

Position Available in Computational Mechanics: Post Doctoral Fellow

Job description

A postdoctoral position is available in the *Composite and Heterogeneous Materials Modeling and Simulation Laboratory* (COHMAS – www.cohmas.org) at King Abdullah University of Science and Technology (KAUST).

The successful candidate will be engaged in modeling and numerical simulation of degradation in nano-reinforced composite materials for applications in close collaboration with the aeronautical industry. Candidates with experience in the following research areas are encouraged to apply:

- (1) Damage and/or fracture computational mechanics, non-linear computational mechanics.
- (2) Multiscale computational modeling of materials (coupling strategies between scales).
- (3) Large scale computing and software design.
- (4) Carbon fiber reinforced polymers, CNT reinforced polymers.
- (5) A strong experience in specific approaches such as peridynamics, molecular dynamics, mesh less approaches, will be largely encouraged.

Based on his strong experience in computational mechanics and computer systems, the candidate will drive the computational activities of the laboratory, advise and support PhD students on computational technical points.

The candidate must have enough technical background in computational systems to support basic related technical activities: network, cluster management, organizing the computational resources of the team.

Qualifications

A successful candidate must have a Ph.D. in the field of computational solid mechanics with experience in one or more of the aforementioned areas of research. Programming experience on a UNIX platform is required.

Appointment, salary and benefits

Appointment period: One year, renewable annually.

Salary: Competitive allowance based on experience. No tax paid to the Kingdom of Saudi Arabia.

Other benefits: Free housing, medical, dental, air transportation to KAUST, one round-trip airline ticket per year to visit home country.

Contacts, application material and deadlines:

Interested applicants should send their application to:

Dr. Gilles Lubineau at gilles.lubineau@kaust.edu.sa

A successful application should include:

- **Document 1:** a full length CV with (1) professional experiences, (2) academic training, (3) publications, (4) computational skills and experiences, (5) software and computational tools (for each software, please include your level of proficiency: debutant, medium or expert) (6) current situation and potential starting date.
- **Document2:** a short statement of work and potential research project (no more than one page).
- **Document 3:** three professional references

The position will remain open until filled, but the candidate is expected to join the team as soon as possible. The CV should include at least: Professional experiences, Academic training, Publications, computational skills and experiences, architectures, Foreign languages.

About KAUST (<http://www.kaust.edu.sa/>)

King Abdullah University of Science and Technology (KAUST) is an international, graduate-level research university located on the Red Sea in the Kingdom of Saudi Arabia. Dedicated to inspiring a new age of scientific achievement that will benefit the region and the world, KAUST will exemplify the future of world-class research. It is the vibrant home to an international community of students, faculty and staff, researchers, and families, situated in a unique Red Sea coastal location near Thuwal, 80 kilometers (50 miles) north of Jeddah – Saudi Arabia's second largest city. The total area of the self-contained community spans more than 36 million square meters, including a unique coral reef ecosystem that the University will preserve as a marine sanctuary. At opening, KAUST will house the Shaheen Supercomputer, a 16-rack IBM Blue Gene/P System, equipped with 4 gigabytes of memory per node and capable of 222 teraflops — or 222 trillion floating-point-operations — per second, making KAUST's campus in Thuwal the site of one of the world's fastest supercomputers. KAUST will also be connected directly into the worldwide research networks, running 10 Gbps directly to networks such as Internet2 & GEANT2. The infrastructure is designed with future IT requirements and developments in mind, including installation of 100,000 Ethernet ports and 500 kilometers of cables, with abundant dark fiber ready to be activated when needed. More details are available at <http://www.kaust.edu.sa/>