

May 2021

Call for Application:

Post-Doctoral Fellowship -Center of Research Excellence in Renewable Energy

We are looking for post-doctoral fellowships to join the Center of Research Excellence in Renewable Energy (CoRE-RE) at King Fahd University of Petroleum & Minerals (KFUPM). The CoRE-RE aspires to accelerate the scientific and technological development in major areas of renewable energy with an emphasis on solar energy. It carries out innovative projects and significant activities to promote and market new and emerging renewable energy technologies.

CoRE-RE Primary Objectives



Research & Development utilizing the state-of-the-art infrastructure in line with the renewable energy goals of Saudi Vision 2030 (50% of total generation from the RE).



Collaboration with local and international stake holders (research, educational, business, and government entities) to create a new market value chain through convergence and originality for emerging technologies.



Promoting economic growth through advancement and commercialization of renewable energy technologies and building human capital as per the need of the 21st century.

CoRE-RE Research Focus

<p>PV Cell & Module PV Module assessment for harsh weather conditions (high temperature, high UV, and dust)</p>	<p>Energy Storage Energy storage systems, e.g., battery, thermal storage, PCM, considering harsh weather.</p>
<p>Grid Integration Renewable energy grid integration; grid stability and resilience; power electronic converters and control.</p>	<p>Hybrid Renewable Integrated and hybrid Renewable energy systems for power, cooling, desalination and heating applications.</p>
<p>Intelligent Energy Management Smart energy management systems for buildings, microgrid, and industry better efficiency; Industry 4.0 for energy managements;</p>	<p>Services and Feasibility Studies Consultancy services, energy market analysis, technology assessment services for the RE stake holders in the Kingdom and MENA region.</p>

Candidate Job Description:

The center has open post-doctoral fellowship vacancies for potential candidates having good experience in:

- Efficient solar cell development considering harsh weather conditions in the Kingdom of Saudi Arabia.
- Self-cleaning surfaces & coating for solar energy applications.
- Renewable energy conversion and utilization for cooling & heating applications.
- Solar energy for desalination applications.
- Renewable energy integration with grids, buildings, and other facilities.



- Renewable energy policies, standards, energy auditing.
- Micro-grids operated through renewable energy systems.
- Thermal and electrical energy storage.
- Hybrid (mix) generation, including electricity storage.
- Stable and resilient power system network with high penetration of renewables.
- Industry 4.0, internet of things (IoT), data analytics, edge computing for intelligent management of energy systems with bulk integration of renewables.

Job Profile and Responsibilities

- Should be capable of preparing research proposals (both fundamental and industrial client proposals) in accordance with the center's needs.
- Should be capable of upgrading and revising the individual works according to the demand of the center.
- Should be able to contribute to the ongoing research in the center.
- Can participate in the development of courses and short courses.
- The candidate should produce research and publish findings or creative works in addition to advising graduate students.

Qualifications and Skills Required

- Ph.D. in Engineering and Science relevant to the center needs; Mechanical Engineering, Materials Engineering/Science, Energy Engineering, Architecture, and Building Engineering, Physics/Chemistry, Chemical Engineering, Electrical Engineering, Systems Engineering.
- Applicants must possess excellent English communication skills.
- Research experience relevant to the center's research focus and ability to prepare good research proposals to tackle industry needs.
- Good experience in designing and modeling software relevant to renewable energy.
- Good experimental and hardware experience.

How to Apply

The positions are open, and applications will be reviewed as they are received until filled. To apply, the candidates may email the application package to Dr. Fahad Al-Sulaiman (fahadas@kfupm.edu.sa; or corere@kfupm.edu.sa) with the below-listed documents:

1. Resume
2. Cover Letter/Letter of Application
3. Transcripts (BS, MS, Ph.D.) combined in one file
4. Certificates (BS, MS, Ph.D.) combined in one file
5. Dissertation abstract.
6. Teaching Statement
7. Research Statement
8. List of Publication

Closing Date:

Will remain open until filled.

KFUPM is located in the Eastern Province of Saudi Arabia. KFUPM is ranked top 186 universities in the world ranking and the leading University in the region.

We thank all applicants for their interest. However, only those individuals selected for an interview will be contacted.