**Moroccan National Energy Transition Consortium**

**(MNETC)**

**About MNETC:**

The Moroccan National Energy Transition Consortium, MNETC, brings together researchers, scholars, industry professionals, and experts from various institutions to exchange and share experiences & knowledge, aiming to push the boundaries of energy science & exploration.

**Mission:**

Establish an innovation and creativity environment to leverage scientific expertise and contribute to Morocco's energy transition.

**Trusts:**

1. **Materials Science and Engineering**

Materials Physics & Chemistry

1. **Energy Systems Design and Optimization**

Renewable Energy Systems & Integration

1. **Modeling and Simulation**

Computational Modeling; Simulation of Energy Processes

**MNETC 3 Pillars**

1. **Collaborative Research and Innovation**

* Promoting collaborative research projects.
* Address pressing energy challenges through collaborative efforts.
* Developing cutting-edge technologies in materials science, energy generation, and technologies.
* Secure external financing to ensure long-term sustainability.

1. **Knowledge Exchange and Impact**

* Facilitate cross-disciplinary collaboration among researchers, scientists, and industry experts.
* Promote the energy transition by disseminating knowledge and best practices.
* Build capacity through educational initiatives, workshops, seminars, and partnerships.

1. **Education and Empowerment**

* Providing a platform for students and early-career researchers to engage in impactful research.
* Offering mentorship and guidance.
* Creating opportunities for skill development and learning within the fields of materials science and energy.

**Benefits of Membership**

* Be part of a dynamic community of researchers and push the boundaries of technology.
* Develop your national and international energy ecosystem.
* Access a large scientific and technological watch and make your research relevant and impactful.

**Admission Criteria**

**Admission Criteria for MNETC Consortium Membership**

The MNETC Consortium welcomes individuals and institutions to join our community of experts, researchers, and professionals dedicated to advancing materials science, energy generation, and related technologies. To maintain the quality and mission alignment of our consortium, membership is subject to the following admission criteria:

1. **Educational Qualifications:**

Possession of a Ph.D. or equivalent advanced degree in materials science, energy, or a closely related field.

1. **Professional Background:**

A background in materials science, energy, or a related field.

Experience in research, innovation, or industry in these domains.

1. **Affiliation:**

Membership or affiliation with a recognized Moroccan institution, university, research center, or industry organization.

1. **Expertise:**

Demonstrated expertise or contributions in materials science, energy generation, or related technologies.

A track record of research publications, patents, or significant projects in these fields.

1. **Commitment:**

Commitment to actively engage in collaborative research projects and consortium activities.

Willingness to contribute to the consortium's objectives and mission.

1. **Diversity:**

Encouragement of a diverse range of members from different backgrounds, including academia, industry, and research.

Consideration for members at various career stages, from postdocs to seasoned professionals.

1. **Recommendations and Referrals:**

Letters of recommendation or referrals from established members or industry professionals may be requested during the admission process.

The admission process includes the submission of an application form, a review by the consortium's admission committee, and an interview.

We encourage those who meet these criteria and are passionate about advancing the frontiers of materials science and energy sustainability to consider joining the MNETC Consortium. Together, we aim to make a significant impact on research, innovation, and sustainability in these critical fields.

For inquiries or to begin the membership application process, please contact us at mnetc@um6p.ma for further guidance.

**Application form**

* **First Name**
* **Last Name**
* **Affiliation**
* **Research Area**
* **Position**
* **Curriculum Vitae (CV)**
* **Why are you interested in joining the MNETC Consortium?**
* **How can you contribute to our mission?**
* **References: Provide the names and emails of two professional references.**

**Governance**

Une image contenant homme, personne, complet, entreprise

Description générée automatiquement

Dr. Jones Alami, is a Professor in surface and nano-technology, the Vis-president of the Moroccan National Energy Transition Consortium, MNETC, and the head of the Materials Science, Energy and Nanoengineering (MSN) Department at Mohammed VI Polytechnic University (UM6P), since December 2016. He has a Doctorate in plasma physics (2003) and a PhD in thin film physics (2005) from the University of Linkoping in Sweden. Following a visiting researcher position at AIST in Japan and a post-doctoral research position at Aachen University in Germany, he joined industry as a research manager and innovation manager at Cemecon AG and Sulzer Metapplas GmbH, respectively. In 2011 he founded and managed a coating R&D company that develops surface solutions for a range of industry leaders such as the Schäffler group, and Gühring KG in Germany, Teijin LTD and Umetoku in Japan, and Mont Blanc in France. During this time, he also occupied the position of Adjunct Professor at the prestigious Shanghai Institute of Ceramics, Chinese Academy of Science. Dr. Alami has more than 130 peer-reviewed publications with over 5500 citations and an H-index of 31. He has over 20 patents and patent applications to his name and is often invited to give keynotes at international venues.

At UM6P, Dr. Alami focuses on developing research, education and entrepreneurship programs, through several initiatives such the creation mixed laboratories with academic institutions and accelerated research and prototyping centers, ARC, with industrial partners.

**MNETC Members**

1. **Jones Alami (MSN, UM6P, Benguerir)**

Une image contenant homme, personne, complet, entreprise

Description générée automatiquement

Jones Alami is a Full Professor in plasma and surface technology, the holder of the sustainable energy chair, ENSUS, and the head of the MSN Department. He has a Doctorate in plasma physics (2003) and a PhD in thin film physics (2005) from the University of Linkoping in Sweden. After post-doctoral research at Aachen University in Germany, he joined industry as a Research and Innovations Manager. In 2011 he founded and managed a coatings R&D company, and simultaneously occupied the position of Adjunct Professor for three years at the prestigious Shanghai Institute of Ceramics, Chinese Academy of Science.

1. **(UCD, El Jadida)**

**Une image contenant Visage humain, habits, personne, cravate

Description générée automatiquement**

Rachid Amrousse completed his PhD at the University of Poitiers, France, focusing on the ignition of cold H2/O2 mixtures for satellite control, in partnership with CNES and Air Liquide. In 2011, he joined JAXA in Japan as a Research Associate, marking the first time JAXA recruited a foreign national. His research there centered on developing high energetic materials and studying catalysis for space propulsion applications. In 2016, with funding from JSPS, he worked on developing a green propellant thruster for small satellites, which was implemented in JAXA's SDS-4. By 2018, he was at the University of Chouaib Doukkali in Morocco.

1. **Mohamed Aqil (MSN, UM6P, Benguerir)**
2. **Zineb Edfouf (Mascir, UM6P, Benguerir)**

**Une image contenant Visage humain, sourire, personne, lèvre

Description générée automatiquement**

Zineb Edfouf obtained her doctorate in Materials Science from the University of Paris-Est Marne la Vallée, realized in the CMTR laboratory at the ICMPE institute of the CNRS-Thiais, in collaboration with SAFT battery company in France. Zineb returned later to her native country, Morocco, where she was recruited as a researcher within MAScIR foundation for 4 years in the energy team. Since June 2015, Zineb has been a Professor / Researcher at the Chemistry Department of the Faculty of Sciences, Mohammed Vth University in Rabat. Zineb is also an affiliated Researcher at MAScIR foundation since 2020, where she is the Director of the Batteries and Smart Materials center.

1. **Lahcen Bih (Ensam, Meknes)**
2. **Tarik Chafik (FST, Tanger)**
3. **Abdelwahed Chari (MSN, UM6P, Benguerir)**
4. **Fatima Zahra Semlali (MSN, UM6P, Benguerir)**

**Une image contenant Visage humain, personne, sourire, Cheveux longs

Description générée automatiquement**

Fatima Zahra Semlali is an Assistant Professor in the MSN Department, specializing in polymeric materials for multifunctional applications. She earned her PhD in Mechanics and Materials Science in 2021 and subsequently joined the MSN department as a postdoctoral researcher. Semlali's research focuses on composite materials, lignocellulosic fibers, materials characterization, and mechanical modeling. In July 2023, she was promoted to the position of Assistant Professor, with her primary focus being the development of innovative polymeric materials tailored to meet the demands of energy-related applications.

1. **Khalid Draoui (UAE, Tetouan)**
2. **Mouad Dahbi (MSN, UM6P, Benguerir)**

**Une image contenant Visage humain, personne, habits, Menton

Description générée automatiquement**

Mouad Dahbi is an Associate Professor at the MSN Department since September 2017 and Editor in Scientific African Journal. He earned Ph.D. (January 2013) in Chemistry and Electrochemistry from the University François Rabelais, France. He was then a postdoctoral researcher at Tokyo University of Science in Professor Komaba’s group, Japan from 2013 to 2015. In 2015, he was promoted to Assistant Professor at Tokyo University, Japan. His current research focuses on developing high-energy density electrode materials system for efficient energy storage technology and low-cost batteries based on the abundant elements in Earth’s Crust.

1. **Samir El Hankari (CBS, UM6P, Benguerir)**

**Une image contenant Visage humain, personne, homme, habits

Description générée automatiquement**

Samir EL HANKARI is an Assistant Professor at UM6P/CBS, focusing on inorganic chemistry and hybrid materials since 2019. He earned his Ph.D. in Materials Chemistry and Physical Chemistry of Materials from The Institute Charles Gerhardt of Montpellier, France, in 2012. Following his Ph.D., he held several postdoctoral positions across the globe, including in the UK, Morocco, China, and Austria. His expertise lies in the synthesis and application of porous materials, such as MOFs and their composites, for catalysis, sensing, and adsorption. At Mohammed VI Polytechnic University, his research is centered on developing sustainable porous organic-inorganic materials for environmental and industrial applications.

1. **Said Gmouh (UH2C, Casablanca/ MSN, UM6P, Benguerir)**

Une image contenant Visage humain, personne, habits, Front

Description générée automatiquement

Said Gmouh, an organic chemist at the Faculty of Sciences Ben M'Sik of UH2C in Casablanca, specializes in the development and functionalization of organic and inorganic materials. Additionally, Dr. Gmouh serves as the Director of the LIMAT laboratory and has previously held the position of head of the chemical analysis department at the National Center for Scientific and Technical Research (CNRST). Since 2015, he has been an approved trainer by the European Commission (JRC IRMM). Nationally, since 2014, he is a qualified chemical expert and auditor for ISO 17025 and ISO 17034, certified by the Moroccan Laboratory Accreditation Institute (SEMAC).

1. **Fouad Ghamouss (MSN, UM6P, Benguerir)**

**Une image contenant Visage humain, personne, habits, microphone

Description générée automatiquement**

Fouad Ghamouss is an Associate Professor at the MSN Department and the Coordinator of the master’s programs. He holds a Ph.D. in electrochemistry from Nantes, France (2007) and earned his HDR (Accreditation to Supervise Research) in energy storage by batteries and supercapacitors in 2015. His career includes research engineering work at CYCergy-EDF (2007-2009), and an Associate Professor position at Tours University, France (2009-2022). He has been a PI and Co-PI in several national and international several projects, with research expertise spanning various electrochemical systems and materials synthesis/modification.

1. **Hassan Hannache (UH2C, Casablanca/ MSN, UM6P, Benguerir)**

**Une image contenant habits, Visage humain, personne, cravate

Description générée automatiquement**

Hassan Hannache is a professor at Hassan II University of Casablanca and an affiliated professor at MSN-UM6P. He completed his DEA, Doctorate of 3rd cycle, and Ph.D. at the University of Bordeaux 1- France in 1980, 1982, and 1984, respectively. His research is in Materials Engineering, focusing on composite ceramic matrix materials, water treatment materials, ceramic and glass fibers, and the valorization of Moroccan natural resources and industrial by-products. Currently, he is the Director of the Engineering and Materials Laboratory and the Director of the Thematic Research Center of Hassan II University of Casablanca "Materials & Energy".

1. **Johan Jacquemin (MSN, UM6P, Benguerir)**

****

Johan Jacquemin is an Associate Professor in Thermodynamics at UM6P's MSN Department (since 2022). He earned his Ph.D. in Physical Chemistry from Blaise Pascal University in Clermont-Ferrand, France, in 2006. Following that, he spent two years as a post-doctoral fellow at Queen's University Belfast in the UK before being appointed as an associate professor at Tours University in 2008. From October 2011 to September 2018, Dr. Jacquemin served as a faculty member in chemical engineering at the School of Chemistry and Chemical Engineering at Queen's University Belfast before returning to Tours University until December 2021.

1. **Zineb Kassab (MSN, UM6P, Benguerir)**

**Une image contenant habits, Visage humain, personne, sourire

Description générée automatiquement**

Zineb Kassab is an assistant Professor in the MSN Department. She earned her Ph.D. in Physico-chemistry and materials science in 2019. Her thesis focused on producing cellulosic nanomaterials for polymer bio-nanocomposites. She has an H-index of 22, with 50+ international scientific articles, 8 book chapters, and over 1650 citations. She played a key role in 5+ scientific projects, concentrating on extracting and characterizing cellulosic materials from renewable sources, valorizing biomass, and developing bio-nanocomposites. Her research extends to functional materials for applications like active food packaging, water treatment, and energy storage.

1. **Said Laasiri (CBS,UM6P, Benguerir)**

Une image contenant Visage humain, personne, habits, homme

Description générée automatiquement

Said Laassiri is an assistant professor of Heterogeneous Catalysis at UM6P/CBS, focusing on the development of alternative catalytic materials such as mixed oxides, nitrides, and carbides for various reactions, including oxidation and ammonia synthesis. He earned his Ph.D. in 2014, with research on the catalysis of oxidation reactions at the University of Laval, Canada, and the University of Poitiers, France. After completing his Ph.D., he worked at the University of Glasgow, UK, on the catalytic synthesis of ammonia and was awarded a grant in 2018 to develop a chemical looping approach for ammonia generation at the University of Lille. In 2020, he joined Mohammed VI Polytechnic University, where his research currently focuses on elucidating the relationship between structure and catalytic activity in heterogeneous catalysis.

1. **Herve Martinez (ECC, Casablanca)**
2. **Bouchaib Manoun (UH1, Settat/ MSN, UM6P, Benguerir)**

**Une image contenant Visage humain, personne, sourire, habits

Description générée automatiquement**

Bouchaib Manoun is a Professor at Hassan First University and is an affiliated Professor at MSN-UM6P . He received his Doctorate in Solid State Chemistry at the University Hassan II in Casablanca followed by a Ph.D. in Materials Science and Physical Chemistry on High-Pressure Studies of Phosphates, MAX phases and Double Perovskites at the University Sidi Mohamed ben Abdellah in Fès. He has since been a post doc at the University of Pretoria (South Africa, 2 years), and at Florida International University (USA, 3 years). He has strong skills in Extreme Conditions, Crystal Chemistry, XRD, Raman and FTIR, as well as structural refinements of different types of materials.

1. **Driss Mazouzi (UMBA, Fez)**
2. **Mounir El Achaby (MSN, UM6P, Benguerir)**
3. **Mohammed Makha (MSN, UM6P, Benguerir)**

**Une image contenant habits, Visage humain, personne, verres

Description générée automatiquement**

Mohammed Makha is an Assistant Professor at the MSN Department since January 2019. He holds a Ph.D. in physics from Angers University in France, he worked as a postdoc in the University of Nantes, and the Swiss Federal Laboratory for Materials Science and Technology (EMPA) from 2014 to 2018. Dr. Makha holds a specialized master's degree in "Technological innovation and project management" from ESIEE Paris, a specialized master's degree in "Entrepreneurship and business development" from ISCAE Casablanca, and is preparing a Master 2 in "law of research and research valorization" at the University of Poitiers in France.

1. **Abdelkader Outzourhit (UCA, FSSM, Marrakech**

**Une image contenant homme, Visage humain, Front, sourcil

Description générée automatiquement**

Abdelkader Outzourhit is a professor at the department of physics of the Faculty of Sciences, Cadi Ayyad University (in Marrakech, Morocco) and the ex-director of the Center for Analysis and Characterization. He holds a PhD degree in Applied Physics from the Colorado School of Mines, Golden, CO, USA (1992). His research is centered on the fabrication of novel materials and solar cells and the integration of renewable energy sources in novel applications. He headed the Laboratory for Nanomaterials, Energy and Environment, where he set-up the first chemistry/electrochemistry unit to complement the PVD techniques of the Laboratory (rf-sputtering, evaporation).

1. **Houssine Sehaqui (MSN, UM6P, Benguerir)**

**Une image contenant Visage humain, personne, habits, homme

Description générée automatiquement**

Houssine Sehaqui is an assistant professor in the MSN Department at UM6P since July 2019. He earned his PhD in polymer technology and was awarded the Gold Medal for the best PhD thesis by the International Academy of Wood Science (IAWS) for his work on biopolymer materials from renewable sources. He also worked as a postdoctoral researcher at the Swiss Federal Laboratories for Materials Science and Technology (EMPA), focusing on natural polymer-based water and air filters and biopolymers for air capture. Dr. Sehaqui's current research interest lies in combining phosphates with biopolymers for applications in water purification, flame retardancy, and energy.

1. **Youssef Tamraoui (MSN, UM6P, Benguerir)**

Une image contenant Visage humain, personne, habits, homme

Description générée automatiquement

Youssef Tamraoui is an Assistant Professor at MSN-UM6P since 2019. He earned his Ph.D. in June 2015 from Hassan 1st University, and subsequently joined MSN-UM6P as a post-doctoral fellow. His expertise lies in designing and synthesizing functional materials for energy storage, conversion, and catalytic applications, including various compounds like perovskites and spinels. He is adept in structural refinement of materials using X-ray powder diffraction, synchrotron radiation, and neutron powder diffraction. Within the realm of sustainable materials and recycling, Tamraoui excels in transforming phosphate industrial by-products into high-value materials.

Pooling equipment: