Stanford

Elima Hussain

Postdoctoral Scholar, Radiology

Bio

BIO

Postdoctoral scholar at Stanford University | AI in Medical Imaging

HONORS AND AWARDS

- BRICS Young Scientist Award 2021, Department of Science and Technology, Government of India (2021)
- Winner of FAME BIOTECH 2021 Hackathon, Bionest-IASST (2021)
- Finalist BIRAC SITARE GYTI award 2021, Department of Biotechnology, Government of India (2021)
- Finalist in BIRAC BIG NER 2 Grant call 2022, BIRAC, Department of Biotechnology, Government of India (2022)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, BRICS Young Scientist Forum (2021 - present)
- Advisor, Rognidaan Technologies Private Limited- A Biomedical Artificial Intelligence Start-up in North-East India (2023 - present)

PROFESSIONAL EDUCATION

- Bachelor of Technology, Gauhati University , IT (2013)
- Master of Technology, Gauhati University , IT (2015)
- Doctor of Philosophy, Institute of Advanced Study in Science and Technology, DST, Government of India and Gauhati University (2023)

STANFORD ADVISORS

- Mirabela Rusu, Postdoctoral Faculty Sponsor

LINKS

- Google Scholar: https://scholar.google.com/citations?user=JBRtusEAAAAJ
- Linkedin: https://www.linkedin.com/in/elima-hussain-6a0a7257/?originalSubdomain=in
- Laboratory for Integrative Personalized Medicine: https://med.stanford.edu/rusulab

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Explainable AI and Federated Learning

LAB AFFILIATIONS

- Mirabela Rusu, Laboratory for Integrative Personalized Medicine (6/1/2024)

Publications

PUBLICATIONS

- **Exploring explainable artificial intelligence techniques for evaluating cervical intraepithelial neoplasia (CIN) diagnosis using colposcopy images** *Expert Systems with Applications*
  Hussain, E., Mahanta, . B., Borbora, . A., Bora, H., Choudhury, . S., et al
  2024

- **A Study on Effects of Different Image Enhancement Techniques on Cervical Colposcopy Images** *International Conference on Artificial Intelligence and Sustainable Engineering*
  Hussain, E., Mahanta, L. B., Borbora, K. A., Shah, A., Subhasini, D., Das, T., et al
  Springer, Singapore.2022: 303-313

- **IHC-Net: A fully convolutional neural network for automated nuclear segmentation and ensemble classification for Allred scoring in breast pathology** *APPLIED SOFT COMPUTING*
  Mahanta, L. B., Hussain, E., Das, N., Kakoti, L., Chowdhury, M.
  2021; 103

- **AIM and Cervical Cancer** *Artificial Intelligence in Medicine*
  Mahanta, L., Hussain, E., Bora, K.
  edited by Lidströmer, ., Ashrafian, H.
  Springer, Cham.2021; 1

- **A comprehensive study on the multi-class cervical cancer diagnostic prediction on pap smear images using a fusion-based decision from ensemble deep convolutional neural network** *TISSUE & CELL*
  Hussain, E., Mahanta, L. B., Das, C., Talukdar, R.
  2020; 65: 101347

- **Automated classification of cells into multiple classes in epithelial tissue of oral squamous cell carcinoma using transfer learning and convolutional neural network** *NEURAL NETWORKS*
  Das, N., Hussain, E., Mahanta, L. B.
  2020; 128: 47-60

- **A shape context fully convolutional neural network for segmentation and classification of cervical nuclei in Pap smear images** *ARTIFICIAL INTELLIGENCE IN MEDICINE*
  Hussain, E., Mahanta, L. B., Das, C., Choudhury, M., Chowdhury, M.
  2020; 107: 101897

- **Liquid based-cytology Pap smear dataset for automated multi-class diagnosis of pre-cancerous and cervical cancer lesions** *DATA IN BRIEF*
  Hussain, E., Mahanta, L. B., Borah, H., Das, C.
  2020; 30: 105589

- **A Study on Epidemiological Factors and its Association with Pathological Findings for Precancerous Symptoms of Cervical Cancer** *Indian Journal of Public Health Research & Development*
  Das, C. R., Mahanta, L. B., Borah, H., Hussain, E., Devi, A., Choudhary, M., Adhikari, A. C., et al
  2019; 10 (12)