

Workshop on Artificial Intelligence (17-18<sup>th</sup> February 2020)**TEACHER'S ACTIVITY REPORT 2019-2020****FACULTY:** SCIENCE    **DEPARTMENT:** ELECTRONICS    **IQAC ACTIVITY No:** SVC/2019-20/ELECT/NK/5

<b>NAME OF THE ACTIVITY:</b> Workshop on Artificial Intelligence			
<b>DATE</b>	<b>FACULTY</b>	<b>DEPARTMENT/COMMITTEE</b>	<b>COORDINATOR NAME</b>
17-18 <sup>th</sup> February 2020	Science	Electronics	Dr Neeru Kumar, Dr Neha Verma, Mr Hari Singh
<b>TIME</b>	<b>VENUE</b>	<b>NUMBER OF PARTICIPANTS</b>	<b>NATURE: Outdoor/Indoor</b>
09:30 AM-04:30 PM	ICT Lab III	40	Indoor
<b>SUPPORT/ASSISTANCE:</b>	Sri Venkateswara College, University of Delhi, Innovians Technologies in association with TECHNEX'20 Indian Institute of Technology (BHU), Varanasi		

## BRIEF INFORMATION ABOUT THE ACTIVITY (CRITERION NO. – III):

TOPIC/SUBJECT OF THE ACTIVITY	Two Day Workshop on "Artificial Intelligence"
OBJECTIVES	<ul style="list-style-type: none"> <li>To provide a platform where students can learn various concepts of Artificial Intelligence namely Data Structure &amp; Data Manipulation in Python, Understanding the Machine Learning Libraries, Linear Regression Using Opencv etc. through hands on session.</li> </ul>
METHODOLOGY	Hands-on and Interactive Sessions in ICT Lab
OUTCOMES	<ul style="list-style-type: none"> <li>Students learnt concepts, techniques, and algorithms in Machine Learning beginning with topics such as key growth of AI in different verticals, Disciplines of AI, Classification and Linear Regression and ending up with more recent topics related to Neural Network and Machine Learning.</li> <li>At the end of this two day workshop, students learned about Machine Learning Libraries, Reinforcement learning, Supervised Learning, Unsupervised Learning Clustering and many more.</li> <li>Students discovered the role of AI in autonomous vehicles, understood some of the mathematical models that play a role in building AI software and also implementing some machine learning models.</li> </ul>

## PROOFS &amp; DOCUMENTS ATTACHED (Tick mark the proofs attached):

Notice & Letters ✓	Student list of participation ✓	Activity report ✓	Photos ✓	Feedback form
Feedback analysis	News clip with details	Certificate ✓	Any other	

IQAC Document No:	Criterion No: III	Metric No:
Departmental file No:	IQAC file No:	

NAME OF TEACHER & SIGNATURE	NAME OF HEAD/ COMMITTEE INCHARGE & SIGNATURE	IQAC COORDINATOR (SEAL & SIGNATURE)
<b>Dr. Neeru Kumar</b>	<b>Dr. Neeru Kumar</b>	

For Reference

Criterion I	Curricular Aspects (planning & Implementation)	Criterion V	Student Support & Progression
Criterion II	Teaching Learning & Evaluation	Criterion VI	Governance
Criterion III	Research, Innovations & Extension	Criterion VII	Institutional Values & Best Practices
Criterion IV	Learning Resources and Infrastructure		

**PROOFS**  
**SUMMARY REPORT & PHOTOS**



Artificial intelligence (AI), sometimes called Machine Intelligence, is the intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and animals. Intelligent Machines are influencing nearly every facet of our lives to help improve efficiencies and augment our human capabilities. AI refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. It is continuously evolving to benefit many different industries. Machines are wired using a cross-disciplinary approach based in Mathematics, Computer Science, Linguistics, Psychology, and many more. The applications for Artificial Intelligence are endless. AI is being tested and used in the healthcare industry for dosing drugs and different treatment in patients, and for surgical procedures in the operating room. Other examples of machines with artificial intelligence include computers that play chess and self-driven cars. Artificial intelligence also has applications in the financial industry, where it is used to detect and flag activity in banking and finance such as unusual debit card usage and large account deposits. Applications for AI are also being used to help streamline and make trading easier.

Today, the amount of data that is generated, by both humans and machines, far outpaces humans' ability to absorb, interpret, and make complex decisions based on that data. Artificial intelligence forms the basis for all computer learning and is the future of all complex decision making. Data Science and Artificial Intelligence are the two most important technologies in the world today. While Data Science makes use of Artificial Intelligence in its operations, it does not completely represent AI. Machine Learning is likely the connection between data science and artificial intelligence since machine learning is the process of learning from data over time. However, it's not the only thing connecting those two together. But, machine learning is the branch of AI that works best with data science. This formed the basis to decide upon our next workshop on Artificial Intelligence subsequent to our Data Science Workshop. Therefore, the Department of Electronics, organized a two day workshop titled "Artificial Intelligence" on 17-18 February, 2020. The workshop was conducted by Innovians Technologies in association with TECHNEX'20, Indian Institute of Technology (BHU), Varanasi.

Around 40 students enthusiastically participated in the workshop and experienced the tremendous capabilities of Machine Learning. The participation was from different departments that showed an interdisciplinary aspect of AI. The workshop commenced with giving a sapling to our Resource person, Mr. Syed Md. Asdaur Rahman, Trainer for the workshop. This was followed by a welcome address by Dr. Neeru Kumar, Teacher in Charge, Department of Electronics. Consequently, The President, Student Council, Ms Nancy Tyagi, briefly introduced the theme and schedule of the workshop. The technical sessions started soon after the welcome address. Mr Syed explained the role of Artificial Intelligence that how it is concerned with building smart machines capable of performing tasks that typically require human intelligence. The workshop gave an overview of many concepts, techniques, and algorithms in machine learning, beginning with topics such as key growth of AI in different verticals, disciplines of AI, classification and linear regression and ending up with more recent topics related to neural network and machine learning. At the end of this two day workshop, students learned about Machine Learning Libraries, Reinforcement learning, Supervised Learning, Unsupervised Learning Clustering and many more. Also, students discovered the role of AI in autonomous vehicles, understood some of the mathematical models that play a role in building AI software and also implementing some machine learning models. The workshop was full of hands-on sessions along with conceptual knowledge about the contents.



NOTICES (POSTER)



**17-18**  
**FEBRUARY**  
**2020**

**SRI VENKATESWARA COLLEGE**

**DEPARTMENT OF ELECTRONICS**

PRESENTS  
A **WORKSHOP** ON

**ARTIFICIAL INTELLIGENCE**

BY **INNOVIANS TECHNOLOGIES**  
IN ASSOCIATION WITH  
**TECHNEX'20, IIT VARANASI**

You will learn

- >> Python Programming
- >> Opencv, NumPy, Pandas, TensorFlow
- >> Statistical Maths for the Algorithms
- >> Classification and Regression

**09:30 AM - 04:30 PM**

**ICT LAB III**

Patron: Dr P Hemalatha Reddy (Principal)  
Convener: Dr Neeru Kumar  
Co-convener: Dr Neha Verma, Mr Hari Singh  
Organizing Team: Dr J Lalita, Dr Nutan Joshi  
Dr Sunita Jain, Dr Rakhi Narang, Ms Shubhra Gupta

**FLYER & SCHEDULE**

<p><b>SRI VENKATESWARA COLLEGE</b> UNIVERSITY OF DELHI</p> <p><b>DEPARTMENT OF ELECTRONICS</b> PRESENTS</p> <p><b>TWO DAYS WORKSHOP</b> ON <b>ARTIFICIAL INTELLIGENCE</b></p> <p>By <b>INNOVIANS TECHNOLOGIES</b> In Association with <b>TECHNEX'20 INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI</b></p> <p><b>WHEN</b> <b>17<sup>th</sup>-18<sup>th</sup> February, 2020</b> 09:30 AM- 04:30 PM</p> <p><b>WHERE</b> <b>ICT LAB-III</b> Sri Venkateswara College, Dhaula Kuan, New Delhi-110021</p>	   <p><b>SPONSORED BY</b> <b>IEEE EDS DELHI CHAPTER</b></p>  <p><b>REGISTRATION FEE:</b> INR 700/- (LIMITED SEATS ONLY) Fee payable to : Principal, Sri Venkateswara College.  Contact Person Ms Nancy Tyagi (President) +91-7042037915</p>
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**ABOUT THE WORKSHOP**

This workshop will provide a platform where young undergraduate students can learn Artificial Intelligence. Artificial intelligence (AI, also machine intelligence, MI) is intelligence displayed by machines, in contrast with the natural intelligence (NI) displayed by humans and other animals. In computer science AI research is defined as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of success at some goal.

The workshop will be for two days and some important topics will be covered i.e. Python Programming, ML Library Opencv, NumPy, Pandas, Tensor Flow, Statistical Maths for the Algorithms, Learning to solve statistics and mathematical concepts, Supervised and unsupervised learning, Classification and Regression

**SCHEDULE**

**Monday, 17<sup>th</sup> February, 2020**

TIME	
09:30 AM-10:00 AM	Welcome Address
10:00 AM-11:00 AM	Introduction to Python Programming, Data Structure & Manipulation
11:00 AM-11:15 AM	Break
11:15 AM-12:45 PM	Visualization in Python, Machine Learning: Introduction
12:45 AM-01:30 PM	Lunch Break
01:30 PM-03:00 PM	Linear Regression Using Opencv, Math of Linear Regression
03:00 PM-03:15 PM	Break
03:15 PM-04:30 PM	Linear Regression, Logistic Regression Using Opencv

**Tuesday, 18<sup>th</sup> February, 2020**

TIME	
09:30 AM-11:00 AM	Support Vector Machine Using Opencv
11:00 AM-11:15 AM	Break
11:15 AM-12:45 PM	RANDOM FOREST & Decision Tree Algorithm:
12:45 PM-01:30 PM	Lunch Break
01:30 PM-02:30 PM	Introduction to Tensorflow/Keras
02:30 PM-03:00 PM	Unsupervised Learning Clustering:
03:00 PM-03:15 PM	Break
03:15 PM-04:15 PM	Case Studies and Project
04:15 PM-04:30 PM	Vote of Thanks

Student List of Participation

17 February 2020

DAY 1 WORKSHOP ON ARTIFICIAL INTELLIGENCE DEPARTMENT OF ELECTRONICS, SRI VENKAT

S.NO	ROLL NO	STUDENT'S Name	COURSE	SIGN (Morning)	AP
1.	1618012	Divyansh Rathore	BSc H Electronics		
2.	1618023	Bharat Bhattacharya	BSc H Electronics	Bharat	
3.	1618071	Devashish Pratap Singh	Bsc (H) Electronics	Devashish	
4.	1617001	Muskan	Bsc (H.) Electronics	Muskan	
5.	1618035	Jay Kumar Tomar	BSc Electronics	Jay Kumar	
6.	1618025	Akshita Singh	Bsc H Electronics	Akshita	
7.	1618701	Aman Rawat	Bsc. (H) Electronics	Aman	
8.	1619056	Samridhi Shoor	B.Sc (H) Electronics	Samridhi	
9.	1617041	Priyanshu	Bsc(H)Electronics	Priyanshu	
10.	1619044	Mohd Haroon	Bsc hon. Electronics	Mohd Haroon	
11.	1619051	Vishesh Bisht	Bsc H Electronics	Vishesh	
12.	1618040	Riya sharma	Bsc (h) electronics	Riya	
13.	1617020	Mayank Singh	BSc H Electronics	Mayank	
14.	1617004	Sumedha Singh	B.sc(H) Electronics	Sumedha	
15.	1617008	Ankit Sharma	Bsc.(H.) Electronics	Ankit	
16.	1617043	Ashar Ahmad	BSc H Electronics	Ashar	
17.	1617051	Tarun Souda	B.Sc(H) Electronics	Tarun	
18.	1617023	Mukul Basu	B.Sc(H) Electronics	Mukul	
19.	1719142	Yash Goel	B.Sc. (H) Mathematics	Yash	
20.	1119012	Aparna Bose	Bsc (prog.) Life Sciences	Aparna	
21.	1119023	Nirupama Sai	BSC. (PROG) Life Sciences	Nirupama	
22.	1619062	Ishika Chauhan	BSc(H.)Electronics	Ishika	
23.	1617011	Nancy Tyagi	B.Sc.(H) Electronics	Nancy	
24.	1617017	Prashant Gupta	B.Sc. (H) Electronics	Prashant	
25.	1619061	Shivangi Singh	B.Sc.(H.)Electronics	Shivangi	
<del>26.</del>	<del>1619061</del>	<del>Shivangi Singh</del>	<del>B.Sc.(H.)Electronics</del>	<del>Shivangi</del>	
27.	1619049	Manan Kumar Gautam	B.sc(H) Electronics	Manan	
28.	1617027	KUSHAGRA PAL	BSc(H) Electronics	Kushagra	
29.	1619036	Kanchan	B.Sc(H) Electronics	Kanchan	
30.	1619064	Manav Kapoor	BSc (H) electronics	Manav	
31.	1617601	Chaitanya Pathak	BSc H Electronics	Chaitanya	
32.	1619017	Ritesh Singh Soun	Bsc. (H) Electronics	Ritesh	
33.	1618041	SATYAM	B.Sc.(H) Electronics	Satyam	
34.	1619001	Pratham Sahay	B.Sc (H) Electronics	Pratham	
35.	1619069	Chandra Shekhar	Bsc (H) electronics	Chandra	
36.	1619068	Satender Singh	Bsc (H) electronics	Satender	
37.	1618008	Tanuj Kumar	BSc.(H) Electronics	Tanuj	
38.	1617015	Anikesh Maurya	B.Sc.(H) Elec	Anikesh	
39.	1618069	Harandeo Rai Singh	Bsc(H)Elec	Harandeo	
40.	1619035	Shikha Sharma	Bsc(H)Electronics	Shikha	
41.					

**CERTIFICATE**







**SRI VENKATESWARA COLLEGE**  
(University of Delhi)

**Internal Quality Assurance Cell**

**Chairperson**

Prof C. Sheela Reddy  
Principal  
Sri Venkateswara College

**IQAC Coordinator**  
Dr. N. Latha  
Department of Biochemistry

**External Members**  
Prof Debi P Sarkar  
Department of Biochemistry  
University of Delhi South  
Campus

Prof Alo Nag  
University of Delhi South  
Campus

Dr. Gitanjali Yadav  
NIPGR, Delhi

**Internal Members**  
Dr. Meenakshi Bharat  
Department of English

Dr. Lalitha Josyula  
Department of Electronics

Dr. Namita Pandey  
Department of Political  
Science

Dr. A. K. Chaudhary  
Department of Physics

Dr. K.C. Singh  
Department of Physics

Dr. Swarn Singh  
Department of Mathematics

Dr. Neeraj Sahay  
Department of History

Dr. Vartika Mathur  
Department of Zoology

Dr. Shruti Mathur  
Department of Commerce

Dr. Padma Priyadarshini  
Department of Sociology

Dr. Nimisha Sinha  
Department of Biochemistry

Shri D. Venkat Ramana  
A.O(I/C)

This is to certify that the Activity report (Teacher/Department /Society/Association) has been submitted for documentation to IQAC, Sri Venkateswara College, University of Delhi.

*N. Latha*

IQAC Coordinator  
Sri Venkateswara College

**Coordinator, IQAC**  
**Sri Venkateswara College**  
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**Dhaura Kuan, New Delhi-110021**

*C. Sheela Reddy*  
PRINCIPAL

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