## Join the PhD program in

## **Density Functional Theory & Quantum Simulations Group (DFTQSG)**

School of Physical Sciences, NISER, Bhubaneswar

Group webpage: http://www.niser.ac.in/~psamal/

# Develop your research working career in a world-class, interdisciplinary and highly-collaborative environment.

#### Areas:

• Formalism :

Accurate meta-GGA functionals. Hybrid density functional. Orbital-dependent functionals.

- Exchange-Correlation functionals in three-dimensions :
  - Long-range corrected hybrid functionals for molecular systems. Screened meta-GGA hybrids for solids.
- Development of the Pseudo-potential approach for meta-GGA functionals
- Applying meta-GGA range-separated functionals in the time-dependent DFT.
- TDDFT applied to molecules and solids with meta-GGA kernels.
- Implementation of meta-GGA range-separated hybrid functionals in the all-electron codes.
- Development of dielectric dependent meta-GGA level range-separated hybrid functionals.
- Study of the meta-GGA level hybrid functionals in the prediction of excited state properties

More info: <u>https://www.niser.ac.in/notices/2021/academic/PhD\_Advertisement\_2021\_Summer\_v2.pdf</u>

Online Application Deadline: May 01, 2021 (may be extended due to current pandemic situation)

Check the website regularly for updates of this admission process. NISER | National Institute of Science Education Research

Postdoc positions (02 nos.) are also available in the group. Applications via institute PDF or NPDF are most welcome.

### More than 3 Positions Available !

#### School of Physical Sciences, NISER, Bhubaneswar



How to apply for POSTDOC position: Email directly to **Prof. Prasanjit Samal or any of the current group members** to hear more about our group and the projects we work on.

> Contact Supervisor: **Prof. Prasanjit Samal** (psamal@niser.ac.in)