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# **PROFESSIONAL MEMBERSHIPS**

Member, IEEE

ExeCom Member, IEEE Silchar Subsection

Life Member, Indian Unit for Pattern Recognition and Artificial Intelligence (IUPRAI)

Life (Senior) Member, Computer Society of India (CSI)

Life Member, Indian Statistical Institute (ISI), Kolkata

Member, Advisory Board, IJBST Journal Group

Life Member, Assam Science Society, Assam

Life Member, Barak Education Society, Silchar, Assam

# Dr. (Mrs.) Shahin Ara Begum

Professor Department of Computer Science Assam University, Silchar, Assam - 788011, India

# **EDUCATION**

Ph. D. (Computer Science), Assam University, Silchar, 2008

M. Sc. (Mathematics with Computer Science), JMI, New Delhi, 1996

B. Sc., Bangalore University, Karnataka, 1994

## PROFESSIONAL EXPERIENCE

Professor, Assam University 13<sup>th</sup> March 2016 - Till date

Associate Professor, Assam University 13th March 2012 - 12th March 2016

Reader, Assam University 13<sup>th</sup> March 2009 - 12<sup>th</sup> March 2012

Lecturer, Assam University 2<sup>nd</sup> July 1997 - 1<sup>st</sup> July 2003

## **RESEARCH INTEREST**

Artificial Intelligence, Machine Learning, Data Analytics

## Journal

- Ananya Gupta, Shahin Ara Begum (2020), An Empirical Evaluation of the State of Art Feature Selection Methods for Text Categorization, International Journal of Scientific & Technology Research, Vol. 9, Issue 02, pp. 6113-6122, February 2020, ISSN 2277-8616 [UGC CARE List II, Scopus], CiteScore 0.2 <a href="http://www.ijstr.org/final-print/feb2020/An-Empirical-Evaluation-Of-The-State-Of-Art-Feature-Selection-Methods-For-Text-Categorization.pdf">http://www.ijstr.org/final-print/feb2020/An-Empirical-Evaluation-Of-The-State-Of-Art-Feature-Selection-Methods-For-Text-Categorization.pdf</a>
- Gupta A., Begum S. A. (2019), A Comparative Study on Feature Selection Techniques for Multi-cluster Text Data.
   In: Yadav N., Yadav A., Bansal J., Deep K., Kim J. (eds) Harmony Search and Nature Inspired Optimization Algorithms. Advances in Intelligent Systems and Computing, Vol. 741, pp. 203-215, Springer, Singapore, DOI https://doi.org/10.1007/978-981-13-0761-4\_21, ISSN:2194-5357, ISSN:2194-5365 (electronic) Print ISBN 978-981-13-0760-7, Online ISBN 978-981-13-0761-4 [UGC CARE List II, Scopus], CiteScore 0.9 https://link.springer.com/chapter/10.1007/978-981-13-0761-4\_21
- Ananya Gupta, Shahin Ara Begum (2019), Efficient multi-cluster feature selection on text data, Journal of Information and Optimization Sciences, Vol. 40, 2019 Issue 8: Optimisation in Electronics and Computer Science, pp. 1583-1598, Taylor and Francis, ISSN: 0252-2667 (Print) 2169-0103 (Online), DOI: 10.1080/02522667.2019.1703259 [UGC CARE List II, Web of Science, Science Citation Index, ESCI] https://www.tandfonline.com/doi/abs/10.1080/02522667.2019.1703259
- Gogoi, M., Begum, S. A. (2019), Optimizing Deep Network for Image Classification with Hyperparameter Tuning International Journal of Engineering and Advanced Technology (IJEAT), ISSN 2249-8958, Vol. 9 Issue 2 pp. 2264-2269 [UGC CARE List II, Scopus] https://www.ijeat.org/wp-content/uploads/papers/v9i2/B3515129219.pdf
- Munmi Gogoi, Ashim Jyoti Gogoi, Shahin Ara Begum (2019), Optimizing Error Function of Backpropagation Neural Network, International Journal of Computer Sciences and Engineering (IJCSE), Vol.-7, Issue-4, April 2019, pp. 1011-1016 E-ISSN: 2347-2693, DOI: https://doi.org/10.26438/ijcse/v7i4.10111016, ICI, IARC Impact Factor: 3.022 (2017) [UGC Journal No. 63193] https://www.ijcseonline.org/full\_paper\_view.php?paper\_id=4158
- A. K. Md. Fujail, S.A. Begum, A.K. Barbhuiya (2018), Genetic Algorithm-Based Neural Network for Estimation of Scour Depth Around Bridge Abutment, International Journal of Computer Sciences and Engineering (IJCSE), Vol. 6, Issue 7, July 2018, E-ISSN: 2347-2693, pp. 1544-1554, [UGC approved Journal No. 63193]
- Partha Sarathi Bhattacharjee, Arif Iqbal Mozumder, Shahin Ara Begum (2018), Hybrid Particle Swarm Optimization and Fuzzy C-Means Clustering for Network Intrusion Detection, International Journal of Computer Sciences and Engineering, Vol.-6, Issue-9, Sept. 2018 E-ISSN: 2347-2693, pp. 116-122
- Sarmah, R., Modi., M. K., and Begum, S. A. (2017), ANN Based Features Selection Approach Using Hybrid GA-PSO for siRNA Design, International Journal of Computer Science & Information Technology (IJCSIT), ISSN 0975-3826 (online), pp. 0975-4660 (Print), Vol. 9, No. 4, 2017, [UGC approved Journal No. 2775]
- Mozumder, A.I. and Begum, S. A. (2017), Iris Recognition using Modular Neural Network and Fuzzy Inference System based Score Level Fusion. International Journal of Advanced Research in Computer Science, Vol. 8, No. 7, pp. 604-610, 2017, ISSN-0976-5697 [UGC approved Journal No. 2503, August 2017].
- Bhattacharjee, P. S., Md Fujail Abul Kashim and Begum S. A. (2017), Intrusion Detection System for NSL-KDD Data Set using Vectorised Fitness Function in Genetic Algorithm, Advances in Computational Sciences and Technology, Vol. 10, Number 2, pp. 235-246, Print ISSN 0973-6107, Online ISSN 0974-4738 [UGC approved Journal No. 1279, April 2017]
- Nabanita Choudhury and Shahin Ara Begum (2017), Classification in the Retrieval Phase of Case-Based Reasoning, International Journal of Advanced Research in Computer Science, Vol. 8, No. 5, 2017, pp. 1728-1731, ISSN: 0976-5697 [UGC approved Journal No. 16320]
- Nabanita Choudhury and Shahin Ara Begum (2017), The Role of Fuzzy Logic in Case-based Reasoning: A Survey, Indian Journal of Computer Science and Engineering, Vol. 8, No. 3, 2017, pp. 333-340, ISSN: 0976-5166 [UGC approved Journal No. 15559, UGC CARE List II, Scopus] <a href="http://www.ijcse.com/docs/INDJCSE17-08-03-150.pdf">http://www.ijcse.com/docs/INDJCSE17-08-03-150.pdf</a>
- Thiyam Churjit Meetei and S. A. Begum (2017), Interval Type-2 Fuzzy Integral Based Iris Recognition, International Journal of Advanced Research in Computer Science, Vol. 8, No. 5, May-June 2017, ISSN No. 0976-5697
- Nabanita Choudhury and Shahin Ara Begum (2016), A Survey on Case-based Reasoning in Medicine (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 7, No. 8, 2016, pp. 136-144, ISSN: 2156-5570 [Clarivate Emerging Sources Citation Index, Web of Science], DOI: 10.14569/IJACSA.2016.070820

- Ranjan Sarmah, Shahin Ara Begum, Mahendra K. Modi (2016), A hybrid GA-ANN approach in building efficient
  model for prediction of siRNA knockdown efficiency in plant pathogens, International Journal of Computer
  Science and Information Security (IJCSIS), Vol. 14, No. 12, pp. 597-610, December 2016, ISSN 1947-5500
- Paswan R. P. and Begum S. A. (2015), Prediction of Area and Crop Production for Summer Rice and Maize of Upper Brahmaputra Valley Zone of Assam Using ANN, Journal of Indian Society of Agricultural Statistics, Vol. 69, No. 1, 2015, pp. 65-82, ISSN: 0019-6363
- Bhattacharjee, P. S. and Begum, S. A. (2015), A Study on Fuzzy Rules for Intrusion Detection System, IJRSCSE, ISSN 2349-4840 (Print) & ISSN 2349-4859 (Online), Vol. 2, Issue 8, August 2015, pp. 1-9.
- Ranjan Sarmah, Shahin Ara Begum and Mahendra K. Modi (2015), In SILICO Approach to Design Potential Small Interfering RNA (siRNA) against Plant Pathogens and Diseases, International Journal of Innovative Research & Development, Vol. 4 Issue 12, November 2015
- Churjit, Th. and Begum, S. A. (2014), A Comparative Study of Feature Extraction and Classification Methods for Iris Recognition, International Journal of Computer Applications (IJCA), ISSN: 0975-8887, Vol. 89, No. 7, pp. 13-20, March 2014, Published by Foundation of Computer Science, New York, USA, DOI: 10.5120/15514-4251
- S. A. Begum, A. K. Md. Fujail, A. K. Barbhuiya (2013), Genetic Programming for Prediction of Local Scour at Vertical Bridge Abutment, IJRET: International Journal of Research in Engineering and Technology, Vol. 02 Special Issue: 02, pp. 74-77, Dec 2013, eISSN: 2319-1163, pISSN: 2321-7308
- Mazumder, R. U., Begum, S. A., Biswas, D. (2013), An Exponential kernel based fuzzy rough sets model for feature selection, International Journal of Computer Applications (IJCA), ISSN: 0975-8887, Vol. 81, No. 6, pp. 24-31, November 2013, Published by Foundation of Computer Science, New York, USA. DOI: 10.5120/14016-2155
- Paswan R. P. and Begum S. A. (2013), Regression and Neural Networks Models for Prediction of Crop Production, International Journal of Scientific and Engineering Research (IJSER), ISSN 2229-5518, Vol. 4, No. 9, pp. 98-108, September 2013
- Devi O. M and Begum S. A. (2013), Performance Analysis of Fuzzy Competitive Learning Algorithms for MR Image Segmentation, International Journal of Computer Application (IJCA), ISSN: 0975-8887, Vol. 71, No. 8, pp. 6-13, May 2013, Published by Foundation of Computer Science, New York, USA, DOI 10.5120/12384-8736
- Begum S. A. and Bhattacharjee P. S. (2013), Fuzzy Approach for Intrusion Detection System: A Survey, International Journal of Advanced Research in Computer Science (IJARCS), ISSN: 0976-5697, Vol. 4, No. 2, February, 2013 URL: http://www.ijarcs.info [UGC approved Journal No. 16320, Aril, 2017]
- Shahin Ara Begum and Mema O. Devi (2012), A Rough Type-2 Fuzzy Clustering Algorithm for MR Image Segmentation. International Journal of Computer Applications, ISSN 0975 8887, Vol. 54, No. 4, pp. 4-11, September 2012 (IF 0.814 for 2011)
- Shahin Ara Begum (2012), On Performance of Rough Set based Feature Selection Algorithm, Assam University Journal of Science and Technology, ISSN 0975-2773, Vol. 9 No. II, pp. 80-87, 2012
- Shahin Ara Begum and O. Mema Devi (2012), Performance Analysis of Suppressed fuzzy algorithms for MR Segmentation. Assam University Journal of Science and Technology, ISSN 0975-2773, Vol. 10 No. II, pp. 34-43, May 2012
- Shahin Ara Begum and Mema O. Devi (2012), Type-2 Fuzzy Soft Learning Algorithms for MR Image Segmentation, CiiT International Journal Artificial Intelligent Systems and Machine Learning, ISSN 0974 – 9667 (IF 0.763) August 2012, DOI: AIML082012008
- Thongam Bembem Devi and Shahin Ara Begum (2012), Soft Computing in Medical Data Mining: A Survey, CiT International Journal of Data Mining and Knowledge Engineering, ISSN 0974 – 9683, August 2012 (IF 0.621), DOI: DMKE082012004
- Partha Sarathi Bhattacharjee, Anish Kumar Saha and Shahin Ara Begum (2012), The Application of E-commerce in Business Application: Their Problems and Prospects, International Journal of Computer Applications, ISSN 0975 -8887, Vol. 49, No. 10, pp. 36-40, July 2012 (IF 0.814 for 2011)
- Raju Rajkumar, Th. Churjit Meetei, Shahin Ara Begum, K. Hemachandran (2012), Fingerprint Enhancement and its features purification, Journal of Computing, ISSN 2151-9617, Vol. 4, No. 5, May 2012 (IF 0.2 for 2011)
- S. A. Begum and R. Paswan (2012), Artificial Neural Networks for Prediction of Agricultural Crop Production: A Survey, Assam University Journal of Science and Technology, ISSN 0975-2773, Vol. 9 No. II, pp. 42-54, 2012
- Shahin Ara Begum and Th. Churjit Meetei (2011), Information fusion in Multimodal Biometric Systems, Assam University Journal of Science and Technology, ISSN 0975-2773, Vol. 8 No. II, pp. 21-31, 2011

- Abul Kashim Md. Fujail, Shahin Ara Begum and Abdul Karim Barbhuiya (2011), Artificial Network for Scour Depth Prediction around Bridge Abutment, Assam University Journal of Science and Technology, ISSN 0975-2773, Vol. 8 No. II, pp. 61-69, 2011
- Shahin Ara Begum and O. Mema Devi (2011), Fuzzy Algorithms for Pattern Recognition in Medical Diagnosis, Assam University Journal of Science and Technology, ISSN 0975-2773, Vol. 7 No. II pp. 1-12, 2011
- Shahin Ara Begum (2010), On Limiting Behavior of the PBM and the Fuzzified PBM Cluster validity Index, Assam University Journal of Science and Technology, ISSN 0975-2773, Vol. 5 No. II, pp. 93-98, 2010
- Shahin Ara Begum, Bipul Shyam Purkayastha and Tanmoy Som (2009), A New Cluster Validity Index for Fuzzy Clustering, International Journal of Computational Intelligence Research, ISSN 0973-1873 Volume 5, Number 4, pp. 403-428, 2009

## Conference

- Choudhury N., Begum S.A. (2020) Neuro-Fuzzy-Rough Classification for Improving Efficiency and Performance in Case-Based Reasoning Retrieval. In Proceedings of the 1st International Conference on Recent Advances and Applications in Computer Engineering (RAACE-2017), 29–38, In: Pant M., Sharma T., Basterrech S., Banerjee C. (eds) Computational Network Application Tools for Performance Management. Asset Analytics (Performance and Safety Management). Springer, Singapore, DOIhttps://doi.org/10.1007/978-981-32-9585-8\_4. Print ISBN 978-981-32-9585-8\_1, Online ISBN 978-981-32-9585-8 https://link.springer.com/chapter/10.1007/978-981-32-9585-8\_4
- Ananya Gupta and Shahin Ara Begum (2018), A Comparative Study on Feature Selection Techniques for Multi-Cluster Text Data, In Proceedings of the Fourth International Conference on Harmony Search, Soft Computing and Applications (ICHSA 2018), February 7-9, 2018
- Munmi Gogoi and Shahin Ara Begum (2017), Image Classification using Deep Autoencoders, In Proceedings of the IEEE International Conference on Computational Intelligence and Computing Research (2017 IEEE ICCIC), Coimbatore, December 14 to 16, 2017, DOI: 10.1109/ICCIC.2017.8524276
- Partha Sarathi Bhattacharjee, Abul Kashim Md Fujail and Shahin Ara Begum (2017), A comparison of Intrusion detection by k-means and Fuzzy c-means Clustering Algorithm over the KSL-KDD dataset, In Proceedings of the IEEE International Conference on Computational Intelligence and Computing Research (2017 IEEE ICCIC), December 14 to 16, 2017
- Sarmah, R., Begum, S. A., and Modi, M. K (2016), Neuro-Genetic Hybrid approach to predict siRNA efficacy in Plant Viruses, In Proceedings of the fourth International Conference on Emerging Research in Computing, Information, Communications and Applications (ERCICA-2016) 29 July - 30 July 2016, doi. 10.1007/978-981-10-4741-1-58, ISBN 978-981-10-4740-4, ISBN 978-981-10-4741-1 (ebook), Springer-Nature
- Arif Iqbal Mozumder and Shahin Ara Begum (2016), An Efficient Approach towards Iris Recognition with Modular Neural Network Match Score Fusion, In Proceedings of the IEEE International Conference on Computational Intelligence and Computing Research (ICCIC) 2016, 15-17 December 2016
- Thiyam Churjit Meetei, Shahin Ara Begum (2016), A variant of cancelable iris biometric based on BioHashing, In Proceedings of the International Conference on Signal and Information Processing (IConSIP) 2016, IEEE Xplore, DOI 10.1109/ICONSIP.2016.7857435
- Arif Iqbal Mozumder and Shahin Ara Begum (2015), Iris Segmentation using Adaptive Histogram Equalization and Median Filtering, In Proceedings of the International Symposium on Advanced Computing and Communication (ISACC), 2015, pp. 244 - 250, 14-15 Sept. 2015 DOI: 10.1109/ISACC.2015.7377349
- Fujail, A. K. Md., Begum, S. A. and Barbhuiya, A. K. (2015), Neuro-genetic Approach to Predict Scour Depth Around Vertical Bridge Abutment, In Proceedings of the Fourth International Conference on Soft Computing for Problem Solving, Advances in Intelligent Systems and Computing 335, Springer India, 2015, DOI: 10.1007/978-81-322-2217-0 13
- Mazumder, R. U., Begum, S. A., Biswas D. (2015), Rough Fuzzy Classification for Class Imbalanced Data, In Proceedings of the Fourth International Conference on Soft Computing for Problem Solving, Advances in Intelligent Systems and Computing 335, Springer India, 2015, DOI: 10.1007/978-81-322-2217-0\_14
- Devi, T. B. and Begum S. A. (2014), Comparison of Classification Techniques over Medical Data, In Proceedings of the International Conference ICONACC, 2014 Manipur, India, 10-12 March 2014, pp. 159-166
- Paswan R. P. and S. A. Begum (2014), ANN for Prediction of Area and Production of Maize Crop for Upper Brahmaputra Valley Zone of Assam., In Proceedings of the IEEE International Conference on Advance Computing Conference (IACC), 21-22 February 2014, Gurgaon, IEEE Xplore pp. 1286 - 1295, DOI: 10.1109/IAdCC.2014.6779513
- Mazumder, R. U., Begum, S. A., Biswas, D. (2014), Performance Analysis of Rough Set Extensions for Feature Selection, In Proceedings of the National Conference on Trends in Mathematical Science Research, 5-6 September 2014, Assam University, Silchar

- Fujail, A. K. Md., Begum, S. A. and Barbhuiya, A. K. (2013), Comparison of artificial neural network transfer functions abilities to predict scour depth around bridge abutment. In Proceedings of the Fifth International Conference on Advances in Recent Technologies in Communication and Computing ARTComm 2013, 20-21 September 2013, Bangalore, India, Publisher Elsevier
- Churjit, Th. and Begum, S. A. (2013), Performance Evaluation of Feature Selection Methods for ANN Based Iris Recognition, In Proceedings of the IEEE 1st International Conference on Emerging Trends and Applications in Computer Science (ICETACS), 2013, IEEE Xplore pp. 208-213, DOI: 10.1109/ICETACS.2013.6691424
- O. Mema Devi and Shahin Ara Begum (2013), A new cluster validity index for type-2 fuzzy cmeans algorithm, In Proceedings of the IEEE International Conference on Advances in Computing, Communications, and Informatics (ICACCI 2013), 22-25 August 2013, Mysore, India, IEEE Xplore pp. 2049-2056, DOI: 10.1109/ICACCI.2013.6637497
- Paswan R. P. and S. A. Begum (2013), MLP for Prediction of Area and Rice Production of Upper Brahmaputra Valley Zone of Assam, In Proceedings of the 4<sup>th</sup> IEEE International Conference on Computing, Communication and Networking Technologies (ICCCNT 2013), 4-6 July, 2013, Tamil Nadu, India, IEEE Xplore, pp. 1-9, DOI: 10.1109/ICCCNT.2013.6726750
- Nabanita Choudhury and Shahin Ara Begum (2013), Case-Based Reasoning in Medical Diagnosis: An Overview, pp 81-86, In Proceedings of 1st National Conference on Research & Higher Education in Information Technology (RHEIT 2013), 4-5 February 2013, Assam University, Silchar, India
- S. A. Begum, A. K. Md. Fujail and A. K. Barbhuiya (2012), Artificial Neural Network to Predict Equilibrium Local Scour Depth around Semicircular Bridge Abutments, In Proceedings of the 6th Int. Symposium in Advances in Science & Technology (SASTech 2012), 24-25 March 2012, Kuala Lumpur, Malaysia (Received Best Paper Presentation Award)
- Shahin Ara Begum, Abul Kashim Md. Fujail and Abdul Karim Barbhuiya (2011), Radial Basis Function to Predict Scour Depth around Bridge Abutment, In Proceedings of the IEEE 2nd National Conference on Emerging Trends and Applications in Computer Science (NCETACS-2011), ISBN: 978-1-4244-9579-5, pp. 76-82, Shillong, 4-5 March 2011
- S. A. Begum, B. S. Purkayastha, A. Chakrabarty and T. Som (2009), An efficient psFCM Clustering Algorithm, In Proceedings of the IEEE International Advance Computing Conference (IACC 2009) ISBN: 978-1-4244-2928-8, pp. 1393-1399, Patiala, India, 6-7 March 2009
- Shahin Ara Begum and Bipul Shyam Purkayastha (2001), Prime Number Generator Algorithm, In Proceedings of the National Conference on Recent Developments in Mathematics, Silchar, Assam, 14-16 March 2001

# **Book Chapters**

- Shahin Ara Begum and O. Mema Dev (2013), Performance Analysis of Suppressed Fuzzy c-Means with an application to Image Segmentation, Mathematical Sciences and their Applications, Recent Advances, pp. 143-154, K. D. Choudhury, D. Biswas, S. Saha (Eds), Narosa Publishing House Pvt. Ltd., New Delhi, ISBN 978-81-8487-191-3, 2013.
- Shahin Ara Begum, Riaj Uddin Mazumder, O. Mema Devi, and Debojyoti Biswas (2013), Performance Analysis of Fuzzy and Rough Fuzzy Clustering Algorithms, Mathematical Sciences and their Applications, Recent Advances, pp. 155-166, K. D. Choudhury, D. Biswas, S. Saha (Eds), Narosa Publishing House Pvt. Ltd., New Delhi, ISBN 978-81-8487-191-3, 2013
- O. Mema Devi and Shahin Ara Begum (2011), A Comparison of Fuzzy Pattern Recognition Techniques for MR Imaging, Advanced Computing Applications, Databases and Networks, Shahin Ara Begum and Prodipto Das (Eds), Narosa Publishing House Pvt. Ltd., New Delhi, ISBN 978-81-8487-109-8, 2011
- Riaj Uddin Mazumder, Shahin Ara Begum and Debojyoti Biswas (2011), An Overview of Fuzzy Sets and Rough Sets in Medical Image Analysis, Advanced Computing Applications, Databases and Networks, Shahin Ara Begum and Prodipto Das (Eds), Narosa Publishing House Pvt. Ltd., New Delhi, ISBN 978-81-8487-109-8, 2011
- Shahin Ara Begum, Bipul Shyam Purkayastha and Tanmoy Som (2007), Data clustering: An overview from soft computing perspective, Networks, Security and Soft Computing Trends and Future Directions, D. K. Bhhattacharyya and S. M. Hazarika (Eds), Narosa Publishing House Pvt. Ltd., ISBN 978-81-7319-868-7, 2007

#### **Edited Volume**

 Shahin Ara Begum and Prodipto Das (Eds) (2011), Advanced Computing Applications, Databases and Networks, Narosa Publishing House Pvt. Ltd., New, Delhi, ISBN 978-81-8487-109-8, 2011

#### PH. D. SUPERVISION

# Degree Awarded

- Nabanita Choudhury (2021), Thesis Title An Investigation of Soft Computing Based Techniques for Case-based Reasoning
- Partha Sarathi Bhattacharjee (2020), Thesis Title Fuzzy Data Mining for Intrusion Detection
- Arif Iabal Mozumder (2018), Thesis Title Hybrid Algorithms for Iris Recognition
- Ranjan Sarmah (2018), Thesis Title Artificial Neural Network Approach in Building Predictive Models for siRNA mediated Gene Silencing of various Plant Pathogens [Prof. M. K. Modi, Assam Agricultural University, Jorhat, Assam, Co-Supervisor]
- Thiyam Churjit Meetei (2016), Thesis Title Design Approaches for Multibiometric Systems
- Abul Kashim Md. Fujail (2016), Thesis Title Soft Computing Methodologies and its Applications to Estimate Local Scour at Bridge Abutment, 2016 [Prof. A. K. Barbhuiya, NIT, Silchar, Assam, Co-Supervisor]
- Raju Prasad Paswan (2015), Thesis Title Artificial Neural Network for Prediction of Area and Crop Production Across Different Agro-Climatic Zones of Assam
- Riaj Uddin Mazumder (2015), Thesis Title Rough Fuzzy Set Approach to Feature Selection and Classification, 2015 [Prof. D. Biswas, Assam University, Co-Supervisor]
- O. Mema Devi (2014), Thesis Title Investigation of Fuzzy Pattern Recognition Techniques for Medical Diagnosis

## **INVITED PRESENTATIONS**

- Invited Speaker, International Webinar on Role of Artificial Intelligence in Automation, organized by School of Innovation and Technology, Assam Rajiv Gandhi University of Cooperative Management, 21-23 July 2020
- Invited Speaker, Webinar on Data-driven Predictive Analytics, organized by the Department of Computer Science, Assam University, Silchar, 5-6 August 2020
- Invited Speaker, Webinar on Distance and Online Education in the backdrop of COVID-19: Issues and Challenges, organized by Regional Computer Lab (RCL), Agartala Regional Centre, IGNOU, 19 July 2020
- Invited Speaker, Two Days National Workshop on ICT Orientation for Sanskrit and other Indian Language Studies, organized by the Department of Sanskrit, Assam University, Silchar, 26-27 September 2019
- Invited Speaker, Workshop on Academic Administration, organized by IQAC, Assam University, 22-25 September 2017
- Invited Speaker, Northeast ISI (ACMU) AUS Winter School on Graph Algorithms with special focus on Networks and VLSI, at Assam University, 22-24 February 2016
- Invited Speaker, Five Days Training Programme on Hands-on Training of Teachers on Integration of ICT in Teaching Learning of Science and Mathematics, organized by the Department of Education in Science and Mathematics, NCERT, New Delhi, 18 March 2015

# **CONFERENCE/WORKSHOP/WEBINAR ACTIVITIES**

- Coordinator, Webinar on "Data-driven Predictive Analytics", 5th-6th August 2020 organized by Department of Computer Science, Assam University, Silchar
- Coordinator, Online QUIZ on COVID-19, jointly organized by the Department of Chemistry and Department of Computer Science, Assam University, Silchar, 2020
- Faculty Coordinator, Tech-Fest 2019, Department of Computer Science, Assam University
- Session Chair at IEEE International Conference on Computational Intelligence and Computing Research (2017 IEEE ICCIC), Coimbatore, December 14 to 16, 2017
- Faculty Coordinator, student National Network Security Championship 2014-2015, in association with E-cell IIT Bombay, at Assam University
- Convener, 3-day National Conference on Current Trends in Computer Science (CTCS 2010), 22-24 February 2010, at Assam University, Silchar, sponsored by Ministry of DST, DIT and DoNER, GOI, and Assam University

# OTHER CREDENTIALS/SIGNIFICANT CONTRIBUTIONS

- Founding faculty member of the Department of Computer Science, Assam University, Silchar
- INSA Teachers Award Nominee of Assam University, Silchar, 2018
- Invited Member, Executive Council, Assam University, Silchar (2016-2018)
- Member, Academic Council, Assam University, Silchar, Assam (2008-2009, 2021-till date)
- Member, Departmental Post Graduate Programme Committee (DPPC),
   Department of CSE, Triguna Sen School of Technology, Assam University, Assam (2015-2018)
- Expert Member, Selection Committee, for Selection of Various Teaching and Technical Post
- Member, Standing Committee for Academic Council, Assam University, Silchar, Assam (2010-2013)
- Member, Board of Studies, Department of Mathematics and Computer Science, Mizoram University, Aizawl, India, (2010-2013)
- Member, Board of Post Graduate Studies (BPGS), Department of Economics, Assam University, Silchar, Assam (2014-2017)
- Member, Board of Post Graduate Studies (BPGS), Department of Arabic, Assam University, Silchar, Assam (2011-2014, 2014-2017, 2017-2020, 2021-till date)
- Member, Board of Post Graduate Studies (BPGS), Department of Computer Science, Assam University, Silchar, Assam (2012-2015)
- Member, School Board of the Albert Einstein School of Physical Sciences, Assam University, Silchar, Assam (2003-2005, 2011-2013, 2016-2018)
- Member, School Board of the Mahatma Gandhi School of Economics and Commerce, Assam University, Silchar, Assam (2013-2015)
- Member, Board of Undergraduate Studies (BUGS), Department of Pharmaceutical Sciences, Assam University, Silchar, Assam (2012-2015)
- Member, Sports Board, Assam University, Silchar, Assam (2012)
- Received, DST, GOI, Travel Support to Attend 6th International Symposium in Advances in Science & Technology (SASTech 2012), 24-25 March 2012, Kuala Lumpur, Malaysia
- Received Best paper presentation award, 6th International Symposium in Advances in Science & Technology (SASTech 2012), 24-25 March 2012, Kuala Lumpur, Malaysia
- Reviewer, Journal of Applied Soft Computing, Elsevier