



Faculty Development Program











VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Discussion Points

- Evolution of Natural Language Processing with hands on
- Gen AI and Natural Language Processing
- Challenges from Research and Industry Perspective
- Multimodal social media data analysis
- Hands on session on multimodal social media data analysis
- Language Models and RNN
- Language Models and RNN hands-on
- Design thinking
- Design thinking in Computer vision
- Deep learning Algorithms
- Deep learning Algorithms in NLP Hands-on
- Data science fundamentals
- NLP
- How NLP culminates into Generative AI (LLMs)
- Industry case studies under each of above sections
- Hands on with Python on selected case studies
- Career paths from here -Roles available in industry
- Deep learning and computer vision
- Natural Language Processing in Software Engineering
- Evolution of Natural Language Processing, Challenges from Research and Industry Perspective. Challenges from Research and Industry Perspective. Demonstrate the state-of-the-art algorithms and techniques for text-based processing of natural language with respect to morphology
- Emphasis on NLP culminates into Generative AI (LLMs). Develop a Statistical Methods for Real World Applications and explore deep learning-based NLP. Explore the Deep learning and computer vision Algorithms.
- Emphasis on NLP culminates into Generative AI (LLMs)
- Develop a Statistical Methods for Real World Applications and explore deep learning-based NLP.
- Explore the Deep learning and computer vision Algorithms
- Demonstrate the state-of-the-art algorithms and

techniques for text-based processing of natural
language with respect to morphology

	<p>Resource Person 1 - Details Name : Dr Subalalitha CN Designation : Founder and Director , FirstLanguage Technologies Private Limited University/ Company : SRM University Chennai, Chennai Address : India, 603203.</p>
	<p>Resource Person 2 - Details Name : Dr B Bharathi Designation : Associate Professor, Department of CSE University/ Company : SSN College of Engine, Kalavakkam Address : India, 603110.</p>
	<p>Resource Person 3 - Details Name : Mr Malaya Rout Designation : Director of data science , Exafluence University/ Company : Exafluence, Chennai Address : India, 600097.</p>
	<p>Resource Person 4 - Details Name : Mr MOHIT KUMAR Designation : AI ML Leader, Philips University/ Company : Philips, Bangalore Address : India, 560010.</p>
	<p>Resource Person 5 - Details Name : Biji C L Designation : Associate Professor Grade 1, School of Computer Science and Engineering University/ Company : VIT, Vellore Address : India, 632014.</p>
	<p>Resource Person 6 - Details Name : Dr R Rajalakshmi Designation : Professor, School of Computer Science and Engineering University/ Company : Vellore Institute of Technology, Chennai Address : India, 600127.</p>
	<p>Resource Person 7 - Details Name : Mr ARAVIND WARRIER Designation : People and Culture Lead , VOLVO AB University/ Company : VOLVO AB, Bangalore Address : India, 562122.</p>
	<p>Resource Person 8 - Details Name : Dr T V Geetha Designation : Former Dean , Department of Computer Science and Engineering University/ Company : College of Engineering Guindy, Chennai Address : India, 600115.</p>

**Resource Person 9 - Details****Name :** Senthil Kumar. M**Designation :** Professor Grade 1, School of Computer Science Engineering and Information Systems**University/ Company :** VIT, Vellore**Address :** India, 632014.**Resource Person 10 - Details****Name :** Anil Kumar K**Designation :** Professor Grade 1, School of Computer Science and Engineering**University/ Company :** VIT, Vellore**Address :** India, 632014.

Resource Person's Profile :

1. Profile of Dr Subalalitha CN

A highly passionate leader who have experience both in academia and industry. Have proven track record of success in driving innovation and growth through the strategic implementation of AI technology. Possesses exceptional leadership, business acumen, and communication skills, with a deep understanding of the complex landscape of AI development and deployment. Passionate about leveraging the power of AI to create positive societal impact and foster a sustainable future.

2. Profile of Dr B Bharathi

Associate Professor in Department of CSE, SSN College of Engineering from 2014 to till date. She published 21 journal publications and 108 conference publications, She won Out Standing Faculty in Engineering, Venus International Faculty Award in 2017 and Best Teacher Award in SSN 2019, 2021, 2022. Principal Investigator of funded project title Real-time multi dialect automatic speech recognition system for Tamil funded by Tamil Virtual Academy, Project amount: 13.77 Lakhs.

3. Profile of Mr Malaya Rout

Malaya Rout works as director of data science at Exafluence. Exafluence partners with clients across various industries and provides innovative AIML solutions to business problems. He is a passionate and light-hearted trainer and writer in data science. He is a published author of seven books. Three of them are about data science titled Say the Unsaid through Analytics, Data Science Building Blocks, and Ask a Data Scientist.

4. Profile of Mr MOHIT KUMAR

Mohit Kumar is a seasoned Data Scientist and AI leader with over 10 years of experience across HR, Legal, Sports, Retail, Telecom, and Healthcare industries. Currently AI ML Leader at Philips Bangalore, he drives transformative R and D initiatives in the Personal Healthcare Cluster, leveraging cutting-edge AI and MLOps techniques. Mohit excels in building end to end MLOps pipelines using GitHub Actions, MIFlow, DVC, and Cloud platforms, optimizing operations and enhancing user experiences.

5. Profile of Biji C L

Dr. Biji C.L., a creative and motivating teacher over a decade of experience in teaching and research. She has excellent technical skills and exceptional managerial skills and could leverage her skills to work well with different disciplines . She shows a great passion and perseverance in coordinating various academic and co curricular activities. With her innate ability of observing and understanding situation make herself a good team player. She is an active listener, quick learner

6. Profile of Dr R Rajalakshmi

Dr. R. Rajalakshmi, is a Professor of School of Computer Science and Engineering at Vellore Institute of Technology, Chennai, India. She completed her Ph.D. in Computer Science and Engineering (CSE) from Anna University, Chennai. She received her M.E and B.E in CSE from Anna University and Bharathidasan University, respectively. Her research interests include NLP, Pattern Recognition, Machine learning, Deep learning, Medical Image Processing, Healthcare Analytics and Social Media Analytics.

7. Profile of Mr ARAVIND WARRIER

A strategic Human Resource Business Partner to C-suite Leaders with 18 plus years of experience in executing people and culture strategy. A change catalyst with proven expertise in translating business objectives into effective HR strategies, drive its implementation, thereby creating an ecosystem and fostering cultural alignment. Result driven professional with strong interpersonal skills and a natural ability to engage at all levels.

8. Profile of Dr T V Geetha

Dr.T.V.Geetha worked as Former Dean (1st Lady Dean in 225 year history), College of Engineering, Guindy, Senior Professor (Retired), UGC BSR Faculty Fellow June 2020- June 2023, Department of Computer Science and Engineering, College of Engineering Guindy, Anna University . Currently Distinguished Visiting Faculty Research SSN College of Engineering, Chennai. Funded Projects completed 10. Total Amount Rs.639.54 Lakhs.

9. Profile of Senthil Kumar. M

Dr Senthilkumar Mohan currently, working as Professor in the School of Computer Science Engineering and Information Systems, VIT University, Vellore. Teaching and research experience more than 15 years in engineering institutions and industry . He had taught undergraduate and postgraduate level courses for IT, Computer Engineering programmes. He received the masters degree in software engineering and information technology-networking and the Ph.D. degree in big data from the VIT.

10. Profile of Anil Kumar K

Dr. Kakelli Anil Kumar is an Professor with the School of Computer Science and Engineering at the Vellore Institute of Technology (VIT) in Vellore, TN, India. In 2017, he got his Ph.D. in Computer Science and Engineering from Jawaharlal Nehru Technological University (JNTUH), Hyderabad. He also got his masters and bachelor's degrees from the same university in years 2009 and 2003.

Successful integration and interdisciplinarity processes are keys to thriving modern science and its application within the industry. One such interdisciplinary approach has been the recent endeavours to combine the fields of computer vision and natural language processing. These technical domains are among the most popular - and active - machine learning research sciences that are currently prospering. Natural language processing tasks are deemed more technically diverse when compared to computer vision procedures.

Nonetheless, until quite recently, they have been administered as separate technical entities without discovering the key benefits from them both. It has only been recently, with the expansion of digital multimedia, that scientists, and researchers, have begun exploring the possibilities of applying both techniques to accomplish one promising result. This interdisciplinary field automates the key elements of human vision systems using sensors, smart computers, and machine learning algorithms. Computer vision is the technical theory underlying artificial intelligence systems' capability to view - and understand - their surroundings.

Google Co lab, Natural Language Toolkit, OpenCV , Tensorflow

**Coordinator's: Prof. AJITHA D 18802 - Associate Professor Grade 1 - SCOPE
Prof. PRABIN S M 18808 - Assistant Professor Sr. Grade 1 - SCOPE**