GOVERNMENT GENERAL DEGREE COLLEGE, SINGUR

ACADEMIC PROFILE

DR. PAYEL PRAMANIK
Assistant Professor in Computer Science (W.B.E.S.)
B.E, M.E, Ph.D.(Engg.)
Email: payel@singurgovtcollege.org

- **Specialization:** Medical Image Analysis, Deep Learning, Machine Learning
- **Date of joining in this college: 07.02.2025**
- **Total teaching experience in college level:** 7 years
- **Area of research:** Breast cancer detection, classification, segmentation
- **Title of Ph.D. thesis (if any): Some Studies on Breast Cancer Detection using Deep Learning Approaches**
- **Research guidance (if any):** Nil
- **Research projects [completed / ongoing] (if any):** Nil
- **List of publications:**

A. Published papers in Journals:

1. Roy, A., **Pramanik, P.**, & Sarkar, R. (2024). EU 2–Net: A Parameter Efficient Ensemble Model with Attention-aided Triple Feature Fusion for Tumor Segmentation in Breast Ultrasound Images. IEEE Transactions on Instrumentation and Measurement.
2. **Pramanik, P.**, Roy, A., Cuevas, E., Perez-Cisneros, M., & Sarkar, R. (2024). DAU-Net: Dual attention-aided U-Net for segmenting tumor in breast ultrasound images. Plos one, 19(5), e0303670.
3. **Pramanik, P.,** Pramanik, R., Schwenker, F., & Sarkar, R. (2023). DBU-Net: Dual branch U-Net for tumor segmentation in breast ultrasound images. Plos one, 18(11), e0293615.
4. Pramanik, R., **Pramanik, P.,** & Sarkar, R. (2023). Breast cancer detection in thermograms using a hybrid of GA and GWO based deep feature selection method. Expert Systems with Applications, 219, 119643.
5. **Pramanik, P.**, Mukhopadhyay, S., Mirjalili, S., & Sarkar, R. (2023). Deep feature selection using local search embedded social ski-driver optimization algorithm for breast cancer detection in mammograms. Neural Computing and Applications, 35(7), 5479-5499.
6. Majumdar, S., **Pramanik, P.,** & Sarkar, R. (2023). Gamma function based ensemble of CNN models for breast cancer detection in histopathology images. Expert Systems with Applications, 213, 119022.

7. Bagchi, A., **Pramanik, P.,** & Sarkar, R. (2022). A multi-stage approach to breast cancer classification using histopathology images. Diagnostics, 13(1), 126.

B. Published papers in Seminars/Symposia/Conferences:

1. Roy, A., **Pramanik, P.**, Ghosal, S., Valenkova, D., Kaplun, D., & Sarkar, R. (2024, July). GRU-Net: Gaussian Attention Aided Dense Skip Connection Based MultiResUNet for Breast Histopathology Image Segmentation. In Annual Conference on Medical Image Understanding and Analysis (pp. 300-313). Cham: Springer Nature Switzerland.
2. Chakraborty, S., Roy, A., **Pramanik, P.**, Valenkova, D., & Sarkar, R. (2024, June). A Dual Attention-aided DenseNet-121 for Classification of Glaucoma from Fundus Images. In 2024 13th Mediterranean Conference on Embedded Computing (MECO) (pp. 1-4). IEEE.
3. Roy, A., **Pramanik, P.**, Kaplun, D., Antonov, S., & Sarkar, R. (2024, May). AWGUNET: Attention-aided wavelet guided u-net for nuclei segmentation in histopathology images. In 2024 IEEE International Symposium on Biomedical Imaging (ISBI) (pp. 1-4). IEEE.

C. Published Books / Chapters in Books:

1. **Pramanik, P**., Pramanik, R., Naskar, A., Mirjalili, S., & Sarkar, R. (2024). U-WOA: an unsupervised whale optimization algorithm based deep feature selection method for cancer detection in breast ultrasound images. In *Handbook of Whale Optimization Algorithm* (pp. 179-191). Academic Press.

D. Participation in Seminars/Symposia/Conferences/Workshops:

- **Patents (if any):** Nil
- **Awards (if any):**

1. Received University Gold Medal for securing First class First position at M.E. level from Jadavpur University in 2019.
2. Qualified National Eligibility Test (NET) with JRF twice (2018 and 2019).
3. Received GATE fellowship from 2017 to 2019.