



INDIAN RESEARCH JOURNAL ON ADVANCED TECHNOLOGIES

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The main topic includes but not limited to:

Smart Computing & Information

Processing

- Signal and Speech Processing
- Image Processing and Pattern Recognition
- WSN
- Artificial Intelligence and machine learning
- Data mining and warehousing
- Data Analytics
- Deep learning
- Bioinformatics
- High Performance computing
- Advanced Computer networking
- Cloud Computing
- IoT
- Parallel Computing on GPU
- Human Computer Interactions
- Recent Trends in Microelectronics and VLSI Design
- Nanotechnology
- Nano electronics and Quantum Computing

Challenges of Industry and their Solutions, Communications

- Advanced Manufacturing Technologies
- Artificial Intelligence
- Autonomous Robots
- Augmented Reality
- Big Data Analytics and Business Intelligence
- Cyber Physical Systems (CPS)
- Digital Clone or Simulation
- Industrial Internet of Things (IIoT)
- Manufacturing IOT
- Plant Cyber security
- Smart Solutions – Wearable Sensors and Smart Glasses
- System Integration
- Small Batch Manufacturing
- Visual Analytics
- Virtual Reality
- 3D Printing

Process & Device Technologies

- Low-power design
- Nanometer-scale integrated circuits
- Application specific ICs (ASICs)
- FPGAs

Internet of Things (IoT)

- IoT & IoE & Edge Computing
- Distributed Mobile Applications Utilizing IoT
- Security, Privacy and Trust in IoT & IoE
- Standards for IoT Applications
- Ubiquitous Computing
- Blockchain-enabled IoT Device and Data Security and Privacy
- Application of WSN in IoT
- Cloud Resources Utilization in IoT
- Wireless Access Technologies for IoT
- Mobile Applications and Services for IoT
- Machine/ Deep Learning with IoT & IoE
- Smart Sensors and Internet of Things for Smart City
- Logic, Functional programming and Microcontrollers for IoT
- Sensor Networks, Actuators for Internet of Things
- Data Visualization using IoT
- IoT Application and Communication Protocol
- Big Data Analytics for Social Networking using IoT
- IoT Applications for Smart Cities
- Emulation and Simulation Methodologies for IoT

- IoT Applied for Digital Contents

Microwaves and Photonics

- Microwave filter
- Microstrip antenna
- Microwave Link design
- Microwave oscillator
- Frequency selective surface
- Microwave Antenna
- Microwave Photonics
- Radio over fiber
- Optical communication
- Optical oscillator
- Optical Link design
- Optical phase lock loop
- Optical devices

Computation Intelligence and Analytics

- Soft Computing
- Advance Ubiquitous Computing
- Parallel Computing
- Distributed Computing
- Machine Learning
- Information Retrieval
- Expert Systems
- Data Mining
- Text Mining
- Data Warehousing
- Predictive Analysis
- Data Management
- Big Data Analytics

- Big Data Security

Energy Harvesting and Wireless Power Transmission

- Energy harvesting and transfer for wireless sensor networks
- Economics of energy harvesting communications
- Waveform optimization for wireless power transfer
- RF Energy Harvesting
- Wireless Power Transmission
- Microstrip Antenna design and application
- Wearable Textile Antenna
- Luminescence
- Rectenna

Advance Concept of Networking and Database

- Computer Network
- Mobile Adhoc Network
- Image Security
- Application Artificial Intelligence and machine learning in the Field of Network and Database
- Data Analytic
- High performance computing
- Pattern Recognition

Machine Learning (ML) and Knowledge Mining (KM)

- Regression and prediction
- Problem solving and planning
- Clustering
- Classification
- Neural information processing
- Vision and speech perception
- Heterogeneous and streaming data
- Natural language processing
- Probabilistic Models and Methods
- Reasoning and inference
- Marketing and social sciences
- Data mining
- Knowledge Discovery
- Web mining
- Information retrieval
- Design and diagnosis
- Game playing
- Streaming data
- Music Modelling and Analysis
- Robotics and control
- Multi-agent systems
- Bioinformatics
- Social sciences
- Industrial, financial and scientific applications of all kind

Advanced Computer networking Computational Intelligence

- Data Management, Exploration, and Mining
 - Robotics
 - Artificial Intelligence and Machine Learning
 - Computer Architecture and VLSI
 - Computer Graphics, Simulation, and Modelling
 - Digital System and Logic Design
 - Natural Language Processing and Machine Translation
 - Parallel and Distributed Algorithms
 - Pattern Recognition and Analysis
 - Systems and Software Engineering
 - Nature Inspired Computing
 - Signal and Image Processing
 - Reconfigurable Computing
 - Cloud, Cluster, Grid and P2P Computing
 - Biomedical Computing
 - Advanced Bioinformatics
 - Green Computing
 - Mobile Computing
 - Nano Ubiquitous Computing
 - Context Awareness and Personalization, Autonomic and Trusted Computing
 - Cryptography and Applied Mathematics
 - Security, Trust and Privacy
 - Digital Rights Management
 - Networked-Driven Multicourse Chips
 - Internet Computing
 - Agricultural Informatics and Communication
 - Community Information Systems
 - Computational Economics, Digital Photogrammetric
 - Remote Sensing, GIS and GPS
 - Disaster Management
 - e-governance, e-Commerce, e-business, e-Learning
 - Forest Genomics and Informatics
 - Healthcare Informatics
 - Information Ecology and Knowledge Management
 - Irrigation Informatics
 - Neuro-Informatics
 - Open Source: Challenges and opportunities
 - Web-Based Learning: Innovation and Challenges
 - Soft computing Signal and Speech Processing
 - Natural Language Processing
- Communications**
- Microstrip Antenna
 - Microwave
 - Radar and Satellite
 - Smart Antenna
 - MIMO Antenna
 - Wireless Communication
 - RFID Network and Applications
 - 5G Communication

- 6G Communication

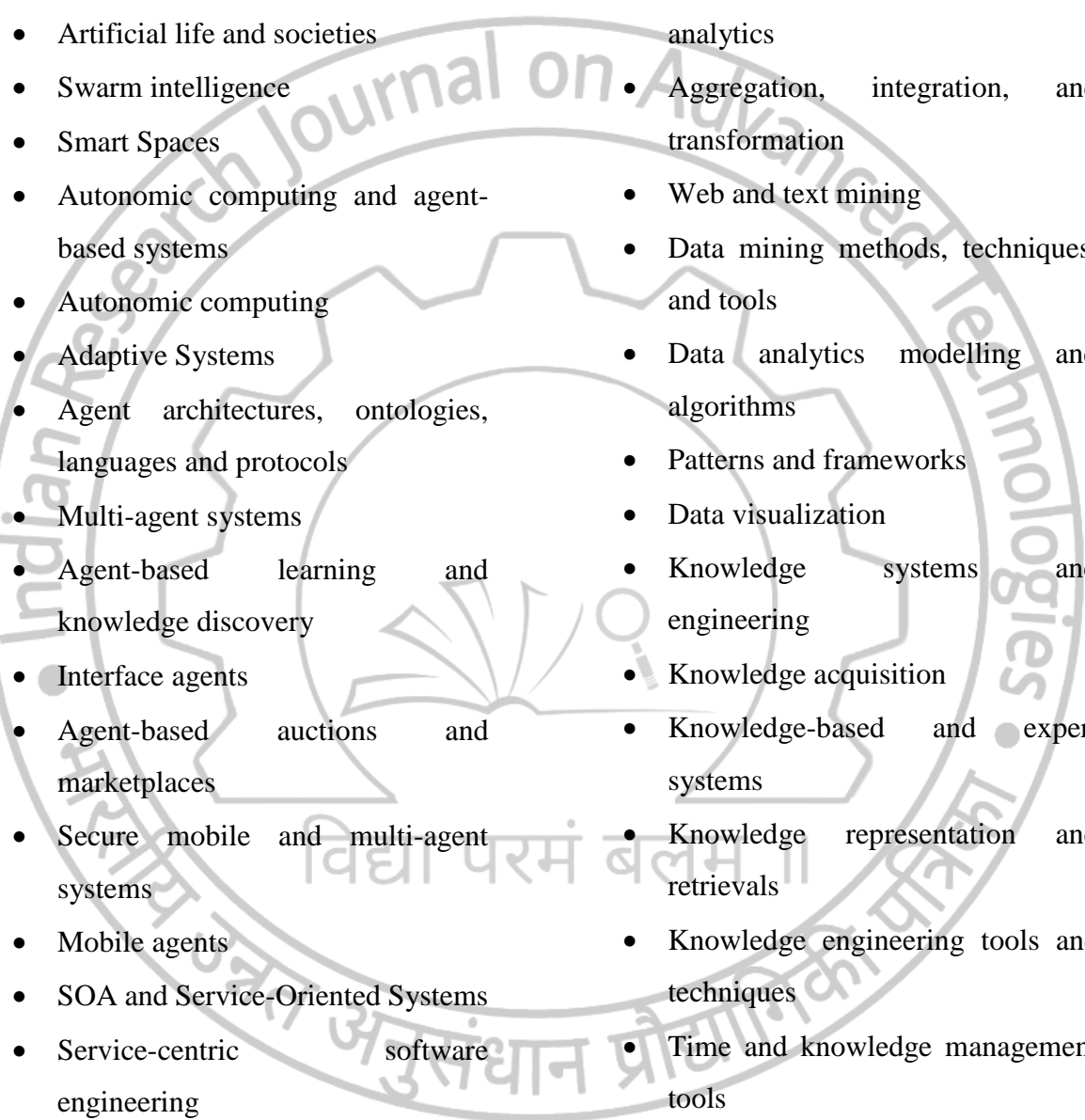
Algorithms and Complexity

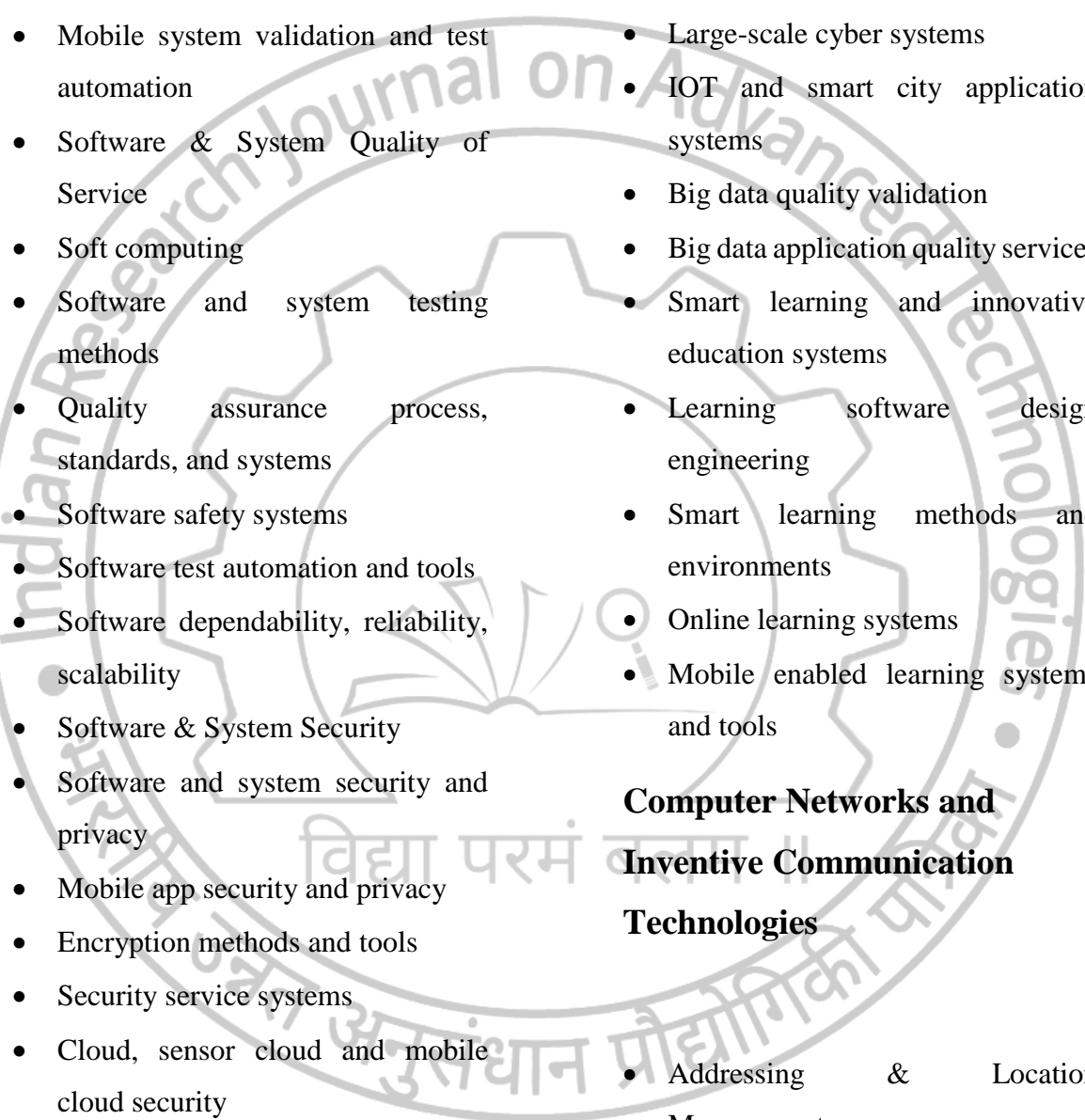
- Sequential, Parallel And Distributed Algorithms And Data Structures
- Approximation And Randomized Algorithms
- Graph Algorithms And Graph Drawing
- On-Line And Streaming Algorithms
- Analysis Of Algorithms And Computational Complexity
- Algorithm Engineering
- Web Algorithms
- Exact And Parameterized Computation
- Algorithmic Game Theory
- Computational Biology
- Foundations Of Communication Networks
- Computational Geometry
- Discrete Optimization

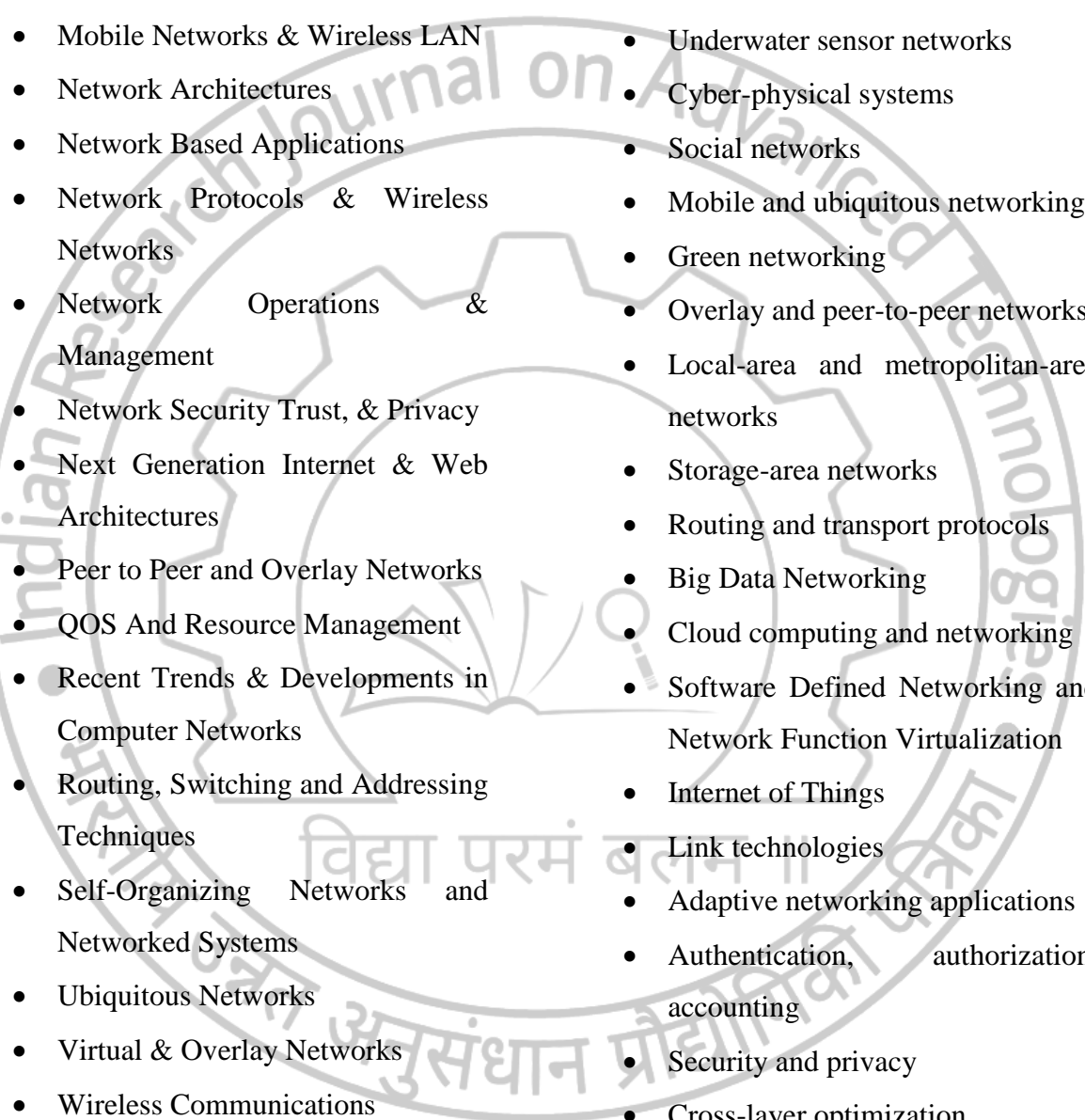
Software Engineering and Knowledge Engineering

- Software Engineering Methodologies
- Agent-based software engineering
- Artificial intelligence approaches to software engineering
- Component-based software engineering

- Embedded and ubiquitous software engineering
- Aspect-based software engineering
- Empirical software engineering
- Search-Based Software engineering
- Automated software design and synthesis
- Computer-supported cooperative work
- Automated software specification
- Reverse engineering
- Software Engineering Techniques and Production Perspectives
- Requirements engineering
- Software analysis, design and modelling
- Software maintenance and evolution
- Software engineering tools and environments
- Software engineering decision support
- Software design patterns
- Software product lines
- Process and workflow management
- Reflection and metadata approaches
- Program understanding and system maintenance
- Software domain modelling and analysis
- Software economics
- Multimedia and hypermedia software engineering

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- Software engineering case study and experience reports
 - Enterprise software, middleware, and tools
 - Artificial intelligent methods, models, techniques
 - Artificial life and societies
 - Swarm intelligence
 - Smart Spaces
 - Autonomic computing and agent-based systems
 - Autonomic computing
 - Adaptive Systems
 - Agent architectures, ontologies, languages and protocols
 - Multi-agent systems
 - Agent-based learning and knowledge discovery
 - Interface agents
 - Agent-based auctions and marketplaces
 - Secure mobile and multi-agent systems
 - Mobile agents
 - SOA and Service-Oriented Systems
 - Service-centric software engineering
 - Service oriented requirements engineering
 - Service oriented architectures
 - Middleware for service based systems
 - Service discovery and composition
 - Service level agreements (drafting, negotiation, monitoring and management)
 - Runtime service management
 - Semantic web
 - Data modelling, mining and data analytics
 - Aggregation, integration, and transformation
 - Web and text mining
 - Data mining methods, techniques, and tools
 - Data analytics modelling and algorithms
 - Patterns and frameworks
 - Data visualization
 - Knowledge systems and engineering
 - Knowledge acquisition
 - Knowledge-based and expert systems
 - Knowledge representation and retrievals
 - Knowledge engineering tools and techniques
 - Time and knowledge management tools
 - Knowledge modelling, integration, transformation, and management,
 - Uncertainty knowledge management
 - Knowledge visualization

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- Mobile computing and mobile system engineering
 - Mobile App design and development
 - Innovative mobile applications
 - Pervasive computing
 - Mobile system validation and test automation
 - Software & System Quality of Service
 - Soft computing
 - Software and system testing methods
 - Quality assurance process, standards, and systems
 - Software safety systems
 - Software test automation and tools
 - Software dependability, reliability, scalability
 - Software & System Security
 - Software and system security and privacy
 - Mobile app security and privacy
 - Encryption methods and tools
 - Security service systems
 - Cloud, sensor cloud and mobile cloud security
 - Mobile system integrity, security, and fault tolerance
 - Emergent Topics
 - Cloud computing and Innovative cloud-based application systems
 - Mobile cloud computing and application services
 - Big data analytics application systems
 - Innovative sensing cloud and systems
 - Large-scale cyber systems
 - IOT and smart city application systems
 - Big data quality validation
 - Big data application quality services
 - Smart learning and innovative education systems
 - Learning software design engineering
 - Smart learning methods and environments
 - Online learning systems
 - Mobile enabled learning systems and tools
- Computer Networks and Inventive Communication Technologies**
- Addressing & Location Management
 - Broadband Access Technologies
 - Adhoc and Sensor Networks
 - Cross Layer Design and Optimization
 - Heterogeneous Wireless Networks

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- High Speed Networks
 - Internet and Web Applications
 - Measurement & Performance Analysis
 - Mobile & Broadband Wireless Internet
 - Mobile Networks & Wireless LAN
 - Network Architectures
 - Network Based Applications
 - Network Protocols & Wireless Networks
 - Network Operations & Management
 - Network Security Trust, & Privacy
 - Next Generation Internet & Web Architectures
 - Peer to Peer and Overlay Networks
 - QOS And Resource Management
 - Recent Trends & Developments in Computer Networks
 - Routing, Switching and Addressing Techniques
 - Self-Organizing Networks and Networked Systems
 - Ubiquitous Networks
 - Virtual & Overlay Networks
 - Wireless Communications
 - Wireless Mesh Networks and Protocols
 - Wireless Multimedia Systems
 - Personal and wearable networks
 - Wireless ad hoc & sensor networks
 - Information-centric networking
 - Embedded networks
 - Opportunistic networking
 - Delay-tolerant networks
 - Cognitive radio networks
 - Vehicular networks
 - Smart Grid communications
 - Underwater sensor networks
 - Cyber-physical systems
 - Social networks
 - Mobile and ubiquitous networking
 - Green networking
 - Overlay and peer-to-peer networks
 - Local-area and metropolitan-area networks
 - Storage-area networks
 - Routing and transport protocols
 - Big Data Networking
 - Cloud computing and networking
 - Software Defined Networking and Network Function Virtualization
 - Internet of Things
 - Link technologies
 - Adaptive networking applications
 - Authentication, authorization, accounting
 - Security and privacy
 - Cross-layer optimization
 - Mobility and Location-dependent services
 - Multimedia and real-time communication

- Machine-to-machine communications for smart environments
- Smart Cities
- Network traffic characterization and measurements
- Network management, reliability and QoS
- Performance evaluation of networks
- Testbeds for network experiments
- Network coding
- Optical and high-speed access networks
- CAE
- Database Theory and Application
- Data Base Management System
- Data Mining
- Decision making
- Digital signal processing theory
- Distributed Sensor Networks
- Distributed Computing
- Mechanical Design
- Evolutionary computing and intelligent systems
- Expert approaches
- Environmental Engineering
- Fuzzy logics
- Foundation Engineering
- FEA
- GPS and location-based applications
- Grid Networking/ Computing
- GEOTECH Engineering
- Highways

Recent Engineering and Nano Technology

- Advanced Computing Architectures and New Programming Models
- Bio-science and Bio-technology
- Collaborative applications
- Communication architectures for pervasive computing
- Computer Vision
- Computer Science and Its applications
- Computational Techniques in Civil Engineering
- Control and Automation
- Concrete Engineering
- CAD/CAM/CIM
- Human Computer Interaction (HCI)
- Image analysis and processing
- Information and data security
- Internet Technologies, Infrastructure, Services & Applications
- Nano Technology
- Mobile Computing and Applications
- Multimedia Communications
- Network Modelling and Simulation

- Network Performance; Protocols; Sensors
- Networking theory and technologies
- Open Models and Architectures
- Pattern Recognition
- Perception and semantic interpretation
- Production
- Real-time information systems
- Remote Sensing
- Security Technology and Information Assurance
- Soft Computing
- Software Engineering & Its Applications
- Signal Control System & Processing
- Speech interface; Speech processing
- Structural Engineering
- Thermal Engineering
- Ubiquitous Multimedia Computing
- Vision-based applications
- VLSI Algorithms
- Web Technologies
- Textile Engineering
- Biomechanics
- Heat Transfer
- Solid Mechanics
- Refrigeration and Air Conditioning
- Renewable Energy Technology
- Materials Engineering
- Composite Materials
- Marine Engineering
- Petroleum and Mineral Resources Engineering
- Textile Engineering
- Industrial Engineering
- Operational Research
- Manufacturing Processes
- Machine Design
- Quality Control
- Mechanical Maintenance
- Tribology
- CAD/CAM
- Aeronautical Engineering
- Production Engineering
- Welding Technology
- Robotics Engineering
- Aerospace Engineering
- Metallurgy
- Rock Mechanics and Mining Sciences

Recent on Mechanical Engineering and Technology

- Fluid Mechanics
- Applied Mathematics and Mechanics

- Solid and Structural Mechanics
- Theoretical and Applied Fracture Mechanics

Advance Civil Engineering and Technology

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- Assemblage and System
 - Behaviour of Structures
 - Behaviour of Structures under Seismic Loads
 - Building and Environmental Acoustics
 - Building Climate Systems
 - Building Energy
 - Civil and Environmental Engineering
 - Coastal Engineering
 - Composite Materials
 - Concrete Structures
 - Construction Economics
 - Construction Engineering
 - Design and Performance of Green Building
 - Design Optimization of Structures
 - Earthquake Engineering
 - Energy Efficient Building Technology
 - Energy Saving Building Materials
 - Evaluation of Building Envelope Systems under Structural and Environmental Loads
 - Evaluation of Glazing Systems for Energy Performance
 - Fire Engineering
 - Foundations Dynamics
 - Geotechnical Engineering
 - Health Monitoring and Life Prediction of Structures
 - High Performance Concrete
 - Hydraulic Engineering
 - Life Cycle Engineering
 - Materials and Durability
 - Materials Engineering
 - Mechanics and Materials Aspects of Advanced Construction Materials
 - Municipal or Urban Engineering
 - Nondestructive Testing and Evaluation
 - Numerical Modelling of Structures
 - Optimal Design of Structures
 - Properties and Mechanics of Concrete
 - Residential, Commercial, Industrial and Public Works
 - Seismic Evaluation of Building Nonstructural Components
 - Simulation Optimization and Risk Management
 - Soil-Structure Interaction
 - Structural Engineering
 - Structural Evaluation of Panelized and Masonry Wall Systems
 - Structural Reliability Analysis
 - Surveying
 - Sustainable Structures
 - Transportation Engineering
 - Ventilation and Indoor Air Quality
 - Water Supply and Drainage