Preface
Sustainable Buildings and cities’17

Overview

The Private University of Fez is aware that its development is dependent on the actions of partnerships and collaborations in the fields of training, research, innovation and expertise.

It is a policy that has been strengthened and supported within the UPF, which, while seeking to diversify and multiply its partnerships around the "win-win" logic, is focusing on making them productive and functional.

It is in this context that subscribes the co-organization of this international congress by the private University of Fez and University Moulay Ismail.

The theme "Sustainable buildings and cities" that we have chosen for the research topics of this congress is one of the first sectors of economic activities in Morocco, representing almost 6% of national PIB. It is also one of the most energy-consuming sectors and one of the largest consumers of natural resources. It is therefore a major issue in the Energetical and Ecological Transition of our country.

For several years, ambitious objectives have been set by the public authorities to develop the renewable energies’ part, to put in place a plan for energy efficiency and to develop a collective awareness towards the environment.

It is certain that these ambitious objectives can only be achieved through a collaboration between all the people involved in the sector, which necessarily leads to a transversality of the analyses between economic and social sciences and those of the engineer.

The interdisciplinary of the theme "Sustainable buildings and cities" will bring together different academic and professional stakeholders interested not only in the scientific and technical aspects of new developments in the domain, but also to the regulatory, economic and social aspects necessary for the implementation and application of good practices.

It was around all these issues that we debated and exchanged during the two days this congress lasted.

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Keynotes & Invited speakers

Conference title:
Fez, Smart City

Dr Idriss EL AZAMI EL IDRISSI
Président de la Commune de Fès- Maire de la Ville de Fès
Dr. El Azami el Idrissi is president of the municipality of Fez and Mayor of the city of Fez. In 1989, he obtained a bachelor's degree in chemistry from the Faculty of Science at Sidi Mohammed Ben Abdellah University in Fez. In 1993, he obtained a doctorate degree in Applied Chemistry from the University of Poitiers in France. In 1997, He graduated from the Graduate School of National Administration (l’Ecole Nationale d’Administration) in Rabat in Morocco. In 2001, he graduated in economic studies from the Faculty of Legal, Economic and social Sciences from Mohammed V Agdal University in Rabat. Dr. El Azami El Idrissi holds also a Diploma of Graduate Studies of the Institute of Business Administration of the University of Paris I Panthéon-Sorbonne in Paris (2006) and a Diploma of Financial, economic and banking Studies of Marseille in Marseille in France. In January 2012, he was appointed as a Delegated Minister to the Minister of Economy and Finance in charge of the Budget. Since September 2015, Dr. El Azami El Idrissi has been elected president of the commune of Fez.

Conference title:
Hydrogen Economy For Clean Cities

Pr. Abdelilah BENYOUSSF
Académie Hassan II des Sciences et Techniques, Maroc
« Received his Ph.D from Paris-Sud University in 1983. He is a permanent member of Hassan II Moroccan Academy of Science and technology since 2006. He is the national coordinator of the axe of skills of condensed material and systems’ modeling. He is also the editor-in-chief of the Moroccan Journal of condensed Material. He is the president of the Moroccan Society of Statistical Physics and condensed material. The main topics of interest of Dr. Benyoussef are the ab initio calculation and the Monte Carlo method in the modeling and simulation of new materials for renewable energies; Magnetism and phase transition in condensed material; Complex systems and critical self-organization in statistical physics. He is the co-author of over 400 research publications and book chapters and about 100 conference presentations, including numerous guest articles and conferences invited speaker. He co-chaired or co-hosted several international conferences. He holds a number of patents and has supervised 40 candidates for postgraduate research »
Conference title:
The Private-Public Partnership. Governance Improvement Instrument for Smart City. Case of the Delegated Management of Water and Electricity Distribution Services and Liquid Sanitation in Rabat-Sale

Dr. Monsef BERBICHE
Centre de Recherche pour l’Environnement, l’Energie et les Déchets- VEOLIA Maroc

« Received his PhD in 1990 from the University of Paul Sabatier, Toulouse, in Electro-technical, automatic and industrial computing on the transient stability of electrical power networks with application on the national Production and transport network of the ONEE. After teaching in the master of electronic, electro-technic and automatic at the University Paul Sabatier in Toulouse, he returned to Morocco where he held several functions at the Ministry of the Interior, notably director of the boards of Kenitra (RAK) and Marrakech (Redeema). Between 2006 and 2014, Dr. BERBICHE was a director at Veolia Services at L’ENVIRONNEMENT MAROC in Morocco in Rabat and most recently he was appointed as general Director of the research Centre for environment, energy and waste (CREED), with VEOLIA SERVICES at L’ENVIRONNEMENT MAROC in Rabat »

Conference title:
Panorama on Self-consumption, from Building to Sustainable City

Dr. Sandrine PINCEMIN
EPF école d’ingénieur(e)s- France

« Dr. Pincemin is an Assistant Professor and researcher at the EPU (l’Ecole Polytechnique Universitaire) of Marseille in France (know before by IUSTI), School of Engineering, she is responsible for the energy branch and the orientation of conventional and sustainable Energies (ECD). In 2002, she obtained a mechanical engineering degree from the EPF. In 2007, she got her Ph.D in Materials and solar energy processes from the PROMES Laboratory of Processes, Materials and Solar Energy at the Perpignan University in France in the domain of High energy Performance for composite materials’ energy storage. She worked after that from 2007 until 2012 as studies and research engineer at CSTB Renewable Energies axe in the field of energy storage (thermal and electric) for low consumption and positive energy buildings in connection with the “Grenelle de l’environnement”.

Dr. Pincemin has been working since 2012 at the EPF (old-Ecole Polytechnique feminine), campus of Montpellier where she is co-responsible for the major energy environment. She carries out her research at the Institut d’Electronique du Sud (UMR CNRS 5214) at University of Montpellier. Her research areas consist of the production of electricity by concentrated photovoltaic solar cells, the Mediterranean building (needs, the cold in the Mediterranean region, and the thermal/electrical modeling of the Mediterranean building and optimization) and auto consumption »
Conference title:

Photovoltaic Concentration: Principle and Engineering

Pr. Ali HAIATOUF
Faculty of Sciences and Techniques (FST), Sidi Mohammed Ben Abdellah University, Fez- Morocco

«Pr. Ahaitouf is a professor and researcher of high education at the Faculty of Sciences and Techniques (FST), Sidi Mohammed Ben Abdellah University of Fez in Morocco. He obtained his PhD in electronics in 1998 and his doctorate degree from the University of Metz in June 1992. He is a director of Renewable Energies and Intelligent Systems’ Laboratory (LERSI) and coordinator for the Microelectronics and embedded systems team. His researches cover electronic and microelectronic components, the design of analog and digital integrated circuits as well as multi-junction solar photovoltaic cells under concentration (CPV). He works in collaboration with several international laboratories including the International Joint Unit Georgia Tech Lorraine, UMI2958 GT-CNRS where he held a full researcher position from September 2011 to August 2012 and a chair of excellence on CPV in 2014. He has written and rewritten more than forty articles in international journals. He has also conducted more than a dozen of doctoral dissertations including cotutelle dissertations»

Conference title:

Smart City - Intelligent Mobility

Mr. Mohammed Mouhène MAAROUFI
Université Privée de Fès & GRUPO TECOPY-Morocco

«Dr. Maaroufi has an engineering diploma from École Hassania des Travaux Publics of Casablanca in Morocco as well as a graduate degree (Diplôme d’Etudes Approfondies DEA) in civil engineering from the National School of Public Works (l’École National des Travaux Publics of Lyon in France. Dr. Maaroufi was able to perfect his acquirement in project management, by a training on business management at the ISCAE and a master in Project management at the Collège Polytechnique in Paris. He Has a high level of expertise in the management, planning and development of projects as well as in studies, control and audit to ensure continuous improvement. The projects he has dealt with are developed in various types of areas, particularly in the design of transport infrastructures and the establishment of urban mobility master plans. With all of his combined trainings over 20-year experience in the management of infrastructure projects spans in Morocco and also in Mauritania, Senegal, Burkina Faso, Cameroon, Niger, Mali, Côte d'ivoire, Guinea, Chad and Gabon, he was able to master the Sector and more particularly on aspects related to the design, realization and monitoring of major infrastructure projects. Mr. Maaroufi who has held several responsibility positions in the Moroccan Research Office (Bureau d'études Moroccan CID ) is currently director and representative in Morocco of the Spanish group GRUPO TECOPY and he is a professor at the Private University of Fez in Morocco and a member of the AMDIC association»
Conference title: 
Energy Performance Assessment of Passive and Semi-Passive Techniques in Buildings in Semi-Arid Climate

Pr Brahim BENHAMOU  
Faculty of Science, Cadi Ayyad University, Marrakech-Morocco

« Professor Benhamou holds a PhD in mechanical engineering (thermo-fluid) from the University of Sherbrooke, Canada. He is currently a professor in the Department of Physics at the Faculty of Science, Cadi Ayyad University in Marrakech (UCAM) in Morocco. He is responsible for the "Laboratory of renewable energies and energy efficiency" (EnR2E) at the National Centre for Research & Studies on water and Energy (CNEREE) affiliated with the Cadi Ayyad University in Marrakech. He is also a Local Coordinator of the Pole of Competences Energy at UCAM. He is also the General Secretary of the Moroccan Association of Thermal Sciences. His research focuses on applications of heat and mass transfer (HMT), energy efficiency in buildings (EEB) and thermal solar energy (desalination and CSP plants). He is the coordinator or has participated in several national and international projects funded on the applications of thermal solar energy and energy efficiency in buildings. One of the funded projects led by Pr. Benhamou, still underway, is entitled "Passive systems for air refreshment in the buildings of the climate zone of Marrakech ". He is the co-author of 29 reading committee journals and more than 100 conference papers»

Conference title: 
Eco-Construction and Sustainable Development

Mr. Mohammed EL ANBASSI  
Architect at DPLG

« Mr. El Anbassiis a DPLG Architect (Graduated By The Government). He has also a postgraduate Diploma in installation of real estate operations and he was trained in accessibility by the ARVHA and the French Ministry of Culture and in the passive building in Paris in France. He has several accomplishments related to development plans, development studies and architectural projects in reference to sustainable development criteria, development of the territory and the accomplishment of architecture projects related to sustainable development within the framework of INDH, and to the master plan of planning and urban development of peripheral municipalities of the agglomeration of Marrakech and 30 communes around Marrakech»
**Conference title:**

**Eco-Construction and Sustainable Development**

Mr. Rachid BOUQARTACHA  
Architect at DPLG

"Mr. Bouqartacha is a DPLG architect (Graduated By The Government), ex head of Technical Studies and processes Department at the Technical Affairs Directorate of the Ministry of Housing (Direction des Affaires Techniques du Ministère de l'Habitat), and ex head of the Institute of Construction in local materials (l’Institut de la construction en matériaux locaux « Institut-Terre ») "Institut-Terre" in Marrakech. He taught "local materials and Architecture" and "Eco-construction and sustainable architecture" at the National Schools of Architecture in Rabat and Marrakech. Mr. Bouqartacha is a winner of the 2nd Prize of building innovation on behalf of the l’Institut-Terre at the 7th International Exhibition of Building 98 in Casablanca. He is also author and co-author of several rehabilitation and construction in local materials or conventional materials project studies. Mr. Bouqartacha is a consultant at the international scale in the field of building using local materials, member of the Regional Council of Architects of Tensift (1994-2006), Vice-President of the Regional Council of Architects of Tensift (2004-2006), member of the National Council of Architects order (2008-2011), and president of the Association "Eco Construction and sustainable Architecture »

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**Conference title:**

**Uncertainty of Measurement and Evaluation of the Energy Performance of a Building**

Pr. Abdérafi CHARKI  
Institut des Sciences et Techniques de l'Ingénieur d'Angers-France

"Pr. Charki has been a professor at ISTA (Institut des Sciences et Techniques de l'Ingénieur d'Angers) in France since 2004. He carries out his research work within the Laris Laboratory (Angevin Laboratory for Research in Systems Engineering) at Angers University in France. His work focuses on estimating measurement uncertainties and evaluating the systems reliability. Expert in metrology and quality, he is involved in several European projects such as AFREQEN (an Erasmus+ European project) to contribute to the development of access to energy, energy independence, the promotion of renewable energies and to the preservation of the environment in North and West Africa by strengthening the skills of professionals working in the energy and environment sectors. He is also involved in the project of the National Research Agency (ANR) OMEGA (Outils MÉthodologiques pour la GArantie de performance énergétique) on the aspect "Cities and sustainable buildings”»
Conference title:
Compressible Soils and Reinforcement Solutions by Rigid or Flexible Inclusions

Mr. Tarik ELMALKI
SEMARTEC, Casablanca - Maroc

«Mr. El Malki got a double diplomacy in 2004 from l’Ecole Hassania des Travaux publics in Morocco and l'Ecole Nationale des Ponts et Chaussées in France. In 2006, he obtained a Master of science in civil Engineering from Sherbrooke University in Québec. He has 13 years of professional experience in the field of geotechnical studies. After working for the CID and ICE/SEPIA, he joined Semartec as a project manager and responsible for the geotechnical activity of Semartec in Morocco. He has gained real expertise through high-value-added projects where knowledge of the field and the master of geotechnical calculation tools go together such as the LGV Kenitra Tangier project whether in Art works or Earth works. He takes also action as an expert on the analysis of constructive conditions, design orientations on projects presenting a predominant soil-structure interface»