Mobile Security Lab & High Performance Computing Lab Department of Computer Science & Engineering Indian Institute of Technology Roorkee, Roorkee 247 667, Uttarakhand, India Voice : + 91 1332 - 28 5647 (O), - 28 5003 (R), Fax : - 28 5368, Email : sateesh@cs.iitr.ac.in / sateesh@ieee.org

Research Interests

- **Cyber Security:** Mobile Security, Cloud Security, IoT Security, Systems Security, Security of Cyber Physical Systems, and Security of other systems.
- **Cloud/Edge Computing:** High Performance Computing, Energy Efficiency, and Load Balancing, Edge Computing, and Fog Computing.
- Pervasive Computing: Mobile Ad-hoc Networks, and Internet-of-Things (IoT).

Professional Experience

- ✓ (August 2024 onwards) Professor in Computer Science and Engineering, Indian Institute of Technology Roorkee, Roorkee, UK, India.
- ✓ (December 2018 August 2024) Associate Professor in Computer Science and Engineering, Indian Institute of Technology Roorkee, Roorkee, UK, India.
- ✓ (December 2010 December 2018) Assistant Professor in Computer Science and Engineering, Indian Institute of Technology Roorkee, Roorkee, UK, India.
- ✓ (October 1997 December 2010) Faculty of Computer Science and Engineering at various Engineering Colleges.

Education

- ✓ (2010) Doctor of Philosophy (Ph. D) in Computer Science and Engineering, University College of Engineering, Osmania University, Hyderabad, T.S., India.
- ✓ (2003) Master of Technology (M. Tech) in Computer Science and Engineering, University College of Engineering, Osmania University, Hyderabad, T.S., India.

✓ (1995) Master of Science (M. Sc) in Physics wth Specialization in Electronics, Kakatiya University, Warangal, T.S., India.

Professional Recognition

- # Membership of Professional Societies
 - Senior Member, IEEE # 90899329
 - Senior Member, ACM # 7294182
 - Member, IEEE Computer Society
 - Member, OpenPOWER Foundation
 - Member, DMTF
 - Life Member, IETE
 - Life Member, CSI (Computer Society of India)
 - Life Member, ISTE (Indian Society for Technical Education)

Awards

- # IEEE MGM Award, 2023, IEEE Member-Get-A-Member Award.
- # Best B.Tech. Project (BTP) Award, 2023, Professional & Innovation Award (Jury Choice), 2023 to the team consisting of Ms. Keerthana Nuti, Mr. Shashank Aital, and Mr. Shreyas Dodamani. (Topic: An Algorithm for Periodic Coverage Path Problem in a Multi-Drone Setting).
- # Best Poster Award, 2023 to the student Mr. Suvra Pattanayak whom I co-supervised (Paper: Heuristic approach for mitigation of time Delay cyber-attacks using NLADRC) at Institute Research Day, IIT Roorkee.
- # Best B.Tech. Project (BTP) Award, 2021 to the student Mr. Nikunj Gupta whom I supervised (Topic: Asynchronous Many-Task Systems for Performant Linear Algebra Kernels and Low Overhead Software Resilience).
- # Best DIC Summer Intern 2020 Award to the student Mr. Hardev Khandhar, CHARUSAT, whom I supervised (Topic: Android Malware Classification using Machine Learning.
- # Best Mess Award, 2020, New Hostel Vigyankunj for the services rendered in the capacity of Chief Warden.

- # Award for Cleanliness, Food Safety and Standards Authority of India (FSSAI), 2020, New Hostel Vigyankunj for the services rendered in the capacity of Chief Warden.
- # Faculty Cloud Ambassador, 2019, AWS Educate Program.
- # IBM Shared University Award (from September 2013 to September 2016)
- # Microsoft Educate Award
- # **Travel Grants** from Department of Science and Technology (DST), Ministry of S & T (INR 1.8 Lakhs).
- # Best Paper Award (Conference).
- # Best Presentation Award (Conference).
- # Summer Undergraduate Research Award (SURA) offered by IIT Roorkee, India to a team of students whom I supervised.
- # Merit Scholarship for University 4th Rank in Master's Course (1995).

Recognition

- Expert Member, Meeting with Chief Secretary, Government of Uttarakhand, Establishment of Center of Excellence in Cyber Security", January 19, 2024.
- Member, Senators, IIT Roorkee, from December 1, 2023.
- External Expert, Interviews for the Chief Systems Manager, IIT(ISM) Dhanbad, December 24, 2023.
- External Expert, CCTV Data Storage Safety Decision Committee, Uttarakhand Public Service Commission, December 05, 2023.
- Member Academia, External Expert, Project Review Committee for the Project, Space based Military Internet of Things (S-MIoT), Defence Electronics Applications Laboratory (DEAL), Dehradun, November 09, 2023.
- Expert and Resource Person, Technical event MANTHAN, COER University, Roorkee, October 11, 2023.
- Guest Associate Editor, Journal of Computer Science and Technology, Springer (SCIE, DBLP, Web of Science) (Impact Factor: 2.58).
- Editor, Journal of Spatio-Temporal Data Science, Inderscience.
- Former Vice Chairman, IEEE Computer Society, India Council (2015-2018).
- **Treasurer**, IEEE Roorkee Subsection, India (2021-Till Date).

- Secretary, IEEE Roorkee Subsection, India (2018-2021).
- Founder Faculty Sponsor, ACM Students Chapter, IIT Roorkee, India (2015-Till Date).
- Founding Steering Committee Chair: SLICE workshop
- Chaired Session in IEEE MASS 2017, the flagship conference in MANETs and Sensors.
- Reviewer: IEEE Transactions on Cloud Computing.
- Reviewer: IEEE Transactions on Service Computing.
- Reviewer: IEEE Transactions on Dependable and Secure Computing.
- Outstanding Reviewer: Elsevier Computer Networks.
- Recognized Reviewer: Elsevier Computers and Security.
- **Reviewer**: Elsevier Journal of Network and Computer Applications.
- Reviewer: Springer International Journal of Information Security.
- **Reviewer**: Elsevier Development Engineering.
- Reviewer: Wiley International Journal of Communication Systems

Membership of Technical Committees

- IEEE CS Smart Computing
- IEEE CS Cloud Computing
- IEEE CS Service Computing
- IEEE CS Green ICT
- IEEE CS Computer Communications
- IEEE CS Distributed Processing
- IEEE CS Security and Privacy
- OPF Academic Discussion Workgroup
- OPF System Software Workgroup
- HPC Advisory Council
- Cloud Security Alliance (CSA)
- Academic Workgroup, DMTA

Expert Committees

- 1. Chair, Communications sub-Workgroup on "IoT Security" Guidelines for e-Governance Applications, Government of India.
- 2. **Member**, Workgroup on "IoT Security" Guidelines for e-Governance Applications, Government of India.
- 3. **Expert Member**, Cyber Crisis Management Plan (CCMP) and Critical Information Infrastructure (CII) Policy, Computer Emergency Response Team (CERT)-Uttarakhand.
- 4. Subject Expert, Uttarakhand Public Service Commission.
- 5. Member, Institute Cyber Security Committee.
- 6. **Member**, (May 1, 2023-ongoing): Advisory Committee, Institute Computer Center, IIT Roorkee.
- 7. **Member**, (May 1, 2023-ongoing): Advisory Committee, Continuing Education Center (CEC), IIT Roorkee.
- 8. **Member**, (October 1, 2021-ongoing): Advisory Committee, Dean of Resources & Alumni Affairs (DORA), IIT Roorkee.

9. Member, Board of Studies

- (2024 ongoing): DIAT, Pune (for CSE UG/PG students).
- (2024 ongoing): Amrapali Univ., Uttarakhand (for CSE UG/PG students).
- (2024-ongoing): KITS, Kakatiya University, Warangal (for IT UG Course).
- (2021-ongoing): KITS, Kakatiya University, Warangal (for AI/ML UG Course).
- (2021-ongoing): Stanley CoE, Osmania Univ., Hyderabad (for CSE UG Course).
- (Nov 2011 to Oct 2012): JNTU, Anantapur (for UG Elec.& Comp course).
- 10. Expert Committee Member, Uttarakhand Technical University, Dehradun.
- 11. Expert Committee Member, Mahamaya Technical University, Noida, India.
- 12. Expert Committee Member, Graphic Era University, Dehradun, India.
- 13. Screening/Monitoring Committee Member, DOEACC (NIELIT), India.
- 14. Expert Committee Member, THDC, Rishikesh, India.

- 15. **Expert Member**, Uttarakhand Police Department (STF/CCPS) regarding Hackathon on Emerging Cyber Security Challenges.
- 16. **Expert Member**, NSM Group on Application Development, National Supercomputing Mission (NSM), Area: Geophysics and Oil Exploration.
- 17. **Project Review Steering Group Member**, National Mission on Education, through Information Communication & Technology (NMEICT), Ministry of Human Resource Development (MHRD).
- 18. Convener, PA System and Live Streaming, Convocation, 2024.
- 19. Jury Member, Annual Convocation various Awards, 2020, 2023.
- 20. Member, Technical Committee, Next E-mail System of IITR.
- 21. Member, Institute Technical Committee.

Funded Projects

Details of Cash Flow

Year	Sponsoring Agency	External Cash Flow
2024 - 2029	ISEA Project	Approx. INR 400 (INR 60 - I Yr) Lakhs.
2023 - 2025	DRDO Project	Approx. INR 109 Lakhs
2023 - 2024	Imarticus Learning (B5)	Approx. INR 89 (IITR: 44.5) Lakhs
2021 - 2022	Devbhoomi Cyber Hackathon.	Approx. INR 19 Lakhs
2022 - 2023	CPRI Project.	Approx. INR 32 Lakhs
2022 - 2025	C3iHub Project.	Approx. INR 25 Lakhs
2020 - 2021	Imarticus Learning (B2, B3, B4)	Approx. INR 92 (IITR: 46) Lakhs
2022 - 2022	WileyNXT	Approx. INR 64.6 (IITR: 32.3) Lakhs
2020 - 2021	Eckovation Technologies (B1)	Approx. INR 18 (IITR: 9.5) Lakhs
2019 - 2020	Samsung Research Grant	INR 31.18 Lakhs
2015 - 2022	MEITY ISEA Project	INR 137.00 Lakhs
2018 - 2018	Google GCP Grants	USD 5000
2018 - 2020	NMHS Research Grant	INR 213.90 Lakhs
2014 - 2016	RICET Research Grant	INR 33.72 Lakhs
2013 - 2016	IBM SUR Grant	USD 15000
2018 - 2018	Microsoft Edu Grant	USD 25000
2017 - 2017	Microsoft Edu Grant	USD 25000
2016 - 2016	IBM Ph.D Stud Fellowship Grant	USD 6000
2015 - 2015	DST Travel Grant	INR 1.89 Lakhs
2015 - 2015	CSI Travel Grant	INR 0.25 Lakhs
2013 - 2013	SURA Research Grant	INR 0.04 Lakhs

Details of Funded Projects

Research Projects

- Information Security Education and Awareness (ISEA). Role: Co-Investigator, Funding Agency: MeitY, Duration: 2024-2029, Amount: INR 400 Lakhs (INR 60 Lakhs in I Year).
- Technique for Context-Based Security Analysis of Platform. Role: Principal Investigator. Funding Agency: DRDO-CARS. Duration: 2023-2025. Amount: INR 109 Lakhs.
- Impact Analysis of Cyber Attacks on Microgrid SCADA (IACA-µG SCADA). Role: Co-Investigator. Funding Agency: CPRI. Duration: 2022-2023. Amount: approx INR 32 Lakhs.
- Mitigation of cyber attacks in power system using non-linear control system design. Role: Co-Investigator. Funding Agency: C3iHub. Duration: 2022-2025. Amount: approx INR 25 Lakhs.

- Dynamic Detection of Android Malware using Context-based Profiling and Machine Learning, Principal Investigator, Samsung R & D Division, Noida, 2019-2020, INR 31.42 Lakhs.
- Information Security Education and Awareness (ISEA), Co-Investigator, Di-ETY, Ministry of Information Technology, India, 2015-2022, INR 137 Lakhs.
- Evaluation of Design of Low-Cost Ground Instrumentation with Real-Time Monitoring for the Development of Landslide Early Warning System, Co-Investigator, NMHS, Ministry of EFCC, 2018-2021, INR 213 Lakhs.
- Delivering Secured and Energy Efficient Multimedia streaming services anywhere and anytime for Mobile Broadband Users, Principal Investigator, Railtel Telcom, India, 2014-2016, INR 33.72 Lakhs.
- Energy Efficient Multimedia Cloud Services for Mobile Devices. Role: Principal Investigator. Sponsored by: IBM, USA, Duration: 2013-2016, Amount: USD 15000.

Consultancy Projects

- Advanced Certification Program on Cyber Security in tie-up with Eckovation Technologies Ltd., New Delhi and Continuing Education Center, IIT Roorkee (Batch 5), 2023-2024, INR 45 Lakhs (Approx.)(in consultancy mode).
- Devbhoomi Cyber Hackathon. Role: Principal Investigator. Funding Agencies: Mahindra, SYSTools, iHub Divyasampark, Duration: 2022, Amount: INR 19 Lakhs.
- Advanced Certification Program on Cyber Security in tie-up with Eckovation Technologies Ltd., New Delhi and Continuing Education Center, IIT Roorkee (Batch 4), 2022-2023, Approx. INR 14 Lakhs (in consultancy mode).
- Post Graduate Certificate Course on Cloud Computing and DevOps in tieup with WileyNXT Technologies Ltd., New Delhi and Continuing Education Center, IIT Roorkee, 2021-2022, INR 32.3 Lakhs (in consultancy mode).
- Advanced Certification Program on Cyber Security in tie-up with Eckovation Technologies Ltd., New Delhi and Continuing Education Center, IIT Roorkee (Batch 3), 2021-2022, 13.75 Lakhs (in consultancy mode).
- Advanced Certification Program on Cyber Security in tie-up with Eckovation Technologies Ltd., New Delhi and Continuing Education Center, IIT Roorkee (Batch 2), 2020-2021, INR 18.54 Lakhs (in consultancy mode).

 Advanced Certification Program on Cyber Security in tie-up with Eckovation Technologies Ltd., New Delhi and Continuing Education Center, IIT Roorkee (Batch 1), 2020-2021, INR 9.5 Lakhs (in consultancy mode).

Research Guidance

- # PostDoc(s)/Research Associate or Equivalent: 04 (details given below)
 - Rama Krishna Koppanati (January 2024 onwards) Research Associate -DRDO Project.
 - Naresh Vutukuri (3/12 Months) PostDoc Samsung Project Completed.
 - Sachi Pandey (7/12 Months) PostDoc -Samsung Project Completed.
 - Jitendar Grover (3 Years) Research Associate Landslide Project Completed.

Ph.D.(s) Completed: 09 (details given below)

- 1. Anuradha Ravi (Enroll. No. 11915001): Energy Efficient Seamless Service Provisioning in Mobile Cloud Computing; Awarded: 28-12-2015
- 2. Shitala Prasad (Enroll. No. 11915006): Mobile Vision system for Plant Leaf Analysis; Co-supervisor: Prof. D. Ghosh (ECE, IITR); Awarded: 20-02-2016
- Shre Garg (Enroll. No. 10915010): Network Behavior Analysis Based Effective Detection Of Botnets; Co-supervisor: Prof. Anil K. Sarje (CSE, IITR); Awarded: 26-02-2016
- Prachi Deshpande (Enroll. No. 11926012): Security And Storage Issues In Cloud Environment; Co-supervisor: Prof. S. C. Sharma (IPT, IITR); Awarded: 26-05-2016
- Anshul Arora (Enroll. No. 14911009): Design and Development of Models for Mobile Malware Detection; Awarded: April 29, 2021
- Vikas Chouhan (Enroll. No. 14911024): Secure Deduplication, Verification, and Reliability Aspects of Cloud Storage; Awarded: August 16, 2021
- Ajay Choudhary (Enroll. No. 14911016): Data aggregation, Reliable Storage, and Decision Support Systems in Smart Agriculture; Awarded: July 03, 2024.
- 8. Animesh Kuity (Enroll. No. 15911001): cHPCe: An Efficient Resource Provisioning on Containerized HPC Environment; Awarded: July 03, 2024.

- Surabhi Sharma (Enroll. No. 17911010): Topic-Aware Load Balancing and Optimal Caching in Event-Driven Multi-Broker Networks for Edge-Assisted IoT; Awarded: July 9, 2024.
- # Ph.D.(s) Thesis In Progress: 10 (details given below)
 - 1. Abdul Kadir (Enroll. No. 18911001), Mobile Security; Status: In Progress
 - 2. Rama Krishna Koppanati (Enroll. No. 19911003), *Systems Security*; Status: Thesis Writing in Final Stage.
 - 3. Srivastava Parth (Enroll. No. 19911011), Internet of Things (IoT) and Edge Computing; Status: In Progress
 - 4. Swati Singh (Enroll. No. 20911011), Mobile Security; Status: In Progress
 - 5. Shikha Arya (Enroll. No. 20911019), Mobile Security; Status: In Progress
 - 6. Yoga B. S. (Enroll. No. 21911009), Mobile Security; Status: In Progress
 - Suvra Pattanayak (Enroll. No: 2291401), Cyber Security of Microgrids; Cosupervisor: Prof. Yogesh Vijay Hote (EEE, IITR) Status: In Progress
 - 8. Manoj Dhaka (Enroll. No. 22911011), *QoS in Mobile Ad-hoc Networks*; Cosupervisor: Prof. S.C. Sharma (E & C Discipline, IITR), Status: In Progress
 - Amogh Babu K. A. (Enroll. No. 23911001), *Mobile Security*; Status: In Progress
 - 10. Abhinav Dube (Enroll. No. 23911005), Mobile Security; Status: In Progress
- # M.Tech.(s) Completed: 48, In progress: 02 (details given below)
 - 1. (2012) Animesh Kuity : Service Level Agreement Based Grid Scheduling for Workflow Application, Supervisor: Sateesh K. Peddoju.
 - (2012) Ankur Jindal : An improved Backfill Algorithm in Cloud Metascheduler, Supervisor: Sateesh K. Peddoju.
 - 3. (2012) Monika Choudhary : A Dynamic Algorithm for Task Scheduling in Cloud Environment, Supervisor: Sateesh K. Peddoju.
 - 4. (2012) Biswajit Sinha : Fuzzy Inference System based Reputation Model for Grid Environment, Supervisor: Sateesh K. Peddoju.
 - 5. (2012) Sonam Chugh: Access Control Based Data Security in Cloud Computing, Supervisor: Sateesh K. Peddoju.
 - (2012) Anupam Burte : Virtual Machine Provisioning Based on Quality of Service Parameters, Supervisor: Sateesh K. Peddoju.

- (2012) N.V.V. Satyanarayana Reddy: Auction Based Resource Allocation in Computational Grids, Supervisor: Sateesh K. Peddoju.
- 8. (2012) Sri Krishna Chowdary K (IDD) : Secure Group Communication in Grid, Supervisor: Sateesh K. Peddoju, Co-Supervisor: Dr. Anjali Sardana.
- (2012) Harish Verma (IDD): Frequent Itemset Mining Framework Using MPI-Style WSRF Services Based on Weka4WS, Supervisor: Sateesh K. Peddoju, Co-Supervisor: Dr. Durga Toshniwal.
- 10. (2013) Tarun Sen : Identity Based Cryptography for Cloud Computing Datacenter
- 11. Aditya Mehta : Mobile AR System for Palm Principal Lines' Feature Extraction for Palmistry, Supervisor: Sateesh K. Peddoju.
- 12. (2013) Mohd Junaid : Anomaly Based Intrusion Detection System for Cloud, Supervisor: Sateesh K. Peddoju.
- 13. (2013) Nitesh Kumar Tater : Resource Provisioning in Mobile Cloud Computing using Cloudlet, Supervisor: Sateesh K. Peddoju.
- (2013) Aditi : Port scanning Attack in Cloud Environment, Supervisor: Sateesh K. Peddoju.
- 15. (2013) Ankit Jain: Offloading Android Applications to the Cloud, Supervisor: Sateesh K. Peddoju.
- (2013) Shruti Jaiswal : Denial of Service Attack Modeling in Cloud Computing, Supervisor: Sateesh K. Peddoju.
- 17. (2013) Bhupendra Kumar Teli: *Dynamic Resource Allocation for Mobile Applications*, Supervisor: Sateesh K. Peddoju.
- (2013) Jeevan Ram Meena (IDD) : A Domain Based Trust Model for Grid Environment, Supervisor: Sateesh K. Peddoju.
- Anubha Jain : Improvement of Channel Bandwidth Utilization in LEACH in Wireless Sensor Network, Supervisor: Sateesh K. Peddoju, Co-Supervisor: Prof. Manoj Misra.
- 20. (2013) Gyanesh Meena (IDD) : Designing an Energy Efficient Aggregation Technique for Wireless Sensor Networks, Supervisor: Sateesh K. Peddoju, Co-Supervisor: Dr. Vaskar Raychaudhary.
- (2014) Anshul Arora : Network Traffic Based Detection of Android Malwares, Supervisor: Sateesh K. Peddoju.
- (2014) Amit Ranjan : A Hierarchical Fault Tolerance Model for Cloud Systems, Supervisor: Sateesh K. Peddoju.

- (2014) Vikas Chandra Pandey: A Statistical and Distributed Packet Filter Against DDoS Attacks in Cloud Environments, Supervisor: Sateesh K. Peddoju.
- 24. (2014) Mallari Harish Kumar : Energy Efficient Task Scheduling for Parallel Workflows in Cloud Environment, Supervisor: Sateesh K. Peddoju.
- 25. (2014) Agraj Sharma : Response Time Based Load Balancing in Cloud Computing, Supervisor: Sateesh K. Peddoju.
- Gaurav Garkoti: Detection of Insider Attacks in Cloud Based e-Healthcare Environment, Supervisor: Sateesh K. Peddoju, Co-Supervisor: Dr. R. Balasubramanian.
- 27. (2015) Utpal Chowdhury : Detection of DDoS Attacks in Cloud Environment using Collaborative Training, Supervisor: Sateesh K. Peddoju.
- 28. (2015) Anil Pal : Reducing Frame Loss And Time In Mobile Video Transmission From Cloud, Supervisor: Sateesh K. Peddoju.
- (2015) NayanVinodkumar Intwala (IDD) : An Effective, Efficient And Highly Extensible Framework For Security-As-A-Service, Supervisor: Sateesh K. Peddoju.
- 30. (2016) Raunak Lakhwani : Fault Tolerant Convergent Key Management in Object-based Storage, Supervisor: Sateesh K. Peddoju.
- (2016) Jitender Kiraria : A Framework For Secure Transcoding Of Videos In Cloud Infrastructures, Supervisor: Sateesh K. Peddoju.
- 32. (2016) Amit Kewal: *Minimizing The Response Time Of Video Streaming Using Cloudlet*, Supervisor: Sateesh K. Peddoju.
- 33. (2016) Vijay Patidar : Offline De-Duplication On Encrypted Data Using Object Storage, Supervisor: Sateesh K. Peddoju.
- 34. (2017) Prakhar Dhama : Scalable Pattern Mining Algorithms for Large Scale Interval Data, Supervisor: Sateesh K. Peddoju.
- 35. (2017) Vindeep Singh : Docker Container Based Microservice Deployment and Management System, Supervisor: Sateesh K. Peddoju.
- (2017) Ankita Rani : Workload-Aware Energy Efficient Virtual Machine Placement Algorithm for Cloud, Supervisor: Sateesh K. Peddoju.
- 37. (2017) Maj. Varun Mahajan : Security of Cloud Environment using IDS and Honeypot Architecture, Supervisor: Sateesh K. Peddoju.

- 38. (2017) Monika Santra : Design and Implementation of Remote Attestation Protocols for Servers, Supervisor: Sateesh K. Peddoju, Co-Supervisor: Dr. Anup Battacharjee, BARC, Mumbai.
- (2019) Akriti Sood: Architecture and Framework for Edge-Assisted IoT Systems, Supervisor: Sateesh K. Peddoju.
- 40. (2019) Meenakshi Raikwar: Design and Development of Buffering Algorithm for Edge-Assisted IoT Systems, Supervisor: Sateesh K. Peddoju.
- 41. (2020) Prashanth: Malware detection using event and time based sensor data in Android devices, Supervisor: Sateesh K. Peddoju.
- 42. (2020) Alamjoth Singh: Android mobile malware detection using API calls and permissions, Supervisor: Sateesh K. Peddoju.
- 43. (2020) Anjana: Malware Detection in Android Applications based on API Sequence Analysis, Supervisor: Sateesh K. Peddoju.
- 44. (2021) Himanshu: System Call Extraction in Android Applications for Malware Detection, Supervisor: Sateesh K. Peddoju.
- 45. (2023) Anshul: Opcode Analysis for Android Malware Detection using Learning Techniques, Supervisor: Sateesh K. Peddoju.
- 46. (2023) Aman Kumar Malik: Analysis of Android Applications using Permissions and Intents for Malware Detection, Supervisor: Sateesh K. Peddoju.
- 47. (2024) Anubhav Singh: Binary Image Based Static Android Malware Detection Using Deep Learning, Supervisor: Sateesh K. Peddoju.
- 48. (2024) Anjali Verma: PermInAPI: Android Malware Detection using Permissions, Intents and API Calls, Supervisor: Sateesh K. Peddoju.
- 49. (2025) Piyush Tayal : *Mobile Security Ongoing*, Supervisor: Sateesh K. Peddoju.
- 50. (2025) Harsh Gour (PT) : *Mobile Security Ongoing*, Supervisor: Sateesh K. Peddoju.

Selected B. Tech Projects Completed (details given below)

- Rohit Kumar, Brajesh Kumar, and T. Revanth Kumar: 1. Data Analysis for Landslide Early Warning System; Period: 2018-19
- 2. Kodali Sudeep Kumar, Bandla Rakesh, and Sairaj Naik: Web and Mobile Interface for Landslide Early Warning System; Period: 2018-19

- 3. Akhil KMV, Avinash Naik, and Ankit Saybu: *Procurement and analysis of Data for Landslide Prediction*; Period: 2018-19
- 4. Anoop Singh: Load Balancing in Publish/ Subscribe Distributed System; Period: 2019-20
- Nikunj Gupta: Asynchronous Many-Task Systems for Performant Linear Algebra Kernels and Low Overhead Software Resilience; Period: 2020-21. (Best Thesis Award) Co-supervision: Prof. Laxmikant V. Kale, <u>UIUC, USA</u>, and Prof. Hartmut Kaiser, LSU, USA.
- Pradhumna Rathore, Mula Ram, and Atul Sinha: Deep Learning Hybrid Model using AutoEncoder and Deep Belief Networks For Android Security; Period: 2021-22.
- 7. Ajay Dayma, and Kishan Kumar: VDC: Virtual Doctor Consultation Platform for COVID-19 and other Patients; Period: 2020-21.
- 8. Suraaj K. S.: *Microarchitectural attacks on Optane Persistent Memory*; Period: 2021-22. Co-supervisor:Prof. Samira Khan, University of Virginia, USA
- 9. Leshna Balara, Gurdeep Singh Oberoi, and Shubhang Tripathi: Analysis of Distributed Tracing Tooling; Period: 2021-22.
- 10. Amaresh Taduvai, Vishal Reddy Kallu, and Sampath Kovvuri: Android Malware Detection, Period: 2021-22.
- Kurapati Praneeth, and Balne Niteesha: Android Malwares and Family Detection, Period: 2021-22.

List of Publications

Journals

Major Revision

27. Abdul Kadir, and Sateesh K. Peddoju, "PacDroid: Lightweight Android Malware Detection using Permissions and Intent Features," Multimedia Tools and Applications. [Major Revision], (SCIE, Scopus)(IF=3.0) JCI Rank:Q1. (Abdul Kadir is the Ph.D. student working with Sateesh K. Peddoju)

Published

 Surabhi Sharma, and Sateesh K. Peddoju, "Efficient Multi-broker Load Balancing in Event Driven Pub-Sub Networks," IEEE Transactions on Network and Service Management. [Published Online], (SCIE, Scopus)(IF=5.3) <u>JCI Rank:Q1</u>. DoI:https://doi.org/10.1109/tnsm.2024.3401484

(Surabhi Sharma is the Ph.D. student working with Sateesh K. Peddoju)

- Animesh Kuity, and Sateesh K. Peddoju, "Investigating performance metrics for container-based HPC environments using x86 and OpenPOWER systems," Journal of Cloud Computing Vol. 12, No. 128, 2023 (SCIE, Scopus)(IF=5.43) JCI Rank:Q1. DoI: https://doi.org/10.1186/s13677-023-00546-z (Animesh Kuity is the Ph.D. student working with Sateesh K. Peddoju)
- 24. Ajay Chaudhary, Sateesh K. Peddoju, and V. Chouhan "Secure Authentication and Reliable Cloud Storage Scheme for IoT-Edge-Cloud Integration," Journal of Grid Computing 21 (3), 35, 2023 (SCIE, Scopus)(IF=4.674) <u>JCI Rank:Q1</u>. DOI: https://doi.org/10.1007/s10723-023-09672-z (Ajay Chaudhary, and Vikas Chouhan are the Ph.D. students working with Sateesh K. Peddoju)
- 23. Animesh Kuity, and Sateesh K. Peddoju, "pHPCe: a hybrid power conservation approach for containerized HPC environment," Journal of Cluster Computing (online), 2023 (SCIE, Scopus)(IF=2.303) JCI Rank:Q2. DOI: https://doi.org/10.1007/s10586-023-04105-8 (Animesh Kuity is the Ph.D. students working with Sateesh K. Peddoju)
- 22. Vikas Chouhan, Sateesh K. Peddoju, and Rajkumar Buyya "dualDup: A secure and reliable cloud storage framework to deduplicate the encrypted data and key," Journal of Information Security and Applications (2022), Volume 69, September 2022, 103265 (SCIE, Scopus)(IF=4.96) JCI Rank:Q1. DOI: https://doi.org/10.1016/j.jisa.2022.103265 (Vikas Chouhan is the Ph.D. student working with Sateesh K. Peddoju)
- 21. Aparna Tomar, Preeti Mishra, Rahul Bisht, and Sateesh K. Peddoju "A Step Towards Generation of DoS/DDoS Attacks Dataset for Docker-Centric Computing," International Journal of Mathematical, Engineering and Management Sciences (2022), Volume 7(1), 81-91, 2022 JCI Rank:Q2 DOI: https://doi.org/10.33889/ijmems.2022.7.1.006 (Preeti Mishra is collaborator of Sateesh K. Peddoju. Other two are her students.)

- Vishnoi, Aayush, Preeti Mishra, Charu Negi, and Sateesh Kumar Peddoju. "Android malware detection techniques in traditional and cloud computing platforms: A state-of-the-art survey." International Journal of Cloud Applications and Computing (IJCAC) 11, no. 4 (2021): 113-135. DOI:https://doi.org/10.4018/IJCAC. 2021100107
- Prasad, Shitala, Sateesh K. Peddoju, and Debashis Ghosh. "Agriculture as a service." IEEE Potentials 40, no. 6 (2021): 34-43. DOI: https://doi.org/10.1109/ MPOT.2015.2496327.
 (Dr. Shitala Prasad did his Ph.D. Thesis With Sateesh K. Peddoju and Dr. Debashis Ghosh is the colleague to Sateesh K. Peddoju and is the Co-Supervisor to Shitala Prasad).
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Problem Solving (SocPros-2013), **IIT Roorkee**, India, December 26-28, 2013, Advances in Intelligent Systems and Computing, Vol 259, 2014, pp. 635-647, **Springer**. DOI: https://doi.org/10.1007/978-81-322-1768-8_56.

(Prachi Deshpande did her Ph.D. thesis work with Dr. Subhash C. Sharma. Sateesh K. Peddoju is the colleague to Dr. Subhash C. Sharma and is the Co-Supervisor to Prachi Deshpande)

 A. Ravi and Sateesh K. Peddoju, "Energy efficient seamless service provisioning in mobile cloud computing," in The 7th International Symposium on Service Oriented System Engineering (SOSE), Redwood City, USA, March 25-28, 2013, pp. 463-471, IEEE.

DOI: https://doi.org/10.1109/SOSE.2013.67.

(Dr. Anuradha Ravi did her Ph.D. Thesis with Sateesh K. Peddoju)

 S. Prasad, Sateesh K. Peddoju, and D. Ghosh, "Mobile plant species classification: a low computational approach," in The 2nd International Conference on Image Information Processing (ICIIP-2013), Shimla, India, December 9-11, 2013, pp. 405-409, IEEE.

DOI: https://doi.org/10.1109/ICIIP.2013.6707624.

(Shitala Prasad did his Ph.D. thesis work with Sateesh K. Peddoju, Dr. Debashis Ghosh is the colleague to Sateesh K. Peddoju and is the Co-Supervisor to Shitala Prasad)

 S. Prasad, Sateesh K. Peddoju, and D. Ghosh, "Unsupervised resolution independent based natural plant leaf disease segmentation approach for mobile devices," in The 5th IBM workshop on Collaborative Academia Research Exchange (CARE), New Delhi, India, October 17-19, 2013, Article 11(4 Pages), ACM. DOI: https://doi.org/10.1145/2528228.2528240.

(Shitala Prasad did his Ph.D. thesis work with Sateesh K. Peddoju, Dr. Debashis Ghosh is the colleague to Sateesh K. Peddoju and is the Co-Supervisor to Shitala Prasad)

 S. Prasad, Sateesh K. Peddoju, and D. Ghosh, "Mobile augmented reality based interactive teaching & learning system with low computation approach," in The IEEE Symposium on Computational Intelligence in Control and Automation (CICA), Singapore, April 16-19, 2013, <u>ERA Rank: C</u>, pp. 97-103, IEEE. DOI: https://doi.org/10.1109/CICA.2013.6611669.

(Shitala Prasad did his Ph.D. thesis work with Sateesh K. Peddoju, Dr. Debashis Ghosh is the colleague to Sateesh K. Peddoju and is the Co-Supervisor to Shitala Prasad)

 A. Mehta, S. Prasad, and Sateesh K. Peddoju, "Improved Connected Region Based Approach for Extraction of Principal Lines from Palm Images," in The International Conference of Image and Signal Processing, Bangalore, India, August 9-11, 2013, Science and Technology, Volume 4, pp. 104-112. <u>Best Paper Award</u>, Elsevier.

Link: https://www.searchdl.org/Resources/Public/Conf/2013/elsevierst4/ ICSIP12.pdf

(Aditya Mehta did his M.Tech to Sateesh K. Peddoju. Shitala Prasad did his Ph.D. thesis work with Sateesh K. Peddoju.) .

- Prasad, Shitala, Sateesh K. Peddoju, and Debashis Ghosh. "AgroMobile: A Cloud-Based Framework for Agriculturists on Mobile Platform ". International Journal of Advanced Science and Technology 59 (2013): 41-52. DOI: 10.14257/ijast.2013.59.04 (Shitala Prasad did his Ph.D. thesis work with Sateesh K. Peddoju.)
- A. Jain, M. Mishra, Sateesh K. Peddoju, and N. Jain, "Energy efficient computinggreen cloud computing," in The International Conference on Energy Efficient Technologies for Sustainability (ICEETS), Nagercoil, India, April 10-12, 2013, pp. 978-982, IEEE.

DOI: https://doi.org/10.1109/ICEETS.2013.6533519. (Anubha Jain did her M. Tech. Thesis with Dr. Manoj Misra, and Sateesh K. Peddoju is the Co-Supervisor to her, Nitin Jain is the collaborator from NIT Suratkal)

 S. Garg, A. K. Singh, A. K. Sarje, and Sateesh K. Peddoju, "Behaviour analysis of machine learning algorithms for detecting P2P botnets," in The 15th international conference on Advanced computing technologies (ICACT), Rajampet, India, September 21-22, 2013, pp. 1-4, IEEE.

DOI: https://doi.org/10.1109/ICACT.2013.6710523.

(Shree Garg did her Ph.D. thesis work with Dr. Anil K. Sarje. Sateesh K. Peddoju is the colleague to Dr. Anil K. Sarje and is the Co-Supervisor to Shree Garg)

- 6. A. Ravi and Sateesh K. Peddoju, "Energy Efficient Seamless Service Provisioning in Mobile Cloud Computing," 2013 IEEE Seventh International Symposium on Service-Oriented System Engineering, San Francisco, CA, USA, 2013, pp. 463-471, IEEE. DOI: https://doi.org/10.1109/SOSE.2013.67.
 (Dr. Anuradha Ravi did her Ph.D. Thesis with Sateesh K. Peddoju)
- Choudhary, Monika, and Sateesh Kumar Peddoju. "A dynamic optimization algorithm for task scheduling in cloud environment". International Journal of Engineering Research and Applications (IJERA) 2.3 (2012): 2564-2568.

- V. Chouhan and Sateesh K. Peddoju, "Hierarchical storage technique for maintaining hop-count to prevent ddos attack in cloud computing," in The International Conference on Advances in Computing, Bangalore, India, July 4-6, 2012, Advances in Intelligent Systems and Computing, Vol 174. pp. 511-518, Springer. DOI: https://doi.org/10.1007/978-81-322-0740-5_62. (Vikas Chouhan did his M. Tech. Thesis with Sateesh K. Peddoju)
- H. Verma, D. Toshniwal, and Sateesh K. Peddoju, "Distributed frequent itemset mining framework for incremental data using MPI-style WSRF services," in The International Conference on Advances in Computing, Communications and Informatics (ICACCI-2012), Chennai, India, August 3-5, 2012, pp. 74-81, ACM. DOI: https://doi.org/10.1145/2345396.2345409. (Haris Verma did his M. Tech. Thesis with Dr. Durga Toshniwal, and Sateesh K. Peddoju is the Co-Supervisor to him)
- V. Chouhan and Sateesh Kumar Peddoju. "Packet monitoring approach to prevent DDoS attack in cloud computing," ICCC-2012 1 (2012): 37. (Vikas Chouhan did his M. Tech. Thesis with Sateesh K. Peddoju)
- S. Prasad, A. Prakash, Sateesh K. Peddoju, and D. Ghosh, "Control of computer process using image processing and computer vision for low-processing devices," in The International Conference on Advances in Computing, Communications and Informatics (ICACCI-2012), Chennai, India, August 3-5, 2012, pp. 1169-1174, ACM. DOI: https://doi.org/10.1145/2345396.2345583.

(Shitala Prasad did his Ph.D. thesis work and Abhay Prakash did his M.Tech thesis work with Sateesh K. Peddoju, Dr. Debashis Ghosh is the colleague to Sateesh K. Peddoju and is the Co-Supervisor to Shitala Prasad)

Books Authored

 Prachi Deshpande, S. C. Sharma, Sateesh K. Peddoju, "Security and Data Storage Aspect in Cloud Computing," Springer Series in Studies in Big Data, Springer– Verlag, Berlin–Heidelberg, Germany, 2018.

DOI: https://doi.org/10.1007/978-981-13-6089-3.

(Dr. Prachi Deshpande did her Ph.D. thesis work with Dr. Subhash C. Sharma. Sateesh K. Peddoju is the colleague to Dr. Subhash C. Sharma and is the Co-Supervisor to Dr. Prachi Deshpande)

Books Edited

 M. Seetha, Sateesh K. Peddoju, Vishnu Pendyala, and Vedula VSSS Chakravarthy,, *"Proceedings of 6th International Conference on Intelligent Computing and Communication - ICICC 2022,"* Advances in Intelligent Systems and Computing, Springer, 2023

 2023

DOI: https://link.springer.com/book/9789819915873.

- 7. Rajendra Prasad Mahapatra, Sateesh K. Peddoju, Sudip Roy, and Pritee Parwekar, "Proceedings of 8th International Conference on Recent Trends in Computing ICRTC 2022," Lecture Notes in Networks and Systems, Springer, 2022 DOI: https://doi.org/10.1007/978-981-19-8825-7.
- Ritika Mehra, Phayung Meesad, Sateesh K. Peddoju, and Dhajvir S. Rai, "Proceedings of International Conference, ICCISC 2022," Computational Intelligence and Smart Communication, Springer, 2022 DOI: https://doi.org/10.1007/978-3-031-22915-2.
- 5. Sateesh K. Peddoju, Guest Associate Editor, "Journal of Computer Science and Technology, Special Section: IEEE MASS," Springer (SCIE, DBLP, Web of Science) (Impact Factor: 2.58)
- Sudhanshu Maurya, Sateesh K. Peddoju, Badlishah Ahmad, and Ines Chihi, "Proceedings of Cyber Technologies and Emerging Sciences: ICCTES 2021," Lecture Notes in Networks and Systems, Springer, 2021. DOI: https://doi.org/10.1007/978-981-19-2538-2.
- Rajendra Prasad Mahapatra, Sateesh K. Peddoju, Sudip Roy, Pritee Parwekar, and Lavika Goel, "Proceedings of 7th International Conference on Recent Trends in Computing - ICRTC 2021," Lecture Notes in Networks and Systems, Springer, 2021.

DOI: https://doi.org/10.1007/978-981-16-7118-0.

- C. M. Bhatt, Sateesh K. Peddoju, "Cloud Computing Systems and Applications in Healthcare," IGI Publisher, 2017. DOI: https://doi.org/10.4018/978-1-5225-1002-4.
- P. Suresh Kumar, Sateesh K. Peddoju, S. A. Moiz, Editorial Board of Proceedings of the National Workshop on Mobile Computing, Organized by Osmania University, Hyderabad held during 5th – 7th June, 2008.

Book Chapter

 Ajay Chaudhary, Sateesh K Peddoju and S K Peddoju, "Cloud based wireless infrastructure for health monitoring," Book Chapter, IGI Global Cloud Computing Systems and Applications in Healthcare (Virtual and Mobile Healthcare: Breakthroughs in Research and Practice), Pages 19-46, 2020, DOI: https://doi.org/10.4018/978-1-5225-9863-3.ch003 (Ajay Chaudhary is the Ph.D. student with Sateesh K. Peddoju)

Professional Services

- 1. Workshop Chair, 17th edition of the IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS), September 23-25, 2024, Seoul, South Korea.
- 2. Session Chair, IEEE International Conference On Electrical, Electronics, Communication and Computers (ELEXCOM-23), August 26-27, 2023, IIT Roorkee, India.
- 3. Publicity Co-Chair, The 10th International Conference on Big Data Analytics (BDA-2022), December 19-22, 2022, IIIT, Hyderabad, India.
- 4. Editorial Board, 6th International Conference on Intelligent Computing and Communication (ICICC-22), November 18-19, 2022, Hyderabad, India.
- Technical Program Co-Chair, First International Conference on Computational Intelligence and Smart Communication (ICCISC 2022), June 10–11, 2022, Dehradun, India.
- 6. **Program Co-Chair**, 8th International Conference on Recent Trends in Computing (ICRTC 2022), June 03-04, 2022, Ghaziabad, Delhi NCR, India.
- Program Co-Chair, 7th International Conference on Recent Trends in Computing (ICRTC 2021), June 04-05, 2021, Ghaziabad, Delhi NCR, India (virtual conference).
- 8. **Program Co-Chair**, International Conference on Cyber Technologies and Emerging Sciences (ICCTES 2021), December 17-18, 2021, Bhimtal, India (virtual conference).
- Program Chair, Organizing Chair, and Web Chair, 17th edition of the IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS) (IEEE MASS 2020), (CORE/ERA Ranking: B) October 01-04, 2020, GNEC, IIT Roorkee, Delhi NCR, India (virtual conference).

- TPC, 5th IEEE International Workshop on Pervasive Context-Aware Smart Cities and Intelligent Transportation Systems (IEEE PerAwareCity 2020) In conjunction with 18th IEEE PerCom which is a premiere conference in Pervasive Computing and Communications (PerCom-2020) (CORE/ERA Ranking: A*), March 23-27, 2020, Austin, TX, USA.
- General Co-Chair, The IEEE Third International Workshop on Data Science Engineering and its Applications (DSEA 2019) In conjunction with The Sixth IEEE International Conference on Social Networks Analysis, Management and Security (SNAMS-2019), October 22-25, 2019, Granada, Spain.
- 12. General Chair and Steering Committee Chair, Second International Workshop on Smart Living with IoT, Cloud, and Edge Computing (SLICE 2019), in conjunction with The Fourth IEEE International Conference on Fog and Mobile Edge Computing (FMEC 2019) and The Sixth International Conference on Software Defined Systems (SDS-2019), June 10-13, 2019, Rome, Italy.
- 13. TPC, Fourth IEEE International Workshop on Pervasive Context-Aware Smart Cities and Intelligent Transportation Systems (IEEE PerAwareCity 2019) In conjunction with 17th IEEE PerCom which is a premiere conference in Pervasive Computing and Communications (PerCom2019) (CORE/ERA Ranking: A*), March 11-15, 2019, Kyoto, Japan.
- TPC, 2nd ISEA International Conference on Security & Privacy 2018 (ISEA ISAP 2018), January 09-13, 2019, MNIT, Jaipur, India.
- General Co-Chair, The IEEE Second International Workshop on Data Science Engineering and its Applications (DSEA 2018) In conjunction with The Fifth IEEE International Conference on Social Networks Analysis, Management and Security (SNAMS-2018), October 15-18, 2018, Valencia, Spain.
- Program Committee Member, IEEE International Symposium on Smart Electronic Systems (iSES 2018). Track - Hardware/Software for Internet of Things and Consumer Electronics, December 17-19, 2018, Hyderabad, India.
- Workshop Co-Chair, The IEEE Fifth International Conference on Internet of Things - Systems, Management and Security (IoTSMS 2018), October 15-18, 2018, Valencia, Spain.

Program Committee Member, *The 15th IEEE International Conference on Ad*vanced and Trusted Computing (IEEE ATC 2018), October 8-12, 2018, Guangzhou, China.

- Program Committee Member, The 2nd IEEE International Workshop on 5G in Internet of Things (5G-IoT 2018) as part of The 43rd IEEE Conference on Local Computer Networks (LCN), October 1-4, 2018, Chicago, USA.
- General Chair, IEEE International Workshop on Smart Living with IoT, Cloud, and Edge Computing (SLICE 2018), in conjunction with The Third IEEE International Conference on Fog and Mobile Edge Computing (FMEC 2018), April 23-26, 2018, Barcelona, Spain.

Program Committee Member, International Conference on Innovative Technologies in Engineering (ICITE 2018), April 11-13, 2018, Hyderabad, India.

- Publication and EDAS Co-Chair, The Six IEEE International Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA) in conjunction with IEEE Mobile Adhoc and Sensor Systems (MASS 2017), October 22-25, 2017, Orlando, FL, USA.
- Session Chair, The Six IEEE International Workshop on Cloud Computing Systems, Networks, and Applications (CCSNA) in conjunction with IEEE Mobile Adhoc and Sensor Systems (MASS 2017), October 22-25, 2017, Orlando, FL, USA.
- 22. Program Committee Member, The 14th IEEE Conference on Advanced and Trusted Computing (ATC-2017), August 4-8, 2017, San Francisco Bay Area, USA.
- Program Committee Member, First International Workshop on Artificially Intelligent Smart SocieTies (AIST2017), 3rd IEEE International Conference on Smart Computing (SMARTCOMP 2017), May 29-31, 2017, Hong Kong.
- Program Committee Member, Hardware/Software for Internet of Things and Consumer Electronics Track in 3rd IEEE International Symposium on Nanoelectronic and Information Systems (IEEE-iNIS), 18-20 December, 2017, Bhopal, India.
- Program Committee Member, 2018 8th International Conference on Cloud Computing, Data Science & Engineering- Confluence 2018, January 11-12, 2018, Noida, India.
- Program Committee Member, Asia Security and Privacy Conference 2017 (Asia S&P 2017), Jan 30th - Feb 1st, 2017, SVNIT Surat, India.
- 27. Program Committee Member, Confluence-2016: GLOBAL Technology, Innovation & Entrepreneurship Summit 2016 (Global TIE Summit 2016), 6th Inter-

national Conference on Cloud System and Big Data Engineering, Confluence, 14-15, January, 2016, Noida, Delhi-NCR, India

- Program Committee Member, Fifth International Conference on Communication Systems and Network Technologies (CSNT), 4-6, April, 2015, Gwalior, India
- 29. Program Committee Member, *IEEE 14th International Conference on Infor*mation Technology (ICIT), 21-23, December, 2015, Bhubaneshwar, India
- Technical Program Committee Member, IEEE Region 10 Technical Symposium 2015 (TENSYMP), 13-15, May, 2015, Ahmedabad, Gujarat, India
- Technical Program Committee Member, Fifth International Conference on Communication Systems and Network Technologies (CSNT), 4-6, April, 2015, Gwalior, India.
- Session Chair, International Conference on Computing and Communication Technologies (ICCCT), 11-13, December, 2014, Dept. of CSE, Osmania University, Hyderabad (Held at Novotel Hotel), India
- Technical Program Committee Member, International Conference on Computing and Communication Technologies (ICCCT), 11-13, December, 2014, Dept. of CSE, Osmania University, Hyderabad, India
- Program Committee member of Communication Networks and Protocols, 13th International Conference on Information Technology (ICIT), 22-24, December, 2014, Bhuvaneshwar, India
- 35. Track Chair, Multimedia Communication Systems and Networks (MCSN) track of the 2nd International Conference on Telecommunication Systems and Networks
 - MIC-Telecom 2014, Istanbul, Turkey, 19-21 December 2014
- Program Committee Member, 5th International Conference Confluence 2014 The Next Generation Information Technology Summit (Confluence-2014), 25-26, September, 2014, Amity University, Noida, U.P., India
- Technical Program Committee Member, Green Computing and Communication Track, 2nd International Conference on Computer Science and Engineering (MIC-Computing 2014), 15-17, August, 2014, Milan, Italy.
- Technical Program Committee Member, Second International Symposium on Security in Computing and Communications (SSCC'14), 24-27, September, 2014, Galgotias Educational Institutions, Greater Noida, India

- Technical Program Committee Member, 4th International Conference on Advances in Computing, Communications and Informatics, 10-13, August, 2014, Kochi, Kerala, India.
- Session Chair, IEEE International Conference on Security and Reliability (SERE) held during 18-20 June, 2013 at National Institute of Science and Technology (NIST), Gaithersburg, Washington DC, USA
- 41. Advisory Board Member, National Conference on National conference on Advances in Computing, Networking and Security to be held during 23rd and 24th December 2013, Sri Guru GovindSinghji Institute of Engineering and Technology, Nanded, Maharastra, India
- 42. Advisory Board Member, National Conference on Wireless Communication and Embedded Systems (NCWCE – 2013) held on 23, February 2013, at Department of Electronics and Communications Engineering, Jayalaxmi Institute of Technology, Dharmapuri, Tamilnadu.
- 43. Advisory Board Member, National Conference on Emerging Technologies in Computer Science (ETCS-12) held during 20-21, October, 2012 at Department of CSE, IT and MCA, Noida Institute of Engineering and Technology (NIET), Greater Noida, India.
- Session Chair, Joint UACEE International Conference on Pervasive Computing and Communications (PCC 2012) and Second International Conference on Computing, Control and Communication (CCN-2012), 17th June, 2012, NCR-Delhi, India
- Organizing Committee, National Workshop on Cloud Computing and Security Issues, 12th -13th July, 2012, Department of CSE, Osmania University, Hyderabad, India
- Session Chair, The 2012 FTRA International Conference on Advanced IT, engineering Management for Industrial Technology (FTRA AIM 2012), February 6-8, Hana Square, Korea University, Seoul, Korea.
- Program Committee, IEEE International Conference on Communication Systems and Network Technologies (CSNT-2012), (10th – 14th May, 2012), Rajkot, India.
- Program Committee, International Conference on Computational Intelligence and Communication Networks (CICN 2011), (7th – 9th October, 2011) Gwalior, India

 Technical Program Committee, Second Vaagdevi IEEE Conference on IT for Real World Problems (9th – 11th December, 2010), Warangal, India

Administrative Services

- 1. Head (1-12-2023 to Till Date), Institute Computer Center (ICC), IIT Roorkee.
- 2. Member (01-12-2023 to Till Date), Department Faculty Search Committee.
- 3. Member (11-02-2021 to Till Date), Committee for Developing Ecosystem of Institute Cyber Security, IIT Roorkee.
- 4. **Member** (24-08-2021 to Till Date), Department Academic Programme Committee (DAPC).
- 5. Member (24-8-2021 to Till Date), Department Administrative Committee.
- 6. Faculty Advisor (29-6-2022 to Till date), M. Tech (CSE) II Year.
- 7. Member (24-8-2021 to Till Date), Department Space Committee.
- 8. Member (24-8-2021 to Till Date), Department Safety Committee.
- 9. Member (24-8-2021 to Till Date), Department Purchase Committee.
- 10. Member (2022 to Till Date), Anti-Ragging Committee.
- 11. Officer-in Charge (September 2011 to Till Date), High-Performance Computing (HPC) Lab.
- 12. Member (02-09-2021 to 31-12-2022), Department Faculty Search Committee.
- 13. Officer-in Charge (1-1-2021 to 31-12-2022) Department Examinations.
- 14. Member (15-11-2018 to 31-12-2020), Department Research Committee (DRC).
- 15. Convener (14-05-2018 to 14-5-2020), Department Faculty Search Committee.
- Member (16-08-2017 to July 2018), Institute Technical Committee for E-mail Services.
- 17. **Member** (November, 2016 to 15-11-2018), Institute Academic Programme Committee (IAPC).
- 18. Member (01-02-2017 to 2018), Institute Material Disposal Committee.

- Staff Advisor (2013-2017), Web Design/Software Development Section, Hobbies Club.
- 20. **Member** (November 2016 to 15-11-2018), Department Academic Programme Committee (DAPC).
- 21. Member (20-Jan-2015 to Till Date) Department Purchase Committee.
- 22. Member (29-08-2014 to August 2016), Department Administrative Committee.
- 23. Officer-in-Charge (November 2015 to Till Date), M.Tech Programme.
- 24. Officer-in-Charge (September 2013 to January 2015) Department Examinations.
- 25. Officer-in-Charge (September 2013 to October 2015) Department Time Tables.
- 26. Officer-in Charge (March 2011 to January 2015), Computer Lab II.
- 27. Member (09-09-2011 to 31-08-2013), Department Research Committee (DRC).
- 28. Outside IIT Roorkee
 - Head (July 2007 to December 2010), Department of Information Technology.
 - **Head** (May 2005 to June 2006), Departments of Computer Science & Engineering and Information Technology.
 - In-charge (October 1997 to October 1999), Department of Computer Science & Engineering.
 - Chairperson (December 2005 to July 2008), Online Examinations
 - JKC College Coordinator (June 2006 August 2006) at various Engineering Colleges.

Invited Talks

- June 28, 2024, Keynote talk in International Conference on Computational Intelligence and Data Analytics(ICCIDA-2024), June 28-29, 2024, Hyderabad, INDIA (Talk Title: Load Balancing and Caching Approaches in Edge-Assisted IoT).
- May 9, 2024: Invited Talk in One Week Short-Term Course (STC) on, "Data Analytics and Machine Learning using Business Intelligence Tools - Batch 2", IIT Roorkee, India, during May 6-10, 2024 (Talk Title: Cyber Crimes and Cyber Security).

- April 24, 2024: Invited Talk in One Week Short-Term Course (STC) on, "Data Analytics and Machine Learning using Business Intelligence Tools - Batch 1", IIT Roorkee, India, during April 22-26, 2024 (Topic: Cyber Crimes and Cyber Security).
- March 14, 2024: Keynote Talk in One Week Online Short-Term Course (STC) entitled, "Machine Learning and Deep Learning for Real Time IoT Applications", NIT Jalandhar, India, during March 14-18, 2024 (Topic: AI, ML, and DL in Healthcare).
- 5. January 13, 2024: Keynote Talk in ATAL FDP with the title "Deep Learning: Fundamentals and case studies in Healthcare", Punjab Engineering College (PEC), Chandigarh, India, during January 08-13, 2024 (Topic: AI, ML, and DL in Healthcare).
- December 18, 2023: Keynote Talk in ATAL FDP with the title "Deep Learning-Enabled Intelligent Diagnosis System for Retinal Vein Occlusion: Redefining Diagnostic Accuracy", G. Narayanamma Institute of Technology & Science (GNITS), Hyderabad, India, during December 18-23, 2023 (Topic: AI, ML, and DL in Healthcare).
- September 9, 2023: Keynote Talk in 3rd International Conference on Innovative Sustainable Computational Technologies (CISCT2023), Graphic Era University, Dehradun, India, during September 08-09, 2023 (Topic: Agriculture-as-a-Service).
- June 23, 2023: Invited Talk in Online Short-Term Course on Emerging Technologies in Cloud, IoT, UAV, and Satellite Networks (ETCIUS-2023), during June 19-23, 2023 (Topic: Cloud Storage Aspects).
- March 9, 2023: Keynote Talk in Online Faculty Development Programme on Advances in Smart Cities and IoT, Deenbandhu Chhotu Ram University of Science & Technology, Murthal, during March 06-17, 2023 (Topic: Advances in IoT).
- December 16, 2022: Invited Talk in Online Faculty Development Programme on Cloud Computing and Its Applications: Opportunities and challenges, Dr. BR Ambedkar NIT Jalandhar, during December 16-20, 2022 (Topic: IoT and Cloud for Better Future).
- 11. November 21, 2022: Invited Talk at Devbhoomi Uttarakhand University, Dehradun on November 21, 2022 (Topic: IoT and Edge Computing: Concepts and Use Cases).
- December 18, 2021: Keynote International Conference on Cyber Technologies and Emerging Sciences (ICCTES 2021), GE Hill Univ., Bhimtal. During December 17-18, 2021 (Topic: Design and Development of Models for Mobile Malware Detection).

- December 9, 2021: Invited Talk in AICTE-ISTE Orientation/Refresher programme on IoT & applications, Govt. EC, Bikaner, during 09-15 December 2021 (Topic: Research Opportunities & Challenges in IoT).
- December 6, 2021: Invited Talk in AICTE-ISTE Faculty Refresher on *Embedded Systems, IoT, Pervasive Computing* at Talla Padmavathi College of Engineering, Warangal from December 6-11, 2021 (Topic: Introduction to Embedded Systems, IoT and Pervasive Computing).
- November 23, 2021: Panel Chair (Moderator) in DSCI SERI Conference Panel Discussion (Topic: Security and Scale, Volume & Velocity ... Security Paradigm in Cloud).
- November 18, 2021: Invited Talk in Web based Technology program on Cloud Computing at BEL Academy for excellence, Nalanda, November 16-18, 2021 (Topic: Security and Privacy issues in the Cloud).
- 17. October 25, 2021: Invited Talk in Five-Day ATAL FDP on *Internet of Things and Human-Computer Interaction*, NIT Goa, 25-29 October 2021 (Topic: IoT Overview and Advances).
- 18. October 22, 2021: Invited Talk in ATAL FDP on *Cybersecurity & Digital Forensics*, VRSEC Vijayawada, 26-30 July, 2021. (Topic: Cyber Security & Challenges).
- October 19, 2021: Invited Talk in ATAL FDP on Recent Trends in Cyber Security & Forensics from 18th-28th Oct 2021. (Topic: Wireless and IOT Security).
- October 18, 2021: Invited Talk in ATAL FDP on *Cloud Forensics: Techniques, Challenges and Research Directions* held at NIT Sikkim on 18-22 October 2021 (Topic: Cloud Security and IDS in Virtual Firewall).
- 21. September 30, 2021: EICT ISEA FDP on *Information Security*, IIT Roorkee, September 27 - October 1, 2021, (Topic: IoT Security).
- September 28, 2021: Invited Talk in EICT ISEA FDP on *Information Security*, IIT Roorkee, September 27 - October 1, 2021, (Topic: Cloud Security).
- September 12, 2021: Keynote 1st International Conference on Applied Mathematics, Modeling and Simulation in Engineering (AMSE) 2021, Stanley College of E&T for Women, Hyderabad, September 12, 2021 (Topic: Design and Development of Models for Mobile Malware Detection).

- 24. September 7, 2021: Invited Talk in *Induction Programme* 2021, SRM Noida, September 7, 2021 (Topic: Internet of Things).
- August 27, 2021: Invited Talk in ATAL FDP on A Blend of IoT, Cyber Security and Blockchain conducted by NIT Silchar from 23rd to 27th August 2021. (Topic: IoT Security).
- 26. July 26, 2021: Invited Talk in ATAL FDP on *Cybersecurity & Digital Forensics*, VRSEC Vijayawada, 26-30 July, 2021. (Topic: Cyber Security & Challenges).
- July 21, 2021: Invited Talk in EICT course on *Blockchain and IoT*, NIT Warangal & Vaasavi CoE, Hyderabad, during July 12-22, 2021 (Topics: 1. IoT & Edge Computing, 2. IoT Security).
- July 19, 2021: Invited Talk in Faculty Development Program on Cloud Computing Security Challenges and Solutions, SCMS School of E&T, Karukutty, Kerala, held during July 19-24, 2021 (Topic: Cloud Security).
- June 28, 2021: Invited Talk in ATAL FDP on Soft Computing, Machine Learning, Applications held during June 24-28, 2021, NIT Warangal & LKBR CoE, Hyderabad, Telangana, India (Topic: Machine Learning for Mobile Malware Detection).
- 30. June 22-23, 2021: Invited Talk in QIP STC on Software Defined Networks and its Applications held during June 22 July 2, 2021, IIT Bhubaneshwar, India (Topics: 1. Introduction to Cloud Computing and Security, and 2. Introduction to IoT and Mobile Security).
- March 18, 2021: Guest Talk in Online Induction-Refresher Programme on Recent Trends in Embedded Systems held during March 18-24, 2021, KITS Ramtek, Maharastra, India
- March 12, 2021: Invited Talk in TEQIP-III Sponsored Five Days Online Faculty Development Programme on Next Generation Computing and Networking held during March 8-12, 2021, NIT Uttarakhand, India.
- 33. March 08, 2021: Guest Talk in FDP on Advancements in Cyber Security held during March 8-12, 2021, The ICFAI Foundation for Higher Education (IFHE), Hyderabad, Telangana, India.
- 34. February 2, 2021: Guest Talk on *Internet of Things: Mathematical Relevance*, Geethanjali College of Engineering and Technology, Hyderabad, Telangana, India.

- 35. January 19, 2021: Invited Talk in AICTE Training and Learning (ATAL) sponsored online FDP on *Cyber Security* held during January 18-22, 2021, Osmania University, Hyderabad, Telangana, India.
- Jan 9-10, 2021: Invited Talk in FDP on *Cyber Security* held during January 2—11, 2021, NIT Warangal and Vel Tech, Tamil Nadu, India.
- 37. December 21, 2020: Invited Talk in One Week AICTE sponsored Short Term Training Programme on *Challenges and Applications on Cyber—Physical Systems* Phase—III from 21h — 28th Dec—2020 Organized by Department of Computer Science and Engineering, School of Engineering & Technology, GIET University, Gunupur, Odisha, India.
- Nov/Dec 2020: Guest Talk in Faculty Development Program (FDP) under AQIS 2019—20 Session during AICTE sponsored FDP on *Emerging Trends in Deep Learning and its Applications*, Dr. D. Y. Patil Institute of Technology, Pimpri, Pune, Maharastra, India.
- November 16, 2020: Invited Talk in 5-Days Faculty Development Programme (FDP) on Cyber Security Analytics and Cyber Forensics during November 16-20, 2020, Saintgits College of Engineering, Kottayam, Kerala, India.
- 40. November 9, 2020: Invited Talk in 5-days Faculty Development Program on Internet of things organized by ECE Department sponsored by AICTE ATAL academy during November 9-13, 2020, JNTUA College of Engineering Kalikiri, Andhra Pradesh, India.
- 41. November 4, 2020: Invited Talk in ISEA sponsored one-week webinar on *Cloud* and Network Security Mechanisms organized by the Department of Computer Science and Engineering, between 2nd November 2020 to 6th November 2020, IIT(ISM) Dhanbad, Jharkhand, India.
- 42. October 10, 2020: Invited Talk in ISEA Short Term Course on *Cyber Security* and *Cryptography* during October 07—11, 2020, IT Roorkee, Uttarakhand, India.
- September 21, 2020: Invited Talk in International Conclave on Recent Advances in Computer Science (ICRACS-2020) during September 21st—25th, 2020, ANURAG University, Hyderabad, Telangana, India.
- September 19, 2020: Invited Talk in RGPV TEQIP—III online interactive session of Ph.D. Research Scholars in computer science engineering, Rajiv Gandhi Proudyogiki Vishwavidyalya (RGPV), Madhya Pradesh, India.

- 45. September 7, 2020: Invited Talk in Online AICTE Training And Learning (ATAL) Faculty Development Programme (FDP) on *CLOUD COMPUTING* during September 7-11, 2020, Vaagdevi College of Engineering, Warangal, Telangana, India.
- March 2—7, 2020: Course Lectures @ Adjunct Faculty of *Cloud Computing* (*CS4L018*), for B.Tech and M.Tech students, School of Electrical Sciences, IIT Bhubaneswar, India.
- 47. Invited Talk: *Mobile Security: Issues and Challenges*, on March 3, 2020, NISER, Bhubaneshwar, Odisha, India.
- 48. February 27, 2020: Guest Talk on *Cloud/Edge Computing for Mobile Devices*, JNTU Jagityal, Karimnagar, T.S., India.
- 49. January 7, 2020: Guest Talk on *Mobility Challenges in Mobile Edge Computing*, IDRBT, Hyderabad, T.S., India.
- 50. December 23, 2019: Guest Talk on *Edge of Internet of Everything*, CBIT, Hyderabad, T.S., India.
- 51. December 16, 2019: Keynote Talk on *Advances in IoT*, KITS, Warangal, T.S., India.
- 52. Invited Talk: Smart Systems and Smart Security, on November 18, 2019, DTU, Delhi, India.
- 53. Keynote Talk: Smart Devices and Smart Criminals, on November 18, 2019, DTU, Delhi, India.
- 54. Invited Talk: Cloud and Edge Computing for Mobile/IoT Devices, on November 12, 2019, NIT, Karnataka, India.
- 55. **Invited Talk:** Cloud and Edge Computing for ISRO Scientists, on October 25, 2019, NRSC, Hyderabad, T.S., India.
- 56. Keynote Talk: Trade-off Approach for Energy Efficiency and Service Availability in Mobile Edge Computing, International Conference on Innovative Sustainable Computational Technologies (CISCT-2019) (IEEE Co-sponsored) scheduled on October 11, 2019, Dehradun, India.
- 57. **Invited Talk:** Cloud and Emerging Technologies, Guest lecture on Cloud and Emerging Technologies, on October 11, 2019, Dept. of MCA, DIT University, Dehradun, India.

- Keynote Talk: Advances in Cloud Computing, One-week National Workshop on AWS Cloud Technology, on September 07, 2019, Shri Mata Vaishno Devi University, Katra, Jammu, India.
- 59. Keynote Talk: *Cloud, IoT, and Edge Computing*, National IEEE Student Workshop on Internet of Things: Devices to Cloud, on August 29, 2019, Dept. of IT, DIT University, Dehradun, India.
- Invited Talk: Distributed Systems and Blockchain: Preliminaries, DST Sponsored FDP on Blockchain Technology and its Applications, on July 08, 2019, NIT Hamirpur, India.
- Multiple Talks: IoT Protocols, Healthcare IoT, Edge Computing, and Edge Assisted LEWS, DST Sponsored FDP on Sensor Networks and IoT, on June 28-29, IIT Dhanbad, India.
- 62. Invited Talk: Virtual Infrastructures and Deployment of Security Mechanisms, at 2019 International Summer School on Future Internet Architecture Security, on 18th June, 2019, Department of Mathematics, University of Paduva, Paduva, Italy.
- Invited Talk: Mobile Security Challenges, for B.Tech and M.Tech students, on May 20, 2019, NIT Rourkela, India.
- Course Lectures @ Adjunct Faculty: Cloud Computing (CS4L018), for B.Tech and M.Tech students, during March 18-24, 2019, School of Electrical Sciences, IIT Bhubaneswar, India.
- Keynote Talk: Machine Learning for Mobile Security, on March 16, 2019 at 3rd International Conference on Data Engineering and Communications Technologies (ICDECT-2019), Hyderabad, India.
- Valedictory Talk: Edge Computing Motivation for Research, on February 8, 2019 at STC on IOT with Cloud Applications, Shri Mata Vaishno Devi University, J&K, India.
- 67. **Inaugural Talk:** OpenPOWER and Cloud: Case Studies, on February 6, 2019 at Workshop on OpenPOWER and AI, IBM, Bangalore, India.
- 68. Keynote Talk: Research Directions in IoT and Cloud, on 12th January, 2019 at FDP on Internet of Things (IoT) with Cloud Applications, Graphic Era University, Dehradun, UK, India.

- 69. Speaker for various sessions: IoT Applications Scenarios, IoT and Cloud, IoT Protocols, Advances in IoT, Edge Computing, during December 24-28, 2018 at FDP on Internet of Things (IoT): What and How?, E & ICT Academy, IIT Roorkee, Roorkee, UK, India.
- Invited Speaker: Motivation and Research Advises to Faculty of Computer Science, on December 6, 2018 at Stanley College of Engineering & Technology for Women, Hyderabad, TS, India.
- 71. Speaker for various sessions: Parallel Programming, and HPC Case Studies, on October 22 and 25, 2018 at FDP on High Performance Computing and Deep Learning, E & ICT Academy, IIT Roorkee, Roorkee, UK, India.
- 72. Speaker for various sessions:: IoT Applications Scenarios, and Advances in IoT, on January 13 and 17, 2018 at FDP on Internet of Things (IoT), E & ICT Academy, IIT Roorkee, Roorkee, UK, India.
- 73. Invited Talk: The Role of Cloud Computing in Big Data Analytics, on 9th January, 2018 at STTP on Big Data Analytics and Related Technologies, National Institute of Technology Raipur, Chattisgarh, India.
- 74. Invited Talk: Energy Efficiency and Seamless Service Provisioning in Mobile Cloud Computing, on 19th October, 2017, University at Albany, State University of New York (SUNY), USA.
- Invited Talk and Chief Guest: Parallel Computing Performance and Big Data Programming, on 20th February 2016 at FDP on Parallel Computing, Feb 11-20, 2016, National Institute of Technology, Warangal, India.
- 76. Tutorial Session, IoT and Cloud, National Conference on Big Data Analytics & Cloud Computing, Department of CSE, University College of Engineering(A), 29-31 December 2015, Osmania University, Hyderabad, India.
- 77. Chief Guest and Keynote Speaker, Mobile & Cloud Computing, ASTRA-2k15,
 27th & 28th November 2015, Vaagdevi College of Engineering, Warangal, India.
- Invited Speaker, Cloud Computing and its Research, Two-day workshop on Cloud Computing, TEQIP-II, 27-28, October, 2015, Government Engineering College, Bikaner, Rajasthan, India.
- 79. Invited Speaker, Attack Scenarios in Cloud Computing, Symposium on Cloud Computing and Digital Forensics, 4th September, 2015, BITS Pilani University, Hyderabad Campus, India.

- 80. Chief Guest and Chairperson of a Technical Session and Plenary Session on *Cloud Computing Research* of International Conference on Science and Technology 2015 for its conference track Computer Science February 27-28, 2015 organized by SRMS College of Engineering and Technology Bareilly, UP, India
- Tutorial Session, Researching Cloud Computing using Cloudsim, International Conference on Computing and Communication Technologies (ICCCT), 11-13, December, 2014, Dept. of CSE, Osmania University, Hyderabad, India
- 82. Invited Speaker, *Cloudsim*, 11 October, 2014, GurukulKangri University, Haridwar, India.
- 83. Speaker for various sessions on topics like *Fundamentals*, *Virtualization*, *Advances*, *Mobile Cloud* during the self-organized program, QIP Short Term Course on Developments and Challenges in Cloud Computing, 10-14 June, 2013, Department of CSE and QIP Center, IIT Roorkee, India.
- Invited Speaker, Opportunities and Challenges in Wireless Sensor Networks (21st March, 2013), AICTE Faculty Development Program on Wireless Sensor Networks, 18-22 March, 2013, Sri Guru GovindSinghji Institute of Engineering and Technology, Nanded, Maharastra, India.
- 85. Guest of Honor and Keynote Speaker, Recent Trends in Cloud Computing (20th March, 2013), AICTE Faculty Development Program on Cloud Computing and its Applications, 20-24, Mar, 2013, PDA College of Engineering, Gulbarga, Karnataka, India
- 86. Guest of Honor and Invited Speaker, Demonstration of Cloud Computing Models (20th March, 2013), AICTE Faculty Development Program on Cloud Computing and its Applications, 20-24, Mar, 2013, PDA College of Engineering, Gulbarga, Karnataka, India
- 87. Keynote Speaker, Importance of Simulations in Networking (15th February, 2013), Faculty Development Program on Network Simulator NS—2, AKG Engineering College, Ghaziabad, Delhi NCR, India
- Invited Speaker, Wireless Simulations in NS—2 (15th February, 2013), Faculty Development Program on Network Simulator NS—2, AKG Engineering College, Ghaziabad, Delhi NCR, India
- Invited Speaker, Demonstration of Wireless environment using NS-2 (16th February, 2013), Faculty Development Program on Network Simulator NS-2, AKG Engineering College, Ghaziabad, Delhi NCR, India

- 90. Invited Speaker, Results, Analysis, and Graphs of Wireless environment using NS-2 (16th February, 2013), Faculty Development Program on Network Simulator NS-2, AKG Engineering College, Ghaziabad, Delhi NCR, India
- 91. Invited Speaker, Advances in IRS Extensions to Cloud Computing (28th January, 2013), DST Workshop on Information Retrieval Systems, 28-29, January, 2013, Varadha Reddy Engineering College, Warangal, A.P., India.
- 92. Chief Guest and Invited Speaker, Recent Trends in Mobile Cloud Computing, Workshop on Recent Trends in Cloud Computing, 3-4, August, 2012, KPR Institute of Technology, Coimbatore, Tamil Nadu, India.
- 93. Chief Guest and Keynote Speaker, Mobile Cloud Computing Advances and Challenges, Joint UACEE International Conference on Pervasive Computing and Communications (PCC 2012) and Second International Conference on Computing, Control and Communication (CCN-2012), 17th June, 2012, NCR-Delhi, India
- 94. Invited Speaker, Wireless Networks and NS-2 (2nd June, 2012), Workshop on Simulation Software/Tools, 1st – 2nd June, 2012, Noida Institute of Engineering and Technology, NCR-Delhi, India
- 95. Invited Speaker, MANETs and NS-2 (26th February, 2012), Workshop on NS-2 held during 25th – 26th February, 2012, Graphic Era University, Dehradun, U.K., India.
- 96. Chief Guest and Keynote Speaker, Recent Advances in Mobile Communications (23rd Sept, 2011), National Symposium, SCINTELLACE 2k11. 23-24, Sept, 2011, JNT University, Cuddapah, India.
- 97. Invited Speaker, *Mobile Ad-hoc Networks* (6th June, 2008), National Workshop on Mobile Computing held during 5th 7th June, 2008, Dept. of CSE, Osmania University, Hyderabad, India.
- 98. Invited Speaker, Object Oriented Programming (9th February, 2008), National Short-Term Training Program on UML & Automata held during 9-11, February, 2008, KITS, Singapur, Karimnagar, India.
- 99. Invited Speaker, Simulations using NS-2 (9th January, 2008), Pre-workshop tutorial in National Workshop for Research Scholars on Mobile Ad hoc Networks: Issues and Challenges held during 10th – 11th January, 2008, Dept. of CSE, Osmania University, Hyderabad, India.

- 100. Invited Speaker and Guest of Honor, NS-2 Simulator (30th June, 2007), Oneday National Seminar on Network Simulation using OPNET and NS-2 held on 30th June, 2007, Dept. of CSE, V.R. Siddhartha Engineering College, Vijayawada, India.
- 101. Invited Speaker, Mobile Ad-hoc Networks Overview (23rd June, 2007), Threeday National Seminar on Networks & Security held during 21st – 23rd June, 2007, Dept. of CSE, Srinidhi Institute of Science & Technology, Ghatkesar, Hyderabad, India.
- 102. Guest of Honor and Invited Speaker, MANET Simulators (24th November, 2006), National Seminar on Mobile & Pervasive Computing during 24th 25th Nov.,2006, PDA College of Technology, Gulburga, Karnataka, India.
- 103. Invited Speaker, Mobile Communications and NS-2 (30th June 1st July, 2005), Three weeks National Refresher Course on Advanced Mobile Computing, Academic Staff College, J.N.T.U., Hyderabad.
- 104. Invited Speaker, NS-2 Demo (18th 19th December, 2004), Three weeks National Refresher Course on Mobile Computing, Academic Staff College, J.N.T.U., Hyderabad, India.
- 105. Guest Lecture, Problem Solving Techniques (Oct, 2010 Till date), Foundation Program (FP), INFOSYS Campus Connect (CC) at IEG – JKC, Vaagdevi College of Engineering, Warangal, India.
- 106. Guest Lecture, Web Technologies (Nov, 2008 Jan, 2009), FP, INFOSYS CC at IEG JKC, Vaagdevi College of Engineering, Warangal, India.
- 107. Guest Lecture, *Programming Fundamentals* (Aug, 2008, Oct, 2008), FP, IN-FOSYS CC at IEG JKC, Vaagdevi College of Engineering, Warangal, India.
- 108. Guest Lecture, Programming Fundamentals (Jun, 2006, Apr, 2006, Jan, 2006), FP, INFOSYS CC at IEG – JKC, KITS, Singapur, Karimnagar, India.

Courses Developed

- 1. CS-520 Cloud Computing
- 2. CS-527 Internet of Things
- 3. CS-232 Operating Systems (Revised)
- 4. CS-503 Advanced Computer Networks (Revised)

5. CS-341 Computer Networks (Revised)

Programs Organized

- 1. Faculty Coordinator, Workshop on AWS Cloud, March 21, 2024, IIT Roorkee.
- 2. Faculty Coordinator, Workshop on *Cloud Computing using Microsoft Azure*, March 14, 2024, IIT Roorkee.
- 3. Faculty Coordinator, An Awareness Program on *Cyber Crime & Police Modernization* in association with Uttarakhand Police and Time of India, May 23, 2023, IIT Roorkee.
- Steering Chair, The Fifth International Workshop on Smart Living with IoT, Cloud and Edge Computing (SLICE-2021 in conjunction with The 20th International Conference on Mobile Ad-Hoc and Smart Systems (MASS - 2023)(ERA Rank: B), September 25-27, 2023, Toronto, Canada.

Faculty Coordinator, *Devbhoomi Cyber Hackathon 2022* in association with Uttarakhand Police and Tech Mahindra, September 3-6, 2022, IIT Roorkee.

- Steering Chair, The Fourth International Workshop on Smart Living with IoT, Cloud and Edge Computing (SLICE-2021 in conjunction with The 18th International Conference on Mobile Ad-Hoc and Smart Systems (MASS - 2021)(ERA Rank: B), October 4-7, 2021, Denver, CO, USA.
- 6. Coordinator, Workshop on GPU Architectures, October 6, 2021, NVIDIA.
- Coordinator, IBM OpenPOWER Foundation (OPF) Workshop on HPC and Cloud, July 16, 2021, IBM OPF.
- 8. Coordinator, National Knowledge Network (NKN) course on *Blockchain Technology and Applications*, January 3-8, 2021, NKN, IIT Roorkee.
- 9. Course Coordinator, Online Training Programme On Full Stack Web Development, December 2-10, 2020 (EICT Academy, IIT Roorkee).
- Program Chair, Organizing Chair, and Web Chair, The 17th IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS 2020) (ERA Rank: B), December 10-13, 2020 (IEEE Computer Society), IIT Roorkee.
- Steering Chair, The Third International Workshop on Smart Living with IoT, Cloud and Edge Computing (SLICE-2020 in conjunction with The 17th International Conference on Mobile Ad-Hoc and Smart Systems (MASS - 2020)(ERA Rank: B), December 10-13, 2020 (IEEE Computer Society), IIT Roorkee.

- 12. Course Coordinator, One-Week Faculty Development Program on *Cloud Computing and its Applications*, September 16-20, 2019 (EICT Academy, IIT Roorkee).
- 13. Course Coordinator, Online Summer Training Programme On *Ethical Hacking* and Cyber Security, August 19-September 1, 2020 (EICT Academy, IIT Roorkee).
- 14. Organizing Partner, 2019 International Summer School on Future Internet Architecture Security, June 17-21, 2019, University of Paduva, Paduva, Italy.
- 15. General Chair, and Session Chair, Second IEEE International Workshop on *Smart Living with IoT, Cloud and Edge Computing (SLICE-2019)* in conjunction with The Fourth IEEE International Conference on Fog and Mobile Edge Computing (FMEC 2019), June 10-13, 2019, Rome, Italy.
- 16. Course Coordinator, Workshop on *OpenPOWER and AI*, February 6, 2019, IBM, Bangalore.
- 17. Course Coordinator, Workshop on IoT and Cloud Fundamentals for Cyber Security Cell, Information Technology Development Authority, Department of IT, Government of Uttarakhand., February 18, 2019, EICT & Cognizance 2019, IIT Roorkee.
- 18. Course Coordinator, One-Week Faculty Development Program on *IoT*, *What and How?*, December 24 28, 2018 (EICT Academy, IIT Roorkee).
- Course Coordinator, One-Week Faculty Development Program on High Performance Computing and Deep Learning, October 21-25, 2018 (EICT Academy, IIT Roorkee).
- General Chair, second International Workshop on Data Science Engineering and Its Applications (DSEA-2018) in association with The Fifth International Conference on Internet of Things: Systems, Management and Security (IoTSMS 2018), October 15-18, 2018, Valencia, Spain.
- General Chair, First International Workshop on Smart Living with IoT, Cloud and Edge Computing (SLICE-2018) in conjunction with The Third IEEE International Conference on Fog and Mobile Edge Computing (FMEC 2018), April 23-26, 2018, Barcelona, Spain.
- 22. Course Coordinator, One-Week Faculty Development Program on Internet of Things, January 13-17, 2018 (EICT Academy, IIT Roorkee).

- Course Coordinator, One-Week Short Course on Recent Trends in Network Security, January 8-12, 2018 (ISEA Project, Phase-II & EICT Academy, IIT Roorkee) (Invited 3 international speakers).
- 24. Course Coordinator, Two-weeks Faculty Development Program on Computer Networks and Security, May 24th June 2nd, 2017 (EICT Academy, IIT Roorkee).
- 25. Co-Coordinator, Cognizance-2017- Annual Technical Fest, March 24-27, 2017.
- 26. Course Coordinator, One-week Short Course on *Recent Trends in Network Security*, December 14-18, 2016 (ISEA Project, Phase-II).
- 27. Course Coordinator, One-week Short Course on *Recent Trends in Network Security*, February 1-5, 2016. (ISEA Project, Phase-II).
- Organizing Committee Member (CSE), Conference on Recent Advances in Electronics and Computer Engineering (RAECE), IIT Roorkee, February 14-15, 2015.
- 29. Faculty Coordinator, Code.fun.do 24-hour hackathon, Microsoft, ACM IITR Students Chapter, Dept. of CSE, February 6-8, 2015.
- 30. Faculty Coordinator, ACM one-day workshop on "Business Process Simulation", (17th January, 2015), Prof. D.S. Broca, XLRI, Jhamshedpur.
- 31. Faculty Coordinator, ACM inaugural lecture on "*Emerging Trends in Cloud Computing*" (12th April 2014), Prof. Janakiram D, IIT Madras.
- 32. Faculty Coordinator, Asian Programming Contest 2014 (29th March, 2014).
- 33. Convener, QIP Short Term Course on "Developments and Challenges in Cloud Computing" (10-14 June, 2013).
- 34. Convener, One-day workshop on *High Performance Computing*. June, 2012.
- 35. Organizing Member, Two-day workshop on *Cloud Computing and Security Is*sues, 12-13 July, 2012, Osmania University, Hyderabad, India.
- 36. Convener, National Level Students Technical Symposium (Paper Presentation Competition), "ABHISARGA-2004" (23rd 24th Sept., 2004).
- 37. Convener, National Short Term Training Program on OOAD & UML(18th 22nd July, 2005).

- Convener, National Short Term Training on Databases & Oracle (9th 13th March, 2006).
- 39. Convener, State Level Competitions for INFOSYS campus connect students, ASPIRATIONS-2020 (14th August, 2007).
- 40. Convener, Second Alumni Meet (23rd February, 2008).
- 41. Acted as Chairperson, Advisor or Member for various events organized at National level or State level.

Programs Attended

- 1. ICCIDA-2024, International Conference on Computational Intelligence and Data Analytics, June 28-29, 2024, Hyderabad, INDIA.
- ACM MobiSys 2024, The 22nd ACM International Conference on Mobile Systems, Applications, and Services, (Rank: B), April 29, 2024 to June 3-7, 2024, Tokyo, Japan (Presented the paper online).
- DCOSS-IOT-2024, The 20th Annual International Conference on Distributed Computing in Smart Systems and the Internet of Things (Rank: B), April 29, 2024 to May 1, 2024, Abu Dhabi, UAE.
- 4. **ONDC-2023**, Build for Bharat event ONDC, December 4, 2023, New Delhi, India.
- HPE-2023, HPE APJ Abdul Kalam Awards New Delhi, August 31 September 2, 2023, New Delhi, India.
- IEEE MASS 2020, The 17th IEEE International Conference on Mobile Ad-Hoc and Smart Systems (IEEE MASS 2020), December 10-13, 2020, (virtually), IIT Roorkee, India.
- IEEE FMEC 2019, The Fourth IEEE International Conference on Fog and Mobile Edge Computing (FMEC 2019), June 10-13, 2019, Rome, Italy.
- ACM ICPE 2019, 24th ACM International Conference on Performance Engineering, April 8-14, 2019, IIT Bombay, India.
- Microsoft AXLE 2019, Academic Accelerators and Code Fun Do ++, February 5, 2019, Bangalore, India.
- 10. Google Faculty Institute 2018, December 10-11, 2018, Delhi NCR, India.

- Microsoft AXLE 2018, Academic Accelerators and Code Fun Do ++, May 15, 2018, Hyderabad, India.
- 12. SC-15, Supercomputing Conference, November 15-20, 2015, Austin, Texas, USA.
- HP-CAST, High Performance Computing Summit, September, 2015, Jaipur, India.
- IEEE Conference on High Performance Computing (Hi-PC), December, 2015, Bangalore, India.
- 15. HP-CAST, High Performance Computing Summit, August, 2014, Pune, India.
- Two-day workshop on Cloud Computing and Security Issues, 12-13 July, 2012, Osmania University, Hyderabad, India.
- Two weeks course on Effective Teaching/Learning of Computer Programming. During: 28th June – 10th Jul, 2010, Organized by: I.I.T, Bombay (Remote Center: N.I.T, Warangal), Sponsored by: ISTE, India.
- Short term training program on Automation and Robotics, During: 6th 18th July, 2009, Organized by: National Institute of Technology (N.I.T.), Warangal, Sponsored by: MHRD, India.
- National Workshop on Mobile Computing, During:5th 7th June, 2008. Organized by: Department of CSE, Osmania University, Hyderabad, Sponsored by: TEQIP, India.
- National Workshop on Data Mining, During: 15th 16th May, 2008. Organized by: Department of CSE, Osmania University, Hyderabad, Sponsored by: TEQIP, India.
- Two day workshop on Mobile Ad-hoc Networks: Issues and Challenges, During: 10th – 11th Jan, 2008. Organized by: Department of CSE, Osmania University, Hyderabad, Sponsored by: TEQIP, India.
- National Seminar on Emerging Trends in Physics Celebration of Centenary of 1905, During: 12th – 13th Aug, 2005. Organized by: KITS, Singapur, Sponsored by: IAPT, India.
- Short Term Course on Web Design and Development. During 8th 12th Dec, 2003, Organized by: Indian Institute of Technology (I.I.T.), New Delhi. Sponsored by: AICTE-QIP, India.

- 24. National Level Introductory School on Astronomy and Astrophysics. During: 15th 19th Oct, 2001, Organized by: RajarshiShahuMahavidyalaya, Latur, Maharastra, Sponsored by: IUCAA, Pune, India.
- 25. National workshop on **CADD**. During: 21st 22nd Dec, 1997, Organized by: **KITS**, Warangal.

Visits Abroad

- 1. UAE: Abu Dhabi: April 29 May 1, 2014 To present the paper at The 20th Annual International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS-IoT 2024) (Rank: B).
- 2. Italy: Paduva: June 17-21, 2019 Deliver a talk at International Summer School on Future Internet Architecture Security.
- 3. Italy: Rome: June 10-13, 2019 Conducted Second IEEE International Workshop on Smart Living with IoT, Cloud and Edge Computing (SLICE-2019) in conjunction with The Fourth IEEE International Conference on Fog and Mobile Edge Computing (FMEC 2019), Rome, Italy.
- 4. United States: Miami: Research Meeting, on October 26, 2017, at Applied Research Centre, Florida International University, Miami, USA.
- 5. United States: Albany: Delivered a Guest Talk on "Energy Efficiency and Seamless Service Provisioning in Mobile Cloud Computing", on October 19, 2017, at the University at Albany, State University of New York (SUNY), USA.
- United States: Orlando, Florida: To attend and present the research papers at an International Conference, IEEE MASS -2017 (Rank: B), during October 22-25, 2017 at Orlando, Florida, USA
- Germany: Frankfurt: To attend and present the research paper at an International Conference, ISC - 2017(Rank: C), during June 18-22, 2017 in Frankfurt, Germany.
- United States: Austin, Texas: To attend and present the research work at the OpenPOWER ADG workshop and attend SC - 15 (Rank: A), during November 15-20, 2015 in Austin, Texas, USA.
- United Kingdom: London, Oxford: To attend and present the research papers at an International Conference, NGMAST – 2014, during September 17-20, 2014 at Oxford, U.K

- United States: To attend, present a paper, and session a chair in an International conference, IEEE SERE – 2013 during June 18-20, 2013 at the National Institute of Science and Technology (NIST), Gaithersburg, Washington DC, USA.
- South Korea: To attend, Present a paper, and Session a Chair in an International Conference, FTRA AIM – 2012 during February 6-8, 2012 at Korea University, Seoul, South Korea.

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