

RANJIT KOLKAR

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EDUCATION

PhD(Thesis Submitted) in Information Technology, NIT Karnataka, Surathkal (CGPA: 7.67), Thesis Submitted in September 2023

Thesis: "A Framework for Human Activity and Behavioural Pattern Recognition in Multimodal Sensor Smart Home Environment".

Relevant **Coursework:** IoT, DAA, Affective Computing, Research Methodology

TA Duties: Human Computer Interaction, Advanced Database Management Systems, High Performance Computing, Data Structures and Algorithms, Parallel Computing, Data Analytics, Technology of Internet of Things, Data Warehousing and Data Mining.

M. TECH. in Information Technology, NIT Karnataka, Surathkal (CGPA: 6.92) 2013

B. E. in Information Science and Engg., KLS GIT, Belgaum (63.47%) 2010

EXPERIENCE

Teaching Assistant during Ph. D July 2018 to July 2023

National Institute of Technology Karnataka *Surathkal, KA*

Full Stack Developer Jul 2017 to Dec 2017

Cova Care Pvt. Ltd. *Bengaluru, KA*

Temporary Faculty Dec 2017 to Jul 2018, Dec 2016 to Jul 2017, Jul 2013 to June 2014

National Institute of Technology Karnataka *Surathkal, KA*

Assistant Professor Jun 2014 to Dec 2016

VPKBIET *Baramati, MH*

Assistant Lecturer Aug 2010 to May 2011

LNB Chabada Institute of Engineering and Technology *Satara, MH*

SKILLS

Technical Skills Web development, Android Development, Python, Java, Web-service, Database

Soft Skills Communication Skills, Interpersonal Skills, Leadership

Research AI/ML, Python, Visualization Tools, Sensors, Weka, R

PROJECTS

Cova Care Designed and developed both back-end and front-end Android Applications for Patients and Doctors. Webservice, Android app development, JAVA.

APK Shield Build a project that analyses the APK from multiple sources using crawlers and scans through anti-viruses to classify them as malware in 2011.

WebTV Build a project to conduct the online classes with the live video and presentation in 2012.

Prokabaddi Build an Android application to show live scores in the Prokabaddi league in 2015.

Foodeezo Build an Android application for food delivery app for Baramati in 2016.

DASA2012 Member of development team that developed the online admission process for NITs.

EXTRA-CURRICULAR ACTIVITIES AND LEADERSHIP

- Convener, National Level Code Meet 2023 from 27th to 30th 2023 which involved 10 technical events and 24 hours hackathon.
- Conducted many workshops on Android app development, Machine Learning, Internet of Things Tools and Applications and others to the Engineering college students.

PUBLICATIONS BASED ON RESEARCH WORK

Journals Publications

1. Ranjit Kolkar and Geetha V., “Human Activity Recognition using Deep Learning Techniques with Spider Monkey Optimisation”, Multimedia Tools and Applications, Springer journal. (Scopus/SCIE) <https://doi.org/10.1007/s11042-023-15007-7>
2. Ranjit Kolkar and Geetha V., “Human Activity Behavioural Pattern Recognition in Smarthome with Long-hour Data Collection”, SNCS Springer (Scopus) <https://doi.org/10.1007/s42979-023-02278-y>
3. Ranjit Kolkar, Geetha V. and Ashwin T. S., “Behaviour Activity Profiler: A multi-modal Sensor-based Approach with Adaptive Granularity”, Elsevier Information Science (Scopus/SCI) **(Under Review)**
4. Ranjit Kolkar and Geetha V., “Comprehensive Activity Analysis and Pattern Identification using Multimodal Sensors with Data mining”, ACM Transactions on Knowledge Discovery from Data (Scopus) **(Under Review)**

Conferences Publications

1. Ranjit Kolkar, Geetha V., “Issues and Challenges in Various Sensor-Based Modalities in Human Activity Recognition System.” Applications of Advanced Computing in Systems. Springer, Singapore, 2021. Book Chapter Page: 171-179, Presented at International Conference on Advances in Systems, Control and Computing (AISCC-2020) held at Malaviya National Institute of Technology Jaipur (MNIT Jaipur), 2020. https://doi.org/10.1007/978-981-33-4862-2_18
2. Ranjit Kolkar, Geetha V., “Human Activity Recognition in Smart Home using Deep Learning Techniques,” 2021 13th International Conference on Information and Communication Technology and System (ICTS), 2021, pp. 230-234, Presented at a technical co-sponsored IEEE conference and organised by the Informatics Department, Institut Teknologi Sepuluh Nopember (ITS) Surabaya, Indonesia. (Virtual Conference) <https://doi.org/10.1109/ICTS52701.2021.9609044>. (Scopus)
3. Ranjit Kolkar, Rudra Pratap Singh Tomar, Geetha V. “IoT based Human Activity Recognition Models based on CNN, LSTM and GRU”. IEEE Silchar Subsection Conference (IEEE SILCON 2022) - Track 5- Artificial Intelligence, Presented virtually at National Institute of Technology Silchar in Nov-2022. <https://doi.org/10.1109/SILCON55242.2022.10028803> (Scopus)
4. K Karthik, Gokul S Krishnan, Shashank Shetty, Sanjay S Bankapur, Ranjit P Kolkar, TS Ashwin, Manjunath K Vanahalli, “Analysis and prediction of fantasy cricket contest winners using machine learning techniques.” Evolution in Computational Intelligence: Frontiers in Intelligent Computing: Theory and Applications (FICTA 2020), Volume 1. Springer Singapore, Presented at National Institute of Technology Karnataka, Surathkal. https://doi.org/2021.10.1007/978-981-15-5788-0_43
5. Lakshmi S Raj, Devaguptam Sreegeethi, Kogatam Thanmai, Ranjit P Kolkar, Dinesh Naik. “Online Video Stabilization Using Mesh Flow with Minimum Latency”, 2023 IEEE International Conference on Industry 4.0, Artificial Intelligence, and Communications Technology (IAICT) - Artificial Intelligence. Bali, Indonesia. <https://doi.org/10.1109/IAICT59002.2023.10205853>
6. Ranjit Kolkar, Geetha V. and Sanket Salvi. “Single Person Occupancy Detection using PIR Sensors”, 2024, 8th International Conference on Data Management, Analytics & Innovation. VIT Vellore. **(Accepted)**
7. Sanket Salvi, Sagar Apune, Vitthal Gutte, Mayuri Gawade and Ranjit Kolkar. “Li-Fi for Secured Access to Wireless Network during Online Examination in Classrooms”, 2024, 8th International Conference on Data Management, Analytics & Innovation. VIT Vellore. **(Accepted)**