## Department of Artificial Intelligence and Datascience

## FACULTY DETAILS

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| **Staff Name** | : | Dr. R. Deepa |
| **Date of Birth** | : | 19.12.1984 |
| **Educational Qualification** | : | M.Tech., Ph.D., |
| **Area of Interest** | : | Wireless Sensor Networks, Machine Learning |
| **Years of Experience** | : | 13 Years |
| **Area of Research** | : | Wireless Sensor Networks, Machine Learning |
| **No of Student Projects Guided** | : | **UG – 07**<br>**PG – -** |
| **Supervisor** | : | - |
| **FDP & Workshop Funding** | : | - |
| **Research Projects (Granted)** | : | - |
| **R & D Activities** | : | |
| **Publication Details** | : | **Journals**<br><br>**SCI**<br>1.Deepa, R., and Revathi Venkataraman. "Enhancing Whale Optimization Algorithm with Levy Flight for coverage optimization in wireless sensor networks." Computers & Electrical Engineering 94 (2021): 107359.<br><br>2.Deepa, Rajasekar, and Venkataraman Revathi. "Efficient target monitoring with fault-tolerant connectivity in wireless sensor networks." Transactions on Emerging Telecommunications Technologies 34, no. 2 (2023): e4672.<br><br>3.Rajasekar, Deepa, Vaishnavi Moorthy, Priscilla Rajadurai, and Sethuraman Ravikumar. "From leaf to harvest: achieving sustainable agriculture through advanced disease prediction with DBN-EKELM." Journal of the Science of Food and Agriculture (2024). |

4.Rajasekar Deepa.et al., "Optimizing resource allocation in ultra-dense networks with UAV assistance: A levy flight-based approach." Expert Systems with Applications 235 (2024): 120954.

**SCOPUS**
1.Deepa. R, Revathi Venkataraman, M.Pushpalatha and P.T.Ravichandran , Comparative Analysis of Sensor Placement Algorithms in Wireless Sensor Networks ,"ARPN Journal of Engineering and Applied Sciences" , Vol 11, No 19, Pg:1-6,October 2016,ISSN 1819- 6608.

2.Deepa.R, Revathi Venkataraman, M.Pushpalatha and P.T.Ravichandran, A Review on Cover Set Problem in Wireless Sensor Networks,, "Journal of Advanced Research in Dynamical and Control Systems", Vol 9, No. 8, Pg:151-161, September 2017, ISSN 1943- 023X.

3.Sandeep Nukala, Varun Rao, Abirami.G, Deepa.R, Revathi Venkataraman, "Huffman Coding Packet Balancer based Data Compression techniques in Wireless Sensor Networks", "International Journal of Engineering and Technology", Vol 7 (2.24), Pg:531- 535, April 2018.

4. Deepa R, MD Mubashir, Akshay Samrat,Vaishnavi Moorthy,Revathi Venkataraman " Smart Recommendation system for Rural Agricultural Dealers and Farmers Using IoT" International Journal of Advanced Science and Technology, Vol. 29, 8s (2020), pp. 765- 775.

5.Deepa R, Vaishnavi Moorthy, Shreyans Gupta, Rohit Smart approach to harvest rainwater using Inernet of Things, International Journal of Advanced Science and Technology, Vol. 29, 8s (2020), pp. 711-720.

6.Deepa R, Revathi Venkataraman, "Target coverage and Network connectivity challenges in Wireless sensor networks, "EAI Endorsed Transaction on Energy Web" Vol 8, Issue 31, doi: 10.4108/eai. 13-7-2018.165674.

7.Deepa, R., Vaishnavi Moorthy, Revathi Venkataraman, and Soumya Singha Kundu. "Smart Farming Implementation using Phase-based IOT System." In 2020 International Conference on Communication and Signal Processing (ICCSP), pp. 0930- 0934. IEEE Xplore, 2020.

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| | **Book Chapters** | |
| | 1. Deepa R, Revathi Venkataraman and Soumya Singha Kundu " A Three-phase Fuzzy and A* approach to sensor deployment and transmission" Handbook of intelligent computing and optimization for sustainable development. ISBN: 9781119791829.<br><br>2. Deepa.R "Estimation of crop water use in agricultural systems" Human Assisted Intelligent Computing, Modelling, Simulations and Applications , "IOP Publishing".<br><br>**Book Edited**<br>1. R. Deepa et. al "Artificial Intelligence and Robotics: Shaping the future together: Well Tech International Publishing House", 2023. | |
| **Patent Publication** | : | 1. R. Deepa et. al" Dynamic Resource Allocation for IoT Application through AI-Enabled Cloud Systems for efficient energy management in smart homes", Application Number : 20251008041, Date of Publication : 07/02/2025.<br><br>2. R. Deepa et. al "Machine Learning Model for Automated Decision Making in Network", Appl. No : 202541022523, Date of Publication : 28/03/2025. |
| **Honors & Awards** | : | JRF under DST – SERB (2016 – 2019) |
| **FDP & Workshop Attended Details** | : | 1. Attended 6 days FDP on Artificial Intelligence Techniques for Advancing Medical Data Processing and Healthcare at St. Joseph's Institute of Technology during 23rd September to 28th September 2024.<br>2. Attended 6 days FDP on Artificial Intelligence's Impact on Transforming Software , Robotics , Electrical, Electronics & Mechanical Fields at Dhaanish Ahamed College of Engineering during 29th August to 03rd September 2024.<br>3. Attended 5 days FDP on Cryptography and Network Security at NITTTR , Chandigarh during 16th September to 20th September 2024.<br>4. Attended Atal Sponsored FPD on AI in IoT : Enhancing the Power of Smart Gadgets at Agni College of Technology during 16th December to 21st December 2024.<br>5. Attended Industry sponsored workshop on IoT Made Easy : Hands-on Learning and Innovation at St. Joseph's Institute of Technology from 18th March to 23rd March 2025. |

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| **Professional Membership** | **:** | CSI : Membership Number : I1506265 |
| | | ISTE : Membership Number : LM 138495 |
| **LinkedIn ID** | **:** | deepa-rajasekar-b27363145 |
| **Google Scholar ID** | **:** | https://scholar.google.co.in/citations?user=qAC8gOcAAAAJ&hl=en |
| **Scopus ID** | **:** | |
| **Web of Science ID** | **:** | LKJ-2193-2024 |
| **E-mail ID** | **:** | deepa.research16@gmail.com |
| **Mobile Number** | **:** | 9884703877 |