INTERNATIONAL CONGRESS

SUSTAINABLE BUILDINGS AND CITIES

May 11th to 12th 2023

PROGRAM

11/05/2023	
09:30-10:30	**OPENING CEREMONY (Salle de Conférence Prof. Rachid Yazami UPF)** **Welcome speeches:** **Moderators: Prof. Mariam EL HIRI & Prof. Ismail LOTFI** **Prof. Mohammed OUZZANI JAMIL: General Chair of BVD'23** **Prof Mohammed Aziz LAHLOU : Rector of Private University of Fes** **Prof. Mustapha IJAALI: Rector of Sidi Mohamed Ben Abdellah University** **Prof. Hassan SAHBI: Rector of Moulay Ismail University** **Official speeche :** **Prof. Awatif HAYAR : Ministre de la Solidarité, de l'Insertion sociale et de la Famille** **Experte dans le domaine des télécommunications vertes et smart cities**
10:30-11:00	**PLENARY LECTURE 1:**
	Speaker: Prof. Rachid YAZAMI
	Title: *Lithium ion batteries: status, perspectives and applications*

	Chairman: Prof. Sanae Faquir
11:00-11:15	**Coffee Break**
11:30-12:00	**PLENARY LECTURE 2:**
	Speaker: Prof. Abdelilah BENYOUSSEF
	Title: ***Materials and nanomaterials for green Hydrogen production and storage***
	Chairman: Prof. Dr. Ahaitouf
12:15-12:45	**PLENARY LECTURE 3:**
	Speaker: Prof. Belkhir HAMMOUTI
	Title: ***Evolution of OIC scientific production last decade and Visibility***
	Chairman: Prof. N. Essbai
12:45-14:30	**LUNCH**
14:40-15:10	***Online*** **PLENARY LECTURE 1:**
	Speaker: Prof. Ahmed ELNGAR
	Title: ***Artificial Intelligence and Energy Technologies for smart Sustainable cities***
	Chairman: Prof. Anass El Mansouri
15:10-15.40	**Online PLENARY LECTURE 2:**
	Speaker: Prof. Jauad EL KHARRAZ
	Title: ***Towards Energy Efficient Buildings in the Mediterranean.***
	Chairman: Prof. Mhamed Sayyouri
15:40-15.50	**Coffee Break**

FSI/Salle A13		
Oral Session I: Energy Efficiency and renewable energies		
15:50-18:30 11.05.2023	**Chair**	**Prof. El Khattabi Mehd & Prof.Omar Diouri**
	Authors	**Titles**
	Mouna Abarkan, Abdelillah Byou, Zineb Amraoui and Mustapha Abarkan.	The control of a DC Micro-grid connected to the photovoltaic system, battery and building.
	Meriem Megrini, Ahmed Gaga and Youness Mehdaoui.	Enhancement of field-oriented control using the fuzzy logic controller for PMSM-based PV solar power energy
	Khaoula Boumais and Fayçal Messaoudi.	Self-consumption of renewable electricity for industry and ML-based forecasting methods: A Moroccan Legal Framework
	Amal Zouhri, Mustafa Ouarh and Mostafa El Mallahi.	MPPT algorithm optimization for photovoltaic systems with fast Dynamic and Steady-State Response under variable solar irradiance conditions
	Ouissale Elansari and Hicham Jamouli.	Optimization of energy via fuzzy logic and prediction of occupancy
	Mohamed Chouiekh, Hicham Karmouni, Amine Lilane, Mohammed Ouazzani Jamil, Qjidaa Hassan, Mhamed Sayyouri, Karim Benkirane and Mohamed Abid.	Energy in Morocco: Consumption Evolution and Renewable Solutions
	Rabya Aqel, Lahcen Mifdal, El Hanafi Arjdal, Mustapha Elyaqouti, Said Kririm, El Fatmi Daoudi, Dris Ben Hmamou, Driss Saadaoui, Souad Lidaighbi and Abdeljabar Aboulkassim.	An Optimal Preventive Maintenance Policy for a Solar Photo-voltaic System
	Abderrahim Zahri, Mounir Ouremchi, Ismail Boumedra, Abdelamin Diani, Mohammed Ouazzani Jamil and Hassan Qjidaa.	Efficient Design of Transformer-less Grid Connected PV In-verters for Single-Phase Photovoltaic Systems
	Yassine Anigrou, Mohammed Zouini and Mohamed El Khlifi	Treatment of grey water by constructed wetland solution with underground flow for public bath in Fez

FSI/Salle A14		
Oral Session 2: Battery modeling and simulation		
15:50-18:30 11.05.2023	**Chair**	**Prof.Naoual Boukil & Prof.Imane Halkhams**
	Authors	**Titles**
	Ismail Boumedra, Abdelamin Diani, Abderrahim Zahri, Mohammed Jamil Ouazzani and Hassan Qjidaa.	Smart Charging Li-ion Batteries with a combination of CC/CV and PCM protocols
	Youness Hakam, Ahmed Gaga and Benachir El Haddadi.	Electric Vehicle Charger V2G, G2V and V4G based on PID con- 2 troller
	Jawhara El Hmidi, Anass Mansouri and Ali Ahaitouf.	Modelling and simulation of an efficient on board charger for electric vehicles
	Saad El Fallah, Jaouad Kharbach, Oumayma Lehmam, Abdellah Rezzouk and Mohammed Ouazzani Jamil.	Lithium-ion battery state of charge estimation using improved deep recurrent neural network algorithms: simulation results.
	Oumayma Lehmam, Jaouad Kharbach, Saad El Fallah, Abdellah Rezzouk and Mohammed Ouazzani Jamil.	A Hybrid Approach of Unscented Kalman Filter and Machine Learning for Lithium-Ion Battery State of Charge Estimation
	Abdelamin Diani, Ismail Boumedra, Abderrahim Zahri, Mohammed Jamil Ouazzani and Hassan Qjidaa.	Proposed embedded control of a dual input Buck-boost charger with Integrated CC/CV MPPT mode for power density optimization.

CEDOC UPF/AMPHI 1		
Oral Session 3: Sustainable buildings and environnement		
15:50-18:30 11.05.2023	**Chair**	**Prof.Harchli Fidae & Prof.Youssef Rachidi**
	Authors	**Titles**
	Mohammed Zouini, El Mehdi El Khattabi, Yassine Anigrou, Abderrahim Ben Chaib, Zouhair Meghari, Mouhsine Ibrahimi and Ouazzani Jamil Mohammed.	Thermal Comfort in Buildings: The Impact of Glazing
	Omar Dadah and Hammou Ait Rimouch.	Approach to mitigate modal truncation impacts in dynamic reanalysis scenarios
	Redouan Assadiki, Gérard Merlin, Hervé Boileau, Catherine Buhé and Fouzi Belmir.	Is there potential for a significant increase in green building development? An exploratory study of drivers to green build-ing in Morocco
	Redouan Assadiki, Gérard Merlin, Hervé Boileau, Catherine Buhé and Fouzi Belmir.	Life cycle assessment method for building: A mini literature review.
	Zineb Bounoua, Laila Ouazzani Chahidi and Abdellah Mechaqrane.	Building Heating and Cooling Load Forecasting using LSTM Deep Learning Approach
	Zineb Slaoui, Sanaa Faquir, Ali Yahyaouy and Khalid Alaoui Zidani.	A strategy for promoting green hydrogen in industry: a case study in Morocco
	Mohamed Saad Bajjou, Salma Arabi, Anas Chafi and Mohamed Ramadany.	Additive manufacturing technology: an ecoinnovative solution for the Moroccan construction industry
	Idrissi Sidi Yassine, Tahiri Mohamed Amine, Karmouni Hicham, Amakdouf Hicham, Sayyouri Mhamed, Qjidaa Hassan and Ouazzani Jamil Mohammed.	Classification of building cracks via fractional moments for IoT
	Laila Aligod and Kaoud Hebatalla.	A framework facilitating the transition to a circular economy in smart cities
	Mohammed Mouhcine Maaroufi, Laila Stour and Ali Agoumi.	Towards smart and sustainable mobility in Morocco: diagnosis and recommendations for Fez city

	Mouhcine Ayacine and Ali Faleh.	Contribution of GIS and GPS tools in the building of the intel-ligent touristic guide for the historical monuments of the old city of Fez
	Noura Rassam, Mouhcine Ayacine, Mostafa Hmamouchi and Abdelghani Houari.	Contribution of the GIS in the evaluation of the historical flooding of Oued El Mehraz in the urban agglomeration of Fez
CEDOC UPF/AMPHI 2		
Oral Session 4: Signal and Image Processing		
15:50-18:30 11.05.2023	**Chair**	**Prof.Saloua Senhaji& Prof.Anass Manssouri**
	Authors	**Titles**
	Brahim Boudaaoua, Mohamed Amine Tahiri, Hicham Amakdouf, Rachid El Alami, Mohammed Ouazzani Jamil and Hassan Qjidaa.	Automatic Detection of Cracks in Wall Images via Transfer Learning
	Mohammed Tamimi, Omar El Ogri, Mohamed Amine Tahiri, Hicham Karmouni, Mohamed Ouazzani Jamil, Hassan Qjidaa and Mhamed Sayyouri.	Optimal Color Image Watermarking Scheme Based on the Transit Search Algorithm
	Nawal El Ghouate, Ahmed El Maloufy, Mohamed Amine Tahiri, Hicham Karmouni, Mohamed Ouazzani Jamil, Hassan Qjidaa and Mhamed Sayyouri.	Recent progress on digital watermarking for the security of data exchanged between interconnected objects
	Ahmed Bencherqui, Mohamed Amine Tahiri, Hicham Karmouni, Mohammed Alfidi, Mhamed Sayyouri, Hassan Qjidaa and Mohammed Ouazzani Jamil.	Color Image Encryption based on Archimedes Optimization Algorithm, Modified Logistic Map and DNA
	Soukaina Majid, Hicham Amakdouf, Rachid El Alami, Youness El Attar, Mohammed Ouazzani Jamil and Hassan Qjidaa.	Reconstruction and classification in medical imaging by applying moment theory and deep learning
	El Maloufy Ahmed, Tahiri Mohamed Amine, Karmouni Hicham, Ouazzani Jamil Mohamed, Qjidaa Hassan, Sayyouri Mhamed and Nawal El Ghouate.	Encryption Image using Two Chaotic Maps and Double DNA Encoding
	Zakaria Itahriouan, Nisserine El Bahri, Abtoy Anouar and Mohamed Ouazzani Jamil.	FACS Recognition based on VGG Architecture

	Salah-Eddine Didi, Imane Halkhams, Mohammed Fattah, Younes Balboul, Mazer Said and Moulhime El Bekkali.	Design of a soft handheld button antenna with an operating 2 frequency of 60GHz in the 5G millimeter band
	Tarik Hajji, Saloua Senhaji and Mohammed Ouazzani Jamil.	Detection of facial emotions using CNN
	Lahcen Kabouri, Ali El Alami, Mohammed El Ghzaoui and Hassan Qjidaa.	New Compact Microstrip Rectangular Antenna for 28 GHz 5G applications
	Amraoui Youssef, Imane Halkhams, Rachid El Alami, Mohammed Ouazzani Jamil and Hassan Qjidaa.	Analysis and Design of a rectangular microstrip antenna for RFID applications
	Fadoua Sabbane, Hamid Tairi and Hassan Qjidaa.	Maximum Entropy Principle for optimizing Legendre Moments Order for 3D image Reconstruction
	Ilyasse Aboussaleh, Jamal Riffi, Khalid El Fazazy, Adnane Mohmed Mehraz, Ali Yahyaouy and Hamid Tairi.	Brain Tumor Segmentation based on Transfer Learning and Attention Mechanism Decoder

12/05/2023	
09:30-10:00	**OPENING CEREMONY (Centre de Conférence USMBA)** **Welcome speeches** **Moderators: Prof. Hicham Amekdouf, Boukil Noual and Halima El hamdaoui** **General Chair of BVD'23** **Prof. Mustapha IJAALI: Rector of Sidi Mohamed Ben Abdellah University** **Prof Mohammed BENLEMILH Dean of the faculty of science Dhar el Meraz** **Official speeches**
10:00-10:30	**PLENARY LECTURE 4:** **Speaker: Prof. Bouchta SAHRAOUI**

	Title: ***Advanced functionalised materials for nonlinear optical and nanophothonics applications***
	Chairman: Prof. Hamid Tairi
10:40-11:00	**Coffee Break**
11:00-11:30	**PLENARY LECTURE 5:**
	Speaker: Prof. Mustafa EZZIYYANI
	Title: ***Smart system for Forecasting the Crops adaptation to the risks of climate change for a sustainable development of the agricultural sector.***
	Chairman: Prof. A. Mechaqrane
11:40-12:10	**PLENARY LECTURE 6:**
	Speaker: Prof. Ahmed LAKHASSASSI
	Title: ***Improving human health: Challenges and Methodology for controling thermal doses during Cancer therapeutic treatment***
	Chairman: Prof. Jaouad Kharbach
12:30-14:00	**LUNCH**
14:30-15:00	***Online* PLENARY LECTURE 2:**
	Speaker: Prof. Hakan OZTOP
	Title: ***Recent progress on numerical analysis in building energy storage systems***
	Chairman: Dr. Zakaria Itahriouan
15:10-15:20	**Coffee Break**
CEDOC USMBA/Salle 2	
Oral Session I: Materials and structures	
	Chair | **Prof.Abdellah Razzouk- Prof.Kamal Zared & Prof.Omar Dadah**
	Authors | **Titles**

15:30-18:00 12.05.2023	Abderrahim Chaib, Mohammed Zouini, El Mehdi El Khattabi and Ouazzani Jamil Mohammed.	The Optical Behavior of Smart Glass Based on VO2 in its Metallic State
	Benaissa Kissi.	Modeling of internal erosion :application to hydraulic structures
	Youssef El Mezriahi, Benaissa Kissi and Hassan Aaya.	Effet de la hauteur sur la résistance de l'effort tranchant par des bâtiments en béton armé à l'aide de la méthode Pushover (Height effect on resistance of base shear applied on reinforced concrete buildings using Pushover method)
	Rabab Raghib, Ismail Naciri, Hassna Khalfi, Lahoucine Elmaimouni, Jiangong Yu and Abdellah Benami.	Numerical modeling of guided waves in three-layers functionally graded cylinders: Legendre polynomial method
	El Mehdi El Khattabi, Mohammed Zouini, Zouhair Meghari, Yassine Anigrou, Khaoula Boumais, Mouhsine Ibrahimi and Ouazzani Jamil Mohammed.	Influence of Insulation Layer Thickness on Internal Building Temperature
	Najat El Asri, Nawal Abdou, Mohammed Mharzi and Abdelmajid Maghnouj.	Prediction of Thermal Load of a Public Building Using Polynomial Regression Method
	Hassna Khalfi, Ismail Naciri, Rabab Raghib, Jiangong Yu, Joli Randrianarivelo, Lahoucine Elmaimouni and Faniry Emilson Ratolojanahary.	Modeling and analysis of axisymmetric vibration in a piezoelectric resonator with current excitation using the Legendre polynomial method
	Somya Ben Abbou,Issam Aalil,Khalid Cherkaoui	Effect of finenness of brick waste powder on the mechanical proprities of cemet based mortar
	Ilhame Azdine, Benaissa Kissi and Hamza Khatib.	The shear stresses developed by the adherence of a mortar of cement to steel plates.
	Lakhili Ferdaouss, Fidae Harchli and Naoual Boukil.	Contribution to The Physicochemical and Metallic Study Of The Sediments Of Beht Basin (Morocco)
CEDOC USMBA/Salle 3		
Oral Session 2: Computational Modeling and Simulation		
15:30-18:00 12.05.2023	**Chair**	**Prof.El Ghzaoui Mohammed- Prof.Mustapha Mellahi &Prof.Zineb Bounoua**

	Authors	Titles
	Bilal Aghoutane, Mohammed El Ghzaoui, Hanan El Faylali and Hassan Qjidaa.	Analyzing the Performance of a 5G Silo Slotted Dual-band Antenna Using an Equivalent Circuit Model
	Abdelfettah El-Ghajghaj, Najib El Ouanjli, Hicham Karmouni, Ouadiâ Chekira, Mohammed Ouazzani Jamil, Hassan Qjidaa and Mhamed Sayyouri.	Comparative Study of classical P&O and Metaheuristic CS Technique-Based MPPT
	Hajar Ahessab, Ahmed Gaga and Benachir El Hadaadi.	Design and simulation of a solar-connected MPPT inverter with smart charging implementing the ANN algorithm
	Kaoutar Laazaar and Noureddine Boutammachte.	Numerical design and optimisation of a Medium Temperature Difference Gamma Stirling engine for power generation based on renewable energy
	Barakate Ahmed Amine, Wahbi Azeddine, Choubane Sami and Hadjoudja Abdelkader.	Extraction And Analysis Of Data From A Stand-Alone Pv System To Configure MPPT Controller Using Fuzzy Logic And Boost Converter
	Prudhviraj Balasetty and Lakhssassi Ahmed.	Tracking solar power efficiency by artificial neural networks using real-time solar irradiation, panel orientation, module, and ambient temperature
	Kaoutar Elbakk, Mohammed El Ghzaoui, El Alami Ali and Hassan Qjidaa.	Design of a bandpass filter based on metamaterials
	Hanae Mejdoub, Mohammed El Ghzaoui and Hassan Qjidaa.	Design of a smart RFID Tags antenna using an in-ductively coupled loop
	Abderrahman El Idrissi, Aziz Derouich, Said Mahfoud, Najib El Ouanjli, Hamid Chojaa and Ahmed Chantoufi.	Diagnosis of induction motor stator unbalance by thermography
CEDOC USMBA/Salle 4		
Oral Session 3: Circuits, Systems, and Power Electronics		
	Chair	**Prof.Karim El Khadiri & Prof.Alami Rachid**
	Authors	**Titles**

15:30-18:00 12.05.2023	Mounir Ouremchi, Karim El Khadiri, Qjidaa Hassan and Mohammed Jamil Ouazzani.	Design of a very low power temperature sensor in 65nm CMOS technology
	Mustapha El Alaoui, Karim El Khadiri, Rachid El Alami and Hassan Qjidaa.	Design and implementation of an embedded system for smart farm using IoT and Arduino Mega
	Anas Boutaghlaline, Karim El Khadiri, Mohammed Ouazzani Jamil, Hassan Qjidaa, Driss Chenouni and Ahmed Tahiri.	A Voltage-mode PID controlled DC-DC buck converter design for automotive applications
	Aicha Menssouri, Karim El Khadiri, Mohammed Ouazzani Jamil, Hassan Qjidaa, Driss Chenouni and Ahmed Tahiri.	Enhancing the performances of gain-boost telescopic op-amp for MDAC circuit
	Hatim Ameziane, Zared Kamal, Qjidaa Hassan and Hicham Akhmal.	Low Dropout Voltage Regulator with TSMC 0.18um CMOS Technology for Battery Low-Powered Embedded Systems
	Abderrahim Zahri, Mounir Ouremchi, Abdelamin Diani, Ismail Boumedra, Karim El Khadiri, Mohammed Ouazzani Jamil and Hassan Qjidaa.	Design of a voltage-controlled oscillator with current-starved topology in 90nm CMOS technology
	Otman Seghyar, Karim El Khadiri, Mohammed Ouazzani Jamil, Hassan Qjidaa, Ahmed Tahiri and Driss Chenouni.	Designing a DC-DC Buck Converter in CMOS 180nm Tech-nology
	Anass Slamti, Karim El Khadiri, Hassan Qjidaa and Driss Chenouni.	High Power Supply Rejection Low Dropout Regulator for System-on-chip Applications in CMOS Technology
	Hadji Mhamed, Abdelkader Elhanaoui and Skouri Rachid.	Embedded System of Signal Processing on FPGA
	Hajjar Mamouni, Mounir Ouremchi, Karim El Khadiri, Mohammed Ouazzani Jamil and Hassan Qjidaa.	Design and optimization of a CMOS-Based Li-Ion Battery charger with LDO Regulator.
	Fatima Mesbah, Karim El Khadiri, Mohammed Ouazzani Jamil, Mustapha El Alaoui, Hassan Qjidaa, Driss Chenouni and Ahmed Tahiri.	Switching Power Supply boost converter using 180 nm CMOS technology
	Idriss Dagal, Hicham Karmouni , Yaya Dagal Dari, Hassan Qjidaa , Mohammed Jamil Ouazzani, Burak Akın and Mhamed Sayyouri	Atomic Search Optimization Feature Selection for Aircraft Winglet Design
	Kamal Zared, Hatim Ameziane and Qjidaa Hassan.	A Dynamic Enhancement of Full-on Chip CMOS LDO Slew-rate for Batteries Powered Applications
Centre de Conférence USMBA		
Oral Session 4: Artificial Intelligence, Robotics and Control		
	Chair	**Prof.Jamal Rifi- Prof.M.A. Mahraz & Prof.Hicham Karmouni**
	Authors	**Titles**

15:30-18:00 12.05.2023	Inssaf Harrade, Mohamed Kmich, Mhamed Sayyouri and Zakaria Chalh.	The basics of the robotic operating system and their intelligent applications.
	Saloua Senhaji.	Optimizing bottle identification in production lines using an innovative approach based on convolutional neural networks.
	Oluwadamilare Harazeem Abdulganiyu, Taha Ait Tchakoucht and Yakub Kayode Saheed.	TOWARDS AN HYBRID MODEL FOR NETWORK-BASED INTRUSION DETECTION SYSTEM (IDS) USING ARTIFICIAL INTELLIGENCE
	Kaloma Usman Majikumna and Mhamed Zineddine.	Classification of Olive Trees Drought Stress Using Machine Learning Algorithms
	Mohamed Kmich, Inssaf Harrade, Hicham Karmouni, Hassan Qjidaa, Mohammed Jamil Ouazzani and Mhamed Sayyouri.	Review of Visual Servoing Techniques of Robots Based on Artificial Intelligence
	Hafid Oubouaddi, Adil Brouri and Abdelmalek Ouannou.	Linearization Feedback technique for Torque and Speed control of Switched Reluctance Machine
	Hicham Ben Sassi, Yahia Mazzi, Fatima Errahimi and Najia Es-Sbai.	Power transfer control of an IBDAB-based Vehicle-to-grid charging station
	Amal Zouhri, Mustafa Ouarh and Mostafa El Mallahi.	Integration of Artificial Intelligence and Augmented Reality into Teaching Education
	Mouhcine Ayacine and Imane Halkhams.	Development of an intelligent driving licence centre
	Naoual Boukil and Halima Elhamdaoui.	Multi-Agent System based on Cloud Computing for Smart healthcare: Opportunities and challenges
	Mohamed Acha, Soulaiman El Hazzat and Majid Benyakhlef.	Deep Learning for 3D Point Cloud classification: Comparison and Evaluation of Three Methods
	El Maloufy Ahmed, Karmouni Hicham, Tahiri Mohamed Amine, Ouazzani Jamil Mohamed, Qjidaa Hassan, Sayyouri Mhamed	Slective Digital Image Encryption using DNA Coding and Decoding