

FACULTY PROFILE

				
1. Name	:	Viswavardhan Reddy Karna		
2. Date of Birth	:	06/06/1987		
3. Highest Qualifications	:	M. S, Ph.D.		
4. Experience	:	11 Years		
5. Email	:	viswavardhanreddy@gmail.com viswavardhank@rvce.edu.in		
5. Mobile	:	+91-8553839735		
6. Education Summary				
(High School to Highest Qualifications.)				
Qualifications	Board/ IIT/ University	Institute and place where studied	Year of passing	Class &% marks
S.S.L.C.	State board	SPG high school	2002	FC – 70 %
DIPLOMA	State board	Vasavi Polytechnic college	2005	FCD – 79.89 %
B.Tech. (ECE)	JNTU	ACET., Allagadda	2008	FC – 64.5%
M.S (Telecommunication Systems)	BTH, SWEDEN	BTH, SWEDEN	2011	FCD– 80.0% Grade: 3.8/5
Ph.D (Electronics Engineering) USN:14PPECE004	Jain University , Bengaluru	Design and Development of Remote Health Monitoring System and Predicting SCA/D Awarded on 16-01-2023.		
6. Date of Joining		:	11/09/2013	
7. Status as on date of Joining		:	Assistant professor	
8. Salary as on date of Joining		:	INR 44,000/-	
9. Present Status		:	Assistant Professor	
10. Salary as on date (Annual)		:	INR 12,84,868.00/-	
11. Number of promotions since date of joining		:	Senior Level (01-11-2024)	

Research Interests	:	Machine Learning, Deep learning, Data Science, Wireless Body Area Networks, Wireless Sensor Networks, Visible Light Communications, Computer Networking.
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Professional Experience:

Company/College	Role	Duration
RV College of Engineering	Assistant Professor	2013 – Till now
CMRIT	Assistant Professor	Feb 2013 – June – 2014.
Essl India Private limited	Network Administrator/ Technical Support Executive	Dec – 2011 till January 2013

Certification courses:



InsideAIML
Dedicated Platform For AI

CERTIFICATE OF COMPLETION

This is to Certify that

Viswavardhan Reddy Karna

has successfully completed online training and real-time projects hosted by industry experts in “**Master in Artificial Intelligence**” course.

InsideAIML Grade : 4.5

NLP : ★★★★★
CNN : ★★★★★
Neural Network : ★★★★★

Python Programming : ★★★★★
Communication Skills : ★★★★★
ML Algorithms : ★★★★★

Data Science : ★★★★★
Django : ★★★★★
Deployment : ★★★★★



CERTIFIED

Vikram Bakre

Vikram Bakre,
CTO, InsideAIML.

Certificate Id: 3794-4517-790-0216

Issue Date : 13 April 2023
Issued From : Leeds, UK.

Master in AI in InsideAIML - (15 oct 2022- 15 Apr 2023).

Data Scientist Intern. In Ambrapali Electrotech Pvt Ltd (15 oct 2022- 15 Apr 2023).

- **Role and Responsibilities:**

- o Handled large amount of data to clean and pre-process.
- o Perform pre-processing of structured and unstructured data
- o Review large amounts of information to discover trends and patterns in order to provide suggestions to the R&D team
- o Organize and present information using data visualization techniques
- o Create predictive models and machine-learning algorithms
- o create a model for a telecommunication company, to predict when its customers will leave for a competitor, so that they can take some action to retain the customers.
- o create a model for House price detection
- o non-attack traffics to the dataset so the model can differentiate between the attack and the non-attack ones!
- o Predicting Possible Loan Default Using Machine Learning
- o A banking chatbot project is built using artificial algorithms that analyses user's queries and understand user's message

Professional Memberships:

- **IAENG life time Member** (Membership No: 320653)

Awards & Achievements:

- Felicitated by RSST Trust for the award of the PhD Degree in January 2023.

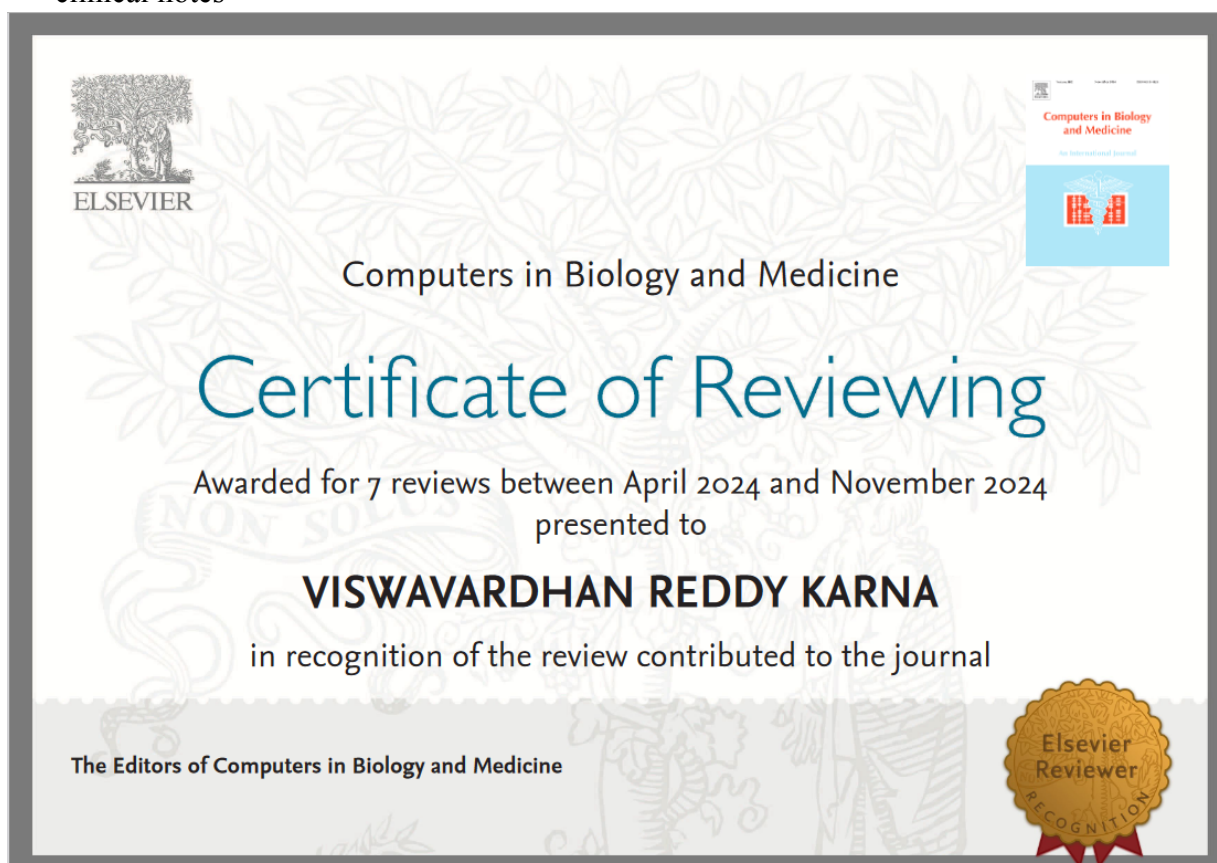
Attended and completed IGNITE – Orientation Program on Entrepreneurship

Journal Reviewer:

1. **IEEE Access** – 2 Articles
2. **Elsevier:** Computers in Biology and Medicine (7 articles)
3. Reviewer for various conferences in IEEE.

Titles of the articles reviewed:

- Comprehensive Prediction of Outcomes in Patients with ST Elevation Myocardial Infarction (STEMI) Using Tree-Based Machine Learning Algorithms
- Comprehensive Prediction of Outcomes in Patients with ST Elevation Myocardial Infarction (STEMI) Using Tree-Based Machine Learning Algorithms
- Artificial Intelligence (AI) to Predict Sepsis Early in Patients Admitted to Intensive Care Unit (ICU)
- Detection and Classification of cardiovascular diseases with hybrid CNN -VAE model
- Early diagnosis of HIV cases by means of Text Mining and Machine Learning Models on clinical notes
- Multi-Modality Machine Learning Models to Predict Stroke and Atrial Fibrillation in Patients with Heart Failure
- Early diagnosis of HIV cases by means of Text Mining and Machine Learning Models on clinical notes



Skill Lab:

1. Trained students on PowerBI for Dept of AIML students (I sem)
2. Trained students on PowerBI for Dept of EIE students (V sem)
3. One full day training on AIML concepts and practical's for international students (German Program)
4. Trained students on DJANGO framework for CSE, ISE and AIML cluster students.
5. Trained students on networking concepts in dept. of ETE.

Writing research proposal to various funding agencies**1. DEPARTMENT OF SCIENCE AND TECHNOLOGY (2022)**

Scheme Applied: SCIENCE and ENGINEERING RESEARCH BOARD (SERB), Core Research Grant

Title of the Project: Design and Development of Secure Cloud based Remote Patient Health Care Monitoring System

PI: Dr. Premananda B.S, Co-PI: Mr. Viswavardhan Reddy K, Budget: Rs. 18,85,000/-

2. VISION GROUP ON SCIENCE AND TECHNOLOGY (2021)

Scheme Applied: CESEM - Centre of Excellence in Science, Engineering and Medicine

Title of the Project: Design, Development and Implementation of Body Area Network for Prediction of Diseases using Machine Learning Techniques

PI: Dr. Premananda B.S., Co-PI: Mr. Viswavardhan Reddy K., Budget: Rs. 11,46,044/-

3. PI: Dr. Premananda B.S, Co-PI: Mr. Viswavardhan Reddy K

Title: Written and submitted a research proposal to DST on "Design, Development and Implementation of Efficient Wireless Power Transfer Algorithm in Wireless Sensor Networks using Coalition Game theory". (2020)

Citations:**1. Scopus Citations**

<https://www.scopus.com/authid/detail.uri?authorId=57216412900>

2. Web of Science Citations

Researcher ID: [Q-1012-2016](#)

3. Google Scholar Citations

<https://scholar.google.com/citations?user=w5IeE7QAAAAJ&hl=en&authuser=1>

4. Publons:

<https://publons.com/researcher/2195743/viswavardhan-reddy-karna/>

Conferences/Workshop/FDP/STC Attended:

1. One-week International online FDP "Gen AI Integrated International Online Faculty Development Program on Cloud and DevOps" organized by Marian College Kuttikkanam and Amal Jyothi College of Engineering, in association with ipsr solutions limited and Valin - UK, USA and Canada from 23 August 2024 to 03 September 2024.
2. One-week International online FDP on 'Data Visualization and Analytics' with Excel, Power BI, Tableau and Generative AI, organized by the PG Department of Computer Applications, and IQAC of Marian College Kuttikkanam in association with ipsr solutions limited and Valin - UK, USA and Canada, from 05 July 2024 to 11 July 2024

3. One day Workshop on “Data Analytics & AI”, Centre for Computer Science and Information Technology (CCSIT), Manjeri, University of Calicut, on 15th June 2024.
4. One week FDP on “Antennas for 5G communications and Beyond”, July 4 – July 7 2023.
5. One week workshop on “Trends and Opportunities in E-Vehicles” May 2nd – 7th, 2022.
6. A five day workshop on advanced signal processing, communications using AI and ML Techniques, Department of ECE of GMR Institute of Technology and Sri Sairam Institute of Technology, 21st to 25th March, 2022.
7. A five day Universal Human Value on the theme “Inculcating Universal Human Values in Technical Education”, AICTE, 14/12/2020 to 18/12/2020
8. One week “Nokia FDP on LTE & 5G 2020, R.V.C.E (online)”, 21-24 Sept 2020.
9. A quiz on Sports Awareness, Dept. of Physical Education and Sports, R.V.C.E, 25/7/2020 – Secured 90%.
10. One week FDP on “Recent advances on Biomedical applications and communication Networks”, Dept. ECE, GMRIT, Rajampet, AP, 13 – 18th July 2020.
11. Participated in 6th international conference on Electronics, Computing and Communication Technologies IEEE CONECCT 2020, 2-4th July 2020.
12. A five day workshop on “The Growing Role of IOT in Latest Technological Trends”, organized by Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal, 22nd to 26th June 2020.
13. A three day webinar series on “Telemedicine, IoT, and Nano science”, GSSSIETW, IEEE Bangalore section, 10-12th June 2020.
14. A webinar titled ”How 5G will reshape Business and Open up New Opportunities”, ETE, RVCE, 10th June 2020.
15. A webinar on “5G Technology and its applications”. EduXtech, RVCE, 8th June 2020.
16. A webinar on “AI and Data Science”, IEEE CAS, 30th May 2020.
17. A five day workshop on STTP on recent trends and applications of ML and DL in IoT, 25/05/2020 – 29-05-2020
18. A webinar on “COVID-19- Is it a blessing in disguise”, BIT, 22nd May 2020.
19. Attended IEEE COMSOCs 5G – SUMMIT, 12/04/2019, Accenture, Bengaluru.
20. A 3-day workshop on “Probability and Random Variables” from 03 - 05 June 2019 at R.V. College of Engineering, Bengaluru.
21. Attended IEEE COMSOCs 5G – SUMMIT, 17/08/2019, Nokia, Bengaluru.
22. A technical Talk on “Recent trends on Small Satellites” 09/02/2018, at Dept of ECE, REVA UNIVERSITY, Bengaluru
23. A technical Talk on “Recent trends in 5G technology” 10/02/2018, at Dept of ECE, REVA UNIVERSITY, Bengaluru
24. A two days workshop on “Research Methodology” from 02-03 May 2018 at Dayanand Sagar College of Engineering, Bengaluru.
25. A two day workshop on "Advances in Computing Tools & Technology" from 11th – 12th August 2017, at Department of ISE, RVCE, Bengaluru.
26. A three day workshop on “Introduction to Research” from 18-20 February 2017 at Department of MCA, RVCE, Bengaluru.
27. A six-day course on “Nanoscale Wireless Networking: Opportunities, challenges and Recent Advanced” from 19-24 December 2016 at NIT-GOA.
28. Attended Summer school 2016 on "Data Mining and Machine learning" from 06-06-2016 to 18-06-2016 at IIT-Gandhi Nagar, GUJARAT.
29. One day workshop on "Technical Challenges in Internet of Things", 23rd April 2016, at Golden Jubilee Seminar Hall, ECE Dept, IISc.
30. Five- day workshop on “Pedagogy Training”, 13th to 17th July., 2015, RVCE, Bengaluru.

31. Two-day workshop on “Outcome Based Education”, 18th to 19th June., 2015, Department of TCE, RVCE, Bengaluru.
32. Five- day workshop on “Project Management”, 4th to 8th Aug., 2014, Department of Mechanical Engineering, RVCE, Bengaluru.
33. Faculty Development Programme on “Estimation and coding for Multimedia Processing”, 30th June to 5th July 2014, National Institute of Technology, Calicut.
34. Five- day workshop on “Design of RF & Digital Communication Systems”, 3rd to 7th Feb., 2014, Department of TCE, RVCE, Bengaluru.
35. Five- day workshop on “Enhancement of Research competence in Network Simulation”, 27th to 31st Jan., 2014, Department of CSE, RVCE, Bengaluru.
36. One-day TEQUIP –II sponsored Pedagogy Training, organized by RVCE, on 8th November 2013, Bengaluru.

Technical talks Organized

1. A talk on “Audio Representation and Compression”, 25/02/2022, by Mr. Ashok Magadum, Vice President of Engineering, Saranyu Technologies, Bengaluru.
2. A talk on Internet of things by Gill Instruments Sept. 8 2021.

Organized FDP's

1. One week FDP on Software Defined Networks and its Applications" from 27th September to 1st October 2021.

Outside world Interaction:

1. Member in conducting IEEE Comsoc's, Ph.D Colloquium, at Amrutha University, October 2020, Bengaluru.
2. Member in conducting IEEE Comsoc's, Ph.D Colloquium, at Amrutha University on August 18th of 2019, Bengaluru.
3. Preparation of IP networking for Data/Voice/Video Question paper for NMIT College during 2017.
4. Helped in getting three M.Tech internships with CDAC by talking to Mr. Haribabu, chief technical officer in the year 2016-17.
5. Appointed as examiner for practical examinations for Dr. AIT during July-Aug 2016.
6. Helped in getting two M.Tech internships with CDAC by talking to Mr. Haribabu, chief technical officer in the year 2015-16.
7. Preparation of Research Methodology Question paper for VTU during 2015 and 2016 years.
8. Went for valuation of subjects like Research Methodology, Adhoc Networks, wireless systems, and wireless communication in RNSIT and VTU regional office during 2015, 2016 and 2017 years.

List of Publications: International Journals

1. Karna, V.V.R., Karna, V.R., Janamala, V. *et al.* “A Comprehensive Review on Heart Disease Risk Prediction using Machine Learning and Deep Learning Algorithms” *Arch Computat Methods Eng* (2024). <https://doi.org/10.1007/s11831-024-10194-4>
2. Viswavardhan Reddy Karna, Karna Vishnu Vardhana Reddy, “1-dimensional convolutional neural networks for predicting sudden cardiac”, *IJ-AI*, Vol. 13, No. 1, March 2024, pp. 984~993
3. K. Viswavardhan Reddy and Navin Kumar, “Automated prediction of sudden cardiac death using statistically extracted features from electrocardiogram signals”, *IJECE*, Vol.12, no.5, Oct 2022.

4. Reddy K. Viswavardhan, B. Hemapriya, B. Roja Reddy, B.S. Premananda,"Performance Evaluation of ML Algorithms for Disease Prediction Using DWT and EMD Techniques", *Computational Intelligence and Machine Learning Approaches in Biomedical Engineering and Health Care Systems* (2022) 1: 96.
5. Anoosh Ram Krishnamoorthy, Sinchana Sharon, R Prakash and Viswavardhan Reddy Karna, "Comparative Study of Machine Learning Algorithms For Product Recommendation Based On User Experience," *ECS Transactions*, Volume 107, Number 1, 2022.
6. Mahesh Kurtkoti, Premananda BS, K. Vishwavardhan Reddy, "Performance Analysis of Machine Learning Algorithms in Detecting and Mitigating Black and Gray Hole Attacks", [Lecture Notes on Data Engineering and Communications Technologies](#), LNDECT,volume 96, 24 Feb 2022.
7. K. Viswavardhan Reddy and Navin Kumar, "SNR based Energy Efficient Communication Protocol for Emergency Applications in WBAN", (*IJACSA International Journal of Advanced Computer Science and Applications*, Vol. 12, No. 9, 2021 (Q3).
8. Viswavardhan Reddy K., Kumar N. (2021) A Framework for Remote Health Monitoring. In: Tuba M., Akashe S., Joshi A. (eds) *ICT Systems and Sustainability. Advances in Intelligent Systems and Computing*, vol 1270. Springer, Singapore.
9. Raksha K and K. Viswavardhan Reddy, "Development of a Test Frame Work for Performance Management of CFX-5000", Published in Wutan Huatan Jisuan Jishu Journal, June 2020.
10. Vaibhavi and K. Viswavardhan Reddy, "Stock Market Prediction Using Machine Learning Techniques", in *International Research Journal of Engineering and Technology (IRJET)* Volume 7, Issue 6, June 2020.
11. Ashwini and K. Viswavardhan Reddy, "Predicting the User Behavior Analysis based on browsing history using ML Algorithms", in *International Research Journal of Engineering and Technology (IRJET)* Volume 7, Issue 7, July 2020.
12. Viswavardhan Reddy K and Vishnuvardhana Reddy K, "Power Efficient Advanced Node Clustering Hierarchy Protocol for WSN", *IOSR Journal of ECE*, Vol. 11, Issue 3, Ver.1, May - June 2016.
13. Viswavardhan Reddy.K., Shiva Chaitanya.N., Vishnuvardhana Reddy.K., "Performance evalaution of various opensource projects that provide SIP functionality", *IJSER*, Volume 5, Issue 12, December 2014, ISSN: 2229-5518.
14. S.GowriShankar, Viswavardhan Reddy K, K Vishnuvardhana Reddy, "Design and Simulation of Horn Antenna in x-Ku Band for Satellite Communications", *IJRST*, Volume I, Issue 10, November 2014, ISSN: 2349 - 0845.
15. S.GowriShankar, Viswavardhan Reddy K, "Design of a 90° Switched line Phase Shifter for Phased Array Antennas", *IJRET*, Volume: 3, Issue: 10, October 2014, ISSN: 2319 -1163.
16. Viswavardhan Reddy. K, Masumi Dutta, Maumita Dutta, "Design and Analysis of BPF for Wireless Communication", *IJLTEMAS*, Volume III, Issue VI, June 2014, ISSN: 2278 – 2540.

17. Shiva Chaitnaya Nallapati, Swarnalatha Mannar Mannan, Viswavardhan Reddy Karna "Comparison of Encryption Algorithm in IP Multimedia Subsystems", Electrical Engineering, Blekinge Institute of Technology, Sweden, *IJCST*, Vol. 2, SP 1, December 2011 ISSN : 0976-8491(Online).
18. Performance Evaluation of Various Open Source SIP Server Softwares in Sweden, Master's thesis, *Swedish University essays*, 2011.

International Conferences:

1. A. M. Anjana Sundari, N. Dipesh Pareriya and V. Karna, "Development of Apparel 360° - An AR based Virtual Trial Room," *2023 International Conference on Digital Applications, Transformation & Economy (ICDATE)*, Miri, Sarawak, Malaysia, 2023, pp. 1-5, doi: 10.1109/ICDATE58146.2023.10248652.
2. Praveen Muragod, K. Viswavardhan Reddy, "Animal Intrusion Detection using various deep learning models", *in the proceedings of IEEE NKCon-2022*, BLDEA'S P. Dr. P. G. HCET, Vijayapur, Karnataka, 20-21 Nov 2022.
3. K. R. G. D. V and K. V. Reddy, "Implementation of Server Based Authentication Security System using Augmented Reality," *2022 IEEE 3rd Global Conference for Advancement in Technology (GCAT)*, Bangalore, India, 2022, pp. 1-5
4. E N, S., & Reddy, K. V. (2021). Design of Vehicle to Vehicle Communication using Visible Light Communication. *SPAST Abstracts*, 1(01).
5. Priya, B.H., Chaitra, C., Reddy, K.V., "Performance Analysis of Machine Learning Algorithms for Disease Prediction", *Grace Hopper Celebration India*, GHCI 2021.
6. Usha N, and K. Viswavardhan Reddy, "Dynamic spectrum sensing in cognitive radio networks using ML model", *in the proceedings of 3rd ICSSIT*, 20-22 August 2020, India.
7. Spandana Srinivas and K. Viswavardhan, "A survey on various message brokers for real time Big data", *in the proceedings of ICSCN-2019*, 30-31 July, 2019, Erode, India.
8. Sujatha Bogur and K. Viswavardhan, "Implementation of AOR alarm system for network elements and their service impact analysis", *in the proceedings of ICSCN-2019*, 30-31 July, 2019, Erode, India.
9. K. V. Reddy and N. Kumar, "Wavelet based Analysis of EEG Signal for Detecting various Conditions of Driver," *2019 International Conference on Communication and Signal Processing (ICCSP)*, Chennai, India, 2019, pp. 0616-0620.
10. K. Viswavardhan Reddy and Dr. Navin Kumar, "Determination of Absolute Heart Beat From Photoplethysmographic Signals in the Presence of Motion Artifacts", *in the proceedings of IEEE, ICAECC*, February 9-10, 2018, India.
11. Usha R., Premananda B.S., Viswavardhan Reddy K, "Network Performance Analysis of MANET Routing Protocols with various Mobility Models", *in the proceedings of IEEE International Conference On Recent Trends In Electronics Information Communication Technology*, May 19-20, 2017, India.
12. Usha R., Premananda B.S., Viswavardhan Reddy K, "Performance Analysis of MANET Routing Protocols for Military Applications", *in the proceedings of IEEE international conference on Intelligent Computing and Control Systems*, Madurai (India), 15-16 June 2017, India.

13. B.M.Adarsha., Surya Prakash., Vishnu G. Naik, and K. Viswavardhan Reddy, "Wireless Power Transfer for Wireless Sensor Network Using Hybrid algorithm", *in the proceedings of IEEE International conference on ICCMC*, Surya Engineering College, Erode, 16-17 June 2017, India.
14. Akshata Sangannavar, Viswavardhan Reddy K, "PAPR optimization in MIMO-OFDM system for Wimax", *in the proceedings of IEEE International conference on ECDS*, SKR engineering college, Peenamalle, TN, INDIA, 1-2 August 2017.
15. Meghana P, VV Sravani, Prabha Venkatesh , Gaurangi Sahay, and Viswavardhan Reddy K, " SDR based single channel S-AIS receiver for Satellites", *in the proceedings of 10th IEEE International Conference on Advanced Networks and Telecommunications Systems*, 6-9 November 2016, IISc, Bengaluru, INDIA.

National Conferences

16. Amal Sabu, Keshihaa Rudra gana dev, and K. Viswavardhan Reddy, "Implementation of Server Based Authentication Security System using Augmented Reality", *Digital Technologies for Smart Cities, WTISD*, RV College of Engineering, Bengaluru, 17-18th May 2022.
17. Shubham Gupta, and Viswavardhan Reddy K, "Path Loss Models and Optimization of parameters in Indoor Environment," *in the proceedings of national conference on Information and Communication Technologies (ICT)*, RV College of Engineering, Bengaluru, page: 168-171, 16-18th May, 2016.

List of duties performed in College:

1. Committee Member for Spandana Magazine during the years 2021, 2022, 2023.
2. Time Table coordinator for ETE dept. – 2018, 2019
3. Physical Stock verification – ECE department – 2016, 2018
4. Gown committee member for graduation day - 2015

Administration department level:

- Students Achievements file
- Prepared syllabus for the following courses in Dept of AIML: 2022 scheme
 - Artificial Neural Networks and Deep Learning
 - Advanced Computer Networks
 - Advanced Topics in AI
- Prepared laboratory manuals for
 - Computer communication networks -6th sem (ETE) - UG
 - Wireless Communication Lab – 7th sem (ETE) - UG
 - Advanced digital communication lab – I sem (DCE) – PG
- Coordinating Internal Assessment Tests conduction for 5 years
- Time Table coordinator from 2018 - 2020 (Dept of ETE).
- Committee member for Dept. Newsletter, Tarangavani in connection with National Conference (WTISD) held in 2017, 2018, 2019 and 2020.
- Technical Seminar Coordinator for UG for two academic years.
- Internship coordinator.
- Contributed for NBA for PG and UG (in various Criteria of 1, 3, 6 and 9) from 2015 - 2024
- Part of department NBA and NAAC documentation and filing.
- Helped in updating the records during the visits.
- Placement Coordinator for UG and PG (for 6 months).

- Faculty counsellor for 2018-2022 batch students in ETE.

Self-Appraisal:**Major Strengths:**

- (a) Hard work and dedicated
- (b) Focused in accomplishing any given task
- (c) Committed in Teaching and Academic activities

Major Weaknesses:

- a) Short Tempered
- b) Zero tolerance towards indiscipline in class

PERSONAL DETAILS

Gender : Male
Nationality : Indian
Languages Known : Kannada, English, Hindi and Telugu
Telephone : +91-8553839735
Address : 301, #814 Srusti Enclave, 5th cross, BHCS Layout,
Padukamandir road, Uttarahalli Hobli 2nd phase, Subramanyapura
Bengaluru – 61, Karnataka, India.

Dr. K. Viswavardhan Reddy