Name: Dr. Debapriya Banik

Designation: Assistant Professor

Branch: Computer Science & Engineering

Educational Qualification(s):

Qualification(s)	University
B.Tech (CSE)	NIT Agartala
M.Tech(CSE) (Gold Medalist)	Tripura University (A central University)
Ph.D. (Engg.)	Jadavpur University

Experience in years:

Academic:**8 months**

Research: **7 years**

Details:

Sl. No.	Organization	Position Held	Duration	
			From	To
1	Jadavpur University	JRF	2016	2017
2	Techno India Salt Lake	Assistant Professor	2018	2018
3	Jadavpur University	CSIR-SRF	2018	2022
4	ICFAI University	Assistant Professor	2023	Till Date

Industrial: 1 Year

Details:

Sl. No.	Organization	Position Held	Duration	
			From	To
1	Polaris Financial Technology Ltd	Consultant	2011	2012

Other Information:

   a)   Publication details.

Journals:

1. Pramanik, Sourav, **Debapriya Banik**, Debotosh Bhattacharjee, Mita Nasipuri, Mrinal Kanti Bhowmik, and GautamMajumdar. "Suspicious-region segmentation from breast thermogram using DLPE-based level set method." **IEEE Transactions on Medical Imaging**, 38, no. 2 (2018): 572-584. **Impact Factor:11.037**.

2. **Debapriya Banik**, Kaushiki Roy, Debotosh Bhattacharjee, Mita Nasipuri, and Ondrej Krejcar. "Polyp-Net: A multi-model fusion network for polyp segmentation." **IEEE Transactions on Instrumentation and Measurement** 70 (2020):1-12.**Impact Factor:5.332**.

3. Kar, Arindam,**Banik, Debapriya**, Debotosh Bhattacharjee, and Massimo Tistarelli."RBECA: A regularized Bi-partitionedentropy component analysis for human face recognition." **Expert Systems with Applications** 202 (2022): p.117273.**Impact Factor:8.665**.

4. Kaushiki Roy[*], **Debapriya Banik**[*], Debotosh Bhattacharjee, Ondrej Krejcar, and Christian Kollmann, "LwMLA-NET:A Lightweight Multi-Level Attention-Based NETwork for Segmentation of COVID-19 Lungs Abnormalities from CTImages**." IEEE Transactions on Instrumentation and Measurement** 71 (2022): 1-13.**Impact Factor:5.332**.*Both shares Co-First Authorship.*

5. Roy, Kaushiki,**Debapriya Banik**, Debotosh Bhattacharjee, and Mita Nasipuri. "Patch-based system for classification ofbreast histology images using deep learning." **Computerized Medical Imaging and Graphics** 71 (2019): 90-103.**ImpactFactor:7.442**.

6. **Debapriya Banik**, Kaushiki Roy, Debotosh Bhattacharjee. "EM-Net: An Efficient M-Net for segmentation of surgicalinstruments in colonoscopy frames." **Nordic Machine Intelligence**,no.1(1) pp. 14-16, 2021.

7. Kaushiki Roy[*], **Debapriya Banik**[*], Gordon K. Chan, Ondrej Krejcar, Debotosh Bhattacharjee, "2pClPr: A 2-phase Clump Profiler for Segmentation of Cancer Cells in Fluorescence Microscopic Images**." IEEE Transactions on Instrumentation and Measurement**.**Impact Factor:5.332**.*Both shares Co-First Authorship*

Conferences:

1. Pramanik, Sourav, **Debapriya Banik**, Debotosh Bhattacharjee, Mita Nasipuri, and Mrinal Kanti Bhowmik. "Breast blood perfusion (BBP) model and its application in differentiation of malignant and benign breast." In Advanced Computational and Communication Paradigms, pp. 406-413. Springer, Singapore, 2018.

2. Kaushiki Roy, **Debapriya Banik**, Debotosh Bhattacharjee, Mita Nasipuri "Segmentation and Analysis of DiagnosticImages for Lesion Detection: Current Status and Future Potential." Research in Medical & Engineering Sciences, pp.1-4, no2(4), Crimson Publisher, 2018.

3. Pramanik, Sourav, **Debapriya Banik**, Debotosh Bhattacharjee, and Mita Nasipuri. "A Computer-Aided Hybrid Framework for Early Diagnosis of Breast Cancer." In Advanced Computing and Systems for Security, pp. 111-124. Springer,Singapore, 2019.

4. **Banik, Debapriya**, Debotosh Bhattacharjee, and Mita Nasipuri. "A multi-scale patch-based deep learning system forpolyp segmentation." In Advanced Computing and Systems for Security, pp. 109-119. Springer, Singapore, 2020.

5. **Banik, Debapriya**, and Debotosh Bhattacharjee. "Deep Conditional Adversarial Learning for Polyp Segmentation."Medico multimedia task at Mediaeval(2020).

6. Mahato, ShyamJanam, **Debapriya Banik**, and Debotosh Bhattacharjee. "Exploring Hand-Crafted Features and Transfer Learning for Polyp Segmentation." In International Conference on Computational Intelligence in Communicationsand Business Analytics, pp. 68-76. Springer, Cham, 2021.

7. **Debapriya Banik**, and Debotosh Bhattacharjee. "SARM-Net: A Spatial Attention-Based Residual M-Net for PolypSegmentation." In Artificial Intelligence on Medical Data, pp. 397-407. Springer, Singapore, 2023.

8. **Debapriya Banik**, Ondrej Krejcar, and Debotosh Bhattacharjee. " Deep Learning for segmentation of polyps for earlyprediction of Colorectal Cancer: A prosperous Direction." COMSYS, 2022, IIT Ropar. (**Best Paper Awarded**) (To bepublished).

Book Chapters

1. **Banik, Debapriya**, and Debotosh Bhattacharjee. "Mitigating Data Imbalance Issues in Medical Image Analysis." In Data Preprocessing, Active Learning, and Cost Perceptive Approaches for Resolving Data Imbalance, pp. 66-89. IGI Global, 2021.

2. **Banik, Debapriya**, Debotosh Bhattacharjee, and Mita Nasipuri. "Recent Advances in Intelligent Imaging Systems for Early Prediction of Colorectal Cancer: A Perspective." Enabling Machine Learning Applications in Data Science (2021): 39-61.

(b) Details of Seminar/Workshop/Conference.

1. Short-term research visit to the **Medical University of Vienna,Austria** in a research project entitled "*Development of a Computer-Assisted diagnosis system for Segmenting and detecting abnormalities and disease diagnosis*" Sponsored by DST, Govt.of India, 2020 under the supervision of Prof.Christian Kollman (Dept. of Radiology, Medical University of Vienna) & Prof. Debotosh Bhattacharjee (Dept.of CSE, Jadavpur University).

2. Attended a Workshop on "**Machine Learning for Medical Image Analysis (WMLMIA)**", organized by the Department of Electrical Engineering, IIT Kharagpur, 2018, and also participated (WMLMIA)-FetalUltrasound Censor (FUC) Grand Challenge (Secured **1**st Position).

3. Attended a Workshop on "**Activities of Society for Applied Microwave Electronics Engineering& Research in Emerging Fields of Computer & Electronics Science & Engineering**", organized bythe Department of Computer Science & Engineering, Tripura University (A Central University), Co-sponsored by: SAMEER, IIT Bombay Campus, Powai, Mumbai, 2014.

4. Attended a Workshop on "**Understanding the Books& Journal Article Publishing Process**", Organized byElsevier in collaboration with Central Library, Tripura University, 2014

5. Attended Workshop on "**Fundamental of Image Analysis and Pattern Recognition**", organized bythe Department of Computer Science & Engineering, Tripura University, 2015.

6. Attended a workshop on "**IoT and data mining**", organized by the Department of Computer Science &Engineering, Jadavpur University, 2017.