

Computer Systems Group

**Vindhya A5, 3rd Floor
IIIT Hyderabad**

**Faculty
Suresh Purini, Deepak Gangadharan, Tejas Bodas**

About the CSG Group

- Computer Systems Group undertakes research and development in all fundamental aspects of Computing Systems spanning across hardware, software and modeling.
- Key Focus areas are:
 - Computer Architecture
 - Compilers
 - Internet of things
 - Parallel, Distributed and Cloud Computing
 - Computer Networks
 - Stochastic systems and Performance modeling

Suresh Purini

Areas of Interest: Parallel and Distributed Computing, Compilers, Computer Architecture, Design of FPGA based Hardware Accelerators

Sample Projects

- Compilers for automatic synthesis of hardware accelerators
- Large Scale Distributed Video Analytics
- AI/ML on the Edge/Fog/Cloud
- High performance computing for Bio-informatics applications

Deepak Gangadharan

Areas of Interest: Design and Analysis for Edge based IOT systems, Cyber-Physical systems, Embedded Systems, Intelligent Transport Systems

Sample Projects

- Data Freshness Aware Scheduling in Multicore Real-Time Embedded Systems
- Embedded system-based fault tolerant control and autonomous navigation of an unmanned aerial vehicle
- Secure Drones: Analyze, Deploy, and Decide Cryptographic Modules in UAVs
- IIITH BikeSafety Project
- Mobility and QoS aware service delivery in vehicular edge computing

Tejas Bodas

Areas of Interest: Stochastic modeling, Bayesian Optimization, Pricing, and Reinforcement learning

Current Research interest :

- **Performance Modeling:** design and analysis of computer systems for low latency
- **Reinforcement learning** for control of networks
- First-order **Bayesian optimization** algorithms and applications in ML
- Dynamic **pricing**, inventory control, and other topics in O.R.
- Option pricing and optimal stopping problems