

## ABOUT THE COURSE

This Course aims to demonstrate the principles of Intelligent Techniques with applications being followed in Enterprises. It helps the participants to gather insights on how to develop a scalable, deployable Applications using Deep Learning Models as a complete product.

The objectives of this course are:

To deliver the principles of Accelerated and Federated learning

To demonstrate the tools and SDKs for deployment of learning models in Scalable Edge devices

To Explain the Challenges and Open research issues for Enterprise Deep Learning Applications

### **Course Contents:**

**Machine Learning Principles & Tools**

**Deep Learning SDKs for CV & NLP**

**Containers & Multi-GPU Training**

**Federated Learning, Accelerated HPC**

**Edge AI, Production Level Deep Learning**

**Frameworks for Deep Learning in GPU Servers**

## WHO CAN ATTEND

This workshop is open to Faculty Members and Research Scholars in Computer Science / Information Technology or related fields / Post Graduate Students (MCA or M.Sc. Computer Science / IT) or M.Tech./M.E. CSE/IT/ECE from all the Institutes, Colleges and Universities.

**Limited Seats are available**

**Only Selected candidate will be informed by email**

## IMPORTANT DATES

**Last date of Registration: 17.03.2022**

**Intimation of Selection: 18.03.2022**

## ABOUT US

The National Institute of Technology Tiruchirappalli is situated in the heart of Tamilnadu on the banks of river Cauvery. Since its inception in 1964, it has established itself as a premier institute imparting quality technical education and engaged in research and development in different fields.

The Department of Computer Applications is one of the pioneering departments of the institution that offers Information Technology courses. The Department currently offers three-year Master of Computer Applications (MCA), two-year Master of Science in Computer Science, two-year M.Tech. in Data Analytics and Ph.D. Programmes.

Registration Form

<https://forms.gle/WTue4c5JYHZ6z8NfA>

Registration Fee: Rs.1500/-

Payment Mode - SBI-collect Link:

<https://www.onlinesbi.com/sbicollect/icollecthome.htm>

Select the State as Tamilnadu and Category as Educational Institutions

Select Conference and Workshop NIT Trichy

Select the payment category as "AMITEA2022 CA"

Accommodation will be provided in the NITT Hostels based on request and availability. Accommodation & Boarding charges extra.



Science and Engineering Research Board  
Government of India  
Sponsored

**Workshop**

on

**APPLIED MACHINE  
INTELLIGENCE TECHNIQUES FOR  
ENTERPRISE ARCHITECTURES**

**21 March 2022 to  
27 March 2022**

Organized by



DEPARTMENT OF COMPUTER APPLICATIONS  
NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI, INDIA

## COORDINATORS

**Dr. MICHAEL AROCK** Professor  
(Mobile No.: 9842378952)  
**Dr. R.BALAJI GANESH** Post-Doc Researcher  
(Mobile No.: 8220037222)

<b>Day / Time</b>	<b>Session I</b>	<b>Session II</b>	<b>Session III</b>	<b>Session IV</b>
<b>21.03.2022 Monday</b>	Basics of Intelligent Learning, Challenges and Opportunities	Machine Learning Algorithms (Part-I)	Machine Learning Algorithms (Part-II)	Python Framework and Libraries
<b>22.03.2022 Tuesday</b>	Introduction to Deep Learning and Data Analytic Techniques	Big Data for Enterprise Architectures, Case-studies	Deep Learning – Language Modelling	Transformer Modelling
<b>23.03.2022 Wednesday</b>	Introduction to Computer Vision, Compute Platform for Video Analytics-Case study	Accelerating Data Computing with HPC	Hands-on (HPC)	Hands-on (Deep Learning Frameworks)
<b>24.03.2022 Thursday</b>	Dockers, Kubernetes, End-End, Scalable Deep Learning Pipeline	Scalable ML using NVIDIA RAPIDS	Deployable SDKs, Training with Custom Dataset	Hands-on using DGX Server, Kubernetes, Multi-GPU Training
<b>25.03.2022 Friday</b>	AI in the Enterprise – A walkthrough, AI Ethics	AI in Banking Technology	Demystifying Conversational AI	Tools for building Chatbots
<b>26.03.2022 Saturday</b>	Advanced Models for Computer Vision	Pre-trained Models, Model Optimization, Hands-on	Accelerating Deep Learning with GNNs, Deep Graph Library	Hands-on (GNNs)
<b>27.03.2022 Sunday</b>	Medical Image Processing	Federated Learning	Assessment	Valedictory