Raviteja Tirumalapudi

Career Objective

Engaging Engineering Teacher adept at instructing students on the intricacies of mechanical engineering in a structured classroom setting. Especially skilled at clearly explaining fundamental concepts through relevant examples and sound knowledge of classroom materials. Committed to remaining current in the field of engineering.

Education

2019– till now **Doctor of Philosophy**, *Robotics*, Vellore Institute of Technology, Vellore, Vellore.
(Not yet awarded. Pre PhD Course Work Completed)

2010–2012 **Master of Technology**, *Robotics*, SRM Institute of Science and Technology, Chennai.
Grade : First Class

2006–2010 **Bachelor of Technology**, *Mechanical Engineering*, Narasaraopeta Engineering College, Narasaraopeta.
Grade : First Class

Doctor of Philosophy thesis

title *Obstacle Detection and Motion Planning System with Deep Learning for Self-Driving Vehicles*

supervisors Prof. Dr.I.S. Rajay Vedaraj

Experience

Teaching

2019–Till Now **Teaching cum Research Assistant**, *Vellore Institute of Technology*, Vellore.
Work Description:
- Supported weekly lab sessions, contributing to student engagement, comprehension and learning objectives.
- Took attendance, graded assignments and maintained student records to assist teachers with administrative tasks and maintain smooth daily operations.
- Handled classroom administration for professors, including taking attendance and recording student progress.
- Performed research into study topics to increase knowledge and ability to provide valuable contributions.
- Write research papers, reports, reviews and summaries regarding Robotics, Data Science and self-driving cars.

2016–2019 **Associate Professor**, *Sai tirumala NVR engineering college*, Narasaraopet.
Work Description:
- Assisted professors and college administrators with continuous development, review, planning and outcomes evaluation to measure Mechanical Engineering program performance.
- Applied innovative teaching methods to encourage student learning objectives.
- Proctored exams and provided remediation for learning improvement goals.
- Evaluated student progress through analysis of test scores and homework completion.

2013–2016 **Incharge Head of the Department**, *St.Marys's group of institutions, Guntur*, Guntur.
Work Description:
- Established research agenda in Mechanical Engineering field to publish in peer-reviewed journals.
- Built strong rapport with students through class discussions and academic advisement.

2012 **Assistant Professor**, *Narasaraopeta Engineering College*, Narasaraopeta.
Work Description:
- Evaluated student progress through analysis of test scores and homework completion..
- Assisted professors and college administrators with continuous development, review, planning and outcomes evaluation to measure Mechanical Engineering program performance.

Publications

- Raviteja, Tirumalapudi, IS Rajay Vedaraj, R. Siva Krishnam Raju, and M. Yugandhar. "Heuristic Algorithm for Cooperative Motion Planning & Controlling of Unmanned Surface Vehicles." In IOP Conference Series: Materials Science and Engineering, vol. 1012, no. 1, p. 012020. IOP Publishing, 2021.(scopus)
- Raviteja Tirumalapudi, I S Rajay Vedaraj, " An Introduction Of Autonomous Vehicles And A Brief Survey", Journal of Critical Reviews, vol. 7, no. 13, pp. 196-202, Jun. 2020.(scopus)
- Raviteja Tirumalapudi, I S Rajay Vedaraj, " A New RT Shortest Path Planning Algorithm For Mobile Robot Navigation In Known Terrain", International Journal Of Scientific & Technology Research, vol. 9, no. 03, pp. 1044-1047, Mar. 2020.(scopus)
- Raviteja Tirumalapudi, I S Rajay Vedaraj, " Mobile Robots Obstacle Avoidance and Shortest Path Planning Using Algorithms – A Review ", Test Engineering &. Management, vol. 83, no. 03, pp. 22434-22443, Jun. 2020.(scopus)
- Rajay Vedaraj I.S, Jino.S.Ganesh, Niranjen swarup, Madhan Kumar, Raviteja Tirumalapudi, "ARTIFICIAL INTELLIGENCE USING IN VISUAL SLAM METHODS – A REVIEW", IJAST, vol. 29, no. 4s, pp. 3158-3167, Jun. 2020.(scopus)
- T. Ravi teja and S. Krishna chaitanya, "Autonomous robot motion path planning using shortest path planning algorithms" "International organization of Scientific Research Journal of Engineering (IOSRJEN)", vol.3 Issue 1, Jan-2013, e-2250-3021 ||V1||pp 65-69.
- T. Ravi teja and S. Krishna chaitanya, "Optimize The Heuristic Line Balancing Using Neural network Technique" "International Journal of Engineering Research and Technology(IJERT)", vol.2 Issue 3, Mar-2013, e-2278-0181.
- T. Ravi teja and S. Krishna chaitanya, "Design and Development of Vehicle Accident Detection System Using MEMS Technology" ,"International Journal of Engineering Research and Technology (IJERT)", vol.2 Issue 8, August -2013, e-2278-0181.
- T. Ravi teja and S. Krishna chaitanya, "Case study on Turbine Blade Internal Cooling", "International Journal of Engineering Research and Technology (IJERT)", vol.2 Issue 3, March -2013, ISSN: 2278-0181

- T. Ravi teja and S. Krishna chaitanya, "Computation of Natural Frequencies of Multi Degree Of Freedom System" ,"International Journal of Engineering Research and Technology(IJERT)", vol.1 Issue 10, Dec-2012, e-2278-0181.

Conferences

- Tirumalapudi Raviteja, Rajay Vedaraj .I.S, R. Siva Krishnam Raju, M. Yugandhar, "Heuristic Algorithm for Cooperative Motion Planning &. Controlling of Unmanned Surface Vehicles","International Conference on Robotics, Intelligent Automation and Control Technologies (RIACT 2020)", Vellore Institute of Technology-Chennai.

Workshops & Faculty Development Programs

- "Machine Learning & Artificial Intelligence using Spark" by Prashanth Shantigrama, Co-founder and Director , Golden Value Healthcare Pvt Ltd., Bangalore (02/2020) in VIT, Vellore
- "New Trends on Research and Development" by Ramesh T. Subramaniam, Professor, Malaysia, Malaysia (02/2020) in VIT, Vellore.
- "Patenting your inventions" by Dr SP Subramanian, Deputy controller of patents, Patent Office , Chennai (01/2020) in VIT, Vellore.
- "Swarm Intelligence in Engineering Applications" Dr.Suresh Chandra Satapathy, Professor & Dean Research, School of Computer Engineering, IIT Hyderabad,(12/2019) in VIT,Vellore.
- "AI and Cognitive Services" Ms. Alagunila Meganathan, Founder & CTO , Namakkal, Namakkal,(12/2019) in VIT,Vellore.
- "Artificial Intelligence and Computer Vision using Python based Machine Learning" Mr. Jai Ganesh Suresh, Lead Engineer, HCL Technologies, Chennai ,(12/2019) in VIT,Vellore.
- "Reinforcement Learning (Introduction, Q-Learning, and SARSA algorithm) and hands on session" Dr. Akshay Deepak, Faculty, NIT, Bihar, Senior Professor ,(12/2019) in VIT,Vellore.
- "Sentiment Analysis using KNIME: A Machine learning Approach" Prof.S. Chandrasekhar,PhD. (University of Georgia), Senior Professor & Director, IFIM, Bengaluru (11/2019) in VIT,Vellore.
- "Effectiveness of 5S thinking and its implementation on productivity of Engineering Industry" Mr. R. Shravan Kumar, Assistant Manager, BMW, Chennai (11/2019) in VIT,Vellore.
- "Implementation Practices on Artificial Neural Networks – Hands on with Python" Mr. Mithun DJ , Assistant Manager, Indictis Private Ltd, Bengaluru (11/2019) in VIT,Vellore.
- "IOT in CYBERSECURITY" PRASHANTH AC And Priya C Shekar, Technical Experts Cyber Security , SCHNEIDER ELECTRIC , Bangalore (10/2019) in VIT,Vellore.
- "IOT in Industrial Automation" Ajith Chathanath, Product Owner & Senior Principal, SCHNEIDER ELECTRIC, Bangalore (10/2019) in VIT,Vellore.
- "Artificial intelligence Vs Human intelligence: Nurturing Critical Thinking Skills" by Dr. K. Balaji Reddy, Director,Training & Development , Swarnandhra college of Engineering &. Technology, Narsapuram (10/2019) in VIT,Vellore.
- "Deep Learning Concepts with Convolutional Neural Network" by Mr. Mithun, Assistant Manager , Indictis Pvt Ltd, Bengaluru (10/2019) in VIT, Vellore.
- "Deep drive into Machine Learning Algorithms for Natural Language Processing" by Mr. Marakkannu M, Senior Director – Engineering, Kore.ai , Hyderabad (09/2019) in VIT, Vellore.
- "Autonomous Vehicle Technology" by Mr.Sankar TML, Divisional Manager- R & D division, Ashok Leyland Limited, Chennai (08/2019) in VIT, Vellore.
- Participated in a one day national level conference Transformation of Engineering Education over Decades- Its Future in Sai tirumala NVR engineering college, NRT.

- Participated in a two day national level workshop on "FINATE ELEMENT ANALYSIS" in NARASARAOPETA ENGINEERING COLLEGE, NRT.
- Participated in a two day national level workshop on "RECENT ADVANCES IN MECHANICAL ENGIEERING" in TIRUMALA ENGINEERING COLLEGE, NRT.
- Participated in poster presentation on Artificial intelligence and Robotics in SRM UNIVERSITY, Chennai.

On-line Courses

Coursera	Self-Driving Cars Specialization
Stanford University	XEE100 - 011 Introduction to Internet of Things
IEEE Online Training (CEU/PDH)	Developing and Validating Intelligent Vehicle Control Systems Cooperation in Autonomous Vehicles Sensors for Autonomous Vehicles Object Visual Detection for Intelligent Vehicles

Guest lecturers

CFD Lab	Two days guest lecture at Chirala Engineering College(02/2020)
CFD Lab	One day guest lecture at Chirala Engineering College(02/2018)
Robitcs	One day guest lecture at St. Marys Group of Institution Guntur (01/2013)
Automation in Manufacturing	One day guest lecture at St. Marys Group of Institution Guntur (01/2013)

Memberships

ISTE	Indian Society for Technical Education. No - LM 125728
IRED	Institute of Research Engineers and Doctors. No - SNM10100059417
IAENG	International Association of Engineers. No - 214423

Computer skills

Programming Languages	Python, Matlab.
OS	Windows, Linux.
Design packages	AutoCAD, ABB robot studio, Ansys, Car Sim, Carla.

Interests

- Travelling, Reading fiction novels, fish hunting, Cooking.

Languages

English	Expert

Telugu	Expert
Hindi and Tamil	intermediate

Personal Details

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Email	tirumala.raviteja@vit.ac.in t.raviteja@gmail.com
Skype	raviteja2044
Phone	(+91) 7416 799 380 (+91) 8886 108 555

Declaration

I hereby declare that the details furnished above are true and correct to the best of my knowledge and belief and I undertake to inform of changed therein, immediately.

Raviteja Tirumalapudi