NITER

Umme Sara

Computer Science and Engineering

Bio

Umme Sara is a faculty of computer science and engineering department at National Institute of Textile Engineering & Research (NITER). At now, she is serving as head of the department of computer science and engineering.

She holds her bachelor and master's degree from the department of CSE of Jahangirnagar University in 2014 and 2016 respectively. Currently she is an ongoing PhD researcher at the same institution. Her research area includes computer vision system, digital image processing, machine learning and data science.

Sara began working as a lecturer in this institution in October 2015.Before joining at NITER, she served as a lecturer at Gono University, Savar, Dhaka. She has also been the Superintendent of NITER Female Hostel's since 2020. Umme Sara is currently the member of NITER Coordination & Development Committee.

Google Scholar | Research Gate | LinkedIn

Education

Degree Name	Group/Major Subject	Board/Institute	Country	Passing Year
PhD	CSE (Image Feature Classification and Ranking)	Jahangirnagar University	Bangladesh	on-going
Masters of Science	CSE (Image Processing)	Jahangirnagar University	Bangladesh	2016

Experience

Job Title	Organization	Location	From Date	To Date
Lecturer	Gono Bishwabidyalaya	Savar,Dhaka	13th March, 2014	12th October, 2015
Lecturer	National Institute of Textile Engineering and Research (NITER) - CSE	Nayarhat,Savar,Dhaka	13th October, 2015	02nd March, 2020
Assistant Professor	National Institute of Textile Engineering and Research (NITER) - CSE	Nayarhat,Savar,Dhaka	03rd March, 2020	Continued
Head of the Dept.	National Institute of Textile Engineering and Research (NITER) - CSE	Nayarhat,Savar,Dhaka	28th September ,2021	Continued
Hostel Superintendant	National Institute of Textile Engineering and Research (NITER) – Female Hostel	Nayarhat,Savar,Dhaka	12th March, 2020	Continued

Research Activities

Research Interest

Subject	Description	Research Interest (Goal/ Target Indicator)
Automatic Disease Detection (Vegetables and Agricultural Crops)	Digital image processing, Pattern Recognition, Feature Extraction Texture Analysis and image quality analysis on vegetables and agricultural crops image data	PhD program Curriculum
Computer Vision System	Computer Vision System to disease diagnosis and fault detection using machine learning and Deep Learning approach	Current Research proposal Title-1

Pattern Recognition System	Using Pattern Recognition and classification to extract features and ranking them to diagnose successfully the diseases of vegetables and Agricultural	Current Research proposal Title-2

Publications

Journal Article

SL. No-	Article Name	Link
1	Image quality assessment through FSIM, SSIM, MSE and PSNR—a comparative study	Doi: 10.4236/jcc.2019.73002 (Web of Science (Clarivate Analytics))
2	An extensive sunflower dataset representation for successful identification and classification of sunflower diseases	https://www.sciencedirect.com/science/article/pii/S2352340922002542 (Elsevier) https://doi.org/10.1016/j.dib.2022.108043
3	VegNet: An organized dataset of cauliflower disease for a sustainable agro-based automation system	https://www.sciencedirect.com/science/article/pii/S2352340922006199 (Elsevier) https://doi.org/10.1016/j.dib.2022.108422
4	SGBBA: An Efficient Method for Prediction System in Machine Learning using Imbalance Dataset	10.14569/IJACSA.2021.0120351 (Scopus)
5	DistB-SDoIndustry: Enhancing Security in Industry 4.0 Services based on Distributed Blockchain through Software Defined Networking-IoT Enabled Architecture	10.14569/IJACSA.2020.0110980 (Scopus)
6	A comprehensive guava leaves and fruits dataset for guava disease recognition	https://www.sciencedirect.com/science/article/pii/S235234092200378X (Elsevier) https://doi.org/10.1016/j.dib.2022.108174
7	On the Integration of Blockchain and SDN: Overview, Applications, and Future Perspectives	https://link.springer.com/article/10.1007/s10922-022-09682-4 (Springer)
8	Towards the development of an energy-efficient smart home through IoT	DOI:10.19101/IJATEE.2019.650052 (Scopus)

Conference Proceedings

SL. No-	Paper Name	Link
1	Utilization of Five-Distinct Dataset to Diagnose and Predict Heart Disease: A Machine Learning Approach	https://ieeexplore.ieee.org/abstract/document/9984443
2.	A machine learning approach to detect the brain stroke disease	https://ieeexplore.ieee.org/abstract/document/9716345

Contact

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Institute – Faculty
Name of the Department: Computer Science and Engineering
Position: Assistant Professor and Head of the Department