



**2020 6th International Symposium on New and Renewable Energy
(SIENR)**

**Unit of Applied Research in Renewables Energies
Unité de Recherche Appliquée en Energies Renouvelables**

Ghardaïa – Algeria 13-14 October 2021



Symposium program

Wednesday, October 13, 2021

08 : 30 09 : 00	Connection to Google Meet link Main room- https://meet.google.com/cmt-kqmg-dbp
09 : 00 09 : 30	<ul style="list-style-type: none">• Official start of the symposium• Welcome message by the Director of URAER

Plenary session. Conferences 1 and 2

<https://meet.google.com/cmt-kqmg-dbp>

Plenary Conference 1

The role of renewable energy in the global energy transformation

09 : 30

10 : 45

Prof. Saad Mekhilef

University of Malaya

Plenary Conference 2

Perovskite Solar Cells: R&D Challenges

10: 45

12: 00

Prof. NouarTabet

University of Sharjat

12:00 13:30	Lunch break			
13:30 14:00	Connection to Google Meet link			
	Parallel sessions			
	Session 1- Photovoltaic 1			
	Room1: https://meet.google.com/mub-zybi-kpf			
14 : 00 16 : 30	P01:	Numerical simulation of graphene nano strip based heterogeneous solar cell to improve Voc cell filling factor	Amir SharifiMiavaghi, MiraghaMusavi, Mehdi Eskandarzade	University of Urmia, Iran
	P02:	MPPT Charge Regulator and Monitor for Photovoltaic/Battery System Based on Microcontroller	H. Assem, F. Bouchafaa, T. Azib, N. Allam	CDER
	P03:	A New method to represent the I-V and P-V characteristics of different photovoltaic modules	BadisLekouaghet, ChabaneBoubakir, AbdelkrimBoukabou	University of Jijel
	P04:	Backstepping Control for DC-Link Voltage for a Photovoltaic System Connected to the Grid Through a Z-source Inverter	Amine Sobh, BelkacemBelabbas,TayebAl laoui, LakhedarHamzaoui	University of Tiaret
	P05	Effect of a New Smarts Photovoltaic Inverters Connected with a Distribution Networks in Algeria	Ismail. Bendaas, Amar. Hadj. Arab, Bilal. Taghezouit, Salim. Bouchakour, Islam. Nacereddine. El Ghoull,	CDER

		Saliha. Boulahchiche, Smail. Semaoui, Saida. Bouacha and Abdelhak. Razagui.	
P06:	Analysis Study and Modeling Topologies of DC / DC converter With and Without MPPT Regulator in Central Grid Connected in Photovoltaic System.	MouhoubBirane, LakhdarBaadj, Katia Kouzi, CherifLarbes, Ali Cheknane	University of Laghouat
P07:	A Novel Single-Input Multi-Port Isolated Bi-Directional Converter for Renewable Integrated EV applications	Birru Srinivas, Gottapulithesh, D.anusha, Ashok S	National Inst. of Tech. Calicut, India
P08:	Comparison and analysis of five MPPT techniques for boost converter based PV system under real input deviations	AichaDegla, Sabah Hana Saidj1, SamerBoumecheta ,Omar Hazil1, AkilaGherbi ,Amar Hadj Arab	CDER
P09:	Comparative study of models solar radiation in Sub- Saharan environment	DjelloulBenatiallah, KadaBouchouicha	University of Adrar, Algeria
P10:	Comparison Study between conventional and advanced MPPT based on fuzzy logic and ANFIS for standalone system	H. Afghoul, H. Chanaba, S. Merah, F. Krim, A. Harrag	University of Annaba, Algeria

Session 2- Photovoltaic 2

Room 2 : <https://meet.google.com/sxt-hdue-kvk>

P11:	Solar photovoltaic and wind hybrid energy systems for optimization techniques and cost analysis	K. Hammaoui, T. Touahri , M. Hamouda	University of Adrar, Algeria
P12:	Numerical study of the hybrid photovoltaic thermal collector with ribs	AbdelkrimKhelifa, LyesBoutina , Khaled	URAER

14 : 00 16 : 30		Touafek, Mohamed TaharBaissi and Lebbi Mohamed	
	P13: Solar inverter performance prediction	L. Kaci, A. Hadj Arab, R. Zirmi, S. Semaoui and S. Boulahchiche	University of TiziOuzou, Algeria
	P14: Simulation of High-Efficiency Perovskite-Based Tandem Solar Cells	Mohamed Mousa, Fathy Z. Amer Ahmed Saeed, Roaa I. Mubarak	Future University in Egypt Cairo, Egypt
	P15 Incremental Conductance Algorithm Based On Indirect Control Mode Using An Integrator Controller Tuned by Routh Criterion	MostufaAtia, NoureddineBouarroudj, AimadAhriche	University of Boumerdes Algeria
	P16: A numerical Approach of Three Hybrid Systems Photovoltaic /thermal (PV/T) Air Solar collector	Mohamed Lebbi, Khaled Touafek, LyesBoutina, AbdelkrimKhalifa, Mohamed TaherBaissi, Ahmed Benchatti	CDER
	P17: Comparison and Experimental Tests between Conventional and Interleaved DC/DC Boost Converter Topology	Sabah Hana Saidj, Said OuldAmrouche, SamerBoumechta, Amar Hadj Arab, Mourad Haddadi	CDER
	P18: End of life silicon based photovoltaic panels: A review	Sabiha Anas Boussaa, Abdelhak Benkrid, Messaouda Ayachi	CRTSE
	P19: A Clustering Event Detection Approach for Non-Intrusive Load Monitoring	SelimSahrane, MouradAdnane, Mourad Haddadi	ENP Algeria
	P20: Comparison of nanocrystalline silicon and nanocrystalline silicon	WafaHadjkouider, Abbas Belfar, Belmekki	University of Oran,

	carbide window layers	Mohammed, Hocine Ait-Kaci	Algeria
P21	A Novel Hybrid Model for PV Power Forecasting Using Support Vector Machine and Grasshopper Optimization Algorithm: Case Study	ReskiKhelifi, MawloudGuermoui, Bachir laouar	URAER

Session 3- Solar Thermal 1

Room 3 : <https://meet.google.com/.....>

14 : 00 16 : 30	T01 :	L'Exploitation d'Energie Solaire Pour Elaborer des Couches Minces des Oxydes de Zinc	AbdelbakiNid, YacineAoun, BedreddineMaaoui	University of El-Oued
	T02 :	Mathematical Model of the Energy Balance for Two Configurations of Trapezoidal Box-type Solar Cooker Tested under Saharan Climate	B. Lazizi, F. Yettou, A. Gama, M. Aksas, R. Khelifi	URAER
	T03 :	Study and Simulation of the Thermal Behaviour of a Box Solar Cooker using Comsol Multiphysics Software and its Experimental Validation under Ghardaïa Climate	H. Ben Cheikh El Hocine, F. Yettou, A. Gama, K. Touafek	URAER
	T04:	Passive and Active concepts for energy efficient buildings	Abdelmadjid BENSABAHA, SMA. Bekkouche, FatihaBenkouider	URAER
	T05 :	Geothermal and thermal waters in the Ghardaïa region	Chenini Nadir , Ghalmi Samira, NezliImedEddine	URAER
	T06 :	3D Approach By The RANS Method Of Convective Transfer And Flow In a Room Heated By a Solar Energy	Hami Khelifa, TalhiAbdelkrim,	University of Tindouf

		DraouiBelkacem	
T07 :	Thermal Performance of Fresnel Solar Concentrator: An Experimental Analysis	Hani Beltagy, SofianeMihoub, Noureddine Said	University of Tizi- Ouzou
T08 :	Improvement of the thermal comfort of building roofs equipped with a phase change materials (PCM) layer under desert weather conditions	A. Aggoune, M. Hamdani, Y. Marif, S.M.A. Bekkouche, M.K. Cherier, R. djeffal	University of Ouargla
T09 :	Exploitation of solar energy for the elaboration of zinc oxide thin films according to a new method of solar spray pyrolysis	MaaouiBedreddine, AounYacine, NidAbdelbaki	University of Eloued
T10:	Comparative study between photovoltaic and thermal solar cooling	MostufaAtia, BelgacemBekkar, AimadAhriche	University of Boumerdes
T11 :	Development of an ANN model for forecasting time series of cooling performances in CSP plants- Solar tower power plant (Gemasolar) as a case study	T.E. Boukelia, Y. Kabar, S. Dimli	Polytechnic School of Constantine
T12 :	Experimental test procedures for thermal performance evaluation and parameters determination of a parabolic concentrator type solar cooker	F. Yettou, A. Gama, A. Belaid, A. Azoui, A. Malek	URAER

Session 4- Hydrogen- Environment

Room 4 : <https://meet.google.com/ibp-cvwt-vrg>

E04	Delamination Defects Localization in Carbon Fiber Composite Laminates Using Ultrasonic Signal Processing	Ahmed Benyahia, AbdessalemBenammar, AbderrezakGuessoum	CRTI
E05	A principal component analysis of complex Iridium hydrides XYIrH₆ (X=K, Na; Y= Ba, Sr, Ca) and Osmium hydrides ZO_sH₆ (Z=Ba, Sr, Ca, Mg)	K.Benyelloul, A.Djellouli, H.Aourag, K.Khadidja, Y.Bouhadda, A.Adjadj	URAER
E06	Solid Oxide Fuel Cell Power Management	BessedikBoubaker,	University of Chlef

14 : 00 16 : 30	Based on a Predictive Controller	KhouidmiHouari, Benzouaoui Ahmed	
	E08 Role of electrode material in Enhancing the performance of NiO/ZnO photodiode	HadjerHakkoum, ToufikTibermacine, NouredineSengouga	University of Biskra
	E09 Structural, elastic and electronic properties of transition metal hydrides TiH₂ and ZrH₂ from first principles calculations	Hamza Ziani, Ahmed Gueddim	University of Djelfa
	E12 Techno-economic study of solar electrolytic hydrogen production at high temperature	R. Boudries, A. Khellaf	CDER
	E13 Effect of thickness and pretreatment on the physicochemical quality of sun-dried camelina meat	YoucefRahmani, RédaKhama	University of Ouargla
	E14 Improvement in Wind Energy Sector using Nanotechnology	N. Rathore, F. Yettou, A. Gama	MPUAT, Udaipur, India
	E16 Hydrogen Production by Dark Fermentation	Sabah Menia, IlyesNouicer, Abdallah Khellaf	CDER
	E18 Numerical Simulation of Multi-Quantum Well Solar Cells (MQWSC)	TalhiAbdelkrim, Hami Khelifa	University of Tindouf
	E19 Structural, electronic, and thermodynamic properties of a rare earth dihydride TbH₂	Zahia Ayat, IkramZitouni, AomarBoukraa	University of Ouargla
	E01 The drying kinetics of apricots undergo steam blanching in a microwave oven	BousselmaAbla, Abdessemed Dalila	University of Batna 1

Thursday October 14, 2021

08:30 09:30	<p>Connection to Google Meet link</p> <p>Main room: https://meet.google.com/fuy-cszz-yym</p>
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Plenary session-

Conferences 3 and 4

<https://meet.google.com/fuy-cszz-yy>

**09:30
10:15**

Plenary Conference 3

Probabilistic Forecasting of Solar and Windfarm Output

Prof. John Boland,

University of South Australia

**10:15
11:30**

Plenary Conference 4

Energy Transition in Algeria: Challenges and Opportunities for a National Sustainable Energy System

Prof. Nouredine Yassaa

CEREFÉ, Algeria

11:30 13:30	Break			
13:30 14:00	Connection to Google Meet link			
Session 5- Wind and Solar Room 1: https://meet.google.com/bgk-dgwq-cmq				
14 : 00 15 : 30	E02	Design and Implementation of currents-sensors faults diagnosis by equivalent output error injection of Sliding-Mode for PMSG-based WECS	Ahmed Tahri, Said Hassaine, Sandrine Moreau	Université of Tiaret
	E03	Evaluation of the impact of climatic conditions on amorphous Silicon PV module performance in the desert environment	B. Benabelkrim, A. Benatillah, T. Ghaitaoui and K. Hammaoui	University of Adrar, Algeria
	E07	Direct power control (DPC) of PMSG integrated in a wind system	Fadila Tahiri, Abdelkader Harrouz, AbdEssalam Badoud, Fatiha Bekraoui, Belbali Abdelkader, Hassani Hicham	University of Adrar
	E10	SM-MPPT Controller of DFIG Based on Variable Speed Wind Energy Conversion System	L. Saihi, F. Ferroudji, B. Berbaoui, K. Koussa, Y.	URERMS

		Bakou, K. Roummani		
	E11	Unit commitment of thermal units in integration with wind power generator	Louarem Sabah, Slimanilinda, NouriHamou	University of Setif I
	E15	Operation Assessment of the Kabertane's Photovoltaic Power Plant	S.Makhloufi, S.Nemsi, K.Abdeladim, .Boulahchiche, A. Hadj Arab	CDER
	E17	DTC of DFIG included in a Wind Turbine Connected to the Grid	Slama abdelhamid, Hamouda Messaoud	University of Oran
15 : 00 16 : 00	Connection to Google Meet link Main room : https://meet.google.com/gyr-dxps-unp			
16 : 00 16 : 30	Closing ceremony			