# Dr Venkata Phanikrishna B
## *Curriculum Vitae*

⌂ C-1, Faculty quarters, IIITV-ICD, Education Hub, DIU-362520, India
☎ +91 9908261261
✉ venkata_phanikrishna@diu.iiitvadodara.ac.in
🖥 **ORCID**: 0000-0003-3384-7841
**ResearcherID**: AAC-5827-2021
**GoogleScholar**: JVS6gc8AAAAJ

## WORK EXPERIENCE

CURRENT, FROM 17-MAY-2024 (FT)

### IIIT-Vadodara - International Campus Diu (IIITV-ICD), DIU
**Assistant Professor Grade-II.**

*Responsibilities*: Teaching a requisite number of classes. Providing academic support to Professors and other faculty members.

03-JUN-2021 — 10-MAY-2024 (FT)

### Vellore Institute of Technology (VIT) Vellore, TN
**Assistant Professor Sr. Grade 1**

*Responsibilities*: Teaching a requisite number of classes. Providing academic support to Professors and other faculty members.
*Administrative Assignments*: DAA Course Coordinator. Proctor for 25 students. Worked as team member in "NAAC-2022 Team": Verification of Criteria-6, Governance Leadership and management.

12-JUN-2015 — 28-DEC-2015 (FT)

### Aditya College of Engineering and Technology, AP
**Assistant Professor**

*Responsibilities*: Teaching a requisite number of classes. Providing academic support to Professors and other faculty members.
*Administrative Assignments*: Proctor for 15 students. Gate exam Coordinator. Caretaker of Boys Hostel B 2nd Flore.

9-JAN-2014 — 8-JUNE-2015 (FT)

### DNR College of Engineering and Technology, AP
**Assistant Professor**

*Responsibilities*: Teaching a requisite number of classes. Providing academic support to Professors and other faculty members.
*Administrative Assignments*: Class Teacher for 3rd. B-Tech. C.S.E. Seminar coordinator for Dept. of C.S.E. Project Guide for 2-M-Tech & 2-B-Tech Projects.

18-JUN-2010 — 10-APR-2011 (FT)

### Naipunya Sourcing Pvt Ltd, TS
**Software Developer**

Java application developer and Tester

## INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

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|---|---|
| MOODLE | Lab assignments and Exams |
| MS-TEAM | To instruct, Supply materials |
| CODETANTRA | Conducting theory exams and Evolution |

## DOCTORAL RESEARCH

**"Study Of Single Channel EEG Signal Analysis for Drowsiness Detection Using Machine Learning"**

Drowsiness is characterized by reduced attentiveness, commonly experienced during the transition from wakefulness to sleepiness. It can significantly decrease an individual's alertness, thereby increasing the risk of accidents during activities such as driving, crane operation, working in mining areas, and operating industrial machinery. Detecting drowsiness plays a critical role in preventing such accidents. In my research work, I have proposed a model capable of detecting human drowsiness by analyzing EEG signals. This model has been designed to focus on single-channel EEG due to its advantages, including low cost, ease of configuration, convenience of use, ease of signal capture and analysis, and compatibility with portable and mobile devices. My contributions to this research encompass channel selection, signal analysis, feature extraction, feature selection, and machine learning-based analysis.

## EDUCATION

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|---|---|
| 2016 – 2021 | **Doctor of Philosophy (Ph.D.)**<br>Computer Science and Engineering<br>*National Institute of Technology (NIT) Rourkela* |
| 2011 – 2014 | **Master of Technology (M-Tech)**<br>7.64 CGPA, FIRST CLASS HONORS<br>Computer Science and Technology<br>*Andhra University, AP* |
| 2006 – 2010 | **Bachelor of Technology (B-Tech)**<br>68.44%, FIRST CLASS HONORS<br>Department of Information-Technology<br>*JNTUK, AP* |
| 2004 – 2006 | **Intermediate (+2)**<br>87.50%, FIRST CLASS HONORS<br>MPC (Maths Physics and Chemistry)<br>*Board of Intermediate Education AP* |
| 2003 – 2004 | **SSC (10th class)**<br>73.33%, FIRST CLASS HONORS<br>*Board of Secondary Education AP* |

## COMMUNICATION SKILLS

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|---|---|
| CONFERENCES | Oral Presentation at the MANIT, Bhopal SCEECS-2020 IEEE conference – 2020 |
| | Oral Presentation at the IIIT Bangalore Adcom-2018 conference – 2018 |

## AWARDS

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|---|---|---|
| 2023 | **Research Award for journal publication and H-index** | |
| | *VIT, Vellore* | |
| 2020 | **Second prize in SCEECS-2020 IEEE conference** | |
| | *MANIT, Bhopal* | |
| 2018 | **JAM AI challenge championship winner (in Team)** | |
| | *IIIT Bangalore* | |
| 2016 | **Indian Govt. MHRD Ph.D. fellowship** | |
| | *National Institute of Technology-Rourkela* | |
| 2010 | **Academic Best Project** | |
| | *Impart-Technologies* | |

## PROFESSIONAL BODIES

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|---|---|---|
| LIFE MEMBER | **Indian Society for Technical Education** | |
| | *ISTE Membership No: LM-137576* | |
| LIFE MEMBER | **International Association of Engineers** | |
| | *IAENG Membership No: 345104* | |
| ANNUAL | **IEEE Graduate Student Member** | |
| | *Membership No: 93946753* | |

## COMPUTER SKILLS

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|---|---|
| BEGINNER | R, NS2 |
| INTERMEDIATE | Java, MATLAB, C++<br>Computer Hardware & Support |
| EXPERT | Python, C |

## SKILLS

*Goal Oriented*

I believe in action over long-winded discussions. I listen to everyone's viewpoints and use my judgement to immediately act based on consensus to achieve goals quickly and efficiently.

*Passionate*

I have been interested in the biosignal analysis and Machine learning such as understanding of EEG signal mechanism and relativity from an early age. My education and research have cemented this interest into a passion. I greatly enjoy carrying out my research area to the development of low-cost and portable bio-signal processing methods for clinical and general-purpose through understanding present living styles and expectations, as well as minimizing accidental and health-related risks.

## PUBLICATIONS

### *Publications in Journals*

1. **Balam, Venkata Phanikrishna**, and Suchismitha Chinara. "Statistical Channel Selection Method for Detecting Drowsiness Through Single-Channel EEG-Based BCI System." IEEE Transactions on Instrumentation and Measurement 70 (2021): 1-9. DoI: https://doi.org/10.1109/TIM.2021.3094619 (Publisher: IEEE Transaction, Published data: 05-July-2021, ISSN: 0018-9456, IF: 4.016, Indexed: SCI, Citations: 10)

2. **Balam, Venkata Phanikrishna**, and Suchismitha Chinara. "Development of single-channel electroencephalography signal analysis model for real-time drowsiness detection." Physical and Engineering Sciences in Medicine 44(3): 713-726 (2021): 1-14. DoI: https://doi.org/10.1007/s13246-021-01020-3 (Publisher : Springer, Published data: 31-May-2021, ISSN: 2662-4737, IF: 1.430 Indexed: SCI, Citations: 3)

3. **Venkata Phanikrishna, B.**, Jaya Prakash, A., & Suchismitha, C. (2023). Deep Review of Machine Learning Techniques on Detection of Drowsiness Using EEG Signal. IETE Journal of Research 69(6),3104-3119. DoI:https://doi.org/10.1080/03772063.2021.1913070 (Publisher : Taylor & Francis, Published Online: 05-May-2021, Published Print: 18-August-2023, ISSN: 0377-2063, Indexed: SCI, IF: 1.24, Indexed: SCI, Citations: 13)

4. **Balam, Venkata Phanikrishna**, Venkata Udaya Sameer, and Suchismitha Chinara. "Automated classification system for drowsiness detection using convolutional neural network and electroencephalogram." IET Intelligent Transport Systems 15, no. 4 (2021): 514-524, DoI: https://doi.org/10.1049/itr2.12041 (Publisher : Wiley, Published data: 23-Feb-2021, ISSN: 1751-9578, IF: 2.496, Indexed: SCI, Citations: 22)

5. **Venkata phanikrishna B** & Suchismita Chinara. Automatic Classification Methods for Detecting Drowsiness using Wavelet Packet Transform extracted time-domain features from Single-channel EEG Signal. Journal of Neuroscience Methods, 347, 2020. DoI: https://doi.org/10.1016/j.jneumeth.2020.108927 ; (Publisher : Elsevier, Published data: 14-Sep-2020, ISSN: 0165-0270, IF: 2.390, Indexed: SCI, Citations: 55)

6. **Venkata phanikrishna B** and Srinivasarao "A Novel Technique for Creative Problem-Solving by using Q-learning and Association algorithm" International Journal of Research in Computer and Communication Technology, Vol 3, Issue 8, August 2014.

### *Publications in Conferences*

1. **Venkata Phanikrishna B** & Suchismita Chinara. Time Domain Parameters as a feature for single-channel EEG-based drowsiness detection method. 2020 SCEECS, IEEE, NIT, Bhopal, India, Feb. 22-23, 2020. DOI: https://doi.org/10.1109/SCEECS48394.2020.61 (Publisher : IEEE; Published data: 07-May-2020; ISSN: 2688-0288; ISBN:978-1-7281-4862-5 Citations: 13)

2. **Venkata phanikrishna B**., Suchismita Chinara., & Mahasweta Sarkar.(2018). Drowsiness detection by analysis of EEG signal with the help of Machine Learning. ADCOM-2018, Advanced Computing and Communications Society (ACCS), IIIT, Bangalore, India, Sep. 21-23, 2018. Available at: https://accsindia.org/downloads/ADCOM-2018-papers/ADCOM_2018_paper_62.pdf (Publisher: Advanced Computing and Communications Society (ACCS); Published data: 27-Oct-2018; ISBN 978-93-5321-421-0 Citations: 5)

3. **B V Phanikrishna** And K Surya Ram Prasad, A Novel Framework for Privacy Conserving Data Publishing and Handling High Dimensional Data (Conference paper) International Journal of Advanced Research in Computer Science, Vol 5, Issue 2, 2014. Available at: http://www.ijarcs.info/index.php/Ijarcs/article/view/2025

### *Publications in Book-Chapters*

1. **Venkata Phanikrishna B** & Suchismita Chinara, Analysis of EEG signal for drowsy detection: A machine learning approach. in Soft Computing in Interdisciplinary Sciences, Springer DoI: https://doi.org/10.1007/978-981-16-4713-0_7 (Publisher : Springer Published data: 02-Nov-2021, ISBN: 978-981-16-4713-0)

# INSTITUTE OUTREACH ACTIVITIES

*Faculty Development Program (FDP)*

- Five Days FDP on Artificial Intelligence in Solving Real World Problems organized by Academic Staff College in association with School of Computer Science and Engineering of VIT Vellore from 17-Oct-2022 to 21-Oct-2022. Course Coordinator: Venkata Phanikrishna B and Saraswathi Priyadharshini, Number of Participants=70.

*Foreign Guest Lecture*

- Foreign Guest Lecture on the topic of "Challenges in AI for the Medical Sector", on 30-Oct-2023 (Monday) (Faculty Conveners: Dr. Venkata Phanikrishna B and Dr. and Dr Allam Jaya Prakash ), Number of Participants=50.

*Industry Expert Lecture*

- Industry Expert Lecture On "Advanced Code Optimization Techniques" on 25-Apr-2022 (Monday); (Faculty Conveners: Dr. Gopi Chand G and Dr. Venkata Phanikrishna B), Number of Participants=65

- Industry Expert Lecture On "Applications of Compiler and Career Opportunities" on 20-Mar-2023 (Monday); (Faculty Conveners:Dr. S.A. Sahaaya Arul Mary and Dr. Venkata Phanikrishna B), Number of Participants=80

# DECLARATION

I hereby declare that, to the best of my knowledge and belief, the information presented above is true, accurate, and comprehensive.

Yours sincerely,
Dr. Venkata Phanikrishna B