Dr. J Sathish Kumar
Computer Science and Engg. Department,
National Institute of Technology
Allahabad, Uttra Pradesh, India - 211004
Email-id: sathish613@mnnit.ac.in
Mobile No.: +91-6355998672

Professional Qualification

- PhD from Computer Engineering Department, Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat, India.

  - Course Work CGPA: 10.0

- M.Tech from Computer Engineering Department, Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat, India. June 2014.

  - Aggregate CGPA: 8.5

- B.Tech. (Computer Science and Engineering) from S.V.University College of Engineering, Tirupati, Andhra Pradesh India: June 2011.

  - Percentage: 76.34%

- Intermediate Education (XII), Sri Chaitanya Junior Kalasala, Chittoor, Andhra Pradesh India: May 2007.

  - Percentage: 94.2%

- Secondary School Education (X) from Oxford Eng.Med School, hittoor, Andhra Pradesh India: April 2005.

  - Percentage: 76.67%

Fields of Interest

- Internet of Things, Drone Simulations and Experiments, Wireless Sensor Network, Algorithms

Professional Experience

- 24 July 2014 – 12 December 2014: Worked as Teaching Assistant, Computer Engineering, SVNIT, Surat, India.

- 15 February 2019 - 13 June 2019: Working as Teaching Assistant, Computer Science and Engineering, IIIT, Surat, India.

Research Work

- **PhD Thesis Area (Ongoing)**

  - **Title:** Optimized Resource Management And Clustering In Hierarchical Network Of Internet Of Things With Situation Aware Cloud Based Data Acquisition Using UAV For Post Disaster Management And Surveillance
  - **Supervisor:** Dr. M. A. Zaveri, Professor, Computer Engineering Department, SVNIT, Surat, Gujarat, India.
  - The research work is carried out as part of government sanctioned project entitled "Collaborative Data Processing and Resource Optimization for Post Disaster Management and Surveillance using Internet of Things", supported and funded by Ministry of Electronics and Information Technology (MeitY), Government of India, New Delhi (Grant No. 13(4)/2016-CC&BT).

- **M.Tech Dissertation**

  - **Title:** A Framework For Protecting Privacy in the Devices Of Internet of Things (IoT)

○ **Supervisor:** Dr. Dhiren R Patel, Professor, Computer Engineering Department, SVNIT, Surat, Gujarat, India. (Director, VJTI, Mumbai)

Research Publications

- **International Journal**

  ○ J. Sathish Kumar and Mukesh A. Zaveri, "Clustering Approaches for Pragmatic Two-Layer IoT Architecture," *Wireless Communications and Mobile Computing (SCI)*, *Hindawi and Wiley Publications*, vol. 2018(Article ID 8739203), pp. 1-17, 2018. doi:10.1155/2018/8739203.

  ○ J. Sathish Kumar and Mukesh A. Zaveri, "Resource Scheduling for Post Disaster Management in IoT Environment" , *Wireless Communications and Mobile Computing (SCI)*, *Hindawi and Wiley Publications*, Accepted and In Press, 2019.

  ○ Saurabh K Pandey , Mukesh A Zaveri, Meghavi Choksi and J Sathish Kumar, "UAV-based Localization for Layered Framework of the IoT", *Procedia Computer Science (SCOPUS)*, **Elsevier**, Vol 143, 2018, pp:728-735, September 2018, Cochin, India.*(Also published in proceedings of 8th International Conference On Advances In Computing & Communications (ICACC'18), Science Direct).*

  ○ J. Sathish Kumar, and Mukesh A. Zaveri. " Task based Resource Scheduling in IoT Environment for Disaster Management", *Procedia Computer Science (SCOPUS)*, **Elsevier**, Vol 115, pp. 846-852, August 2017, Cochin, India. *(Also published in proceedings of 7th International Conference On Advances In Computing & Communications (ICACC'17), Science Direct).*

  ○ J. Sathish Kumar and Mukesh A. Zaveri, "Hierarchical Clustering for Dynamic and Heterogeneous Internet of Things," *Procedia Computer Science (SCOPUS)*, **Elsevier**, Vol 93, pp-276–282, September 2016, Cochin, India. *(Also published in proceedings of 6th International Conference On Advances In Computing & Communications (ICACC'16), Science Direct).*

  ○ J. Sathish Kumar, and Dhiren R Patel. " A Survey on Internet of Things: Security and Privacy Issues." **International Journal of Computer Applications**, vol 90, No 11, March 2014, pp: 20-26.

- **International Conference**

  ○ J Sathish Kumar, Mukesh A Zaveri, Saurabh Kumar, and MeghaviChoksi, " Geo-fencing Technique in Unmanned Aerial Vehicles for Post Disaster Management in the Internet of Things ", **Accepted and Presented** in IEEE Second International Conference on Advanced Computational and Communication Paradigms (ICACCP-2019), Sikkim.

  ○ MeghaviChoksi, Mukesh A Zaveri, J Sathish Kumar and Saurabh K Pandey " Cloud-based Real Time Data Acquisition in IoT Environment for Post Disaster Management", in proceedings of IEEE 9th International Conference On Computing, Communication And Networking Technologies (ICCCNT), July, 2018, IISc Bangalore, India, pp 1-6.

  ○ Hiteswari Gamit, J Sathish Kumar and Mukesh A Zaveri, "Resource monitoring and scheduling for post disaster management using Internet of Things", *in Proceedings of IEEE 3rd International Conference for Convergence in Technology*, 2018, Pune, India. pp 1-5.

  ○ J Sathish Kumar, Mukesh A.Zaveri, "Graph based Resource Allocation for Disaster Management in IoT Environment", *in Proceedings of Second International Conference on Advanced Wireless Information, Data, and Communication Technologies, ACM*, November 2017, Paris, France, pp 1-6.

  ○ J. Sathish Kumar and Mukesh A. Zaveri, "Graph based clustering for two-tier architecture in Internet of things," *in the Proceedings of 9th IEEE International Conference on Internet of Things (iThings) and IEEE Green Computing and Communications (GreenCom) and IEEE Cyber, Physical and Social Computing (CPSCom) and IEEE Smart Data (SmartData)*, December 2016, pp-229–233.

  ○ J. Sathish Kumar and Mukesh A. Zaveri, "Clustering for collaborative processing in IoT network," *in the Proceedings of ACM International Conference on Urban IoT*, May 2016, pp-95–97.

  ○ Mukesh. A Zaveri, Saurabh K Pandey and J Sathish Kumar "Collaborative Service Oriented Smart Grid using the Internet of Things," *in the Proceedings of IEEE International Conference on Communication and Signal Processing(ICCSP'16)*, March, 2016, pp-1412–1418.

  ○ J. Sathish Kumar and Dhiren R. Patel. "Enhanced location privacy algorithm for wireless sensor network in internet of things." In Proceedings of International Conference on Internet of Things and Applications (IOTA), IEEE, pp. 208-212, 2016.

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- **Book/Book Chapter**
  - J Sathish Kumar, Mukesh A Zaveri, Saurabh Kumar, and MeghaviChoksi, " Situation Aware Conditional Sensing in Disaster Prone Areas using Unmanned Aerial Vehicles in IoT Environment ", in proceedings of International Conference on Data Communication and Network, "Advances in Intelligent Systems and Computing", **Springer**, Vol. 847, pp: 135-146, January 2019, Galgotias University, New Delhi.
  - J. Sathish Kumar, and Mukesh A. Zaveri. " Activity based Resource Allocation in IoT for Disaster Management" *in Future Internet Technologies and Trends. ICFITT, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, **Springer**, vol 220.,pp 215-224, January 2018, Surat, India.

Tools and Platforms

- Cooja emulation engine, Drone-kit Python, ArduPilot Mission Planner, EXata wireless emulation platform, Qualnet wireless simulation platform, Java Programming, MATLAB.

Expert Lectures Delivered

- "IoT – Internet of Things" at SVNIT, Surat, Gujarat, India (31.03.2016 – 01.04.2016), on "IoT architectures, protocols and applications, Clustering in IoT Environment, Hands on Cooja Simulations and Hands on with Raspberry Pi, Arduino and Sensors Hardwares".

- "Recent Applications and Future Scope of Internet of Things", at Sarvajanik College of Engineering and Technology, Surat, Gujarat, India (02.08.2018- 04.08.2018), on "Cooja Installation and Basics".

- "Collaborative data processing and resource optimization in IoT (CRIoT 2019)", at SVNIT, Surat, Gujarat and Meity from 10-14 June 2019, on "Drone Experiments , Drone Kit Python and Mission Planner Simulations, Clustering in IoT and IoT architectures and protocols"Kit Python and Mission Planner Simulations, Clustering in IoT and IoT architectures and protocols"

- "Big Data and Internet of Things:Data Analytics, Security and Privacy", at SVNIT, Surat Gujarat, India (24.06.2019- 28.06.2019), on "Demonstration of IoT Tool: Contiki and Cooja".

Courses Attended

- "Building blocks for 5G communication: IoT, SDR and sensor networks" at IIT Roorkee, Uttrakhand, India (10.04.2017 – 14.04.2017).

- "Designing Smart Cities based on Internet of Things" at NIT Agartala, Tripura, India (11.12.2017 – 15.12.2017).

- "IoT – Internet of Things" at SVNIT, Surat, Gujarat, India (31.03.2016 – 01.04.2016).

- "Design and Analysis of Algorithms" at SVNIT, Surat, Gujarat, India (23.05.2016 – 27.05.2016).

- "Enabling Internet of Things with Cloud and data processing and resource optimization in IoT (CRIoT 2019)", at SVNIT, Surat, Gujarat and Meity from 10-14 June 2019, on "IoT IoT architecturesProtocols"

Courses Attended

Personal Information

- **Father:** Mr. Jayaseelan
- **Mother:** Mrs. Anna Mary
- **Date of Birth:** June 15, 1990
- **Marital Status:** UnMarried
- **Languages Known:** English, Tamil, Telugu, Hindi.
- **Temporary Address:** Room No B-602, Bhabha Bhavan, Sardar Vallabhbhai National Institute of Technology, Ichchhanath, Surat, Gujarat, India-395007.
- **Permanent Address:** Door No:15-3306, Rajiv Nagar Colony, Greamspet, Chittoor, Andhra Pradesh - 517002.

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