# CSIR FOURTH PARADIGM INSTITUTE, BENGALURU (Erstwhile CSIR C-MMACS)

# **SPARK**

## Student Programme for Advancement in Research Knowledge

Opportunity to carryout research/
thesis work in CSIR-4PI

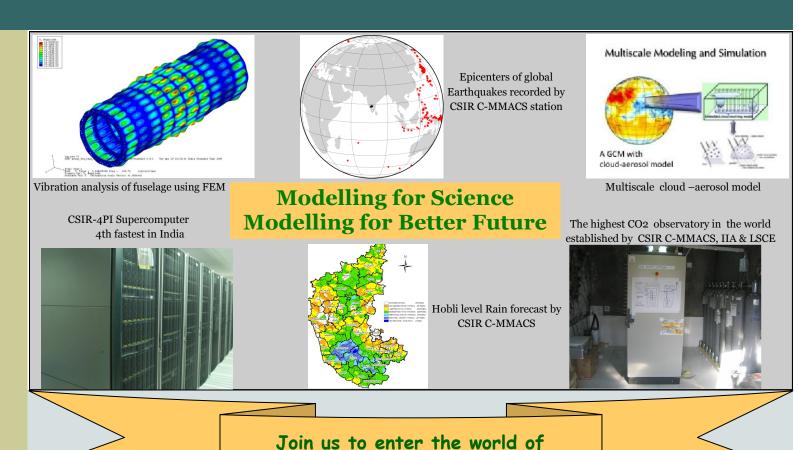


CSIR FOURTH PARADIGM INSTITUTE

Unravel the mysteries of the Planet Earth, address the current generation Cyber Threats and look at the Suspended Particles in a medium through the modelling & simulation

## **Apply Online**

url:www.csir4pi.in/spark E-mail: spark@csir4pi.in



Computational Science

- CSIR C-MMACS established in 1988 under Council of Scientific & Industrial Research (CSIR)
- The primary focus of the centre is Modelling and Simulation of Complex Systems
- The Centre has a state-of-the-art Supercomputer and Networking facility with high-speed connectivity to both the Internet and National Knowledge Network
- Total peak compute power of 360 TFLOPS; One Supercomputer ranked 4<sup>th</sup> in the top supercomputers list in the country; The largest shared memory system in India

### **Highlights of the Programme**

- Remote access and guidance to CSIR-4PI computing facility
- Opportunity to work on complex and live problems
- Best thesis award based on students performance

#### **Eligibility**

- Open to all students who have formally enrolled for higher degrees, like BE/B.Tech/ME/M.Tech/M.Sc/MCA/Ph.D etc. carrying out their major thesis work
- Students seeking summer internship/training can also apply

#### **Research Foci**

- Carbon footprint of India
- Computational nano-mechanics
- \* Cryptography and secure communication
- \* Cyber security and ethical hacking
- \* Earthquake hazard assessment
- \* Finite element modelling
- \* Multiphase flow simulation
- \* Modelling of Indian Monsoon
- Multiple time and spatial scale phenomena
   (e.g. aerosol-cloud interaction)
- \* Numerical algorithms
- \* Optimization and visualization
- Ocean eco system modelling
- Parallel programming for supercomputers

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