

FACULTY PROFILE



Name : **Dr. U. Ramachandraiah**
Designation : **Professor and Dean Research
Head, CENSE Research Centre**

Academic Qualifications : **M. Tech. (National Institute
of Technology Warangal),
Ph.D. (Indian Institute of
Technology Madras)
MBA**

Experience : **38 years**

Funded Research Project :

Title	Name of the Funding Agency	Project Value in INR (Lakhs)	Work in progress / Completed
1. Development of an on-line measurement system for hydrogen concentration in steam environment	AERB - DAE	45.36	In progress
2. Wall Climbing Robot with reduced sound levels using Active Noise Control	ERIPR - DRDO	60.62	In progress
3. Development of Multichannel Adaptive Active Noise Control System for Reduction of Noise in a Region Adjacent to Noisy equipment	BRNS - DAE	28.02	Closure in progress
4. Adaptive Controlled Suction Chamber and Cup Based Wall Climbing Robot	BRNS - DAE	30.96	Closure in progress
5. Design and Development of 1 KW Hybrid Vertical Axis Wind Turbine System for Low Wind Speed Regimes. (Joint with Dept. of Mech. Engg.)	MNRE	28.5	Completed

CONSULTANCY PROJECT (Title)	Name of the Industry	Consultancy Value in INR	Work in progress / Completed
1 Development of automatic			

2. Development of position control system	GTRE - DRDO	9.76	In progress
3. Development of See Through Wall Passive Eddy Current Sensor for Blade Detection	GTRE - DRDO	9.89	In progress
4. Design, Development and Characterization of electrostatic sensor with digital electronic system for Debris Monitoring in Gas turbines	GTRE - DRDO	9.98	In progress

International Patent Granted: 1

Title: “A Patient Essentials Transport System”.

Date of Patent filed : 24/08/2021

Application Number : 697-01

Status : Patent Granted – 2021106704 Dt. 17 /11/ 2021

Recent Publications : 35

Thirty-five papers are published at national and International Journals / Conferences. Few are given below for your reference.

Journal Publication

1. Prasath J.S, **U. Ramachandraiah**, Dr. G. Muthukumar, Modified Hardware Security Algorithms for Process Industries Using Internet of Things, *Journal of Applied Security*, 2021, 16(1), pp. 127–140
2. Navaprakash N, **U. Ramachandraiah**, Dr. G. Muthukumar, Information based remote control system for climbing robot applications, *SSRG International Journal of Engineering Trends and Technology*, 2020, 68(3), pp. 6-11
3. Navaprakash N, **U. Ramachandraiah**, Dr. G. Muthukumar, Design & development of suction based wall-climbing system, *International Journal of Mechanical and Production Engineering Research and Development*, 2020, 10(2), pp. 537-550, IJMPERDAPR202048
4. Prasath J.S, **U. Ramachandraiah**, Dr. G. Muthukumar, Modified Hardware Security Algorithms for Process Industries Using Internet of Things, *Journal of Applied Security Research*, 2020.
5. Prasath J.S, **U. Ramachandraiah**, Dr. G. Muthukumar, Internet of things based hybrid cryptography for process data security, *Journal of Mathematical and Computational Science*, 2020, 10(6), pp. 2208-2232.
6. G. Muthukumar, **U. Ramachandraiah** et.al Automated tank gauging for hydrocarbon storage systems – an experimental approach, *International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)*, 2018, 8(6), 117-124.
7. G. Muthukumar, **U. Ramachandraiah** et.al, Live Demonstration: Wall Climbing Robot Using Fuzzy Based Adaptive Control System. *2018 IEEE SENSORS*, 2018, DOI: 10.1109/ICSENS.2018.8589709.
8. G. Muthukumar, **U. Ramachandraiah** et.al, Modeling and Experimental Analysis of Suction Pressure Generated by Active Suction Chamber Based Wall Climbing Robot with a Novel Bottom Restrictor. *Procedia Computer Science*, 2018, (133), 847-854. <https://doi.org/10.1016/j.procs.2018.07.110>

9. K. Venkatesan, **Uppu Ramachandraiah**, "Energy Conservation with Fuzzy Logic Controller towards Green Telecommunications," *International Journal of Control Theory and Applications* IJCTA ISSN: 0974-5572 Mar. 2017
10. G. Muthukumaran, **Uppu Ramachandraiah**, A novel wall-climbing robot with enhanced safety reserve vacuum reservoir system, *IEEE Transactions on Automation Science and Engineering*, April 2017
11. K. Venkatesan, **Uppu Ramachandraiah**, Optimal Scheduling of Air Conditioners for Energy Efficiency, *Journal of Electronic Science and Technology* (ISSN 1674-862X), Aug. 2017
12. K. Venkatesan, **Uppu Ramachandraiah**, Climate responsive Model predictive control of Round Clock Operated Cooling System with Energy Plus software and ANN, Elsevier-*Journal of Building Engineering* (ISSN 2352-7102), September 2017
13. P. Ramesh, **Uppu Ramachandraiah**, E-Token Energy-Aware Proportionate Sharing Scheduling Algorithm for Multiprocessor Systems, *Wireless Communications and Mobile Computing*, vol.2017, ArticleID 8382026, 6pages, 2017.
<https://doi.org/10.1155/2017/8382026>
14. G. Muthukumaran, Dr. U. Ramachandraiah, Development of Sliding suction cup-based wall climbing Robotic System. *International Journal of Control Theory and Applications*, 2016, 9(43), 485-496.
15. G. Muthukumaran, Dr. U. Ramachandraiah, Modelling and realization of pneumatics-based wall climbing robot for inspection applications, *International Journal of Engineering and Technology*, 2016, 8(5), 1999-2007.
16. G. Muthukumaran, Dr. U. Ramachandraiah, Development and analysis of robotic sliding suction cup system for wall climbing applications. *Indian Journal of Science and Technology*, 2016, 9(S1), 1-7.
17. K. Venkatchari, J.S. Prasath, **Uppu Ramachandraiah**, Sensor Node Failure Detection and Isolation using Distributed Bayesian Algorithm in Wireless Sensor Networks" *International Journal of Advanced Information Science and Technology*, ISSN: 2319-2682, vol. 5, No.3, pp. 39-42, 2016.
18. J.S. Prasath, **Uppu Ramachandraiah**, Implementation of Embedded Wireless Security System for Process Industry Applications, *International Journal of Control Theory and Applications*, ISSN: 0974-5572, vol. 9, No. 43, pp. 497-503, 2016
19. K. Venkatesan, **Uppu Ramachandraiah**, Energy Conservation for Base Transceiver Station Cooling System with Energy Plus Software, *Indian Journal of Science and Technology* ISSN : 0974-5645 Oct. 2016
20. I.Juvanna, **Uppu Ramachandraiah**, Acoustic Noise Reduction in MRI - A Review, *Indian Journal of Science and Technology*, Volume 9, Issue 39, Oct 2016
21. Sourabh Kumar, J. S Prasath, **Uppu Ramachandraiah**, Cascaded Bike Helmet Control System for Road Safety and Security, *Hindustan Journal*, 2016
22. P. Ramesh, **Uppu Ramachandraiah**, Slack Assessment of the Real Time Scheduling Algorithms, *International Journal of Control Theory and Applications*, volume 9, Number 43, pp. 559-564. 2016.
23. G. Muthukumaran, Dr. U. Ramachandraiah, J. Anand, Modelling of prosthetic limb with quadrature discrimination classifier using dynamic EEG signal, *International Journal of Applied Engineering Research*, 2015, 10 (80), 175-179.
24. G. Muthukumaran, Dr. U. Ramachandraiah, Dr. D.G. Harrius Samuel, Role of Nanorobots and their Medical Applications, *Advanced Materials Research*, 2015, 1086, 61-67.

25. Md. Danish Akhter, S. K. Indumathi, J. S. Prasath, **Uppu Ramachandraiah** “Implementation of Automated gas leakage monitoring system using ZigBee” *International Journal of Advances in Engineering*, ISSN: 2394-9260, vol. 1, Issue 2, pp. 72-77, 2015
26. K. Venkatesan, **Uppu Ramachandraiah**, Networked Switching And Polymorphing Control Of Electrical Loads With Web And Wireless Sensor Network, *International Conference on Robotics, Automation, Control & Embedded systems*, Pages 1-9, Chennai, Feb. 2015 DOI: 10.1109/RACE.2015.7097293
27. K. Venkatesan, **Uppu Ramachandraiah**, Adaptive Automation And Run Time Equalization With Real Time Monitoring For Split Air Conditioners in Telecom Applications For Energy Efficiency, *International Conference on Robotics, Automation, Control and Embedded systems* Pages: 1-8, Chennai, Feb. 2015 DOI: 10.1109/RACE.2015.7097296
28. Jisna S, J. S. Prasath, **Uppu Ramachandraiah**, Monitoring and Control of PV modules using Embedded Wireless Communication using Incremental Conductance method *International Journal of Emerging Technology in Computer Science & Electronics*, ISSN: 0976-1353, Vol. 13, Issue 1, 2015
29. Shijin Cherian Thomas, G Muthukumaran, U. Ramachandraiah, Design and development of multifunctional wall Climbing robot for NDE inspection at in accessible Areas, *International Journal of Advances in Science Engineering and Technology*, pp. 93-96 ISSN: 2321-9009 Volume- 2, Issue-2, April-2014
30. Abhishek S, J. S. Prasath, **Uppu Ramachandraiah**, Development of Wireless Sensor Networks in Monitoring of Automobile Exhaust Gases, *International Journal of Emerging Technology in Computer Science & Electronics*, ISSN: 0976-1353, vol. 13, Issue 1, 2015
31. Shashikant Singh, Dipankar Pandit, J.S. Prasath, **Uppu Ramachandraiah**, Emerging Trends of Embedded System for Industrial Applications, *International Journal of Advances in Engineering*, ISSN:2394-9260, Vol. 1, Issue 9, pp. 661 – 666, 2015