

## MACHINE LEARNING (17IS72) PROGRAMMING ASSIGNMENT (LA2)

Semester: 7<sup>th</sup> A

Max Marks: 10

### NOTE:

- Students are informed to show the demo and submit the report after the demo. In the demo, students should explain the source code along with the output. Students should be able to explain the ML algorithm/s used in the problem in detail during the demo.
- Students should strictly follow the demo date posted against their batches. Marks will be deducted if students fail to adhere to the presentation date and time.
- Last date for submitting the report is Jan 10<sup>th</sup>, 2020. Report should be submitted to my mail: [adityashastry.k@nmit.ac.in](mailto:adityashastry.k@nmit.ac.in) . Delay in submitting the report will lead to deduction in the marks.
- The report should contain the following: (If following format is not followed, then marks will be deducted)
  - Front Page (With NMIT Logo)
  - Question
  - Explanation of Methodology followed
  - Source Code
  - Output (Snapshots)
- Split up of marks is as follows:
  - Demo → 6 Marks (For Demo, marks will be allotted individually, hence each student in the batch must explain some part of the code or output.)
  - Report → 4 Marks

BATCH	PROBLEM STATEMENT	Demo Date & Time	Google Meet Link
Abhishek Kumar Singh 1NT17IS007 Aakash Thapa 1NT17IS002 Ashish Acharya 1NT17IS029 Aadarsh Sah 1NT17IS001	<b>Spam detection:</b> Given email in an inbox, identify those email messages that are spam and those that are not. Having a model of this problem would allow a program to leave non-spam emails in the inbox and move spam emails to a spam folder.	Jan 2 <sup>nd</sup> , 2020 (10:30 – 10:45)	<a href="https://meet.google.com/xef-wckq-jvk">https://meet.google.com/xef-wckq-jvk</a>
Aditya Trivedi 1NT17IS008 Abhinav Ayush 1NT17IS005 Arun Pratap Singh 1NT17IS027 Harshit Ojha 1NT17IS069	<b>Early diagnosis of Alzheimer's disease using machine learning</b>	Jan 2 <sup>nd</sup> , 2020 (10:45 – 11)	

Aashna Sinha 1NT17IS003 Anusha Jadav 1NT17IS021 Nidhi 1NT17IS110	<b>Product recommendation:</b> Given a purchase history for a customer and a large inventory of products, identify those products in which that customer will be interested and likely to purchase. A model of this decision process would allow a program to make recommendations to a customer and motivate product purchases.	<b>Jan 2<sup>nd</sup>, 2020</b> <b>(11 –11:15)</b>	
Jatin Kumar 1NT17IS073 Dhiraj Kumar 1NT17IS054 Ashutosh Mishra 1NT17IS030 Aryan 1NT17IS028	<b>Medical Diagnosis:</b> Given the symptoms exhibited in a patient and a database of anonymized patient records, predict whether the patient is likely to have an illness. A model of this decision problem could be used by a program to provide decision support to medical professionals.	<b>Jan 2<sup>nd</sup>, 2020</b> <b>(11:15 – 11:30)</b>	
Chethan G 1NT17IS039 Girish R U 1NT17IS062 Gowtham S Kamath 1NT17IS065 Chethan B 1NT16IS032	<b>Stock Trading:</b> Given the current and past price movements for a stock, determine whether the stock should be bought, held, or sold. A model of this decision problem could provide decision support to financial analysts.	<b>Jan 2<sup>nd</sup>, 2020</b> <b>(11:30 – 11:45)</b>	
B Rahul Reddy 1NT17IS032 Akashraj Raga 1NT17IS016 Dhanush D Shetty 1NT17IS049 Achyuth Nag 1NT17IS059	<b>Customer Segmentation:</b> Given the pattern of behavior by a user during a trial period and the past behaviors of all users, identify those users that will convert to the paid version of the product and those that will not. A model of this decision problem would allow a program to trigger customer interventions to persuade the customer to convert early or better engage in the trial.	<b>Jan 2<sup>nd</sup>, 2020</b> <b>(11:45 – 12:00)</b>	
Vaishnavi MV 1NT17IS188 Vismaya V M 1NT17IS199 Amulya Sethurao 1NT17IS020	<b>Movie Recommendation</b>	<b>Jan 2<sup>nd</sup>, 2020</b> <b>(12:00: – 12:15)</b>	

H S Amit 1NT17IS066			
Apoorva N 1NT17IS023 Fazal Rehman 1NT17IS058 Wasif Irshad 1NT17IS200 Syed Ismail 1NT17IS175	<b>Sales Forecasting</b>	<b>Jan 2<sup>nd</sup>, 2020 (12:15 – 12:30)</b>	
Amit Kiran K 1NT17IS019 Dhanush M 1NT17IS050 Amit Bhat 1NT17IS018 Arpitha Bhat S 1NT17IS026	<b>A Machine Learning Model for Average Fuel Consumption in Heavy Vehicles</b>	<b>Jan 2<sup>nd</sup>, 2020 (12:30 – 12:45)</b>	
Dhanush P 1NT17IS052 Bhoomika K 1NT17IS033 Disha Dechamma MN 1NT17IS056 Dipanshu Modi 1NT17IS055	<b>A Machine Learning Approach for Tracking and Predicting Student Performance in Degree Programs:</b>	<b>Jan 2<sup>nd</sup> , 2020 (2: –2:15)</b>	
Chaitra K 1NT17IS037 Devayani JS 1NT17IS048 Chethan Suresh K 1NT17IS040 Tejaswini GC 1NT17IS207	<b>Predicting Diabetes in Healthy Population through Machine Learning</b>	<b>Jan 2<sup>nd</sup> , 2020 (2:15 – 2:30)</b>	
Ojaswi Joshi 1NT17IS118 Kriti Karna 1NT17IS082 Aishwarya C 1NT17IS012	<b>Crop yield prediction using machine learning</b>	<b>Jan 2<sup>nd</sup> , 2020 (2:30 – 2:45)</b>	
Aditya GM 1NT17IS010	<b>Plant Disease Classification Using Machine Learning</b>	<b>Jan 2<sup>nd</sup> , 2020</b>	

Aditya Hoode 1NT17IS011 Anvesh Rai 1NT17IS022 Gangadhar B 1NT17IS060		(2:45: – 3:00)	
Arbind Mahato 1NT17IS024 Arpit Ojha 1NT17IS025 Kshitiz Kumar 1NT17IS084 Jenish Gautam 1NT17IS075	<b>Loan Prediction using Machine Learning:</b> The idea behind this ML project is to build a model that will classify how much loan the user can take. It can be based on the user's marital status, education, number of dependents, and employments.	Jan 4 <sup>th</sup> , 2020 (1:30 – 1:45)	<a href="https://meet.google.com/mxa-xdwm-yvk">https://meet.google.com/mxa-xdwm-yvk</a>
Love Ojha 1NT17IS088 Kush Ojha 1NT17IS085 Mayank Raj S 1NT15IS135 Kaushar Ansari 1NT17IS079	<b>Breast Cancer Prediction:</b> Determine the likelihood that a breast tumor is malignant or benign. Various factors like the lump's thickness, number of bare nuclei, and mitosis can be taken as parameters.	Jan 4 <sup>th</sup> , 2020 (1:45: – 2)	
Hrithik Jaiswal 1NT17IS072 Aayush Chourasia 1NT17IS004 Harsh Nautiyal 1NT17IS067	<b>Fake News Detection Project:</b> Fake news spreads like a wildfire and this is a big issue in this era. Aim is to learn how to distinguish fake news from a real one.	Jan 4 <sup>th</sup> , 2020 (2: – 2:15)	
Darshit Sinha 1NT17IS044 D Jagath Singh 1NT17IS042	<b>Parkinson Disease Prediction Using Machine Learning:</b> Parkinson's disease is one of the main neurological disorders affecting the aged. It is an environmentally influenced, neurodegenerative disease that is characterized by tremors, stiffness of limbs and trunk, slowness of voluntary movements called Bradykinesia, postural instability and a distinctive shuffling gait with a stooped position called "Parkinson's gait". According to one estimate more than 1% of the population suffers from Parkinson's disease after reaching 55 years of age. Based on these points, the main aim of the project is to develop a ML algorithm that can predict the	Jan 4 <sup>th</sup> , 2020 (2:15 – 2:30)	

	<p>Parkinson's disease.</p> <p>The input parameters that impact the Parkinson's disease are utilized to forecast whether the person has Parkinson or not.</p>		
<p>Deepak Kumar 1NT17IS045</p> <p>Avinash Kumar 1NT17IS031</p> <p>Deshmukh Pankaj 1NT17IS047</p> <p>Akash Singh 1NT17IS015</p>	<p><b>A machine learning approach to anomaly detection:</b> Much of the intrusion detection research focuses on signature (misuse) detection, where models are built to recognize known attacks. However, signature detection, by its nature, cannot detect novel attacks. Anomaly detection focuses on modelling the normal behavior</p>	<p><b>Jan 4<sup>th</sup>, 2020 (2:30 – 2:45)</b></p>	
<p>Abhishek 1NT17IS006</p> <p>Rownak Kumar 1NT17IS142</p> <p>Dhanush M 1NT17IS051</p> <p>Gokul Surendar 1NT17IS063</p>	<p><b>Housing Prices Prediction Project:</b> The dataset has house prices of the Boston residual areas. The expense of the house can be predicted using attributes like crime rate, number of rooms, etc.</p>	<p><b>Jan 4<sup>th</sup>, 2020 (2:45 – 3)</b></p>	
<p>Mahadesu Tejeswar</p>	<p><b>Cardiac disease prediction using machine learning</b></p>	<p><b>Jan 4<sup>th</sup>, 2020 (3 – 3:15)</b></p>	