

**One Day Seminar
on
“Application of Artificial Neural Network in Various
fields of Engineering”**

**On
10th March, 2018**

*Sponsored By
The Institution of Engineers (India)
Vallabh Vidyanagar Local Center*



**Organized By
Mechanical Engineering Department,
A. D. Patel Institute of Technology,
(A Charutar Vidya Mandal Institution)
New Vallabh Vidyanagar**

ACTIVITY REPORT

Artificial intelligence is a specialized technique in which human brain behavior is tried to imitate by hardware or software to analyze the problem domain to predict the performance of the system under study using the available experimental data. It is nowadays widely used in industry. It is useful in prediction of data or results in various types of industries and industry driven research work. The seminar was organized for students and faculty members from various branches of engineering. The schedule of the seminar is as follows.

Programme Schedule

Time	Schedule			
9.00 am to 9.30 am	Registration and High Tea <ul style="list-style-type: none"> • Registration and Kit Distribution • Tea and Breakfast 			
9.30 am to 10.00 am	Inaugural Function			
10.00 to 11.15 am	Session I: Introduction to AI and Machine Learning, Question and Answer			Dr. N. C. Chauhan
11.15 to 12.30 pm	Session II: Introduction to Artificial Neural Network, Question and Answer			Dr. K. J. Chudasama
12.30 to 01.30 pm	Break			
	Group II Branch of Engineering (CP/CE/IT/EC/EE/Power Electronics)		Group I Branch of Engineering (Mech/Auto/FPT/Civil/Prod/Manu/C H)	
01.30 to 02.30 pm	Session III: Exploring ANN using MATLAB (Case Study), Question & Answer	Dr. K. J. Chudasama	Session III: Application of ANN : General Case Study, Question and Answer	Dr. N. K. Chavda
02.30 to 03.30 pm	Session V: Introduction to Fuzzy Logic with Case Study in MATLAB and LabView, Question and Answer	Prof. M. D. Parikh	Session IV: Application of ANN using MATLAB (Case Study), Question and Answer	Dr. N. K. Chavda
3:30 to 3:45 pm	Break			
03.45 to 04.45 pm	Session IV : An introduction to Support Vector Machines (SVM) using R language, Question and Answer	Dr. Minal P. Patel	Session V: Introduction and Application of Genetic algorithms with Case Study, Question & Answer	Dr. N. K. Chavda
4.45 to 5.00 pm	Valedictory function, Feedback and Vote of Thanks			

The registration for the workshop started sharp at 9:00 am in the morning. Faculty members and student participants had registered in time. Out of thirty-one registered participants, fifteen were faculty members from engineering colleges across the state and sixteen were UG and PG students. The seminar started at 10:00 am sharp. In the beginning, the inaugural session was held in between 10:00 to 10:15 am. The welcome address was delivered by Bhumi Dhameliya, third year student, Department of Mechanical Engineering., ADIT which was followed by Prayer. Further the Guests and Experts were introduced and welcomed at ADIT. The inspirational speech was given by Dr. V. N. Singh, Head, Mech. Engg. Dept. and Dr. R. K. Jain, Principal, ADIT for the commencement of the seminar.



The technical sessions started at 10:15 am during which first expert lecture was delivered by Dr. N. C. Chauhan, HOD, IT Dept., ADIT. He talked about the topic “Introduction to AI and machine learning” briefly in a lucid manner. At the end, some of queries of participants were addressed. The next session was engaged by Dr. K. J. Chudasama, Associate Professor, Electrical Engg. Dept, ADIT. He introduced the topic of the seminar i.e. “Introduction to Artificial Neural Network”. At 12:45 pm there was a lunch break.



After lunch break all the participants were divided into two group on the basis of parent branch of engineering, i.e. Group I (Participants from Mechanical, Automobile, Food Processing Technology, and allied branch of engineering) and Group II (Participants from Computer, IT, Electronics and Communication and allied branch of engineering)

Three technical sessions were organized in both the groups. Dr. N. K. Chavda, Associate Professor, Mechanical Engg. Dept., delivered three technical talks for the Group I on the topics (1) Application of ANN : General Case Study, (2) Application of ANN using MATLAB (Case Study) and (3) Introduction and Application of Genetic algorithms with Case Study. Dr. K. J. Chudasama, Associate Professor, Elect. Engg. Dept., ADIT, Prof. M. D. Parikh, Assistant Professor, EC Dept., ADIT and Dr. Minal P. Patel, Assistant Professor, CP Dept., ADIT delivered technical talks for the Group II on the topic (1) Exploring ANN using MATLAB (Case Study), (2) Introduction to Fuzzy Logic with Case Study in MATLAB and LabView and An introduction to Support Vector Machines (SVM) using R language respectively.



During the valedictory session, feedback form the participants were taken. The question-answer session was interactive and vibrant one. All have participated and solved their queries. Finally, the seminar was a great success and appreciated by all. The real success lies in that they were motivated to think in the direction of application of artificial neural networks in respective field of engineering. Seminar ended with ADIT Anthem, GTU Song followed by National Anthem.

Place : ADIT, New V. V. Nagar.
Date : 10th March, 2018

(Dr. N. K. Chavda)
Coordinator

SPEAKERS

Sr. No.	Name of the Guest Speaker	Brief Introduction of Speaker	Topic of Discussion
1	Dr. N. C. Chauhan	Head, Department of Information and Technology, A. D. Patel Institute of Technology, New Vallabh Vidyanagar.	Introduction to AI and Machine Learning
2	Dr. K. J. Chudasama	Associate Professor, Electrical Engineering Department, A. D. Patel Institute of Technology, New Vallabh Vidyanagar.	<ul style="list-style-type: none">• Introduction to ANN• Exploring ANN using MATLAB (Case Study)
3	Dr. N. K. Chavda	Associate Professor, Mechanical Engineering Department, A. D. Patel Institute of Technology, New Vallabh Vidyanagar.	<ul style="list-style-type: none">• Application of ANN : General Case Study,• Application of ANN using MATLAB (Case Study)• Introduction and Application of Genetic algorithms with Case Study
4	Prof. M. D. Parikh	Assistant Professor, Electronics and Communication Engineering Department, A. D. Patel Institute of Technology, New Vallabh Vidyanagar.	Introduction to Fuzzy Logic with Case Study in MATLAB and LabView
5	Dr. Minal P. Patel	Assistant Professor, Computer Engineering Department, A. D. Patel Institute of Technology, New Vallabh Vidyanagar.	An introduction to Support Vector Machines (SVM) using R language