

### Discussion Points




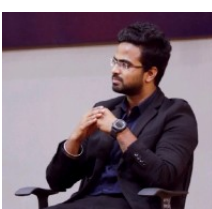

**Title :** Comprehensive hands-on sessions on Computer vision and Artificial Intelligence towards applied research

**Date :** 16-Oct-2023 - 20-Oct-2023

**Time :** 10:00 - 17:30

**Venue :** SJT122

- 1. Computer Vision in the Real World - OpenCV, Dlib & Python, Object Detection with Detection Transformer & PyTorch and Image Segmentation with (SAM)
- 2. Neural Networks - Feed forward and back propagation NN, dropout and batch normalization, weight initialization, early stopping and model checkpoint
- 3. Evolution of transformers from RNN to GPT models
- 4. Confluence & model development of CNN architecture and GAN Architecture with deep fake technology
- 5. Implementation of Deep Learning algorithms using Tensor flow APIs

	<p><b>Resource Person 1 - Details</b>  <b>Name :</b> Arun Ponnusamy  <b>Designation :</b> Founder and CEO, Vision Geek Labs  <b>University/ Company :</b> Vision Geek Labs, Coimbatore  <b>Address :</b> India, 641035.</p>
	<p><b>Resource Person 2 - Details</b>  <b>Name :</b> Mohanraj Vengadachalam  <b>Designation :</b> Senior Manager, AIML Delivery Lead  <b>University/ Company :</b> Standard Chartered GBS, Chennai  <b>Address :</b> India, 600006.</p>
	<p><b>Resource Person 3 - Details</b>  <b>Name :</b> Deepan Raj  <b>Designation :</b> Lead Data Scientist, HCL Technologies  <b>University/ Company :</b> HCL Technologies, Chennai  <b>Address :</b> India, 600119.</p>
	<p><b>Resource Person 4 - Details</b>  <b>Name :</b> Jai Ganesh Suresh  <b>Designation :</b> DATA SCIENCE ARCHITECT, AI RESEARCH &amp; DEVELOPMENT  <b>University/ Company :</b> ERICSSON, Chennai  <b>Address :</b> India, 600032.</p>
	<p><b>Resource Person 5 - Details</b>  <b>Name :</b> Dr V Sathiesh Kumar  <b>Designation :</b> Assistant Professor, Department of Electronics Engineering  <b>University/ Company :</b> MIT Campus, Anna University, Chennai  <b>Address :</b> India, 600044.</p>

## **Resource Person's Profile :**

### **1. Profile of Arun Ponnusamy**

Founder and CEO, Vision Geek Labs, Coimbatore, with 9 years of industry experience, Currently working on the areas of image classification, object detection, object tracking, human action recognition, face detection, face recognition. Also worked as Senior Engineer - Computer Vision in Ennoventure Technologies Pvt Ltd. Bangalore, Computer Vision Research Engineer in care.ai (Mahathi Software Pvt.), Visakhapatnam, and Senior Computer Vision Engineer- 1000Lookz (Adhyas Software Pvt Ltd), Chennai

### **2. Profile of Mohanraj Vengadachalam**

Senior Manager AIML Delivery Lead at Standard Chartered GBS Chennai, with 9 years of industry experience and 1 year of teaching experience. He also worked as Data Scientist in Renault Nissan and HCL Technologies Ltd. Chennai. Completed his PhD in Madras Institute of Technology, Anna University, Chennai. His research work was funded by Department of Atomic Energy (DAE) Government of India, Mumbai. His areas of research are Computer Vision, Video Analytics, Machine Learning and Deep Learning.

### **3. Profile of Deepan Raj**

Currently working as Lead Data Scientist at HCL Technologies, with 7 years of experience. Some achievements are - Appreciated by “Dr. A.P.J. Abdul Kalam” for creating a 5-feet cost effective Humanoid robot, International Award winner for contributing a real time project using robots for easing the work of farmer, International Award winner for contributing a novel approach in effective Brain Computer Interface by coining a new concept named “Neural Linguistic Dictionary”, in IIT Kharagpur

### **4. Profile of Jai Ganesh Suresh**

Currently working as Data Science Architect at Ericsson in AI Research & Development, with more than 8 years of experience, Speaker of INDIA BOOK OF RECORD HOLDER for conducting “Most number of people involved in Artificial Intelligence Workshop”. Some achievements are - The Youngest Judge of the “Smart India Hackathon 2019” event, Appreciated by Dr. Abdul Kalam for involving in the development of “Humanoid Robot”, Conducted workshop and training programs at various colleges.

### **5. Profile of Dr V Sathiesh Kumar**

Working as an Assistant Professor in the Department of Electronics Engineering, MIT Campus, Anna University, Chennai, with 11 years of teaching experience. He is also acting as a Deputy Director – Planning & Development, Anna University. He received his PhD from, IIT Madras, Chennai. His research interest includes Artificial Intelligent Systems, Embedded Systems, Optoelectronics, Machine Learning, Computer Vision, Laser remote sensing and Laser spectroscopy.

The five days FDP will provide Comprehensive hands-on sessions on Computer vision and Artificial Intelligence towards applied research.

Day1 will be handled by Arun Ponnusamy, Founder and CEO, Vision Geek Labs, Coimbatore. He will discuss about Computer Vision in the Real World (Part I) - Computer Vision with OpenCV & Python and Computer Vision with Dlib & Python in forenoon session and Computer Vision in the Real World (Part II) - Object Detection with Detection Transformer & PyTorch and Image Segmentation with Segment Anything Model (SAM) in afternoon.

Day2 will be handled by Mohanraj Vengadachalam, Senior Manager AIML Delivery Lead at Standard Chartered GBS Chennai. He will discuss about Neural Networks - Feed forward and back propagation neural networks, activation function, dropout and batch normalization, weight initialization, early stopping and model checkpoints with hands on.

Day3 will be handled by Deepan Raj, currently working as Lead Data Scientist at HCL Technologies, Chennai. He will discuss about Evolution of transformers from RNN to GPT models with hands on.

Day 4 will be handled by Jai Ganesh Suresh, Currently working as Data Science Architect at Ericsson in AI Research & Development, Chennai. He will discuss about Confluence & model development of CNN architecture and GAN Architecture with deep fake technology with hand on.

Day 5 will be handled by Dr. V. Sathiesh Kumar, working as an Assistant Professor in the Department of Electronics Engineering, MIT Campus, Anna University, Chennai. He will discuss about Implementation of Deep Learning algorithms using Tensor flow API with hands on.

OpenCV, Python, Dlib, PyTorch, Tensorflow, Google Colab

**Coordinator's: Prof. PRADEEPA M 16194 - Assistant Professor Sr. Grade 2 - SCORE  
Prof. RAMYA.G 12374 - Assistant Professor Sr. Grade 2 - SCORE**