Group No.	Project Title	Teacher in-charge	Members	Member #1 contact number	Attach link of google drive folder corresponding to group no
33AW##1	Authentication Protocols for IoT devices using Cryptography	Bijendra Kumar	Adarsh 211/CO/15, Harmanpreet Singh Grover 258/CO/15, ,	9910338953	https://drive.google.com/folderview?id=1sz12VuIwg5d-5uiN9kSaw-c1QztfAbZ0
2	Integrating Topic modeling and clustering for Twitter Data	Bijendar Kumar Singh	Divyanshu Gautam 252CO15, Dilkhush 250CO15, Dhruv Bokolia 249CO15, Himesh Bhatia 263CO15	9871839603	https://drive.google.com/folderview?id=1H-M3wxc6W_pO6HG8tPj5qPfbUzzrUekp
3	Music Genre Classification using Machine Learning	Mr. Rajeev Kumar	Chiranjeev Singh 245/CO/15, Dolly 253/CO/15, Gurshid 256/CO/15,	9899465160	https://drive.google.com/open?id=1wWRM1cIxqrBgeKRZ2QFFCPT1ElOUkAlA
4	Medical image interpolation	Sangeeta Sabharwal	Jatin Bansal 269CO15, Ayush Bhardwaj 241CO15, Archit Panwar 233CO15,	9810123095	https://drive.google.com/drive/folders/1nG8ReIE6rFYvh3vGDnpxdAn7QlTGZIRZ?usp=sharing
5	Video Steganography using Deep Learning	Prof. M.P.S Bhatia	Sarthak Goel 349CO15, Shubham Bansal 364CO15, Sarthak Srivastava 350CO15,	7838064925	https://drive.google.com/open?id=1adKLDlNrpXALgqk-RMalDZW2Om2fklPb
6	Video Summarization and Captioning	Swati Aggarwal	Aman 221CO15, Anand Zutshi 225CO15, Apaar Gupta 230CO15, Aayushi 203CO15	8447135725	https://drive.google.com/open?id=1HAyo7cx9fJUCrn63tghpT6yUkRDAGQmz
7	Question Independent Code Analysis and Grading using Bag of Words and Machine Learning	Dr. Pinaki Chakraborty	Bhavya Gupta 243/CO/15, Kaushal Kumar Rai 273/CO/15, Pardeep Shokeen 305/CO/15,	9560364671	https://drive.google.com/open?id=1mc88vUrzyTIVKu5_oLvyAp8kkRJj3kRm
8	Load Scheduling using Swarm Intelligence Algorithm	Professor BK Singh	Utkarsh Tyagi 391CO15, Sidharth Yadav 374CO15, Shubham Kumar 366CO15,	9717410819	https://drive.google.com/open?id=13RyCIqoyQbPN7aarPEHQLWPBSWI07FGX
9	Automated Liver and Lesion Segmentation with Adaptive Learning Rate	Dr. Sushama Nagpal	Sakshi Garg 342/CO/15, Shivam Gupta 362/CO/15, Soumya Shreya 377CO15,	9821277410	https://drive.google.com/drive/folders/177BII0iG8Z_E2QBvvumUeGouH6iOa5bU?usp=sharing
10	An Efficient Approach to information hiding through Reversible Image Stegenography	Khushil Kumar Saini	Mudit Bhardwaj 293CO15, Lovedeep Singh 281CO15, ,	9990015348	https://drive.google.com/drive/folders/13gP9YfYxJ0Qbf46S_eMBgWeHcfvMdvr_?usp=sharing
11	Decentralized Deep Learning	Dr. M.P.S. Bhatia	Sandipan Dutta 347CO15, Swaraj Kumar 381CO15, Shaurya Chaturvedi 357CO15,	9717510574	https://drive.google.com/drive/folders/1HollcNMF41z7pnGnekAG-Z9SIAvNE2eW?usp=sharing
12	Automated Attendance Management System Using Face Recognition	Ms Veenu	MUKUL YADAV 294CO15, LAKSHAY 280CO15, ,	7834856649	https://drive.google.com/open?id=1AfnScNuAnE30nW6VkV1fauHlVwB2wmsn
13	Study and analysis of internet and gaming addiction	Swati Aggarwal	Varshika Gambhir 395CO15, Simrat Pal Singh Satia 376CO15, Shivin Saluja 363CO15, Shubhi Gupta 369CO15	8585906558	https://drive.google.com/open?id=1I3EpiqmJdVMGzZ7Vh71LTCudP6f05xk9

14	Retinal vasculature segmentation using gan	Mr. Khushil saini	Srishti 379/CO/15, Vedant rao 399/CO/15, ,	9582549807	https://drive.google.com/open?id=162Aad6eWj_GmbTZX4T4QCxPnwLF6C7bl
15	Influence on Facebook usage on academic performance of students	Pinaki Chakravarty	Yasheel Vyas 410CO15, Vandana Miglani 394CO15, Yatharth Yadav 411CO15,	9810670075	https://drive.google.com/open?id=1t8RULUHAREsojj1oWM70EMyy5JxI4-hB
16	End to End Audio Transforms	Swati Aggarwal	Sameer Garg 344CO15, Shashwat Aggarwal 355CO15, Shashwat Uttam 356CO15, Shubham Garg 365CO15	9953446963	https://drive.google.com/drive/folders/16EMhbgcedgFBEot0Sdca2jyycgX0F6xT?usp=sharing
17	Driver Drowsiness and distraction Detection	Preeti Kaur	Yash Sharma 409CO15, Ankit Yadav 413CO15, Sandeep Kumar 345CO15,	8802625221	https://drive.google.com/drive/folders/1zmRoKuxNQ0-SVFzIrMHBhudJY1w3dM1L?usp=sharing
18	Facial Detection, Recognition and Security	Satbir Jain	Himan Boro 259CO15, Chetan Chauhan 244CO15, Aditya Anand 209CO14,	7982901253	https://drive.google.com/drive/folders/1z_Kd5in8p_lpzmOaLBtxY-VrVZ83uEsj
19	Analysis of Generative Adversarial Neural Network (GAN)	Swati Aggarwal	Sidhant Nagpal 373CO15, Siddharth Verma 371CO15, Shikhar Gupta 358CO15,	9868003602	https://drive.google.com/drive/folders/1TGMeR0zXsJ-6RvL9urcgL8Yul9D24lkF?usp=sharing
20	IMAGE GENERATION USING TEXTUAL DESCRIPTION	Dr. SUSHAMA NAGPAL	RATTANDEEP SINGH 331CO15, RAJAT SINGHAL 327CO15, ,	8447151548	https://drive.google.com/open?id=1SyRjD5D41VsKXN8HEp6an8Nwd7PYOChe2
21	Social Media Analysis Using Deep Learning And NLP Techniques	Dr. Sushama Nagpal	Shantanu Agrawal 354CO15, Samarth Sehgal 343CO15, Shikhar Pahadia 359CO15,	9811758266	https://drive.google.com/drive/folders/1hg1nItrOD5-pMWX5tr8AB2aTHwx2DpXK?usp=sharing
22	Creating a Ruby library(gem) for constructing and simulating digital circuits, analog circuits and integrated circuits(ICs).	Savita Yadav	Amandeep Singh 223CO15, Ashish Yadav 235CO15, ,	8527948696	https://drive.google.com/drive/folders/19wSdpMsGhgVzhx0YUjHxO3jyyfTmagNo?usp=sharing
23	Colorization of grayscale images	Sangeeta Sabharwal	Ashish Rana 236CO15, Deepanshu Chauhan 247CO15, Gaurav Sharma 255CO15,	8826146382	https://drive.google.com/drive/folders/1QkjCOzqcK61MqfkGWE6Oljtm_nk91QX4?usp=sharing
24	TEXT SUMMARISATION	Savita Yadav	Abhishek Chaudhary 207CO15, Himanshu Vats 262CO15, ,	9643755596	https://drive.google.com/drive/folders/1rIyu6FPJULfeBLndTh7BW-aZEGYnW-Jk?usp=sharing
25	A novel method to generate text by capturing eye blink pattern for people suffering from Locked-in syndrome.	Anand Gupta	Vikas Goswami 402CO15, Vineet Goyal 404CO15, ,	9871071449	https://drive.google.com/open?id=1zXJDgvj6s27OZy5S5g7GVdsouKU90rKU
26	Recommender system	Sangeeta Sabharwal	Pratishtha Panwar 315CO15, Hardik Jain 257CO15, Manan Chawla 283CO15,	9953053304	https://drive.google.com/drive/folders/1hNu40ZpIgeVMfJgjVuFXVA8x2DQwZOfM?usp=sharing
27	Analysis of Musical Track through Machine Learning and implementation of rating system	Shampa Chakraverty	Aditya Aggarwal 213CO15, Akshansh Malik 219CO15, Dhannanjay Raje Vaid 248CO15,	9810305560	https://drive.google.com/open?id=1GZp7Q54UVr4ajus5aR71yjiTi-JZNrMl

28	Plant disease diagnosis and treatment through deep learning	Mr. Khushil Saini	Vipul Tanwar 406CO15, Vivek Kumar Sinha 408CO15, Vipul Verma 407CO15,	8285015747	https://drive.google.com/folderview?id=1-ji6MlCIwG1p2KIwm-c5YcFGAFVWeB0G
29	Drawing and Recognizing Images, Scene Creation and Caption Generation by applying Computer Vision Techniques	Sangeeta Sabharwal	Jasleen Kaur 267CO15, Jatin Bansal 270CO15, Arzoo Yadav 234CO15,	8146992661	https://drive.google.com/open?id=15ZpyI6MMSMcEDKwCRUMMUFSP1DiAjUbU
30	Intelligent Virtual Voice Assistant analysis and Implementation using python	Prof. Sangeeta Sabharwal	Vikas Yadav 403CO15, Amit Yadav 224CO15,	7289028972	https://drive.google.com/drive/folders/1yOAuQuiVILscgWQqUQK1jN2zYm5rNeZg?usp=sharing
31	Automated image captioning using CNN and LSTM and impact of using R-CNN along with CNN	Khushil Kumar Saini	Raghav Wadhwa 323CO15, Shagun Chauhan 353CO15, Ujjawal 388CO15, Varun Baweja 396CO15	8860434575	https://drive.google.com/open?id=1x8VVwCVxfRtyNOuGmFMmvgSMg-6Wk2Cj
32	Audio Summarizer	Preeti Kaur	Nishank Dawar 300/CO/15, Nikhil Kalra 297/CO/15, Kuldeep Singh 277/CO/15,	9311443083	https://drive.google.com/drive/folders/1rNxBcEPDXsB64NdLP0BUDOniij0c-cSE?usp=sharing
33	Analysis of image steganography techniques	Anand Gupta	Avani Verma 240CO15, Aman Singh 222CO15, ,	9013495544	https://drive.google.com/open?id=179w9Py0jeGO2O4xa6mLAp5M0BEdwBT1L
34	Handwriting generation system using deep learning	Sangeeta Sabharwal	Shivam 360CO15, Sandhini 346CO15, Santosh Kant 348CO15,	7087733428	https://drive.google.com/drive/folders/1uujzomNwJca5Alg55Pt62ApVJLwddNnF?usp=sharing
35	Deep Neural Network based Model Architecture with word embeddings as features for Recommender systems	Dr. Anand Gupta	Abhishek Govil 209CO15, Aditya Nand 214CO15, Hritwik Dutta 265CO15,	8505812345	https://drive.google.com/drive/folders/15lx75nXat7Nt_PVSOA-6tmpUdTiTI224?usp=sharing
36	Air Quality Index Estimation Based On Image Analysis	Ms. Veenu	Marvin Tokas 291CO15, Prajjwal Rohilla 312CO15, ,	9717867044	Group36_BTP
37	Traffic Light Management System	Khushil Saini	Vedant Dhiman 398CO15, Sumit Yadav 380CO15, Vinod Kumar 405CO15,	9958744385	Group_37_BTP
38	Redesigning cab sharing algorithm	Mr. Anand Gupta	Sweta Nandal 382CO15, Shubham Roy 368CO15, Shubham Kumar 367CO15,	9953365724	Group_38
39	CROWD COUNT ESTIMATION IN HIGHLY DENSE IMAGES USING CONVOLUTIONAL NEURAL NETWORKS AND MARKOV RANDOM FIELDS	Ms. Veenu	Siddheshwar Singh Negi 372CO15, Sourav Sharma 378CO15, ,	8219597411	GROUP_39
40	Music Production using Deep learning	Ms. Veenu	Prashant Kumar Meena 314CO15, Rahul 324CO15, Nitin Pandey 302CO15,	9013157432	Group 40 BTP

41	Image colorization of grayscale images	Satbir Jain	Kumar Ujjwal 278CO15, Rashi Chaudhary 329CO15, Abhishek Deyol 208CO15, Pooja Kumari 311CO15	9899296075	https://drive.google.com/drive/folders/12Wr0lFBW1UeLxLD0jT0B2WBv1dME66IP?usp=sharing
42	Self Solving Game using NEAT	Rajeev Kumar	Aditya Singh 216CO15, Ankur Yadav 227CO15, Ashwani Lingwal 238CO15,	8383898940	https://drive.google.com/open?id=1vHibmfBZ8pgGggm252QQDCP4z7nqvsds
43	Determining the accuracy of sentimental analysis as a stock market prediction technique	Mr Rajeev Kumar	Ishan Ambardar 266CO15, Akhil Yadav 217CO15, Himank Rao 260CO15,	9910054556	https://drive.google.com/open?id=1OIOWyxZBKEoOqV_tKljm-Z0bJdiguEDN
44	Sign language translation	Sangeeta Sabharwal	Aabhas Gupta 201CO15, Abhinav Bansal 204CO15, Aakash Bansal 202CO15,	9560169246	https://drive.google.com/open?id=1DUbPJBPVdRKj7fmjmFHaszvXFLEcx3xx
45	CAPTCHA recognition using deep convolutional neural networks	Mr. Rajeev Kumar	Ashwani Kumar 237/CO/15, Aditya Pratap Singh 215/CO/15, ,	9873870284	https://drive.google.com/open?id=1hSwwBMUIjRR1iKvOqTnIlRWseZGYX9Qu
46	Educational tool (networking) using raspberry pi	Mr. Rajeev Kumar	Apratim Gupta 232CO15, Himanshu Attri 261CO15, ,	9953728690	https://drive.google.com/drive/folders/1_7XGm7G72m9CyfJQvBZ6SXV3jv_ND2l_?usp=sharing
47	Exploratory Data Analysis	Mrs. Sangeeta Sabharwal	Nishant Dayal 301CO15, Manupriyam Jindal 290CO15, Raghav Agarwal 321CO15, Parth Gupta 306CO1	9891692696	https://drive.google.com/drive/folders/1qnRMC5ezck-dFjVpsz3wvBYQsCAoEvk0?usp=sharing
48	CrimeFile Management System	-	jatin kumar 271CO15, nikhil meena 298CO15, pooja singh 310CO15,	8826056703	https://drive.google.com/open?id=1Rqhx5EpZHht9prXBodQhJMSUh26NxXVe
49	MySteth : A personalized tool for detecting abnormal heartbeat	Dr Swati Aggarwal	Rohit Jain 336CO15, Khwaja Mohammad Salik 274CO15, ,	9560391040	
50	Visual Text-Entry based on Morse code generated by eye blinks	Rajiv Kumar Sir	Rohit Rao 337/CO/15, Abhishek 205/CO/15, ,	9013939226	https://drive.google.com/open?id=1E7eqGyT4hVSHpfEaC3EKO64cb19N-4KV
51	Navigation System Contrivance Using Augmented Reality	Ms Savita Yadav	Abhishek 206CO15, Anurag tirkey 229CO15, Ishaan kumar 264CO15, Divyansh dalal 251CO15	7838859572	https://drive.google.com/folderview?id=1-BZiIEUZGXsTswTkF2DTAulWE6MRln9_
52	Ultrasound Nerve Segmentation	Dr. Pinaki Chakraborty	Nupur Baghel 303CO15, Paavini Nanda 304CO15, ,	9810537950	https://drive.google.com/drive/folders/1Zc-PgqjI7GIC-Y4e_JE_QZLHDB5N2275Y?usp=sharing
53	Classification of text into Linguistic and Non-linguistic categories using Machine Learning techniques	Mrs Sushama Nagpal	Ritika Bedhara 334CO15, Rashmeet Kaur 330CO15, Saksham Nagpal 340CO15,	8587857088	https://drive.google.com/open?id=19r3wptDC6OQN3CQDJPgAkeDQieKllkex
54	Non-Contact Heart Rate Monitoring Application Using Mobile Camera	Mr. MPS Bhatia	Ujjwal Sharma 390CO15, Tanvi Sharma 383CO15, Manikaant Suryan 286CO15,	8285860797	https://drive.google.com/open?id=1V-ru938nM5bEKcNMfynmhb8yi23a0-NR
55	Machine Learning in Healthcare and Medicine	Ms. Sangeeta Sabharwal	Aditi Tayal 212CO15, Anchal Garg 226CO15, Abhishek Yadav 210CO15,	9910371959	https://drive.google.com/drive/folders/1zZ-Tn2OfF7fLM1FKe3erNi9d3w3oQBgr?usp=sharing

#	Project Title	Guide	Students	Phone	Link
56	Report & Request System based on object detection & Image comparison	Mrs. Veenu	Manish Kumar 288CO15, Navneet Kumar 295CO15, Rachna Saini 320CO15,	9319315738	https://drive.google.com/drive/folders/1-XyMY7uAMAHWTyw83jKchZ8lF4kb3dd_
57	Achieving super-resolution for microscopic images using deep learning	Prof. Satbir Jain	Tanya Gupta 385/CO/15, Vibhu Bhatia 839/BT/15, ,	9599754698	https://drive.google.com/open?id=1718nkY7HqOt28HL16p49Dh0f30JdMhcX
58	Accent conversion using deep learning techniques	Dr. MPS Bhatia	Kush Misra 279CO15, Mayank Kumar 292CO15, Luv Misra 282CO15,	9910711653	https://drive.google.com/open?id=1EEl3V-hC-HH2y4MqtlIFq1KnaeonVWvz
59	Lipreading for resource constrained environments	Ms. Preeti Kaur	Nilay Shrivastava 299CO15, Astitwa Saxena 239CO15, ,	8588036791	https://drive.google.com/open?id=1i9Xx66R2ORJli_yAXYTiA4ZFgAzjV01X
60	Online fraudulent transactions detection system	Mrs Veenu	Saksham Kumar 339CO15, Parth Tanwar 307CO15, Puneet 318CO15,	9654439268	https://drive.google.com/open?id=18pMAHdZBzkDp4dSdqcofpm9taekcSvAP
61	Software Controlled Prosthetic Hand	Dr. Pinaki Chakraborty	Apoorvaa Gupta 231/CO/15, Bhavya Aggarwal 242/CO/15, ,	9654194764	https://drive.google.com/open?id=16eYstqU4VJiXiTGgdTlNh2FIU-ZxNyYu
62	Modelling Investor Behaviour in Stock Markets Using Mean Field Game Theory	Dr Swati Aggarwal	Siddarth Bisht 370CO15, Vaibhav Goel 392CO15, Satvik Jain 351CO15,	9891062633	https://drive.google.com/open?id=1w1_J1pG7YjYt-l_lKU7Kns8dlfSWbx74
63	Automatic vehicle speed detection using video processing	Khushil Saini	Vignesh Srikumar Iyer 401CO15, Thanglianpau Boipu 386CO15, ,	8826574030	https://drive.google.com/open?id=1jg3IJzb08QMchfK1hSj98cvsg0IWm15R
64	Multilingual Sentiment Analysis using Deep Learning	Professor Satbir Jain	Hitesh Nankani 264CO15, Vamsi 308CO15, ,	8920299360	https://drive.google.com/open?id=1a_BH5owWbgZxki8zzLOIuM7BgkZxJdOg
65	Dvesh Prahari : Detecting vindictive behavior from social media in code switched languages using NLP and vision techniques	Preeti Kaur	Kshitij Rajput 276CO15, Raghav Kapoor 322CO15, ,	9953119201	https://drive.google.com/drive/folders/1MzTGitgywamZR-YxeDnKHpC2VtraTp-w?usp=sharing
66	Genre Prediction and Movie Recommendation using Boltzmann Machine	Dr. Ritu Sibal	Sakshi Dagar 341CO15, Tushar Yadav 387CO15, Vasu Aggarwal 397CO15, Anshul Arya 412CO15	9643456554	https://drive.google.com/drive/folders/1fk_sKOYXJXV1l8UqxrzIZ-YHKLa_XvmI?usp=sharing
67	Comparing the robustness of Defenses against Adversarial Attacks in Neural Networks	Dr. Swati Aggarwal	Vaibhavi Singh 393CO15, Shivam Garg 361CO15, Simra Afreen 375CO15, Vibhav Agarwal 400CO15	8130733945	https://drive.google.com/drive/folders/1yf1f5haAjm6UV2igtknr9bOAJxDH7K7x?usp=sharing
68	To develop a model to automatically trade a model in stock market and generate profit using Artificial Intelligence	Pinaki Chakroborthy	Tanya Gupta 384CO15, Ujjawal Chugh 389CO15, ,	8130605925	https://drive.google.com/drive/folders/1akTMAByRsJ8cRn-SJVP7KghDuXzZYYzN?usp=sharing
69	Analysis of Anthropogenic Effects on Indian Climate	Mrs. Preeti Kaur	Raunaq Surya Khattar 332CO15, Manan Rishi Aneja 285CO15, Karan Verma 272CO15,	9560222255	https://drive.google.com/open?id=1kMslbja_vIgoOs5Lp4lZMBAxCtYPUV5M

70	Optimizing website design using nature inspired metaheuristics.	Ms Savita Yadav	Rishab 333CO15, Priyanshu Gautam 316CO15, Pulkit Chhiller 317CO15,	9643404026	https://drive.google.com/open?id=1Q103Vj-MO-PrkkWpNifcpxS1yJ8_Aexk
71	Activity analysis	Rajeev Kumar	Krishan kumar 275CO15, Manjeet singh 289CO15, ,	9899392565	https://drive.google.com/open?id=1xjltlfOnDfesOQ5E8ZyudjRtzizz_GE2
72	Deep Neural Evolution	Ms Poonam Rani	Manan Singh 284CO15, Manish 287CO15, Sahil Gupta 338CO15,	9457226437	https://drive.google.com/open?id=1GgVDbWKK5s-9nkDj65CjP6dFwEL3rYYA
73	Study of factors which influence the commercial success of Hindi songs	Rajeev Kumar	Akshaye Singhi 220CO15, Akhilesh Palanikumar Naidu 218CO15, ,	8448848902	https://drive.google.com/drive/folders/1PxelPbyT4yK4ZyMRn-7E3Y-kq8W_6oXe?usp=sharing
74	An Email application for visually impaired	Dr. Ritu Sibal	Prakhar Kumar Singh 313CO15, Rahul Gaindwal 325CO15	9990001456	https://drive.google.com/drive/folders/1488UHvQwIqYm0XFWAh-GqY3n5Y5-Q0kV
75	Video stabilization using open CV	Dr. Ritu Sibal	Rajeev Kumar Rai 328CO15, Rohan Balot 335CO15	8447761642	https://drive.google.com/drive/folders/1YS0GG-7TD24cMqp_9GWp724xkXUujUv-?usp=sharing
76	MySteth: A Personalized Tool for Home Screening of Heart Diseases	Dr. Swati Aggarwal	Khwaja Mohammad Salik 274CO15, Rohit Jain 336CO15	8377033170	https://drive.google.com/open?id=1-3kcqqJ9SOFtg4HObBbDVGSDelXVhux3