INDO KOREA SCIENCE & TECHNOLOGY CENTRE, BANGALORE

Open Post-Doctoral Positions

Indo-Korea Science and Technology Center (IKST), located at Bangalore, is the Indian branch of Korea Institute of Science and Technology (KIST), Seoul, funded by Government of Korea

IKST was established in 2010 and is responsible for promoting collaboration between Indian and Korean research scientists and Institutes to work on problems of common interest and develop new technologies.

Computational material science and data analytics (machine learning) are the areas of current interest for IKST, and topics of active collaboration with researchers in Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore, Indian Institute of Technology, Bombay, Indian Institute of Technology, Bhubaneswar, Indian Institute of Technology, Kharagpur and Indian Institute of Technology (BHU), Varanasi.

Apart from collaborative research program, IKST also has a small internal R&D team working in the area of Computational Material Science and Computer Vision. Most of the material science work involves quantum calculations (based on density functional theory) or multi-scale simulations for diverse systems that includes catalysts, III-V semiconductors and structural materials.

As part of expanding the research team, we have immediate opening for post-doctoral research fellows in the following areas:

(1) Semiconductors - The candidate should have background in density functional theory (DFT) based calculations, machine learning methods, analysing band structure and calculating relevant electronic properties of the system. Candidate should also be aware of the state-of- the-art methods and techniques specific for semiconductors. The candidate will work closely with researchers in the area of III-V semiconductors. The candidate should have a Ph.D. degree in Physics/Chemistry/Material Science/Engineering Physics (candidates who have submitted the thesis may also be considered).

(2) Energy & Functional materials - The candidate should have some background in the field of energy materials & functional materials such as photovoltaics, electrochemistry, thermoelectric, magnetic materials for memory sensor applications etc. The candidate is expected to be strong in computational methods and should have hands-on experience in developing scripts/codes.

Our group mostly focuses on designing catalysts for electrochemical reactions in energy storage & transport devices. We mostly work on alloy based or compound based catalyst.

As mentioned above we focus on application of functional materials suitability for various applications; below to list a few:

1. Design of strong rare earth free permanent magnet.
2. III-V semiconductor alloys for high efficiency electronics devices.

(3) Applicants are expected to have a good knowledge of Phyton, C++, Fortran90 and should be comfortable with the Linux environment.

Candidates with experience in related areas of material modelling at atomic scale (other than DFT), statistical approach such as machine learning are also welcome to apply.

Candidate for the above positions are expected to have strong verbal and written communications skills, with good track record of scientific publications in reputed peer- reviewed journals. The candidate is also expected to work independently, often in close collaboration with internal and external researchers.

Interested candidates can write, along with their CV, to: hr@ikst.res.in before 03rd March, 2021.

Shortlisted candidates will be getting an email/telephonic call from HR team to pursue with further formalities.

To know more about IKST and its activities, visit www.ikst.res.in.