

## About Institution

PSG College of Technology, started in the year 1951, is an aided college and is autonomous for the past 33 years, offering 22 undergraduate programmes and 37 postgraduate programmes. Currently more than 700 research scholars, both full time and part time, are working for their Ph.D. degree. PSG College of Technology, an AICTE approved institution is affiliated to Anna University, and is ISO 9001 certified. PSG College of Technology believes in creating and disseminating knowledge and skills in core and frontier disciplines through innovative educational programmes, industrial training, research & consultancy.

## About PSG CARE

The PSG Center for Academic Research and Excellence was founded in October, 2015 by the PSG & Sons Charities Trust with a mission to promote teaching excellence in all the colleges under the Trust. The center also focuses on creating and sustaining effective faculty student relationships and aims to pursue its mission by helping educators at PSG to practice a learner-centric course design, innovative pedagogy and effective assessments so as to shift the focus of the teaching learning process from delivery of knowledge to facilitation of knowledge acquisition

## About PSG - CAVSR

PSG-CAVSR is the Centre for Audio Visual Speech recognition developed under the Department of Science and Technology - Interdisciplinary Cyber Physical Systems (ICPS). The centre hosts an intelligent lecture capturing system with dedicated High Performance Computing GPU server for intensive research. It aims to develop a synergistic relationship with the leaders of industry, academia and government to provide opportunity for the students to work in deep learning. It is a centre for high performance computing, video processing, speech analytics and research using deep learning.

## Resource Persons

- **Mr Amit Kumar**  
Worldwide Field Ops at NVIDIA
  - **Dr Ashish Ghosh**  
Professor and Head, Machine Intelligence Unit,  
Indian Statistical Institute, Kolkatta
  - **Dr L Ashok Kumar**  
Professor,  
Dept. of EEE, PSG College of Technology
  - **Dr D Karthika Renuka**  
Associate Professor, Dept. of IT,  
PSG College of Technology
  - **Dr S Lovelyn Rose**  
Associate Professor, Dept. of CSE,  
PSG College of Technology
  - **Mr Megh Makwana**  
Senior Solutions Architect -  
Accelerated Deep Learning at NVIDIA
  - **Mr NanuSwamy**  
Director,  
Maxelerator Foundation, DLI Expert
  - **Dr P SanthiThilagam**  
Professor, NITK, Surathkal
- Dr Vineeth N Balasubramanian**  
Associate Professor,  
Indian Institute of Technology, Hyderabad

## Organizing Committee

- CHIEF PATRON** : **Shri L Gopalakrishnan**  
Managing Trustee, PSG Institutions
- PATRON** : **Dr K Prakasan**  
Principal, PSG College of Technology
- CONVENER** : **Dr J Kanakaraj**  
Professor & HOD, Dept. of EEE
- Dr K Umamaheswari**  
Professor & HOD, Dept. of IT
- ORGANIZING SECRETARIES** : **Dr L Ashok Kumar**  
Professor, Dept. of EEE
- Dr D Karthika Renuka**  
Associate Professor Dept. of IT



PSG-CAVSR



Centre For Audio Visual Speech Recognition

Department of EEE & Department of IT

in association with

PSG Center for Academic Research and Excellence

(PSG CARE)

Organizes

Online Five Day  
Summer School on  
**DEEP LEARNING FOR  
COMPUTER VISION,  
SPEECH AND NLP:  
RESEARCH AND  
APPLICATION PERSPECTIVE**

27 June - 1 July 2022

PSG COLLEGE OF TECHNOLOGY

Coimbatore - 641 004

Ph. : 0422-2572177 Fax : 2592277

www.psgtech.edu

## About the Program

Research in vision, speech and natural language are three core areas of Artificial Intelligence and has a continuing strong presence. Computer vision involves acquiring and interpreting the rich visual world around us. In the past few years, advances in machine learning and computational linguistics have led to significant developments and improvements in how we interact with the world around us. One of the most significant of these advances is the field of voice recognition. Human communication is at the core of developments in speech recognition and the complexities of language make computational approaches increasingly difficult. NLP opens new fronts to improve human-computer interaction. In fact, NLP has been a bonus technology for speech recognition processes, making it less time consuming and easier. Deep learning is a sector of machine learning used to train computers to learn by example ASR, NLP, and Computer Vision are extremely powerful and fast-growing applications of deep learning.

## Topics covered

- Basics for NLP research
- Understanding Transformers for NLP
- Hands-on session for Transformers using pytorch
- Language Modeling
- Deep Learning at NVIDIA for Automatic Speech Recognition, Natural Language Understanding,
- Speech to Speech Translation, Text to Speech
- Question Answering
- Neural Networks For Vision
- DL Models for Computer Vision
- Real Time Video Analytics
- Sign Language Production and Recognition
- Introduction to NVIDIA NeMo & RIVA
- NVIDIA NeMo and RIVA platforms for real time production usage
- Large-Scale Language Modeling with NeMoMegatron
- Research Challenges in NLP, Computer Vision and Speech Analytics

## Eligibility

Research Scholars, Faculty and Industry person who are interested in Computer Vision, Speech & NLP.

## Important Dates

Last date for registration : **10.06.2022**

Registration Confirmation : **17.06.2022**

## Registration Fees

- Ph.D., Scholars : Rs 750/-
- Faculty : Rs 1,000/-
- Industry Person : Rs 1,500/-

For PSG Faculty members the registration is free and they have to register through PSG CARE with approval of their Heads of Institutions.

### Account details for Online Payment

Account Name	: PSG Center for Non formal and Continuing Education
Bank Name	: Central Bank of India
Branch	: Peelamedu
Account Number	: 1481267367
IFSC Code	: CBIN0280913
MICR Code	: 641016006

### REGISTRATION LINK

<https://bit.ly/PSG-Summerschool>

### QR CODE FOR REGISTRATION



The confirmation mail for the registered participant along with the workshop link and schedule will be shared to all participants by 17.06.2022

For more details contact:

**Dr. L. Ashok Kumar**

Professor, Department of EEE

PSG College of Technology, Coimbatore.

Phone : 98432 81115, 99761 28726

Email : dsticps.psg@gmail.com, dkr.it@psgtech.ac.in

## PSG COLLEGE OF TECHNOLOGY, COIMBATORE Centre For Audio Visual Speech Recognition

Department of EEE & Department of IT  
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Online Five Day Summer School on  
Deep Learning for Computer Vision,  
Speech and NLP: Research and Application perspective

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## REGISTRATION FORM

Name : .....

DOB : .....

Gender : Male / Female

Designation : .....

Department : .....

Organization : .....

Address : .....

.....

Mobile : .....

Email : .....

Online Payment reference No. : .....

Bank Name : .....

Date of Transfer : .....

Amount : .....

Filled-in registration form must be scanned and sent to  
dsticps.psg@gmail.com

### DECLARATION BY THE CANDIDATE:

The given information is true to the best of my knowledge. I agree to abide by the rules and regulations governing the program. If selected, I shall attend the course for the entire duration.

Place :

Date:

Signature of the Participant