

Jayati Ghosh Dastidar
Associate Professor
Postgraduate and Research Department of Computer Science
St. Xavier's College (Autonomous), Kolkata
E mail: j.ghoshdastidar@sxccal.edu

Qualification: M. E. (IT)

Profile: Her teaching experience includes both theoretical as well as practical Computer Science topics both at the UG as well as the PG level. She specializes in the teaching of courses such as Object Oriented Technology, Compiler Design, Automata Theory, Digital Image Processing, Digital Electronics, Computer Organisation, Data Structure, Mobile Communication, Parallel Architecture, etc. Her research interests are in the area of Digital Image Processing and Pattern Recognition.

Minor Research Project

Title – Automated CCTV Surveillance.

Duration – 2 years

Description – This is a Minor Research Project funded by UGC under the XII th. plan. The Project has been completed in April' 2016. The objective of the project was to automate the CCTV surveillance system so that intrusions can be automatically detected without needing human interventions.

Publications

Conference Publications –

1. "Handwriting Recognition", Jayati Ghosh Dastidar, et al., AICTE sponsored National Seminar on Paradigm Shift in Education Technology & Content Management, E-TCM 2012, ISBN No. 978-81-923034
2. "A Study on the Feasibility of E-Learning in the Field of Higher Education", Jayati Ghosh Dastidar, et al., UGC sponsored seminar on ICT in Higher Education- Opportunities and Challenges in the 21st Century held on 28th March, 2012 at St.Xavier's College, Kolkata (Autonomous), ISBN: 978-81-924140- 0-3
3. "Tracking human intrusion through a CCTV", Jayati Ghosh Dastidar, et al., IEEE conference CICN 2015, December 2015, DOI - 10.1109/CICN.2015.95, Pages: 461-465, ISBN: 978-1-5090-0076-0/15
4. "Human form identification from a video stream using support vector machine", Jayati Ghosh Dastidar, 3rd. IEEE conference ICBIM 2016, January 2016, ISBN: 978-1-5090-1228-2/16.
5. "Intrusion Detection using SVM in a Video sequence and Signaling an Alarm through Arduino UNO", Jayati Ghosh Dastidar, et. al., International Conference on Computational Science and Engineering [ICCSE2016], October 2016, CRC Press (Taylor and Francis) ISBN: 978-1-138-02983-5.
6. "Design of a voice-based system by recognizing speech using MFCC", Jayati Ghosh Dastidar, et. al., International Conference on Computational Science and

Engineering [ICCSE2016], October 2016, CRC Press (Taylor and Francis) ISBN: 978-1-138-02983-5.

7. "A simplistic correlation based method for recognizing hand-written characters", Jayati Ghosh Dastidar, et. al., National Level Seminar on Development of Engineering Glossary in vernacular languages, MHRD, December 2017.

8. "Voice Signal Analysis using Discrete Wavelet Transformation", Jayati Ghosh Dastidar, et. al., National Level Seminar on Development of Engineering Glossary in vernacular languages, MHRD, December 2017.

Journal Publications –

1. "A Simplistic approach for Recognition of Geometrical Shapes using Fuzzy Logic", Jayati Ghosh Dastidar, et. al., Aviskar Jan 2014, Volume VI, Pages 43-47.

2. "Human Shape Variation - An Efficient Implementation using Skeleton", Jayati Ghosh dsatidar, et. al., IJACR, Volume-4 Number-1 Issue-14 March-2014, Pages 145-150.

3. "An automatic and efficient foreground object extraction scheme", Jayati Ghosh Dastidar, et. al., IJSAIT, Volume 3, No. 2, March-April 2014, Pages 40-43.

4. "Hand Gesture Recognition Library", Jayati Ghosh Dastidar, et. al., IJSAIT, Volume 3, No. 2, March-April 2014, Pages 44-50.

5. "Tracking Direction of Human Movement – An Efficient Implementation using Skeleton", Jayati Ghosh Dastidar, et al., IJCA – Vol 96, no. 13, June 2014, (Pg. 27-33) DOI - 10.5120/16855-6722.

6. "A Simplistic Mechanism for Query Cost Optimization", Jayati Ghosh Dastidar, et. al., IJACR, Volume 5, Issue 19, June 2015, Pages: 205-211.

7. "Data Hiding in Video using Triangularization LSB Technique", Jayati Ghosh Dastidar, et.al., IJATCSE, Volume 4, no. 3, May-June 2015, Pages 44-47.

8. "SVM Based Classification of Sounds from Musical Instruments using MFCC Features", Sayantani Nandi, Madhura Banerjee, Parangama Sinha, Jayati Ghosh Dastidar, IJARCS, ISSN No. 0976-5697 , Volume 8, no. 5, May-June 2017, Pages 2144-2147, doi:<http://dx.doi.org/10.26483/ijarcs.v8i5.3798>.

9. Jayati Ghosh Dastidar, June 17 Volume 5 Issue 6, "A Treatise on the use of Finger Print for a Biometric Authentication System", International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), ISSN: 2321-8169, PP: 1261 – 1265, doi: 10.17762

10. Jayati Ghosh Dastidar "An Authentication Protocol based on Kerberos" Vol. 7 - Issue 7 (July - 2017), International Journal of Engineering Research and Applications (IJERA) , ISSN: 2248-9622 , www.ijera.com, doi: 10.9790/9622-0707047074.

11. Jayati Ghosh Dastidar, et. al., "Image Restoration using DWT in a Tile based manner", International Journal for Research in Engineering Application & Management (IJREAM) ISSN : 2454-9150 Vol-04, Issue-05, Aug 2018, Pg. 413-418.

Book Chapters –

1. Jayati Ghosh Dastidar, et. al., “SVM Based Method for Identification and Recognition of Faces by Using Feature Distances”, Book: Intelligent Engineering Informatics, Advances in Intelligent Systems and Computing series Print ISBN: 978-981-10-7565-0, Electronic ISBN: 978-981-10-7566-7, Copyright Year: 2018, <https://doi.org/10.1007/978-981-10-7566-7>, DOI: https://doi.org/10.1007/978-981-10-7566-7_4, Springer Singapore, Pg. 29-37.
2. Jayati Ghosh Dastidar, et. al. “Analysis of Human Gait for Designing a Recognition and Classification System”. A Book Chapter in Intelligent Innovations in Multimedia Data Engineering and Management (pp. 186-200). Hershey, ISBN13: 9781522571070|ISBN10: 1522571078|EISBN13: 9.781522571087 PA: IGI Global. doi:10.4018/978-1-5225-7107-0.ch008, Sep 2018, Copyright year 2019.
3. Jayati Ghosh Dastidar, et. al., “A correlation based method for recognizing hand-written characters“, Aviskaar, Vol.XI, ISSN (Print): 2277-8411, January 2019.
4. Jayati Ghosh Dastidar, et. al., “Vector Quantization based Voice Identification “, Aviskaar, Vol. XI, ISSN (Print): 2277-8411, January 2019.
5. Jayati Ghosh Dastidar, “Human form identification from a video stream using support vector machine”, In Emerging Issues in Business and Information Management, Serial Publications, ISBN: 978-81-945563-7-4.
6. Jayati Ghosh Dastidar, et. al., “Identification of Humans by Using Machine Learning Models on Gait Features” In: Mandal, J.K., De, D. (eds) Frontiers of ICT in Healthcare. Lecture Notes in Networks and Systems, vol 519. Springer, Singapore. https://doi.org/10.1007/978-981-19-5191-6_12, Copyright Year (2023).
7. Jayati Ghosh Dastidar, et. al., “Using Deep Learning to Recognize Emotions Through Speech Analysis” In: Biswas, A., Semwal, V.B., Singh, D. (eds) Artificial Intelligence for Societal Issues. Intelligent Systems Reference Library, vol 231. Springer, Cham. https://doi.org/10.1007/978-3-031-12419-8_9, Copyright Year (2023).
8. Jayati Ghosh Dastidar, et. al., “Image Caption Generation Using Neural Networks.” In: Mandal, J.K., De, D. (eds) Machine Learning for Social Transformation. EAIT 2024. Lecture Notes in Networks and Systems, vol 1131. Springer, Singapore. https://doi.org/10.1007/978-981-97-7532-3_1, Copyright Year (2024)

Consultancy Work

1. E-portal and an Organic Search Engine development of a Law Publication house - CHN Online
2. Project of a Renowned Gold and Diamond Jewellery Company- Providing analytical and forecasting support of their marketing and inventory management.
3. Contributed as an expert for a survey at Netaji Subhash International Airport, Dumdum for Kolkata Customs.

Content Development –

Contributed as a content developer for e-learning delivery material (4 quadrants) for UGC-CEC MOOC Project (Swayam – Ministry of Education), “Art of C Programming”. The Project is a part of National Mission for Education through Information and Communications Technologies (NME-ICT) funded by the Ministry of Education, Government of India and assigned to EMRC, the nodal agency for undergraduate MOOC courses through Consortium for Educational Communication (CEC).

Book Contributions –

1. Contributed a chapter in the book “Object Oriented Programming with C++”, McGraw Hills Education by E. Balagurusamy, 7th. edition, 20th. September 2017, in the form of the writer of the Major Project (Pg.: 471-489), ISBN: 978-93-5260-799-0.
2. Contributed as a content developer for a new chapter titled, “Introduction to Computing” and enhanced resources in the book “Programming in ANSI C”, McGraw Hills Education by E. Balagurusamy, 8th. edition, March 2019, ISBN: 9789353165130, 935316513X.

Book Review –

1. Reviewed the book, “Programming using C”, Gottfried, edition, Schaum Series, McGraw Hills
2. Reviewed two book chapters in Computer Fundamentals and C Programming By, Sumitabha Das, First Edition, McGraw Hills Education, 2018.
3. Reviewed two book chapters in Programming in Java, By, E. Balaguruswamy, McGraw Hills Education.

Seminar Sessions/ Invited Lecture

1. Delivered a talk at the Seminar in Technique Polytechnic Institute, Hooghly on “Automated Surveillance using CCTV” on 03/11/2018.
2. As a resource person in the One-day Computer Training Programme for Group C Office Staff IQAC (Funded By National Higher Education Mission) on 25/02/2023.
3. Delivered a talk on Computer Applications at Kanyashree College on 29/08/2023.
4. Contributed as a resource person in a Short Term Training Programme on ICT conducted for the Army personnels at NCC Directorate (West Bengal and Sikkim) from December 2023 to April 2024.
5. Contributed as a resource person in the Government of India sponsored vocational course, LSSSDC conducted at St. Xavier’s College (Autonomous), Kolkata.