

REEE '2017

The International Conference on Renewable Energy and Energy Efficiency
FST Fez, November 8 & 9, 2017



Programme

1^{ère} édition de La Conférence Internationale sur les Energies Renouvelables et Efficacité
Energétique

8 – 9 novembre 2017

Faculté des Sciences et Techniques
Université Sidi Mohamed Ben Abdellah - Fès

Mercredi 8 novembre

8h30 – 9h15 Réception et inscription des participants
9h15 – 10h00 (Salle des conférences) Cérémonie d'ouverture
10h00 – 10h30 : Pause café
10h30 - 12h30 Conférences plénières <i>Modérateurs : Pr. Abdellah MECHAQRANE - Pr. Najia ES-SBAI</i>
10h30 – 11h10 <i>Wide bandgap semiconductors for future generation of solar cells</i> <i>Pr. Abdallah OUGAZZADEN</i> <i>Professor at ECE School at Georgia Institute of Technology, Director of the Joint International Research Lab GT-CNRS, Director of Georgia Tech Lorraine, the European Campus of GIT, Co-President of Lafayette Institute the platform of technology transfer.</i>
11h10 – 11h50 <i>Energy Storage as a Door-Opener for the Renewable Energies</i> <i>Pr. Klaus KUHNKE</i> <i>Professor at the university Hochschule Osnabrück, Germany</i>
11h50 – 12h30 <i>CPV in Morocco: History and Situation</i> <i>Pr. AHAITOUF Ali</i> <i>Professor at Sidi Mohammed Ben Abdellah University, Faculty of Sciences and Technologies of Fez</i>

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12h30 – 14h00 : <i>Pause déjeuner</i>	
14h30 : <i>Session 1</i>	
Atelier 1 (Salle A) <i>Modérateurs : Pr. A. OUGAZZADEN Pr. N. ES-SBAI</i>	Atelier 2 (Salle B) <i>Modérateurs : Pr. M. JORIO Pr. S. BENNANI DOSSE</i>
<p>14h30 – 14h45</p> <p>Assessment of a quality control procedure of hourly solar irradiations at Fez city, Morocco</p> <p><i>Zineb Bounoua, Manal Marzouq and Abdellah Mechaqrane</i></p>	<p>14h30 – 14h45</p> <p>Direct Torque Control Strategy Based on Fuzzy Logic Controller for a Doubly Fed Induction Motor</p> <p><i>Najib El Ouanjli, Aziz Derouich, Abdelaziz El Ghzizal, Ali Chebabhi, Mohammed Taoussi and Badre Bossoufi</i></p>
<p>14h45 – 15h00</p> <p>Thermodynamic study and simulation of a solar vapor absorption refrigeration system (VARs)</p> <p><i>Youssra Fassi Fihri, Mostafa Maalmi and Said Hachimi</i></p>	<p>14h45 – 15h00</p> <p>Microstrip Patch Antenna For RF Energy Harvesting System To Power a MAV</p> <p><i>Soumya Almorabeti, Mounir Rifi and Hanae Terchoune</i></p>
<p>15h00 – 15h15</p> <p>Influence des pièges profonds et des centres recombinants sur le rendement de conversion photovoltaïque d'une cellule solaire à base de GaAs</p> <p><i>Hicham El Achouby, Mhammed Zaimi, Asmaa Ibral and El Mahdi Assaid.</i></p>	<p>15h00 – 15h15</p> <p>Power balance of a three-phase power supply for a microwave generator with two magnetrons per phase using a tetrahedral transformer</p> <p><i>Mouhcine Lahame, Redouane Batit, Mohammed Chraygane, Hamid Outzguinrimt and Mohamed Ferfra</i></p>
<p>15h15 – 15h30</p> <p>Etude Numérique du Rendement d'un Capteur Solaire à Matériau Léger</p> <p><i>Bitam El Wardi and Bougoul Saadi</i></p>	<p>15h15 – 15h30</p> <p>Optimum Design of a Small Wind Turbine Blade for Maximum power Extraction</p> <p><i>Lhoussaine Tenghiri, Yassine Khalil, Farid Abdi and Anas Bentamy</i></p>
<p>15h30 – 15h45</p> <p>Daily direct, diffuse and global irradiances modelling for an accurate estimate of daily solar radiation intensity at the city of El Jadida (Morocco)</p> <p><i>Mhammed Zaimi, Hicham El Achouby, Asmaa Ibral and El Mahdi Assaid</i></p>	<p>15h30 – 15h45</p> <p>Economic Sizing of Grid-Connected Photovoltaic System - Case of GISER project Morocco</p> <p><i>Maha Khanfara, Rachid El Bachtiri, Boussetta Mohammed and Karima El Hammoumi</i></p>

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<p>15h45 – 16h00</p> <p>Effect of Surfaces Radiation on the Natural Convection in a Passive System Integrated into the Roof of a Building</p> <p><i>Ababsa Dalila and Bougoul Saadi</i></p>	<p>15h45 – 16h00</p> <p>Classification des Commandes MPPT</p> <p><i>Houria Cholli and Mohamed Salhi</i></p>
16h00 – 16h30 : Pause café	

16h30 : Session 2	
Atelier 1 (Salle A) <i>Modérateurs : Pr. H. ZAITAN Pr. A. MECHQRANE</i>	Atelier 2 (Salle B) <i>Modérateurs : Pr. A. JAMIL Pr. M. BAKKAS</i>
<p>16h30 – 16h45</p> <p>Removal of textile dyes from aqueous solutions using low cost biosorbent Moroccan: Kinetics, equilibrium and thermodynamics</p> <p><i>Bencheqroun Zineb, Nawdali Mustapha, Valdes Hector and Elham Farouk, Hicham Zaitan</i></p>	<p>16h30 – 16h45</p> <p>Dimensionnement de batteries de stockage pour un système hybride de 3kVA</p> <p><i>Karima Elhammoumi, Rachid Elbachtiri, Mohammed Boussetta and Maha Khanfara</i></p>
<p>16h45 – 17h00</p> <p>Etude Numérique des Transferts Thermiques Couplés dans une Cavité Allongée : Effet de l'Emissivité</p> <p><i>Bouchaib Jamal, Mohammed Boukendil, Abdelhalim Abdelbaki and Zaki Zrikem</i></p>	<p>16h45 – 17h00</p> <p>A comparison between Series Dynamic Resistors and CROWBAR circuit protection for LVRT capability of Doubly-Fed Induction Generator</p> <p><i>Yassir El Karkri, Hassane El Markhi, Tijani Lamhamdi and El Moussaoui Hassan.</i></p>
<p>17h00 – 17h15</p> <p>Structural, morphological and optical properties of Copper-Tin-sulfide thin film synthesized by spin coating technique</p> <p><i>Fatimetou Welatta, Abdelkader El Kissani, Abdelkader Outzourhit and Mohammed Aggour</i></p>	<p>17h00 – 17h15</p> <p>Experimental validation of a PV panel model</p> <p><i>Yassine Boukili, Rachid El Bachtiri, Houcine Chafouk, Imane Idrissi and Maha Khanfara</i></p>
<p>17h15 – 17h30</p> <p>Estimating the Renewable Energy Potential in Morocco: solar energy as a case study</p> <p><i>Ghita Tazi and Ouafae Jbahi</i></p>	<p>17h15 – 17h30</p> <p>Smart Grid and Co-simulation Challenges</p> <p><i>Azeroual Mohamed, Lamhamdi Tijani, El Moussaoui Hassan and El Markhi Hassane</i></p>

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17h30-17h45 New architecture of Energy Management Applied to Hybrid Renewable Energy System <i>Zakaria Sabiri</i>	17h30-17h45 Comparative study between different control strategies of unit power factor three-phase PWM rectifier <i>Khalid Chikh, Fatima Ezzahra Tahiri, Aziz El Afia, Jawad Lamterkati and Mohamed Khafallah</i>
17h45-18h00 Étude expérimentale du microclimat d'une serre agricole équipée de panneaux photovoltaïques souples sur le toit <i>Kabira Ezzaeri</i>	
18h00 – 18h30 Session Posters	

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Jeudi 9 Novembre

9h00 - 9h45 Conférence plénière <i>Modérateur : Pr. M. OUAZZANI JAMIL</i>	
9h00 – 9h45 (Salle des conférences) <i>Transition énergétique au Maroc : Contexte, enjeux & perspectives</i> <i>Pr. Mustapha AYAITA</i> <i>President of the Renewable Energy University Network (REUNET)</i>	
9h45 : Session 1	
Atelier 1 (Salle A) <i>Modérateurs : Pr. I. ZORKANI Pr. M. ASBIK</i>	Atelier 2 (Salle B) <i>Modérateurs : Pr. F. ERRAHIMI Pr. N. ES-SBAI</i>
9h45 – 10h00 Heat transfer and pressure drop modeling of a finned tubes heat exchanger <i>Mahmoud Bououd and Abdellah Mechaqrane</i>	9h45 – 10h00 Contribution to improving the DFIG control using a multi-level inverter <i>Imane El Karaoui, Mohammed Maaroufi, Mustapha Jammali and Hamid Chaikhy</i>
10h00 – 10h15 Performance analysis of non-imaging Fresnel lens as a primary stage for CPV units <i>Sarah El Himer, Ali Ahaitouf, Sara El-Yahyaoui and Abdellah Mechaqrane</i>	10h00 – 10h15 Efficiency of a small wind turbine using BEM and ANSYS <i>Yassine Khalil, Lhoussaine Tenghiri, Anas Bentamy and Abdi Farid</i>
10h15 – 10h30 Development of nickel-Cobalt Bimetallic /conducting polymer composite use as catalyst in the Oxygen evolution reaction (OER) <i>Amal Antar, Youssef Naimi and Driss Takky</i>	11h00 – 11h15 Design and Development of A 3-Kw Wind Turbine Emulator with a DC Motor <i>Zakariae Jai Andaloussi, Abdelhadi Raihani and Abdelmounaim Elmagri</i>
10h30 – 11h00 : Pause café/Session Posters	

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11h00 : Session 2	
Atelier 1 (Salle A) <i>Modérateurs : Pr. M. JORIO Pr. A. MECHAQRANE</i>	Atelier 2 (Salle B) <i>Modérateurs : Pr. A. EL GHZIZAL Pr. A. AHAITOUF</i>
<p>11h00 – 11h15</p> <p>Prediction of daily global solar irradiation using commonly measured meteorological parameters in the city of Fez</p> <p><i>Manal Marzouq, Zineb Bounoua, Abdellah Mechaqrane, Hakim El Fadili, Zakia Lakhliai and Khalid Zenkouar.</i></p>	<p>11h00 – 11h15</p> <p>Simple modèle pour prévision de la puissance photovoltaïque à court terme</p> <p><i>Ayoub Fentis, Lhoussine Bahatti, Mohammed Mestari, Mohammed Tabaa and Brahim Chouri</i></p>
<p>11h15 – 11h30</p> <p>Renewable Energies and Energy Efficiency in Agriculture as a contribution to Energy Transition in Morocco</p> <p><i>Krim Hassan, El Guissi Khalid, El Fellah Younes and Baali El Houssain.</i></p>	<p>11h30 – 11h45</p> <p>Simultaneous Effects of External Electric Field and the effects of polaronic mass and conduction band non-parabolicity on Electronic States in Conical quantum dot</p> <p><i>Ehssn Eqraoun, Ahmed Sali, Kamal El-Bakkari, Abdellah Rezzouk, Najia Es-Sbia and Mohammed Jamil Ouazzani.</i></p>
<p>11h30 – 11h45</p> <p>Thermocline Thermal Storage Using a Packed-bed of Moroccan Rocks</p> <p><i>Khadija El Alami, Mohamed Asbik, Nadia Zari and Samir Rachidi</i></p>	<p>11h45 – 12h00</p> <p>Real-time virtual instrumentation of PV panel parameters in comparison with traditional instrumentation</p> <p><i>Aboubakr El Hammoumi, Saad Motahhir, Abdelilah Chalh, Abdelaziz El Ghzizal and Aziz Derouich</i></p>
<p>11h45 – 12h00</p> <p>Etude Numérique de la Convection Naturelle Laminaire Tridimensionnelle dans une Cavité Horizontale Ouverte</p> <p><i>Khalid Azagar, Mohammed Boukendil, Abdelhalim Abdelbaki and Zaki Zrikem</i></p>	<p>12h00 – 12h15</p> <p>Application and Comparison Between the Conventional Methods and PSO Method</p> <p><i>Ghita Bennis</i></p>
<p>12h00 – 12h15</p> <p>Étude de l'effet de la variation du pont dans les pigments photosensibles (D-π-A), à base de triphénylamine, par DFT, pour application en cellules solaires.</p>	<p>12h15 – 12h30</p> <p>A Comparative Study of ANN and Kalman Filtering-Based Observer for SOC Estimation</p>

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<i>Lazrak Malak, Toufik Hamid, Bouzzine Simohamed, Bih Hssain and Lamchouri Fatima.</i>	<i>Hicham Ben Sassi, Fatima Errahimi, Najia Es-Sbai and Chakib Aloui.</i>
12h15 – 12h30 The effect of embedding fins on heat transfer in a horizontal cylinder filled with PCM <i>Hlimi Mohamed, Mahdaoui Mustapha, Kousksou Tarik, Abdelmajid Jamil and Mourad Youssef.</i>	12h30 – 12h45 Comparative Study of Different MPPT Methods for Wind Energy Conversion System <i>Otmane Zebraoui and Mostafa Bouzi</i>
12h30 – 12h45 Effet de la conductivité thermique sur les transferts thermiques couplés dans un bloc creux à trois cavités <i>Najjaoui Mourad, Ait-Taleb Thami and Abdelbaki Abdelhalim</i>	12h45 – 13h00 Investigation of microinverter based on the two-switch DC-DC flyback converter topology <i>Lahcen El Iysaouy, Bielskis Edvardas, Mhammed Lahbabi, Algirdas Baskys and Abdelmajid Oumnad</i>
12h45 – 13h00 Study of the dielectric and microstructure properties of (1-x) CaCu₃Ti₄O₁₂ – (x)PbZr_{0.65}Ti_{0.35}O₃ composite <i>Hadi Nasr, Lamcharfi Taj-Edine and Abdi Farid</i>	13h00 – 13h15 Treatment of landfill leachate from Fez city (Morocco) using Fenton and photo-Fenton processes <i>Imane El Mrabet, Zineb Chaouki, Mostafa Nawdali, Fouad Khalil, Mourad Benzina, Vitor Vilar and Hicham Zaitan.</i>
13h00 – 14h30 : Pause déjeuner	
14h30 – 15h30: Table ronde	

Session de Posters

- Des panneaux d'affichage sont mis à la disposition des participants acceptés pour une présentation par affiche.
- La présence des auteurs durant la visite des posters est vivement souhaitée.

Liste des posters

Titre	Noms
Effets des pièges profonds sur le rendement de conversion photovoltaïque d'une cellule solaire cristalline en couche mince	<i>Par : Hicham El Achouby, Mhammed Zaimi, Asmaa Ibral and El Mahdi Assaid</i>
Modélisation numérique d'une cuve de stockage thermique par énergie latente couplée à un concentrateur solaire	<i>Par : Bilal Lamrani, Ahmed Khouya and Abdeslam Draoui.</i>
Elaboration and characterization of CZTS thin films by electrodeposition for photovoltaic applications	<i>Par : Hanae Toura, Bouchaib Hartiti, Mohamed Ebn Touhami and Khalid Dakhsi</i>
LPV modeling and Simulation of DFIG for wind turbine	<i>Par : Imane Idrissi, Houcine Chafouk, Rachid El Bachtiri and Yassine Boukili.</i>
The extent to which the photovoltaic phenomenon is subject to electrical laws during the generation	<i>Par : Mabrouki El Batoul, Hassanain Najem and Cherkaoui Mohamed</i>
Thin layer solar drying of Moroccan carob pulp (Ceratonia Siliqua L.)	<i>Par : Tagnamas Zakaria, Kouhila Mounir, Bahammou Younes, Lamharrar Abdelkader and Idlimam Ali</i>
Optimisation d'intégration des productions décentralisées dans les réseaux de distribution de l'énergie électrique Moyenne Tension	<i>Par : Fatima Zahra Bajjouk, Abdelmajid Berdai, Ikram Bensalem and Anas Gourma</i>
Dynamic modelling and study of diffusion and transition capacitance of solar cell	<i>Par : Mohamed Louzazni, Ahmed Khouya, Khalid Amechnoue Marco Mussetta and Rachid Herbazi</i>
Simulation des Transferts Thermiques Couplés dans une Cavité Allongée Soumise à un Flux Solaire	<i>Par : Bouchaib Jamal, Mohammed Boukendil, Abdelhalim Abdelbaki and Zaki Zrikem</i>
A literature review of energy management system in microgrids	<i>Par : Ouassima Boqtob, Hanane Hemi, Hassan El Moussaoui, Hassane El Markhi and Tijani Lamhamdi</i>
Using the five-level NPC inverter to improve the FOC control of the asynchronous machine	<i>Par : Mouna Es-Saadi, Abdelkarim Ait Brik, Mustapha Jammali, Hamid Chaikhy and Mohamed Khafallah</i>

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Contribution to the success of the energy audit in the industrial environment, Case study : Audit of interior lighting for an industrial site in Morocco	<i>Par : Abdelkarim Ait Brik, Abdelaziz Khoukh, Mustapha Jammali and Hamid Chaikhy</i>
Conduction band non-parabolicity effect on the binding energy of shallow donor impurities in GaAs/Ga_{1-x}Al_xAs quantum rings under a laser field	<i>Par : Kamal El-Bakkari, Ahmed Sali, Elhassan Egraoun, Abdellah Rezzouk, Najia Es Sbai and Mohammed Ouazzani Jamil</i>
A low-cost PV emulator for testing MPPT algorithms	<i>Par : Abdelilah Chalh, Saad Motahhir, Aboubakr El Hammoumi, Abdelaziz El Ghzizal and Aziz Derouich</i>
Elaboration by aqueous chemical processes and characterization of In₂S₃/ZnO nanostructured prepared by silar	<i>Par : Ait Hssi Abderrahim</i>
Calcul et simulation de l'énergie dissipée dans le dioxyde de vanadium VO₂	<i>Par : Mohammed Zouini, Abderrahim Ben Chaib and Abdesselam Mdaa</i>
Séchage thermique des minerais de phosphate par voie solaire	<i>Par : Naji Abdenouri, Hamid Maazouz and Ahmed Hachadi</i>
TiO₂ and ZnO Photocatalysis of Cr(VI) from Photovoltaic Waste-Water	<i>Par : Ikermoud Dalila, Drouiche Nadjib and Aoudj Salah</i>
PSD Command for Optimization The Performance Of a Synchronization Controller For a 3-Phase Photovoltaic Grid-Connected System	<i>Par : Ghita Bennis</i>