

AICTE TRAINING AND LEARNING (ATAL) FDP ON ADVANCES IN FUZZY LOGIC AND NEURAL NETWORKS IN ARTIFICIAL INTELLIGENCE

The National Institute of Technology Tiruchirappalli (NIT-T) (formerly known as Regional Engineering College), Tiruchirappalli, situated in the heart of Tamil Nadu on the banks of river Cauvery, was started as a joint and co-operative venture of the Government of India and the Government of Tamil Nadu in 1964 with a view to cater the needs of man - power in technology for the country. The college has been conferred with autonomy in financial and administrative matters to achieve rapid development. Because of this rich experience, this institution was granted Deemed University Status with the approval of the UGC/AICTE and Govt. of India in 2003 and renamed as National Institute of Technology.

National Institute of Technology Tiruchirappalli is one of the 31 National Institutes of Technology established by the Government of India. NIT-T is ranked top among 31 NITs in India and is presently occupying 9th position in NIRF ranking 2020, MHRD India. The Institute aims at benchmarking with global universities who are in the top 200 in world rankings in terms of teaching, innovation and research, funding and internationalisation.

AICTE TRAINING AND LEARNING (ATAL)

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 the 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 VikasYojana, Sansad Adarsh Gram Yojana (SAGY), Swachh Bharat/ Unnat Bharat Abhiyan, Yoga Activities etc. AICTE understands that there is a need of the day to train the young generation in the skill sector and having faculty & technicians to be trained in their respective disciplines. It was felt that training with the 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.

Faculty Development Programme
on

“ADVANCES IN FUZZY LOGIC AND
NEURAL NETWORKS IN ARTIFICIAL
INTELLIGENCE”

28TH DECEMBER 2020 -1ST JANUARY 2021

ORGANISED BY



National Institute of Technology
Tiruchirappalli

Under the aegis of



AICTE TRAINING & LEARNING
ACADEMY

VENUE

MS TEAMS PLATFORM

SCOPE OF THE WORKSHOP

Advancement of fuzzy set theory and neural networks has made its inception for the last five decades with numerous development and applications. Applications of this fuzzy set theory and neural networks can be found from natural sciences, engineering, medicine, management science and artificial intelligence.

The objectives of this FDP are

- Enriching the knowledge of fuzzy logic and Deep Learning Neural Networks with applications in Artificial Intelligence
- Interactions with nationwide experts in the area of fuzzy logic and Deep Learning Neural Networks.
- Providing guidelines and directions to begin research and ongoing research.

COURSE CONTENT

- Topic 1. Introduction on Fuzzy Logic, Fuzzy Sets, and Fuzzy Mathematical Principles.
- Topic 2. Fuzzy Mathematical Modelling in Artificial Intelligence using Decision Making Methods, Fuzzy Clustering Techniques and Fuzzy Control theory.
- Topic 3. Applications of Fuzzy Logic in Manufacturing Technology, Computer Science and Engineering, Optimization Problems in Transportation Engineering and Management and Power systems and Electrical Engineering.
- Topic 4. Introduction to Intuitionistic Fuzzy sets, Modelling of Incomplete Imprecise Information and its applications.

- Topic 5. Fundamentals of first and second generation Neural Networks using Matlab programming and tools along with hybrid techniques in Engineering applications.
- Topic 6. Recent advances in Deep Learning techniques in AI using Bio Plausible and Deep Neural networks with illustration.

COURSE OUTCOMES

Participants will be able to understand the fundamentals of Fuzzy and Neural Networks, Mathematical Modelling of real-life applications under imprecise information environment in diversified fields of Engineering

Participants will be able to apply Fuzzy Decision making methods, fuzzy clustering techniques, control theory and deep learning neural networks in Artificial intelligence.

COURSE DURATION

14 Sessions in 5 days programme
Total: 25 Hours

RESOURCE PERSONS

Experts from IITs, NITs and academicians from institutes of international repute will be delivering lectures.

CO-ORDINATORS

Dr. V. Lakshmana Gomathi Nayagam,
Head of the Department, Department of Mathematics

Dr. Sishaj P Simon, Associate Professor,
Department of Electrical and Electronics Engineering

Who should attend?

The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Government (Aided), Industry and staff of host institutions. There is no Registration fee from any participant (Max. 200 participants). On completion of the programme on all the days, participants will be awarded an E-Certificate of participation by respective ATAL Academy. Minimum 80% attendance and 60% marks in the quiz at the end of the FDP are compulsory for certification.

Selection and Certification Criteria

Selection is made based on a first-come, first-serve basis, and priority will be given to those who have not attended ATAL FDP earlier. The confirmed candidate will be notified on or before 21st December 2020.

How to Apply?

The participant has to register through ATAL portal (<https://atalacademy.aicte-india.org/signup>)

CHIEF PATRON

Dr. Mini Shaji Thomas, Director, NIT
Tiruchirappalli

PATRON

Dr. S. Muthukumar., Dean (R&C), NIT
Tiruchirappalli

CONVENER

Dr. R. Ponalagusamy, NIT Tiruchirappalli