



List of Publications

Name of the Faculty: Prof. Minakshi Gogoi

Publications: (Journal)

1. Medhi, S., & **Gogoi, M.** (2024). PM_{2.5} concentration prediction using Generative adversarial network: A novel approach. *Journal of Applied and Natural Science*, 16(2), 704-712.
2. Medhi, S. & **Gogoi, M.** (2024). PM_{2.5} Prediction Using Homogenous and Heterogenous Ensemble Learning: A Comprehensive Evaluation. *Journal of Computer Science*, 20(9), 931-954. <https://doi.org/10.3844/jcssp.2024.931.954>
3. **Medhi, S., Gogoi, M.**, “COMPARISON OF NON-ENSEMBLED AND ENSEMBLED SUPERVISED MACHINE LEARNING TECHNIQUES FOR PM_{2.5} PREDICTION IN GUWAHATI CITY”, Juni Khyat, Vol.13, Issue06, no.01, June, 2023, UGC Carelist Journal.
4. Ain, A., **Gogoi, M.**, “CNN-ENHANCED MULTI-INDICES PATCH-BASED CLASSIFICATION: A CASE STUDY OF GUWAHATI CITY”- International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume9 Issue XII Dec 2021-Thomson Reuters and UGC CARE.
5. Buragohain B. Das D., Baisya B., **Gogoi M.**, "Hand Gesture-Based Computer Vision Mouse", Lecture Notes in Network System (LNNS), volume 404, 28th June, 2022, Springer, Singapore, ISBN:978-981-19-0105-8
6. Ahmed, M., **Gogoi, M.**, “AN EFFECTIVE IMAGE QUALITY ESTIMATION METHOD FOR COLOR IMAGE” International Journal of Computer & Mathematical Sciences, Volume 6, Issue8, August2017, ISSN 2347-8527.
7. **Gogoi, M.**, Devi, G.” FEATURE EXTRACTION TO DETECT CLOUDS FROM SATELLITE IMAGE USING ASSOCIATION RULE MINING” International journal of advanced electronics & communication systems., 2017, ISSN NO:2277-7318
8. **Gogoi, M.**, Ahmed M.“Image Quality Parameter Detection : A Study” International Journal of Computer Sciences and Engineering : Volume-4, Special Issue-7, Dec 2016 ISSN: 2347-2693



9. Das, J., **Gogoi, M.**, “Indexing of Voluminous Data Using K-D Tree with Reference to CBIR” ,International Journal of Computer Sciences and Engineering: Volume-4, Special Issue-7, Dec 2016 ISSN:2347-2693
10. **Gogoi,M.**, Devi,G., “CLOUD IMAGE ANALYSIS FOR RAINFALL PREDICTION: A SURVEY”, Advanced Research in Electrical and electronic Engineering,2(13),2015
11. **Gogoi, M.**, Bhattacharya, D.K. “AN EFFECTIVE METHOD FOR MULTI-BIOMETRIC FUSION USING SIMULATED ANNEALING”, International Journal of Computer Applications (0975 8887)95(25),June 2014. DOI no.: 10.5120/16747-7044
12. **Gogoi,M.**, Bhattacharyya., D. K., “AN EFFECTIVE FINGERPRINT VERIFICATION TECHNIQUE”, International Journal of Computer Science and Engineering, 1(1), May, 2010.

(International Conference)

1. Medhi S., **Gogoi, M.**, “COMPARISON OF NON-ENSEMBLED AND ENSEMBLED SUPERVISED MACHINE LEARNING TECHNIQUES FOR PM2.5 PREDICTION IN GUWAHATI CITY”, Juni Khyat, Vol. 13, Issue 06 , no. 01, June, 2023
2. **Gogoi, M.** “An Effective Method For Automated Classification Of Fishes And Their Pricing System Using Deep Learning And Chatbot Technology”, International Hybrid Conference, Bioeconomics, 2023, IIT Guwahati, 11th-12th October, 2023
3. **Gogoi, M.** “Classification of Assam Silk Fabrics using Artificial Intelligence”, North-East Research Conclave and Assam Biotech Conclave 2022- Towards Sustainable Science and Technology, IIT Guwahati, 20-22May, 2022.
4. Medhi, S., & **Gogoi, M.** (2021, December). “Visualization and Analysis of COVID-19 Impact on PM2. 5 Concentration in Guwahati city”. In *2021 International Conference on Computational Performance Evaluation (ComPE)* (pp. 012-016). IEEE.
5. **Gogoi,M.**“An effective Tea Leaves Quality Verification method using Machine Learning approach”, presented on the Second International Conference on Advances in Electrical, Electronic and System Engineering (ICAEESE 2019), Gauhati University, Assam,2-3November,2019.
6. **Gogoi, M.** “QUALITY VERIFICATION OF ASSAM SILK USING MACHINE LEARNING AND DEEP LEARNING APPROACHES: A STUDY”, presented on the



- International Conference on Electrical, Communication, Electronics, Instrumentation and Computing (ICECEIC-2019), Sri Chandrasekharendra Saraswathi Biswa Mahavidyalaya, Tamil Nadu, India, 30-31st January,2019.
7. **Gogoi, M.** and Bhattacharyya. D.K., “AN EFFECTIVE CLASSIFIER FUSION APPROACH FOR PALMPRINT BASED IDENTITY VERIFICATION”, presented and published on the Proc. Of International Conference on Electronic Devices, Circuits, Applied Electronics and Communication technology (EDCAECT 2015), Gauhati University, Guwahati, 8th -10th October, 2015
 8. **Gogoi,M.** And Das, J.,“INDEXING OF VOLUMINOUS DATA: ITS NEEDS AND CHALLENGES”, published on the Proc. Of International Conference on Electronic Devices, Circuits,Applied Electronics and Communication technology (EDCAECT 2015), Gauhati University, Guwahati, 8th-10th October,2015.
 9. **Gogoi, M.**, Devi, G., “CLOUD IMAGE ANALYSIS FOR RAINFALL PREDICTION: A SURVEY”. Published on the Proc. of International Conference on Electronic Devices, Circuits , Applied Electronics and Communication technology EDCAECT 2015), Gauhati University, Guwahati, 8th-10th October, 2015.
 10. **Gogoi, M.** and Bhattacharyya. D.K., “BIOMETRICS FUSION, ITS NEEDS AND CHALLENGES”, presented on International Conference on Green Energy & Smart Materials Through Science, Technology and Management (GESM’14), 21-23 January, 2014, Gauhati University.
 11. **Gogoi, M.** and Bhattacharyya.D.K., “FUSION OF FINGERPRINT AND IRIS BIOMETRICS USING BINARY ANT COLONY OPTIMIZATION”, presented on Third International Conference on Soft computing for problem solving, December 26—28, 2013, Greater Noida Extension Centre, IIT Roorkee, published on AISC series of Springer Journal.
 12. **Gogoi, M.**, Deka, R., Mazumdar, D., Das, R., & Barman, M. (2012, July). A secured template based face recognition technique. In *CS & IT Conference Proceedings* (Vol. 2, No. 3). CS & IT Conference Proceedings.
 13. Kalita, S. K., **Gogoi, M.**, and Talukdar, P. H., “A CEPSTRAL MEASURE OF THE SPECTRAL CHARACTERISTICS OF ASSAMESE AND BODO PHONEMES FOR



SPEAKER VERIFICATION”, Proc.1st International Conference on Computer, Communication, Control and Information Technology (C3IT-09), pp.233-239, Macmillan Publishers India Ltd, ISBN 023-063-759-0,First Published, 2009.

(National Conference)

1. **Gogoi,M.**,”DESIGN OF AN AUTOMATED TOOL FOR ARTIFICIALLY RIPENED FRUIT QUALITY DETECTION SYSTEM USING IMAGE PROCESSING”, presented on National conference on Applied Sciences, Sustainable & Evolving Technologies, organized by CIT Kokrajhar, 9-11march, 2018.
2. **Gogoi,M.**,”Image Quality Parameter Detection: A Study”, presented on National conference on recent Innovative trends on Engineering and Technology (NCRITET, 2016) organised by GIMT, Guwahati, 11-12 November, 2016
3. **Gogoi, M.**, “Indexing of Voluminous Data Using K-D Tree with reference to CBIR”, presented on National conference on Recent Innovative Trends in Engineering and Technology (NCRITET,2016), organized by GIMT, Guwahati,11-12November,2016
4. **Gogoi, M.** and Bhattacharyya. D.K, “MULTI-OBJECTIVE OPTIMIZATION PROBLEM SOLVING FOR IMAGE PROCESSING”, presented on National Seminar on Science and Technology for Sustainable development, organized by Assam Science Society, Goalpara College, Goalpara, 23rd January, 2016.
5. **Gogoi, M.** and Bhattacharyya. D.K., “FUSION OF FINGERPRINT AND IRIS BIOMETRIC USING BINARY PARTICLE SWARM OPTIMIZATION”, Proc. National Workshop on NetworkSecurity (NWNS 2013) Tezpur University, March 15-16,2013, Narosa Publishing House Pvt.Ltd., ISBN,Published,2013.
6. **Gogoi, M.** and Bhattacharyya. D.K., “FINGERPRINT CLASSIFICATION USING MINUTIAE SCORE”,Proc. National Conference on Trends in Machine Intelligence 2011, (NCTMI'11), pp.161-169, Narosa Publishing House Pvt. Ltd., ISBN978-81-8487-140-1, Published,2011.



Name of the Faculty: Dr. Th. Shanta Kumar

Publications: (Journals)

1. A. Pathak, U. Barman, and **Th. S. Kumar**, “Machine learning approach to detect android malware using feature-selection based on feature importance score,” *Journal of Engineering Research*, p. S2307187724000981, Apr. 2024, doi: 10.1016/j.jer.2024.04.008.
2. **Kumar, T. S.**, Das, H. S., Choudhary, U., Dutta, P. E., Guha, D., & Laskar, Y. (2021). Analysis and prediction of air pollution in Assam using ARIMA/SARIMA and machine learning. In *Innovations in Sustainable Energy and Technology: Proceedings of ISET 2020* (pp. 317-330). Springer Singapore.
3. **Kumar, T. S.**, ”Enhancement of Image Classification through Data Augmentation using Machine Learning”, *International Journal of Computer Sciences and Engineering*, Vol.6, Issue.9, pp.220-224, 2018
4. **Kumar, T. S.**, ”Extracting Patterns from Students’ Feedback using Mixed Method”, *International Journal of Computer Sciences and Engineering*, Vol.4, Special Issue.7, pp.136-139, 2016
5. Mahanta, A., Singh, A., and **Kumar, T. S.**, “Customer Segmentation: Using a Comparative Case of Clustering Techniques”, *CiiT International Journal of Data Mining and Knowledge Engineering*, vol. 3(1), pp. 39-44 January 2011 <http://ciitresearch.org/dl/index.php/dmke/article/view/DMKE012011007>

(International Conference)

1. Paul, R., & **Kumar, T. S.** (2019). A Machine Learning Approach to Biodiversity Time Series Analysis. In *A Machine Learning Approach to Biodiversity Time Series Analysis (January 16, 2020). Proceedings of the 2nd International Conference on Information Systems & Management Science (ISMS)*.
2. **Kumar, T. S.** “Customer Segmentation using Clustering Techniques”, in *Proceedings of the International Conference on Population and Development, Bhutan, Oct. 2010*, pp. 65-71.
3. **Kumar, T. S.** and Singh, A. J., “Genetic Algorithm and Clustering: A Comparative Case Study”, in *Proceedings of the 2nd International Conference on Data Management*



(ICDM2009), Delhi, India, Feb. 2009. (ISBN : 023-063-760-4)

4. Devodas, V., Thomas, B. and **Kumar, T. S.**, “A Simple Fuzzy Clustering Method for Handling Outlier Points”, in Proceedings of the International Conference in Mathematics and Computer Science (ICMCS2009), Chennai, India, Jan. 2009, Vol. 2, pp. 234. (ISBN : 978-81-8371-195-1)
5. Raju, G., Thomas, B., Tobgay, S., & **Kumar, T. S.** (2008, December). Fuzzy clustering methods in data mining: A comparative case analysis. In *2008 International Conference on advanced computer theory and engineering* (pp. 489-493). IEEE.
6. Raju, G., Thomas, B., **Kumar, T. S.**, & Thinley, S. (2008). Integration of fuzzy logic in data mining to handle vagueness and uncertainty. In *Advanced Intelligent Computing Theories and Applications. With Aspects of Artificial Intelligence: 4th International Conference on Intelligent Computing, ICIC 2008 Shanghai, China, September 15-18, 2008 Proceedings 4* (pp. 880-887). Springer Berlin Heidelberg.
7. Thomas, B., and **Kumar, T. S.**, “Role of GIS in Election Process : A Case of Bhutan”, Bhutan in the coming of 2008 and Beyond, Royal University of Bhutan, Thimphu, Jun, 2008

(National Conference)

1. **Kumar, T. S.**, “A Survey of Data Mining Techniques in Disaster Management”, National Seminar on Disaster Management: Issues and Challenges, PCPS Girls’ Polytechnic, Guwahati, Nov 2015, pp. 16-19
2. **Kumar, T. S.**, “Developmental Trend in Engineering Education in Recent Years in India and a Comparative Analysis of Available Facilities in North-East”, National Seminar on Prospects of Technical Education in North-East India : Present Trend of Development, Imphal, Manipur, May, 2013.
3. **Kumar, T. S.**, & Suberi, S., “Gender-Based Performance of Sherubtse’s Faculties through Students’ Feedback”, National Seminar on Gender and Reproductive Health, Bhutan, Oct. 2011.
4. **Kumar, T. S.**, “Electronic Devices – Its Hazard to the Environment”, National Seminar – The Past, Present & Future of Bhutan’s Environment, Sherubtse College, June, 2007



Faculty Name: Mr. Adarsh Pradhan

Publications: (Journals)

1. Rahman, E., Sarma, R., Sinha, R., Sinha, P., and **Pradhan, A.**, “A Survey on Twitter Sentiment Analysis”, International Journal of Computer Sciences and Engineering (IJCSE), Volume-6, Issue-11, ISSN: 2347-2693, Nov 2018.
2. Hazarika, B., Das, D., Changkakoti, D., Deka, A and **Pradhan, A.**, “Hand Gesture Animation Model for Local Hand Motion”, International Journal of Computer Sciences and Engineering (IJCSE), Volume-6, Issue-5, ISSN: 2347-2693, May 2018.
3. **Pradhan, A.**, Paul, N., Das, K., Bordoloi, R. J., and Baruah, D., “Survey On Speech Recognition Using Hidden MARKOV Model”, International Journal of Computer Sciences and Engineering (IJCSE), Volume-4, Special Issue-7, ISSN: 2347-2693, Dec 2016.
4. Chowdhury, A., and **Pradhan, A.**, “Isolated Assamese words spoken by Male and Female speakers”, International Journal of Computer Sciences and Engineering (IJCSE), Volume-4, Special Issue-7, ISSN: 2347-2693, Dec 2016.
5. **Pradhan, A.**, and Chowdhury, A., “A Survey on Isolated Assamese words spoken by Male and Female speakers”, International Journal of Advanced Research in Computer and Communication Engineering, (IJARCCE), Vol. 5, Issue 5, ISSN (Online) 2278-1021, ISSN (Print) 2319 5940, May 2016.
6. **Pradhan, A.**, and Saikia, J. R., “Identification of Isolated Upper and Lower Assamese words: A Survey”, International Journal of Advanced Research in Computer and Communication Engineering, (IJARCCE), Vol. 5, Issue 5, ISSN (Online) 2278-1021, ISSN (Print) 2319 5940, May 2016.
7. Sarma, N., Saha, A., and **Pradhan, A.**, “Clustering Mixed Data Set by Fuzzy Set Partitioning”, International Journal of Computer Applications (IJCA), Volume 144 – No.6, ISSN 0975 – 8887, June 2016.
8. Sarma, N., **Pradhan, A.**, and Barman, U., “Fuzzy Partitioning Based Clustering Approach”, International Journal of Advanced Research in Computer and Communication Engineering, (IJARCCE), Vol. 5, Issue 5, ISSN (Online) 2278-1021, ISSN (Print) 2319 5940, May 2016.



9. **Pradhan, A.**, and Agarwalla, N., “Deep Learning using Restricted Boltzmann machines”, International Journal On Advanced Computer Theory And Engineering (IJACTE), ISSN (Print): 2319-2526, Volume -4, Issue -3, March 2015.

(International Conference)

1. **Pradhan, A.**, Saha, S., Das, A., Barman, S., (2024) “Classification of Skin Lesion Using Image Processing and ResNet50”, In: Borah, M.D., Laiphrakpam, D.S., Auluck, N., Balas, V.E. (eds) *Big Data, Machine Learning, and Applications. BigDML 2021*. Lecture Notes in Electrical Engineering, vol 1053. Springer, Singapore.
2. **Pradhan, A.**, Buragohain, A., Pathak, U., Ansari, S., & Baruah, M. (2020). Implementation of DCGAN to Generate Gamocha Design Patterns. In *Electronic Systems and Intelligent Computing: Proceedings of ESIC 2020* (pp. 831-838). Springer Singapore.
3. **Pradhan, A.**, Dey, B. K., Nath, R. K., & Sarma, B. (2020, July). Transfer learning based classification of diabetic retinopathy stages. In *2020 International Conference on Computational Performance Evaluation (ComPE)* (pp. 813-819). IEEE.
4. **Pradhan, A.**, Sarma, B., & Dey, B. K. (2020, July). Lung cancer detection using 3D convolutional neural networks. In *2020 International Conference on Computational Performance Evaluation (ComPE)* (pp. 765-770). IEEE.
5. **Pradhan, A.**, Sarma, B., Nath, R. K., Das, A., & Chakraborty, A. (2020, June). Diabetic retinopathy detection on retinal fundus images using convolutional neural network. In *International Conference on Machine Learning, Image Processing, Network Security and Data Sciences* (pp. 254-266). Singapore: Springer Singapore.

Name of the Faculty: Mrs. Manjula Kalita

Publications: (Journals)

1. **M. Kalita**, L. B. Mahanta, Anup Kumar Das, and M. Nath, “A new deep learning model with interface for fine needle aspiration cytology image-based breast cancer detection,” Indonesian journal of electrical engineering and computer science, vol. 34, no. 3, pp. 1739–1739, Jun. 2024, doi: <https://doi.org/10.11591/ijeecs.v34.i3.pp1739-1752>.
2. **Kalita, M.**, Mahanta, L. B., & Das, A. K. (2021). A review of automated digital clinical system of breast cancer detection using fine needle aspiration cytology images. *Annals of*



Oncology Research and Therapy, 1(1), 10.

3. **Kalita, M.**, Dutta, S., Yesmin, A., “A Survey on Man in the Middle Attack: Classification, Defense Mechanisms and Challenges”, *International Journal of Computer Sciences and Engineering*, Vol.04, Issue.07, pp.62-66, 2016.

(International Conference)

1. **Kalita, M.**, D. K. Bhattacharyya, and M. Dutta. "Privacy preserving clustering-a hybrid approach." *2008 16th International Conference on Advanced Computing and Communications*. IEEE, 2008.

(National Conference)

1. **Kalita, M.**, Bhattacharyya, D. K., and Dutta, M., " Privacy Preserving Data Mining: Heuristic Based Approach, Techniques, Research Issues and Challenges”, NCTMI 2011, Tezpur University.

Name of the Faculty: Ms. Shrabani Medhi

Publications: (Journals)

1. **Medhi, S.**, & Gogoi, M. (2024). PM2. 5 concentration prediction using Generative adversarial network: A novel approach. *Journal of Applied and Natural Science*, 16(2), 704-712.
2. **Medhi, S.** & Gogoi, M. (2024). PM2.5 Prediction Using Homogenous and Heterogenous Ensemble Learning: A Comprehensive Evaluation. *Journal of Computer Science*, 20(9), 931-954. <https://doi.org/10.3844/jcssp.2024.931.954>.
3. **Medhi, S.**, Boruah, R., Baruah, S. P., & Das, H. K. (2024). Homogenous Ensemble Learning for Air Quality Index Prediction. *Grenze International Journal of Engineering & Technology (GIJET)*, 10(1).
4. **Medhi, S.**, Kashyap, S., & Das, N. (2024). Prediction in Multivariate Time Series Data using Generative Adversarial Network. *Grenze International Journal of Engineering & Technology (GIJET)*, 10.



5. **Medhi, S.**, Kashyap, P., Das, A., & Sarma, J.,” PM2. 5 Prediction Using Heterogenous Ensemble Learning.”, Journal of Artificial Intelligence and Capsule Networks, vol 5, issue 4, December, 2023.
6. **Medhi S.**, Gogoi, M, “COMPARISON OF NON-ENSEMBLED AND ENSEMBLED SUPERVISED MACHINE LEARNING TECHNIQUES FOR PM2.5 PREDICTION IN GUWAHATI CITY”, Juni Khyat, Vol. 13, Issue 06 , no. 01, June, 2023
7. **S. Medhi**, “Comparative Study Of Image Enhancement In Spatial Domain”, International Journal of New Technologies in Science and Engineering, Vol. 5, Issue. 3, 2018, ISSN 2349-0780
8. P. S. Dutta, **S. Medhi**, S. Dutta, T. Das, and S. Buragohain, “SMART HEALTH CARE USING DATA MINING,” vol. 4, no. 8, 2017.
9. **Medhi, S.**, Dutta, P., ”Improved Authentication System for Android Smartphone,” International journal of advanced Research in Computer and communication Engineering (IJARCCE) Vol. 5, ISSUE 5, May 2016.
10. Ojah, L., **Medhi, S.**, Pathak, A. J., “SMS Monitoring System For Detecting Premium SMS Malware In Smart Phone”, IJACST, Volume-5,No-5,May 2016, ISSN 2320 – 2602.
11. **Medhi, S.**, Ahmed, C., & Gayan, R. (2016). A study on feature extraction techniques in image processing. *International Journal of Computer Sciences and Engineering*, 4(7), 89-93.

(International Conference)

1. **S. Medhi**, R. Dutta, M. Ahmed, “The Role of Artificial Intelligence in Transforming Learning and Teaching Scenario”, International Conference on beyond borders and boundaries: Indigenous cultures now and then.
2. **Medhi, S.**, & Gogoi, M. (2021, December). Visualization and Analysis of COVID-19 Impact on PM2. 5 Concentration in Guwahati city. In *2021 International Conference on Computational Performance Evaluation (ComPE)* (pp. 012-016). IEEE.



Name of the Faculty: Mr. Amarjyoti Pathak

Publications: (Journals)

1. **A. Pathak**, U. Barman, and Th. S. Kumar, “Machine learning approach to detect android malware using feature-selection based on feature importance score,” *Journal of Engineering Research*, p. S2307187724000981, Apr. 2024, doi: 10.1016/j.jer.2024.04.008.
2. Das, D., **Pathak, A.**, “A Novel mutual Authentication Algorithm using visual cryptography with novel visual cryptographic schemes”-, *IRJET*, June 2017, ISSN-2395-0056.
3. Dutta, T., **Pathak, A.**, “Secure Data Sharing in Cloud Storage Using Key Aggregation Cryptography” , *IJCSE*, volume 4, Special Issue – 7, Dec-2016. ISSN: 2347- 2693
4. **Pathak, A.**, Barman, U., Keot, S., Boro, P., “Authentication Mechanism using Encrypted One time Password (EOTP)” , *IJCSE*, volume 4, Special Issue – 7, Dec2016. ISSN: 2347-2693.
5. Ojah, L., Medhi, S., **Pathak, A.**, “SMS Monitoring System For Detecting Premium SMS Malware In Smart Phone”, *IJACST*, Volume-5,No-5,May 2016, ISSN 2320 – 2602.

(National Conference)

1. **Pathak, A.**, “ A comparative study on Key exchange Authentication Protocols” in the National Seminar cum conference on Recent Trends & Techniques in Computer Sciences in Bodoland University held in 25th – 26th March 2013.

Name of the Faculty: Pinky Saikia Dutta

Publication: (Journals)

1. **Dutta, P. S.**, Das, M., Biswas, S., Bora, M., & Saikia, S. S. (2019). Fake news prediction: a survey. *International Journal of Scientific Engineering and Science*, 3(3), 1-3.
2. **Dutta, P. S.**, Dutta, S., Das, T., Buragohain, S., Sarma, S., ”A survey on Smart Health Care Using Data Mining” *International Journal of Computer Science and Engineering(IJCSE)* Vol 4,ISSUE 7,Dec 2016, ISSN: 2347-2693
3. **Dutta, P. S.**, Saha, S., Sharma, A., Sarmah, A., Talukdar, J. K., “Customer Opinion from various zE-commerce site using Data Mining Technique: A survey “ *International Journal*



of Computer Science and Engineering(IJCSE) Vol 4,ISSUE 7,Dec 2016.

4. Medhi, S., **Dutta**, P. S.,”Improved Authentication System for Android Smartphone,” International journal of advanced Research in Computer and communication Engineering (IJARCCE) Vol. 5, ISSUE 5, May 2016.
5. Das, M., **Dutta**, P., ”Data Mining Technique to Understand Students learning experience”, International journal of advanced Research in Computer and communication Engineering(IJARCCE) Vol. 5, ISSUE 5, May 2016
6. **Dutta**, P. S., Tahbildar , H.,“PREDICTION OF RAINFALL USING DATA MINING TECHNIQUE OVER ASSAM”, Indian Journal of Computer Science and Engineering (IJCSE) ISSN:0976-5166. VOL.5 Apr-May 2014.
7. **Dutta**, P. S., Chakraborty, S.,” Image based Steganography in Cryptography implementing different Encryption-Decryption Algorithm”, International Journal of Scientific Research in Computer Science, Engineering and Information Technology, ISSN : 2456- 3307
8. **Dutta**, P. S., Chakraborty, S.,” Image based Steganography in Cryptography implementing different Encryption-Decryption Algorithm”, International Journal of Scientific Research in Computer Science, Engineering and Information Technology,ISSN : 2456- 3307
9. **Dutta**, P. S.,”COMPARATIVE STUDY OF ACCURACY IN PREDICTION OF RAINFALL USING TRADITIONAL METHOD AND NEURAL NETWORK TECHNIQUE OVER ASSAM”, International Journal of Advanced Engineering Technology and Innovative Science (IJAETIS), Volume 4, Issue 1, Page No: 1-6
10. **Dutta**, P. S., Dutta, S., Das, T., Sweety Buragohain, SusmitaSarma,”A Survey on Smart Health Care Using Data Mining”.International Journal of computer Science and Engineering. Survey Paper Volume-4, Special Issue-7, Dec 2016 ISSN: 2347-2693



Name of the Faculty: Ms. Ritushree Dutta

Publications:(International Conference)

1. S. Medhi, **R. Dutta**, M. Ahmed, “The Role of Artificial Intelligence in Transforming Learning and Teaching Scenario”, International Conference on beyond borders and boundaries: Indigenous cultures now and then.
2. Bora, D. J., **Dutta, R.**, Das, R., & Kumar, N. (2014). Novel Approach to Gait Angle Measurement using Tri-axial MEMS Accelerometer. *INROADS-An International Journal of Jaipur National University*, 3(1s2), 296-300.

(Journals)

1. **Dutta, R.**, Kumar, N., & Bora, D. J. (2017). Development of algorithm for different programmable modes for a prototype of orthotic ambulatory device for gait rehabilitation. *International Journal of System Control and Information Processing*, 2(1), 51-58.
2. Bora, D. J., Kumar, N., & **Dutta, R.** (2019). Implementation of wireless MEMS sensor network for detection of gait events. *IET Wireless Sensor Systems*, 9(1), 48-52.

Name of the Faculty: Ms. Mala Ahmed

Publications: (Journals)

1. **Ahmed, M.**, Agarwal, R., Jha, A. K., Driver Alertness System: A Survey accepted in International Journal for Research in Engineering Application & Management (IJREAM), ISSN: 25454-9150, Vol-05, Issue-06, Sep 2019
2. **Ahmed, M.**, Gogoi, M., An Effective Image Quality Estimation Method for Color Image accepted in (IJCM), Volume 6, Issue 8, August 2017, ISSN 2347-8527
3. Gogoi, M., **Ahmed, M.**, “Image Quality Parameter Detection: A Study” accepted in International Journal of Computer Sciences and Engineering (IJCSE), Special issue-07, Volume-04, December edition, 2016(ISSN: 2347-2693)

(International Conference)



1. S. Medhi, R. Dutta, **M. Ahmed**, “The Role of Artificial Intelligence in Transforming Learning and Teaching Scenario”, International Conference on beyond borders and boundaries: Indigenous cultures now and then.

Name of the Faculty: Dr. Monisha Devi

Publications: (Journals)

1. **Devi, M.**, Sarma, N., and Deka, S. K., "Single-Sided Truthful Auction Mechanism for Heterogeneous Channel Allocation in Cognitive Radio Networks", Wireless Networks (Springer), May 2023.
2. **Devi, M.**, Sarma, N., and Deka, S. K., “A Single-Channel Single-Winner Auction Model for Homogeneous Channel Allocation in CRNs”, Physical Communication, Elsevier, 55,2022.
3. **Devi, M.**, Sarma, N., and Deka, S. K., “A Double Auction Framework for MultiChannel Multi-Winner Heterogeneous Spectrum Allocation in Cognitive Radio Networks”, IEEE Access, 9, 72239-72258, 2021.
4. **Devi, M.**, Sarma, N., and Deka, S. K., “A Centralized Model Enabling Channel Reuse for Spectrum Allocation in Cognitive Radio Networks”, Cybernetics and Information Technology, 21(2), 183-200, 2021.
5. **Devi, M.**, Sarma, N., and Deka, S. K., “Multi-Winner Spectrum Allocation in Cognitive Radio Networks: A Single-Sided Auction Theoretic Modelling Approach with Sequential Bidding”, Electronics, 10(5), 602, 2021.
6. **Devi, M.**, Sarma, N., and Deka, S. K., “Deployment of Auction Theoretic Models for Spectrum Allocation in Cognitive Radio Networks”, Journal of Computer Science, 16(5), 632- 641, 2020.
7. **Devi, M.**, and Deka, D., ‘A Survey on Routing Protocols for Cognitive Radio Networks’, International Journal of Engineering Research and Technology (IJERT), ISSN: 2278- 0181, 2015.

(International Conference)

1. **Devi, M.**, Sarma, N., Deka, S. K., “Spectrum Auction Mechanism based on Concurrent



Bidding for Channel Allocation in Ad Hoc CRNs”, 18th IEEE INDICON, 2021.

2. **Devi, M.,** Sarma, N., Deka, S. K., and Chauhan, P., “Sequential Bidding Auction Mechanism for Spectrum Sharing in Cognitive Radio Networks”, 11th IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS), 2017.
3. **Devi, M.,** Sarma, N., and Deka, S. K., “Allocation and Access Mechanisms for Spectrum Sharing in CRNs- A Brief Review”, International Conference on Accessibility to Digital World (ICADW), 2016.
4. **Devi, M.,** Sarma, N., and Deka, S. K., “Dynamic Virtual Backbone based Routing in Cognitive Radio Networks”, 9th IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS), 2015.

Book Chapters:

1. **Monisha Devi,** Nityananda Sarma, Sanjib K. Deka, “DAMW: Double Auction Multi Winner Framework for Spectrum Allocation in Cognitive Radio Networks”, 20th International Conference on Innovations for Community Services (I4CS) (CCIS, volume 1139), 2020.
2. **Monisha Devi,** Nityananda Sarma, Sanjib K. Deka, “Multi-Winner Heterogeneous Spectrum Auction Mechanism for Channel Allocation in Cognitive Radio Networks”, 16th International Conference on Distributed Computing and Intelligent Technology (ICDCIT) (LNCS, volume 11969), 2020.
3. **Monisha Devi,** Nityananda Sarma and Sanjib K. Deka, “A General Framework for Spectrum Assignment in Cognitive Radio Networks”, 11th International Conference on Advanced Computing and Communication Technologies (ICACCT) (AISC, volume 702), 2018.
4. **Monisha Devi,** Nityananda Sarma and Sanjib K. Deka, “Spectrum Allocation in Cognitive Radio Networks - A Centralized Approach”, 1st International Conference on Advanced Computational and Communication Paradigms (ICACCP) (LNEE, volume 475), 2017.



Name of the Faculty: Mr. Dipjyoti Deka

Publications: (Journals)

1. **Deka, D.**, Seal, R., Banik, S.,” Unmasking Fraudulent Job Ads: A Critical Review of Machine Learning Techniques for Detecting Fake Jobs”, International Journal on Emerging Research Areas,2023
2. Devi, M., **Deka, D.**, "A Survey on Routing Protocols for Cognitive Radio Network", in International Journal of Engineering Research & Technology, Vol. 4 - Issue 04 (April - 2015), e-ISSN: 2278-0181, DOI:10.17577/IJERTV4IS041166.

(International Conference)

1. **Deka, D.**, Deka, S. K., Sarma, N., "Capacity Constraint Distributed Data Dissemination Protocol for Ad-hoc Cognitive Radio Networks", ICT4SD-2015 (International Conference on ICT for Sustainable Development), Ahmadabad, India, Springer AISC Conference Proceedings, ISBN978-981-10-0127-7.
2. **Deka, D.**, Sarma, N., Panicker, N. J., "Malware Detection Vectors and Analysis Techniques: A Brief Survey", ICADW 2016 (1st International Conference on Accessibility to Digital World), AEC, Guwahati, India

(National Conference)

1. Chakraborty, H., Bhattacharjee, P., **Deka, D.**, " Facesec An intelligent model to detect face in real time ", NATIONAL CONFERENCE ON DATA PRIVACY AND CYBER SECURITY LAWS IN INDIA

Name of the Faculty: Mrs. Gitanjali Devi

Publications: (Journals)

1. Gogoi, M., **Devi, G.**, "Cloud Image Analysis for Rainfall Prediction: A Survey", Advanced Research in Electrical and Electronic Engineering, ISSN: 2349-5804: Volume 2, Issue 13 October- December, 2015.

(National Conference)

1. **Devi, G.**, Gogoi, M., “Feature Extraction to Detect Clouds from Satellite Image using Association Rule Mining”, National Conference on Current Trends in Engineering Science, 21 March 2017, Jalgaon, Maharashtra.



Name of the Faculty: Ms. Dharitri Sarkar

Publications: (International Conference)

1. **Sarkar, D.**, Bora, P. K., and Paul, N., “Currency Recognition System using Image Processing: A Survey”, 5th International Conference on “Computing for Sustainable Global Development”, 14th -16th March, 2018
2. **Sarkar, D.**, and Baruah, A., A Survey Paper on Sentiment Analysis, Regional International Conference on Natural Language Processing (Reg-ICON) 2017, 3-4 Nov. 2017, IIT Manipur, India.

Name of the Faculty: Ms. Subungshri Basumatary

Publications: (Journals)

1. Barman, A. K., Sarmah, J., **Basumatary, S.**, & Nag, A. (2024). Word Sense Disambiguation applied to Assamese-Hindi Bilingual Statistical Machine Translation. *Engineering, Technology & Applied Science Research*, 14(1), 12581-12586.
2. **Basumatary S.**, Barman, M., Barman, A. K., Karmakar M. & Nag, A (2024). Deep CNN based Question Classification Model for Mizo Natural Language Processing. *Science & Technology Journal* Vol. 11 Issue: 2July 2023 ISSN: 2321-3388

(International Conference)

1. **Basumatary, S.**, Brahma, K., Barman, A. K., & Nag, A. (2022, December). An Approach to Bodo Word Sense Disambiguation (WSD) Using Word2Vec. In *International Conference on Modeling, Simulation and Optimization* (pp. 487-499). Singapore: Springer Nature Singapore.
2. Mondal, S., Barman, A. K., **Basumatary, S.**, Barman, M., Rai, C., & Nag, A. (2023, December). Cancer Text Article Categorization and Prediction Model Based on Machine Learning Approach. In *2023 IEEE 3rd Mysore Sub Section International Conference (MysuruCon)* (pp. 1-6). IEEE.