



AICTE Training and Learning (ATAL) Academy  
Programme  
on  
**AI & Machine Learning for  
Real Time Applications**  
CSE Department, NIT Warangal



(19<sup>th</sup> November 2019 to 23<sup>rd</sup> November 2019)

**AICTE Training and Learning (ATAL) Academy:**

AICTE Training and Learning (ATAL) Academy is established to empower faculty to achieve goals of Higher Education such as access, equity and quality. AICTE is committed for development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development e.g. SWAYAM, MOOCs, Start-up Initiatives, Prime Minister Kaushal Vikas Yojana, Sansad Adarsh Gram Yojana (SAGY), Swachh Bharat/ Unnat Bharat Abhiyan, Yoga Activities etc. Council understand that there is a need of the day to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. It was felt that Training with latest tools and technologies is vital to keeping an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies. It also transforms them to harmonize with society and most importantly to make them a good citizen of the country.

**National Institute of Technology, Warangal:**

National Institute of Technology, Warangal is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B.Tech degrees in various branches of engineering, M.Tech. and Ph.D programs in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

**Title of the Workshop: AI & MACHINE LEARNING FOR REAL TIME APPLICATIONS**

## **About Workshop**

This workshop is suitable for faculty, researchers, post graduate scholars in academia and industry as well. The purpose of conducting this 5 - day workshop is to provide a hands-on-experience on real time applications using AI & ML methods. This workshop is devoted to address the need to enhance the knowledge about the latest technologies pertaining to Artificial Intelligence using Python and Machine Learning. It is being conducted at National Institute of Technology, Warangal. The programme will be conducted by the faculty members from NIT Warangal. Academicians in the concerned field from IITs/NITs/IIITs are invited to deliver lectures in the programme. Speakers from industries are also expected to deliver as part of the course.

Major Course Contents include:

- Introduction about machine learning, Types of Learning algorithms
- Un supervised learning methods, Partitioned and hierarchical clustering methods
- Bayesian learning, decision tree based classification methods
- Dimensionality reduction methods,
- Hands on to implementation of supervised and unsupervised methods
- Support vector machine classification and application
- Neural networks and practical implementations
- Introduction to Deep learning methods and applications
- Medical Image data processing and analysis
- Hands on to implementation of Image data processing and analysis
- Reinforcement Learning, Optimization and Data driven Methods

## **Who should attend?**

The participants to the course will be faculty & Ph.D Scholars from **AICTE** approved technical institutions. There is no Registration fee from any participant. **No TA/DA** will be paid to any participant. Participants will have to make their **own stay** arrangement during the five days. Only tea during sessions/working lunch will be provided to the participants. On completion of the programme on all the days, participants will be awarded a Certificate of participation by respective ATAL Academy.

**Name of the Institute/Organization:** CSE Department, National Institute of Technology Warangal, Telangana-506004, India.

**From 19<sup>th</sup> November 2019 To 23<sup>rd</sup> November 2019**

**Schedule plan**

Dates	10:00 AM to 11:30 AM		12.00 PM to 1.30 PM		2:30 PM to 4.00 PM	4:15 to 4:45 PM
19/11/2019	Registration and Inauguration	T E A B R E A K	Session 1 <b>Introduction of AI and ML</b> Prof. RBS	L U N C H	Session 2 <b>Unsupervised Learning, Partition, Hierarchical, Grid etc.</b> Prof. RBS	TEA
20/11/2019	Session 3 <b>Supervised Learning Methods</b> Dr. MSV		Session 4 <b>Probabilistic Methods</b> Dr. MSV		Session 5 <b>Hands-on experience and Lab sessions</b> Dr. SK	
21/11/2019	Session 6 <b>Neural Networks</b> Dr. MSV		Session 7 <b>Deep learning Models</b> Dr. MSV		Session 8 <b>Hands-on experience and Lab sessions</b> Dr. MS	
22/11/2019	Session 9 <b>Reinforcement Learning</b> Dr. MSV		Session 10 <b>AI based Real Time Applications</b> Dr. MS		Session 11 <b>Hands-on experience and Lab sessions</b> Dr. SK	
23/11/2019	Session 12 <b>Optimization Methods</b> Dr. CSS		Session 13 <b>Data Driven methods</b> Dr. CSS		Session 14 <b>AI in Medical data processing</b> Dr. CSS	Valediction

CSS – Prof. Subrahmanya Sastry Challa, IIT Hyderabad;  
MS - Dr. M Sandhya, NIT-Warangal;  
SK - Dr. Sushil Kumar, NIT-Warangal;

RBS – Prof. RBV Subramanyam, HOD, CSE Dept. NITW;  
MSV - Dr. M Srinivas, NIT-Warangal;

**Registration Link:**

<https://forms.gle/91GQ9Pu3vJp4ncbw6>

**Important dates:**

Last date (Application)	11/10/2019
Selection List by E- mail	14/10/2019
Duration	19/11/2019 to 23/11/2019

**Coordinator:**

**Dr. M Srinivas,**  
Assistant Professor,  
Department of Computer Science & Engineering,  
National Institute of Technology, Warangal - 506004, TS, INDIA  
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on

**AI & MACHINE LEARNING FOR REAL TIME APPLICATIONS**  
**CSE Department, National Institute of Technology Warangal**  
**Warangal-506004, Telangana, India.**

(19<sup>th</sup> November 2019 to 23<sup>rd</sup> November 2019)

**Registration Form**

Full Name (in Block LETTER)	
Name of College/Institution/University/ Organization	
Designation	
Qualification	
Area of Interest/Specialization	
Address	
Email	
Mobile Number	

**Declaration:** The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the programme and shall attend the course for the entire duration. This application (hard copy) must be forwarded through the Head of the Institution/Department to the Coordinator. The last date for the receipt of duly forwarded application is **11<sup>th</sup> October 2019**.

Yes, I agree

No

Signature of the Candidate

Head of the Institution/Department with Seal