

Algorithms and Complexity

Graph Algorithms, Complexity of Security Models and Verification, String Algorithms.

Bioinformatics

Algorithms for Sequence Alignment, Data and Text Mining for Bioinformatics.

Cloud Computing

Cloud Security, Cloud Databases, BigData Analysis

Compilers and Programming languages

Program Analysis and Transformation.

Computer Architecture

Simulators for High Performance Machines, Power Efficient Caches.

Database Management Systems

Distributed Computing

Middleware, Adaptation in Event based Middleware, P2P Overlays, Self Organizing Overlays.

Image Processing

Data Compression, Image Compression, Medical Imaging.

Information Security

Cryptographic Algorithms, Authentication Protocols, Electronic Voting, Malware Protection, Integrity Protocols, DoS Protection, Computer Forensics, Processor based Security, Security Management.

Networks

Routing Protocols, Congestion Control, Security Protocols, Intrusion Detection Systems, Firewalls, Mobile Protocols, Ad Hoc Networks, Network Management.

Operating Systems

File Systems for Flash Memory, Hardware assisted VMM.

Software Engineering

Empirical Software Engineering, Software Testing, Software Reuse