

Project done by PhD and other students at Research Lab of Dr. Aruna Tiwari

| Project Title | PhD Student | Students | Publication | Other Information |
|--|---|--|--|--|
| Design of Genetic Programming Algorithm with simultaneous Feature Selection and its implementation for handling Big Data | Arpit Bhardwaj | Simmi Malhan Parul Gupta | | 130001034 130001026 |
| An Intelligent Scalable Development of Stock Market Prediction System | Arpit Bhardwaj | Dharmil Chandarana Darshil Babel | Arpit Bhardwaj, Aruna Tiwari, Dharmil Chandarana and Darshil Babel, "Classification of Breast Cancer Disease Using Genetically Optimized Neural Network", 7th International Conference on BioMedical Engineering and Informatics (BMEI 2014) Dalian, China, 14-17 October 2014, pp 693 - 698. | dhamu.sport@gmail.com |
| Pattern Recognition with EEG Signals in Modelling a Real Time Epileptic Seizure Detection System | Arpit Bhardwaj | Maddula Ramesh Krishna, Vishaal Verma | Arpit Bhardwaj, Aruna Tiwari, M. Vishaal Varma, M. Ramesh Krishna Bhardwaj, "A novel genetic programming approach for epileptic seizure detection", Computer Methods and Programs in Biomedicine, Volume 124, pp 2-18 (2016). Arpit Bhardwaj, Aruna Tiwari, M. Vishaal Varma, M. Ramesh Krishna, An Analysis of Integration of Hill Climbing in Crossover and Mutation Operation for EEG Signal Classification Proceedings of the 2015 on Genetic and Evolutionary Computation Conference, GECCO '15, 11-16 July, 2015, pp. 209--216, Madrid, Spain, (ACM). Arpit Bhardwaj, Aruna Tiwari, M Vishaal Varma, M Ramesh Krishna, "An Innovative Genetic Programming Framework in modeling a real time Epileptic Seizure detection system" 2014 ASEBigData/SocialInformatics/PASSAT/BioMedCom Conference, Harvard University, pp. 1-10, December 14-16, 2014. | rameshprince.2009@gmail.com vishaalgc@gmail.com |
| BFS Crossover Genetic Programming | Arpit Bhardwaj | Ashok Pancily, Kunal Chaudhary | | ashokpencil@iiti.ac.in kunalchaudhary.iit@gmail.com |
| Quantum inspired fuzzy based Neural Network for multiclass Classification Problems | Om Prakash Patel and Neha Bharill Patel | Sudharsan Kumar | | k.sudharsan1997@gmail.com |
| Quantum inspired Meta Cognitive Neural Network | Om Prakash Patel | Ramesh Balaji | | ee140002025@iiti.ac.in |
| Design & Development of Scalable Fuzzy Based Clustering Algorithms for Big Data | Neha Bharill | Aayushi Malviya | Neha Bharill, Aruna Tiwari, and Aayushi Malviya, "Fuzzy Based Scalable Clustering Algorithms for Handling Big Data using Apache Spark", IEEE Transactions on Big Data, 2.4 (2016): 339-352. | malviyaayushi@gmail.com |

Project done by PhD and other students at Research Lab of Dr. Aruna Tiwari

| | | | | |
|---|--------------------|--|---|--|
| | | | Neha Bharill, Aruna Tiwari, and Aayushi Malviya, "Fuzzy Based Clustering Algorithms to Handle Big Data with Implementation on Apache Spark", in Proceedings of IEEE Second International Conference on Big Data Computing Service and Applications, BigDataService, IEEE Computer Society Conference, Exeter College, Oxford, UK, March 29-April 1, 2016, pp. 95-104. | |
| Neuro-Fuzzy Classifier for Protein Classification Using New Technique for Feature Extraction | Neha Bharill | Anshul Rawat | Neha Bharill, Aruna Tiwari, Anshul Rawat, "A Novel Technique of Feature Extraction with Dual Similarity Measures for Protein Sequence Classification", Procedia computer Science, Elsevier, vol. 48, pp. 795-801, 2015. | anshulrawat1610@gmail.com |
| Keystroke user recognition through Extreme Learning Machine and evolving cluster method | Chandan Gautam | Sriram Ravindran, | Sriram Ravindran, Chandan Gautam, Aruna Tiwari, Keystroke user recognition through Extreme Learning Machine and evolving cluster method, ICCIC 2015 - IEEE International Conference on Computational Intelligence and Computing Research, 10-12 Dec. 2015, Madurai, Tamilnadu, India (Best Paper Award), pp. 1 - 5, 2015. | |
| Food vs Non-Food Classification | Chandan Gautam | Tilak Lodha & Sharang Dev Kalsi | | cse130001037@iiti.ac.in & cse130001032@iiti.ac.in |
| Speaker verification By One-class Classification | Chandan Gautam | Ramesh Balaji & Siddharth Shankar Prasad | | ee140002025@iiti.ac.in & cse140001032@iiti.ac.in |
| Intrusion Detection for Big Data Environment | Chandan Gautam | Varun Joglekar & Shubham Goyal | | cse140001037@iiti.ac.in & cse140001031@iiti.ac.in |
| Medical Diagnosis Expert System (MEDEX) using One-class Classification along with Statistical Algorithm | Chandan Gautam | Chaware Ketan Uday & Vishwajeet Singh Thakur | | cse130001009@iiti.ac.in & cse130001040@iiti.ac.in |
| Multi-task using One-class Classification | Chandan Gautam | Dhruv Ahuja | | cse130001010@iiti.ac.in Combine work under supervision of Dr. Kapil Ahuja |
| Motif Mining of Software repositories | Animesh Chaturvedi | Vraj Shah | | cse1200131@iiti.ac.in |
| Deep Learning of Software repositories | Animesh Chaturvedi | B Krishna Chaitanya & Harsh Mohan | | ee1200206@iiti.ac.in , me1200315@iiti.ac.in |
| Big Data Analytics of Software repositories | Animesh Chaturvedi | Kunal Gupta and Aditya Jain | | cse140001011@iiti.ac.in |

Project done by PhD and other students at Research Lab of Dr. Aruna Tiwari

| | | | | |
|---|--------------------|---|---|--|
| Active Learning of Software repositories | Animesh Chaturvedi | Kalyan Garikapati | | cse140001011@iiti.ac.in |
| | | Juhi Naik | Presented poster based on AI minor project in the event http://iursymposium.org/2014/02/09/poster-and-symposium-information/ | |
| Quantum Based Neural Network and its application as firewall for malicious web content filtering | Om Prakash | Vikram Patel, Ojas Gupta | O.P Patel and A. Tiwari, R. Chaudhary, S. V. Nuthalapati, N. Bharill, M. Prasad, F. K. Hussain, and O. K. Hussain, Enhanced Quantum Based Neural Network Learning and its Application to Signature Verification, Soft Computing, Springer, 2017 | vikramdpatel95@gmail.com, ojasgu@gmail.com (2015-2016) |
| Quantum Based Neural Network and its application as signature verification | Om Prakash | Vidyaranya Sai Nuthalapati, Rishabh Chaudhary | O.P Patel and A. Tiwari, R. Chaudhary, S. V. Nuthalapati, N. Bharill, M. Prasad, F. K. Hussain, and O. K. Hussain, Enhanced Quantum Based Neural Network Learning and its Application to Signature Verification, Soft Computing, Springer, 2017 | vidyaranya.ns@gmail.com, rishabhchaudhary16@gmail.com (2015-2016) |
| On Construction of Multi-class Binary Neural Network using Fuzzy Inter-cluster Overlap for Face Recognition | Neha Bharill | Megha Mantri | "Neha Bharill, Om Prakash Patel, Aruna Tiwari, and Megha Mantri, On Construction of Multi-class Binary Neural Network using Fuzzy Inter-cluster Overlap for Face Recognition, International conference on Machine Intelligence and Signal Processing, Singapore, 2019. 657-670. | meghamantri.iiti@gmail.com (2014-2015) |
| Intrusion Detection in Big Data Environment | Chandan Gautam | Varun Vinaya, Shubham Goyal | | cse140001037@iiti.ac.in, cse140001031@iiti.ac.in |
| Localized Multiple Kernel Anomaly Detection | Chandan Gautam | Ramesh Balajia, Sudharsan Kumar | Localized Multiple Kernel Learning for Anomaly Detection: One-class Classification, Chandan Gautam, Ramesh Balajia, K. Sudharsan, Aruna Tiwari, Kapil Ahuja, Knowledge-Based Systems, vol. 165, pp. 241-252, 2018 | ee140002025@iiti.ac.in, k.sudharsan1997@gmail.com |
| Type-2 Fuzzy and Kernel Ridge Regression based One-class Classification for Non-stationary Environment | Chandan Gautam | Raman Bansal, Vedaanta Agarwalla, and Ruchir Garg | | cse140001025@iiti.ac.in, cse140001038@iiti.ac.in, cse140001028@iiti.ac.in |
| A Fast Adaptive Classification Approach Using Kernel Ridge Regression and Clustering for Non-stationary Data Stream | Chandan Gautam | Raman Bansal, Vedaanta Agarwalla, and Ruchir Garg | Chandan Gautam, Raman Bansal, Ruchir Garg, Vedaanta Agarwalla, and Aruna Tiwari, A Fast Adaptive Classification Approach Using Kernel Ridge Regression and Clustering for Non-stationary Data Stream, Machine Intelligence and Signal Analysis, pp. 739-751, 2019. | cse140001025@iiti.ac.in, cse140001038@iiti.ac.in, cse140001028@iiti.ac.in |
| Multilabel Classification using Single Layer Feed forward Neural Networks | Vikas Chauhan | Shivam Tayal, Shreshtha Kumar | | cse150001034@iiti.ac.in, ee150002034@iiti.ac.in |
| Multi-label classification of genome data | Vikas Chauhan | Sahaj Khandelwal, | | cse140001037@iiti.ac.in, |

| | | | | |
|--|------------------|--|--|--|
| using soft computing | | Niranjan Goyal | | cse140001031@iiti.ac.in |
| Multi-Label Classification for Genome Sequence | Vikas Chauhan | Suyash Mahesh Bhutara | | ee160002011@iiti.ac.in, |
| Multi-Label Classification with Non-Iterative Neural Network Architectures | Vikas Chauhan | Shivvrat Arya | Vikas Chauhan, Aruna Tiwari, and Shivvrat Arya, Multi-Label classifier based on Kernel Random Vector Functional Link Network, International Joint Conference on Neural Networks (IJCNN), Glasgow, United Kingdom, 2020, pp. 1-7, 2020. | ID No. 201551059 IIIT Vadodara |
| Big Data Analytics for SNP using Fuzzy Clustering | Preeti Jha | Mukkamalla Mounika, Neha Nagendra | 1) Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Mukkamalla Mounika, and Neha Nagendra, A Novel Scalable Kernelized Fuzzy Clustering Algorithm Based on In-Memory Computation for Handling Big Data, IEEE Transactions on Emerging Topics in Computational Intelligence, 2020. | mounikamukkamalla16@gmail.com , nehanagendra02@gmail.com |
| | | | 2) Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Mukkamalla Mounika, and Neha Nagendra, Apache Spark Based Kernelized Fuzzy Clustering Framework for Single Nucleotide Polymorphism Sequence Analysis, Computational Biology and Chemistry, Elsevier, vol. 92, pp. 107454, 2021. | |
| | | | 3) Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Mukkamalla Mounika, and Neha Nagendra, Scalable Incremental Fuzzy Consensus Clustering Algorithm for Handling Big Data, Soft Computing, Springer, 2021 | |
| Multi Strategy Differential Evolution for Multimodal Problems | Suchitra Agrawal | Prathamesh Naik, Arjun Srivastava | Suchitra Agrawal, Aruna Tiwari, Prathamesh Naik, and Arjun Srivastava, Improved Differential Evolution based on Multi-Armed Bandit for Multimodal Optimization Problems, Applied Intelligence, Springer, 2021 | cse160001037@iiti.ac.in , cse160001007@iiti.ac.in |
| Brain Tumor Segmentation of Multimodal MR Images using Deep Learning | Suchitra Agrawal | Bitan Paul, Ishan Goel | Suchitra Agrawal, Aruna Tiwari, and Ishan Goel, Genetically Optimized Deep Neural Learning for Breast Cancer Prediction, Soft Computing for Problem Solving (SocProS) , Liverpool (UK), 2019, pp. 127--139, 2020 | cse160001016@iiti.ac.in , cse160001023@iiti.ac.in |
| Multi label classification for image using deep visual semantic embedding | Vikas Chauhan | Vislavath Naik, Boppudi Venkata | | cse170001057@iiti.ac.in , cse170001016@iiti.ac.in |
| Multi Strategy Differential Evolution for Multimodal Problems | Suchitra Agrawal | Ronak Bandwal, Sharath P, Sahej Ganeriwala | | cse170001041@iiti.ac.in , cse170001033@iiti.ac.in , cse170001042@iiti.ac.in |
| Disease Prediction using CNN | Suchitra Agrawal | Dhruv Singhal, Karthik Malisetty, Katuri Prudhvi Kiran | | cse170001022@iiti.ac.in , cse170001028@iiti.ac.in , cse170001027@iiti.ac.in |
| Hybrid Deep Fuzzy Clustering Algorithms for Handling huge Protein Sequences using Apache Spark | Preeti Jha | Sudhanshu Arya , Tanmay Singh, Vaibhav Anand | | cse170001050@iiti.ac.in , cse170001051@iiti.ac.in , cse170001053@iiti.ac.in |

| | | | | |
|--|------------------|--|--|--|
| | | | | |
| Scalable Machine Learning Algorithms for Handling huge Genome Data | Preeti Jha | Rapolu Pulakitha, Rushabh Kadam, Aditi Chauhan | | cse180001041@iiti.ac.in , cse180001045@iiti.ac.in , cse180001003@iiti.ac.in |
| Scalable Clustering and Classification Algorithms for Massive Genome Sequences | Preeti Jha | Saloni Sawarkar, Namani Sreeharsh | | cse180001048@iiti.ac.in , cse180001032@iiti.ac.in |
| Multimodal optimization for multiobjective problem | Suchitra Agrawal | Bhaskar, Prashant Kumar Rajak | | cse180001012@iiti.ac.in , cse180001037@iiti.ac.in |
| Deep Learning for video prediction | Rituraj | Shravya Ramasahayam, Jagruthi Patibandla | | cse170001052@iiti.ac.in , cse170001021@iiti.ac.in |
| Deep Learning through Generative Adversarial Neural Networks (Single Channel) | Rituraj | Jay Bangar, Aditi Garg, Sai Aravind Y | | cse180001022@iiti.ac.in , cse180001002@iiti.ac.in |
| Deep Learning for Anomaly detection in Videos (capsnet code) | Rituraj | Naman Jain, Vinesh Katewa, Roopraj B.S. | | cse180001022@iiti.ac.in , cse180001061@iiti.ac.in , cse180001043@iiti.ac.in |