

Dr. Keerthan Kumar T G

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Education

	Degree	Year	Institute	Specialization
1	Ph.D.	2025	National Institute of Technology Karnataka, Surathkal (NITK), Karnataka.	Computer Science and Engineering
2	MTech(CSE)	2010	AMC Institute of Technology, Visveswaraya Technological University, Bangalore, Karnataka.	Computer Science and Engineering
3	BE(CSE)	2008	Kalpataru Institute of Technology, Visveswaraya Technological University, Tiptur Karnataka.	Computer Science and Engineering
4	PUC	2004	SVP College, Tiptur, Karnataka	PCMB
5	SSLC	2002	SVP High School, Karnataka Secondary Education Examination Board. Tiptur, Karnataka.	State Board Syllabus

Professional Experience

	Date (from-to)	Designation	Organization
1	2014 August to till date	Assistant professor	Siddagnga Institute of Technology, Visveswaraya Technological University, Tumkur, Karnataka.
2	2012 July to 2014 August	Test Engineer	DELL R&D, Bangalore, India
3	2011 June to 2012 July	Research Intern	VMware Software India Private Ltd, Bangalore, India
4	2008 October to 2010 September	Lecturer	Kalpataru Institute of Technology, Visveswaraya Technological University, Tiptur, Karnataka.

Positions held

(Please give details of any administrative posts, co Ordinator roles/ responsibilities held)

- *ATAL FDP Coordinator (2024-25)*
- *Department NBA Criterion-4 Coordinator*
- *Department NAAC Coordinator*
- *Department Placement Coordinator*
- *Department Test Coordinator*
- *Department KPI -Criterion-5 Coordinator*
- *Department Time Table Coordinator*

Affiliations of Professional organizations

- Professional IEEE Member
- IEI Member

Awards and Honors

- **Best Paper Award** for the paper titled “**ECG Signal Classification using Continuous Wavelet Transform Scalogram and Convolutional Neural Network**” in the **International conference**” International Conference on Signal Processing, Computation, Electronics, Power and Telecommunication (IConSCEPT)”, 04-05 July 2024, *National Institute of Technology Puducherry (NITPY)*. Karaikal, India.
- **Best Paper Award** for the paper titled “**Real time vehicle tracking system for smart cities**” in the **International conference**” International Conference on Data Science and Network Security (ICDSNS)”, 28th -29th, July, 2023, *Kalpataru Institute of Technology*, Tiptur, Karnataka,.
- **Bronze Award** from **DELL R and D, Bangalore, India** in the year 2012.

Courses Taught

Undergraduate Courses

1. Software Testing
2. Finite Automata and Formal Languages
3. Object Oriented Programming with C++
4. UNIX and Shell Programming
5. Introduction to Python Programming

6. Information Retrieval
8. Wireless Sensor Network
9. Data Structure with C
10. Compiler Design
11. Theory of Computation
12. Software Engineering and Testing
13. Software Project management
14. Software Engineering and Project management
15. Artificial Intelligence and Cloud Computing
16. Amazon Web Services and Cloud

Postgraduate Courses

- NIL

Research Guidance

- NIL

Research Areas

- Cloud Computing
- Drone Technology
- Internet of Things
- Artificial Intelligence and Machine Learning

Sponsored Projects

- NIL

Publications

Journals

- Soni, Priyanka, Ajay Gajanan Hajare, **Keerthan Kumar TG**, and Sourav Kanti Addya. "TReB: Task dependency aware-Resource allocation for Internet of Things using Binary offloading." **Ad Hoc Networks** (2025): 103909.
- Gowda, Ranjith B., and Suchandana Mishra, **Keerthan Kumar T G**. "Sensitive Photonic Crystal Biosensor Using Distributed Bragg Structure for Alcohol Concentration Detection." **Plasmonics** (2024): 1-12.
- Srikanth, M. S., **TG Keerthan Kumar**, and Vivek Sharma. "Automatic vehicle service monitoring and tracking system using IoT and machine learning." In **Computer Networks, Big Data and IoT: Proceedings of ICCBI 2020**, pp. 953-967. Springer Singapore, 2021.

- **TG, Keerthan Kumar**, Saish Mendke, Rohit Parihar, Samarth Mayya, Spoorthy Venkatesh, and Shashidhar G. Koolagudi. "DBNLP: detecting bias in natural language processing system for India-centric languages." **International Journal of Information Technology** (2025): 1-16.
- **Kumar, TG Keerthan**, Sourav Kanti Addya, and Shashidhar G. Koolagudi. "InDS: Intelligent DRL Strategy for Effective Virtual Network Embedding of an Online Virtual Network Requests." **IEEE Access** (2024).
- **TG, Keerthan Kumar**, Shivangi Tomar, Sourav Kanti Addya, Anurag Satpathy, and Shashidhar G. Koolagudi. "EFraS: Emulated framework to develop and analyze dynamic Virtual Network Embedding strategies over SDN infrastructure." **Simulation Modelling Practice and Theory** 134 (2024): 102952.
- **TG, Keerthan Kumar**, Sourav Kanti Addya, Anurag Satpathy, and Shashidhar G. Koolagudi. "NORD: NOde Ranking-based efficient virtual network embedding over single Domain substrate networks." **Computer Networks** 225 (2023): 109661.
- **Keerthan Kumar, T. G., C.** and Shubha, and S. A. Sushma. "Random forest algorithm for soil fertility prediction and grading using machine learning." **International Journal of Innovative Technology and Exploring Engineering** (2019): 1301-1304.

Conference Proceedings

- Kumar, TG Keerthan, Mukesh Kumar Ogare, and Shashidhar G. Koolagudi. "ECG Signal Classification using Continuous Wavelet Transform Scalogram and Convolutional Neural Network." In 2024 International Conference on Signal Processing, Computation, Electronics, Power and Telecommunication (IConSCEPT), pp. 1-8. IEEE, 2024.
- Keerthan Kumar, T. G., Adhith Adhith, Nitin Jayadeep, and Shashidhar G. Koolagudi. "Syntactic Simplification of English Sentences Using Parse Trees." In Proceedings of the 2024 Sixteenth International Conference on Contemporary Computing, pp. 490-496. 2024.SanS: Classification of Sanskrit Mantras using Speech Processing
- Keerthan Kumar, T. G., Shreyas Udaya, and Shashidhar G. Koolagudi. "SanS: Classification of Sanskrit Mantras using Speech Processing." In Proceedings of the 2024 Sixteenth International Conference on Contemporary Computing, pp. 427-431. 2024.
- TG, Keerthan Kumar, R. Anoop, Shashidhar G. Koolagudi, Trupthi Rao, and Ashwini Kodipalli. "Stratification of Depressed and Non-Depressed Texts from Social Media using LSTM and its Variants." **Procedia Computer Science** 235 (2024): 1353-1363.

- TG, Keerthan Kumar, K. B. Aneesh, Anagha Siddheshwar, Amulya Marali, Anupama Kamath, Shashidhar G. Koolagudi, and Sourav Kanti Addya. "DeepVNE: Deep Reinforcement and Graph Convolution Fusion for Virtual Network Embedding." In 2024 16th International Conference on COMmunication Systems & NETworkS (COMSNETS), pp. 633-636. IEEE, 2024.
- Keerthan Kumar, T. G., Himanshu Dhakate, and Shashidhar G. Koolagudi. "IIMH: Intention Identification In Multimodal Human Utterances." In Proceedings of the 2023 Fifteenth International Conference on Contemporary Computing, pp. 337-344. 2023.
- TG, Keerthan Kumar, Ankit Srivastava, Anurag Satpathy, Sourav Kanti Addya, and S. G. Koolagudi. "MatchVNE: A Stable Virtual Network Embedding Strategy Based on Matching Theory." In 2023 15th International Conference on COMmunication Systems & NETworkS (COMSNETS), pp. 355-359. IEEE, 2023.
- Keerthan Kumar, T. G., M. S. Srikanth, Vivek Sharma, and J. Anand Babu. "Performance evaluation of packet injection and DOS attack controller software (PDACS) module." In Inventive Communication and Computational Technologies: Proceedings of ICICCT 2021, pp. 793-809. Springer Singapore, 2022.
- Pallavi, V. K., R. Trupthi, G. Varnitha, and Keerthan Kumar TG. "Improved threshold based task scheduling." In 2021 Second International Conference on Electronics and Sustainable Communication Systems (ICESC), pp. 496-501. IEEE, 2021.
- Varun, J., E. S. Vishnu Tejas, and T. G. Keerthan Kumar. "Performance Analysis of Machine Learning Algorithms Over a Network Traffic." In International Conference on Intelligent and Smart Computing in Data Analytics: ISCDA 2020, pp. 1-10. Springer Singapore, 2021.
- Anagha, M. J., Rakesh Lepakshi, V. Goutham, V. Thavish, and TG Keerthan Kumar. "Packet injection and Dos attack controller software (PDACS) module to handle attacks in software defined network." In 2020 Fourth International Conference on Computing Methodologies and Communication (ICCMC), pp. 966-970. IEEE, 2020.
- Shastry, Nithin, and T. G. Keerthan Kumar. "Enhancing the performance of software-defined wireless mesh network." In International Conference on Communication, Computing and Electronics Systems: Proceedings of ICCCES 2019, pp. 1-14. Springer Singapore, 2020.
- TG, Keerthan Kumar, and S. Ramu. "Formal Verification of Security Protocol Using Spin Tool." In 2019 1st International Conference on Advances in Information Technology (ICAIT), pp. 393-399. IEEE, 2019.
- TG, Keerthan Kumar, H. K. Virupakshaiah, and K. V. Nanda. "Ensuring an online Chat Mechanism with accountability to sharing the non-downloadable file from

the Cloud." In 2016 2nd International Conference on Applied and Theoretical Computing and Communication Technology (iCATcct), pp. 718-721. IEEE, 2016.

Book Chapters

- NIL

Books

- NIL

Editorial

- NIL

Reviewer of Journals

- Transactions on Services Computing
- IEEE Transactions on Green Communications and Networking
- IEEE Access
- Concurrency and Computation: Practice and Experience

Editor/ Reviewer of Journal

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Patents

- NIL

Invited Lectures, talks and workshops

- Invited as a resource person to deliver a guest lecture on **"AWS Cloud and Its Real-Time Applications"** for 6th semester Information Science and Engineering students at **Malnad College of Engineering** during the **academic year 2024–2025**.