self excited induction generator and effect of mutual inductance** *Mohamed Barara, Mohamed Akherraz, Ahmed Abbou Mohamed moutchou, Mohamed Elhafyani* **Double-fed Asynchronous Wind Power Generator by Fuzzy Logic** *S . Bellarbi, N. Kasbadji Merzouk* **Output Power Control of a Wind Energy Conversion System Based on a Doubly Fed Induction Generator** *Kaima Boulâam, Akkila Boukhelifa* **A Coordinated Control For Smoothing Output Power Of a DFIG based Wind Turbine** *Tariq RIOUCH, Rachid EL-BACHTIRI* **On the study of an optimal and robust control of the inverted pendulum wind turbine** *Ailane Abdellah, Aitelmahjoub Abdelhafid, Rachik Mostafa* **Transposition of wind measurements to a standard site of open area roughness at a height of 10m above ground level** *Fathi Ben Amar, Mustapha Elamouri, Rachid Dhifaoui* **Design and construction of a synchronous wind turbine** *M. LAHDA, A. MOURADI, A. EL HIBAOUI, A. MIMET* **Modelling, design and control of wind diesel hybrid power system using bond graph** *A. Badoud, M. Khemliche, S. Bacha, B. Raison* **Modeling and performance analysis of multilevel inverter for single-phase grid connected photovoltaic modules** *A. Badoud, M. Khemliche, S. Bacha, B. Raison* **Loads evaluation of horizontal axis wind turbine operating in yaw conditions using BEM method** *Abdelfattah Bouatem, Ahmed Al Mers, Boutammachte Nour Eddine* **Performance analysis of solar adsorption cooling machine using fined tubular reactor** *A. Al Mers, N. Boutammachte, A. Bouatem* **Solar vacuum membrane distillation for seawater desalination** *Slimane Gabsi and Ahmed Chehbouni* **Synthesis and characterization of copper indium diselenide thin films for solar energy applications** *Souheyla Gagui, Bouzid Hadjoudja, Baghdadi Chouial, Houda Felfli, Allaoua Chibani*

	Posters Session II
	Session Chairs:
Friday 09h30-10h00	**Phenomenon of thermal stratification in pipes: Effect of flow rate** *Halitim Siham Houria, Abdelhamid Chaouki, Zitouni Bariza* **Investigation of the aerodynamics flow and turbulence characteristics of burning process of the solid fuel** *A.S. Askarova, A. Bekmukhamet, S.A. Bolegenova, Yu. V. Maximov, M.T. Beketayeva, Sh. S. Ospanova* **Availability of natural light in dense urban areas Investigation on the performance of daylighting wells** *TIZOUIAR Ouahiba, BENSALEM Rafik* **Thermal Auditing of Buildings** **Essential Step towards Designing Energy Efficient Houses** *Mohamed El Mehdi El Hjouji, Asmae Khaldoun* **Study of a STATCOM used for unbalanced current compensation caused by a high speed railway (HSR) sub-station** *Anas Benslimane, Jamal Bouchnaif, Mohamed Azizi, Khalid Grari* **Solar Electricity Storage in Lead Acid Batteries** *Achaibou Nadia, Harikenchikh Ali* **Thermal field of a planar SOFC fed by methane:** **Steam reforming and water gas shift reaction effect** *Hafsia ABDENEBI, Bariza ZITOUNI, Hocine BEN MOUSSA, Djamel HADDAD* **Biohydrogen production by dark and photofermentation processes** *Dahbia Akroum-Amrouche, Nadia Abdi, Hakim Lounici, Nabil Mameri* **Aggregator based ICT architecture for Electric Vehicle Fleet Operators** *Fayez Shakil Ahmed, Salah Laghrouche, Frédéric Lassabe* **Optimized Control for switched reluctance motor** *Khalid Grari, Jamal Bouchnaif, Mohamed Azizi, Anas Benslimane*