|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project Title** | **PhD** | **Students** | **Publication** | **Other Information** |
| **Student** |
| Design of Genetic | Arpit | Simmi |  | 130001034 |
| Programming Algorithm | Bhardwaj | Malhan |  |
| with simultaneous |  | Parul | 130001026 |
| Feature Selection and its |  | Gupta |  |
| implementation for |  |  |  |
| handling Big Data |  |  |  |
| An Intelligent Scalable | Arpit | Dharmil | Arpit Bhardwaj, Aruna Tiwari, Dharmil Chandarana and | dhamu.sport@gmail. |
| Development of | Bhardwaj | Chandaran | Darshil Babel, “Classification of Breast | com |
| Stock Market Prediction |  | a | Cancer Disease Using Genetically Optimized Neural |  |
| System |  |  | Network”, 7th International Conference on BioMedical |  |
|  |  | Darshil | Engineering and Informatics (BMEI 2014) Dalian, China, 14- |  |
|  |  | Babel | 17 October 2014, pp 693 - 698. |  |
| Pattern Recognition with | Arpit | Maddula | Arpit Bhardwaj, Aruna Tiwari, M. Vishaal Varma, M. | rameshprince.2009@ |
| EEG Signals in | Bhardwaj | Ramesh | Ramesh Krishna Bhardwaj, “A novel genetic programming | gmail.com |
| Modelling a Real Time |  | Krishna, | approach for epileptic seizure detection”, Computer Methods |  |
| Epileptic Seizure |  |  | and Programs in Biomedicine, Volume 124, pp 2-18 (2016). |  |
| Detection System |  | Vishaal |  | vishaalgc@gmail.co |
|  |  | Verma | Arpit Bhardwaj, Aruna Tiwari, M. Vishaal Varma, M. | 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. |  |
| BFS Crossover Genetic | Arpit | Ashok |  | ashokpancily@iiti.ac. |
| Programming | Bhardwaj | Pancily, | in |
|  |  | Kunal |  |
|  |  | Chaudhary | kunalchaudhary.iit@ |
|  |  |  | gmail.com |
| Quantum inspired fuzzy | Om | [Sudharsan](https://plus.google.com/u/1/116997243727242615664?prsrc=4) |  |  |
| based Neural Network | Prakash | [Kumar](https://plus.google.com/u/1/116997243727242615664?prsrc=4) | k.sudharsan1997@g |
| for multiclass | Patel and |  | mail.com |
| Classification Problems | Neha |  |  |
|  | Bharill |  |  |
|  | Patel |  |  |
| Quantum inspired Meta | Om | Ramesh |  |  |
| Cognitive Neural | Prakash | Balaji | ee140002025@iiti.ac |
| Network | Patel |  | .in |
| Design & Development | Neha | Aayushi | Neha Bharill, Aruna Tiwari, and Aayushi Malviya, “Fuzzy | malviyaaayushi@gm |
| of Scalable Fuzzy Based | Bharill | Malviya | Based Scalable Clustering Algorithms for Handling Big Data | ail.com |
| Clustering Algorithms |  |  | using Apache Spark”, IEEE Transactions on Big |  |
| for Big Data |  |  | Data, 2.4 (2016): 339-352. |  |

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

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| using soft computing |  | Niranjan |  | cse140001031@iiti.a |
| Goyal | c.in |
| Multi-Label Classification | Vikas | Suyash |  | ee160002011@iiti.a |
| for Genome Sequence | Chauhan | Mahesh | c.in, |
|  |  | Bhutara |  |
| Multi-Label Classification with Non-IterativeNeural Network Architectures | Vikas Chauhan | ShivvratArya | Vikas Chauhan, Aruna Tiwari, and Shivvrat Arya, Multi-Label classifier based on Kernel Random Vector Functional LinkNetwork, International Joint Conference on Neural Networks (IJCNN), Glasgow, United Kingdom, 2020, pp. 1-7, 2020. | ID No. 201551059IIIT 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. | mounikamukkamalla1 6@gmail.com, nehanagendra02@gma il.com |
| 2) Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Mukkamalla Mounika, and Neha Nagendra, [Apache Spark Based](https://www.sciencedirect.com/science/article/pii/S1476927121000219) [Kernelized Fuzzy Clustering Framework for Single Nucleotide](https://www.sciencedirect.com/science/article/pii/S1476927121000219) [Polymorphism Sequence Analysis,](https://www.sciencedirect.com/science/article/pii/S1476927121000219) 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](https://link.springer.com/article/10.1007/s00500-021-05733-1) [Fuzzy Consensus Clustering Algorithm for Handling Big Data,](https://link.springer.com/article/10.1007/s00500-021-05733-1) 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](https://link.springer.com/article/10.1007/s10489-021-02261-1#citeas) [Bandit for Multimodal Optimization Problems,](https://link.springer.com/article/10.1007/s10489-021-02261-1#citeas) 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](https://link.springer.com/chapter/10.1007/978-981-15-3287-0_10) [Optimized Deep Neural Learning for Breast Cancer Prediction,](https://link.springer.com/chapter/10.1007/978-981-15-3287-0_10) 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 PrudhviKiran |  | 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 | Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Om Prakash Patel, Vaibhav Anand, Sudhanshu Arya, and Tanmay Singh, [**Scalable Deep Fuzzy Clustering Algorithm for Protein Data**](https://iiti.ac.in/people/~artiwari/conf.html), 19th IEEE Conference on Computational Intelligence in Bioinformatics and Computational Biology,Ottawa, Canada, pp. 1-8, 2022 | 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, Aditi Chauhan | 1. Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Om Prakash Patel, Aditi Chauhan, Namani Sreeharsh, Rapolu Pulakitha, and Sawarkar Saloni, [**Scalable Feature Extraction and Fuzzy Clustering for Large RNAseq Analysis on High-Performance Computing**](https://iiti.ac.in/people/~artiwari/conf.html), IEEE Symposium Series On Computational Intelligence 2022, December 4-7, Singapore2. Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Om Prakash Patel, Rapolu Pulakitha, and Aditi Chauhan, [**High-Performance Computing based Scalable Online Fuzzy Clustering Algorithms for Big Data**](https://iiti.ac.in/people/~artiwari/conf.html), IEEE Symposium Series On Computational Intelligence 2022, December 4-7, Singapore | 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 | 1. Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Om Prakash Patel, Sawarkar Saloni, and Namani Sreeharsh, [**HPC based Scalable Logarithmic Kernelized Fuzzy Clustering Algorithms for Handling Big Data**](https://iiti.ac.in/people/~artiwari/conf.html), International Conference on Neural Information Processing (ICONIP) 2022, Nov 22-26, IIT Indore, India2.Preeti Jha, Aruna Tiwari, Neha Bharill, Milind Ratnaparkhe, Om Prakash Patel, Aditi Chauhan, Namani Sreeharsh, Rapolu Pulakitha, and Sawarkar Saloni, [**Scalable Feature Extraction and Fuzzy Clustering for Large RNAseq Analysis on High-Performance Computing**](https://iiti.ac.in/people/~artiwari/conf.html), IEEE Symposium Series On Computational Intelligence 2022, December 4-7, Singapore | 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 Ramasahaya m, 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 |
| Deep learning and Big Data | Preeti Jha | Deepali SukhijaDeepika SukhijaAnjali Gupta |  | cse190001009cse190001010cse190001004 |
| Big Data and Deep learning for Image Processing | Preeti Jha | Thudi JadejaBoyapati Hritikesh |  | cse190001064ee190002014 |
| Scalable Features Extraction approach for the clustering and classification of genomics data  | Rajesh Dwivedi | Parul MogrePranjal GadgeKethavath Jagadeesh |  | cse190001037me190003024cse190001024 |
| Multiobjective Optimization based clustering approach for the genomics data | Rajesh Dwivedi | Rahul MahbubaniRishabh SoniSaket Kumar |  | cse190001050cse190001052cse190001054 |
| Anomaly detection in Video uisng GAN | Rituraj | Anikeit SethiKrishanu SainiSai Mounika |  | CSE190001003CSE190001029CSE190001036 |
| Landslide detection | Rituraj | ArastuDeepkamal Singh |  | cse190001006cse190001011 |
| Ant Colony Optimisation for plant genomics in multi-objective manner | Rajesh Dwivedi | Saurabh Kumar Singh, Ayush Sinha, Prashant Kumar |  | 200001071200001012200001062 |
| Scalable machine learning for plant genome assembly for improving Crop quality | Preet Jha | Padamata kanishka sai, Allu Mrudula  |  | 200001058200001002 |
| Video Incident classification using Advanced Deep Learning architectures. | Rituraj | Mitika Bhadada,Hritika |  | 200001046200001029 |
| Key frame selection in Video using Deep learning methodology. | Rituraj | Kanchi Pardhi, Neha  |  | 200001032200001051 |
| High Performance Computing-enabled deep learning for phenotypic data in plants | Preet Jha | Nelavalli Sri Nikhitha, Koneti Anuhya, Kothuru Sharvani  |  | 200001052200001037200001038 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |