



Post Graduate Programs at CDS



- > Ph.D. Doctoral program in Engineering
- > M.Tech. (Research)-Masters program with thesis
- M. Tech (2 years): Masters program in Computational and Data Science





M.Tech. (Computational Science) - existing program



- Placements ٠
 - Google
 - IBM
 - Yahoo
 - Nvidia
 - GE
 - Samsung
 - Financial firms like Mckinsey

• Further Studies

- IISc Ph.D.
- Ph.D. in top tier universities

2015: 2 Alumni as PhD students @ CDS 2016: 3 Alumni as New PhD students @ CDS

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Research Students

- Received Microsoft, TCS, and IBM Ph.D. fellowships
- Received international fellowships like SPIE Education Fellowships
- Numerous best paper awards
- Numerous travel fellowships from IBM, Google, and Yahoo
- Won many challenges, including recent GE Edison challenge
- Won prestigious fellowships line Humboldt fellowship after graduating





Research Areas @ CDS

Computer&Data Systems Computational Science

- CAD for VLSI
- Computer Architecture
- Grid Application Research
- Cloud and Distributed Computing
- Machine Learning
- Database Systems
- Video Analytics

- Computational Electromagnetics
- Computational Photonics
- Medical Imaging
- Scientific Computing and Mathematical Libraries
- Computational Fluid Dynamics
- Computational Biology and Bioinformatics
- Numerical Linear Algebra









MXS Middleware and Runtime Systems Lab

Research

Sathish Vadhiyar Ph.D. (Tennessee)

- HPC Runtime Systems / Application Frameworks:
 Accelerator systems: CPU-GPU hybrid executions, programming
 - models.
 - Large-scale systems: Scalability studies, processor allocation, mapping and remapping strategies on HPC network topologies.
- Primary focus on irregular applications including graph applications, N-Body simulations, Molecular Dynamics (MD), and Adaptive Mesh Refinement (AMR) applications
- Also worked with applications in climate science and visualization in collaboration with researchers working in these areas.

Middleware:

- Job Scheduling: prediction strategies and scheduling techniques for efficient job management on production supercomputer systems.
- Fault Tolerance: For exascale applications using checkpointing and process replication.

Funding: Department of Science and Technology, India, Intel Parallel Computing Centre (IPCC)























