

*Two day ONLINE*

**National Workshop on  
DEEP NEURAL NETWORK AND ITS  
APPLICATIONS IN TEXT AND IMAGE  
(DNNATI 2021)**

On

**11<sup>th</sup> and 12<sup>th</sup> JANUARY, 2021**

Organizing by  
**School of Computer Science and  
Engineering**



**VELLORE INSTITUTE OF  
TECHNOLOGY (VIT), Vellore Campus**

**(Recognised as an Institute of Eminence  
by the Govt. of India)**

**VELLORE-632 014  
TAMIL NADU, INDIA**

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Dean, School of Computer Science &  
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VIT, Vellore**

**Workshop co-chairman**

**DR. R. Sasikala  
HOD, Department of Computational  
Intelligence  
SCOPE  
VIT, Vellore**

**Convener**

**DR. Jagalingam Pushparaj  
Assistant Professor, SCOPE  
VIT, Vellore**

**DR. S M Jaisakthi  
Associate Professor, SCOPE  
VIT, Vellore**

**ABOUT VIT VELLORE**

Vellore Institute of Technology (VIT) was founded in 1984 as Vellore Engineering College by the Chancellor DR. G. Viswanathan. VIT attracts students from all the states of India and more than 51 countries because of its academic excellence. More than 300 MoUs with top ranked universities across the globe have been signed and are active. Govt. of India has recognized VIT, Vellore as an Institution of Eminence. VIT has been Ranked No.1 private institution for Innovation (ARIIA 2019 Award) by Govt. of India. VIT has introduced many innovations in academic processes which add value to every student. FFCS (Fully Flexible Credit System), TARP (Technical Answers to Real World Problems) for better learning, fully digitized academic portals that assist students in equipping themselves for 2020 market place.

**ABOUT SCHOOL OF COMPUTER SCIENCE & ENGINEERING**

VIT Computer Science has reached among the Top 400 universities of the world. Hackathons / Makeathons as part of curriculum exercise which kindles the interest and the curiosity of students, which mould them to be better problem solvers, 8th module in every subject being handled by industry experts, making the students contextualize the concepts they study in the classroom, are a few of the innovations that VIT has introduced.

## THEME OF THE NATIONAL WORKSHOP

The objectives of the workshop is to understand the mathematical foundation and practical implementation of the deep learning techniques through the expert lectures and hands on sessions, led by academicians from the National Importance Institute and the from the best university of aboard . At the end of the program, the participants should be able to understand the mathematical foundation of the following topics:

- **Perceptron**
- **Sigmoid neuron**
- **Feed-forward neural network**
- **Back-propagation**
- **Derivative of activation function**
- **Gradient descent - related issues**
- **Convolution neural network (CNN)**
- **Recurrent neural network (RNN)**
- **Long short term memory (LSTM)**
- **Auto-encoders**

The participants should also be able to understand the practical implementation (**Hands-on**) of the following deep learning techniques.

- **CNN - Building an image search engine in python**
- **RNN - Abstract Generation**
- **LSTM – Text Translation**
- **Auto encoders - Image Reconstruction**

## RESOURCE PERSONS

**DR. S. KARTHICK**  
Assistant Professor, & HOD  
National Institute of Technology (NIT)  
Andhra Pradesh, India

**DR. NAGESH BHATTU SRISTY**  
Assistant Professor  
National Institute of Technology (NIT)  
Andhra Pradesh, India

**Mrs. PARVATHY KRISHNAN**  
Data scientist  
Jheronimus Academy of data science,  
Netherlands  
Data Scientist (Consultant) – World Bank group

## ADVISORY COMMITTEE MEMBERS

Prof. R. Sasikala, HOD, Department of Computational Intelligence, VIT, Vellore

Prof. S. Prabhu, HOD, Information Security, VIT Vellore

Prof. G. Priya, HOD, Department of Analytics, VIT Vellore

Prof. Parveen Sultana, HOD, Department of Database Systems, VIT Vellore

Prof. S. Vairamuthu HOD, Department of Software Systems, VIT, Vellore

Prof. M. Anand, HOD, Department of Internet of Things, VIT Vellore

## REGISTRATION FEE (Including GST)

UG / PG/ Research : 200 ₹

Faculty : 300 ₹

Industry : 500 ₹

## IMPORTANT DATES

Last date for registration: **08-01-2021**

Date of the Event: **11-01-2021 & 12-01-2021**

## VENUE

**Online using MS Team**

**Enquiry should be addressed to;**

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**Mode of payment and for registration – use the following link**  
<https://events.vit.ac.in/>

**After the successful completion of two-day workshop, the following will be provided:**

**E – Certificate**  
**Datasets for hands-on applications**  
**Recorded video of all the sessions**