

## Postdoc Fellow Job Announcement

The Department of Aerospace Engineering at King Fahd University of Petroleum & Minerals (KFUPM) invites applications for Postdoc fellowship positions. The specific specialties and sub-specialties being sought are listed below, including but not limited to:

### **Astrodynamics/Orbital Mechanics**

- Satellite/Spacecraft Maneuvering.
- Orbits of Near-Earth Objects.

### **Propulsion**

- Atmospheric Flight Propulsion (Electric/Gas/Hybrid)
- Hypersonic (Air-breathing) Propulsion Hypersonic Aerothermodynamics
- Space Propulsion (Rocket/Electric/Hybrid)
- Propulsion of Micro/Nano Satellites.

### **Vehicle Design & Structures**

- Unmanned Vehicle Design and Systems Integration
- Spacecraft Entry, Descent and Landing Systems
- Human-Machine Interaction
- Micro/Nano Satellite Design
- Space vehicle Design (manned/unmanned)
- Advanced Aerostructures and Space Materials

### **Robotics, AI & Autonomous Systems**

- AI-enhanced Unmanned Systems (Aerial and Space applications).
- Avionics & Distributed systems (Aerial and Space applications).
- Aerospace Robotics and Smart Systems.
- IOT & Embedded Systems (Aerial and Space applications).

### **Space Environment & Remote Sensing**

- Atmospheric/Terrestrial Remote sensing with Sensor Fusion.
- Space weather detection and modeling.
- Space debris/meteoroid Characterization and Modeling.

- Satellite Geodesy

### **Guidance, Control & Navigation (GNC)**

- GNC of Autonomous/Unmanned Systems.
- Command & Control Systems for Unmanned Aerial /Space Vehicles.
- Ground-to-satellite communication systems.
- Swarm Systems for Small Satellites/ UAVs.

### The candidates are expected to:

- Be capable of preparing research proposals (both fundamental and industrial client proposals) in accordance with the research group's needs.
- Be capable of upgrading and revising the individual works.
- Be able to contribute to the ongoing research.
- Participate in the development of courses and short courses.
- Be able to produce research, publish findings and advise graduate students
- Provide service to the Department, the University, and the profession.
- Be involved in thematic research within one or more of the university research priority areas.

### Qualifications and Skills Required

- Ph.D. in Engineering or Science relevant to the University needs; Aerospace Engineering, Mechanical Engineering, Computer Engineering/Science, Robotics Engineering, Materials Engineering/Science, Energy Engineering, Structural Engineering, and, Applied/Computational Mathematics, Physics/Chemistry, Chemical Engineering, Electrical Engineering, Control/Systems Engineering.
- Applicants must possess excellent English communication skills.
- Research experience relevant to the research focus and ability to prepare good research proposals to tackle industry needs.
- Good experience in designing and modelling software relevant to their field.
- Good experimental and hardware experience.

**Qualified applicants may send detailed CVs to [irc-ase@kfupm.edu.sa](mailto:irc-ase@kfupm.edu.sa) with Subject "Applicant for Postdoc Position"**