Eftekhar Hossain

ASSISTANT PROFESSOR,

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

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Research Interest

Natural Language Processing, Computer Vision, and Multimodal Deep Learning.

Employment

2022 – · · · ·	**Asst. Professor,** Department of Electronics and Telecommunication Engineering (ETE), *Chittagong University of Engineering and Technology (CUET), Bangladesh.*
2019 – 2022	**Lecturer,** Department of Electronics and Telecommunication Engineering (ETE), *Chittagong University of Engineering and Technology (CUET), Bangladesh.*
2018 – 2019	**Lecturer,** Department of Electrical & Electronic Engineering, *Premier University, Bangladesh.*

Education

2014 – 2018	**B.Sc. in Electronics and Telecommunication Engineering** *Chittagong University of Engineering and Technology, Bangladesh.* **CGPA:** *3.88/4.0,* **Merit Position:** 1st
2021 – 2023	**MSc. in Electronics and Telecommunication Engineering** *Chittagong University of Engineering and Technology, Bangladesh.* **CGPA:** *4.0/4.0* **Thesis:** Investigating Multimodal Features to Identify Multilingual Offense from Social Media Memes

Research Publications

1   **Eftekhar Hossain**, Omar Sharif, Mohammed Moshiul Hoque, and Sarah M Preum. "Deciphering Hate: Identifying Hateful Memes and Their Targets". **PREPRINT**. 2024.

2   Shawly Ahsan*, **Eftekhar Hossain***, et al. "A Multimodal Framework to Detect Target Aware Aggression in Memes". **EACL**. 2024.

3   **Eftekhar Hossain**, Omar Sharif, Mohammed Moshiul Hoque, and Sarah M Preum. "Align before Attend: Aligning Visual and Textual Features for Multimodal Hateful Content Detection". **EACL-SRW**. 2024.

4   **Eftekhar Hossain**, Omar Sharif and Mohammed Moshiul Hoque. "MUTE: A Multimodal Dataset for Detecting Hateful Memes". **AACL-SRW**. 2022.

5   **Eftekhar Hossain**, Omar Sharif, Mohammed Moshiul Hoque. "MemoSen: A Multimodal Dataset for Sentiment Analysis of Memes". *Language Resources and Evaluation Conference (**LREC**).* 2022.

6   **Eftekhar Hossain**, Mohammed Moshiul Hoque, Enamul Hoque and Md. Saiful Islam. "A Deep Attentive Multimodal Learning Approach for Disaster Identification from Social Media Posts". **IEEE ACCESS (Q1, IF-3.367)**. 2022.

7 Omar Sharif, **Eftekhar Hossain**, Mohammed Moshiul Hoque. "M-BAD: A Multilabel Dataset for Detecting Aggressive Texts and Their Targets". *CONSTRAINT Workshop (**ACL**)*. **2022**.

8 **Eftekhar Hossain**, Omar Sharif, Mohammed Moshiul Hoque. "Identification of Multilingual Offense and Troll from Social Media Memes using Weighted Ensemble of Multimodal Features". *Journal of King Saud University-Computer and Information Sciences*. **Elsevier (Q1, IF-13.473)**, **2022**.

9 **Eftekhar Hossain**, Omar Sharif and Mohammed Moshiul Hoque. "Investigating Visual and Textual Features to Identify Trolls from Multimodal Social Media Memes". *Shared Task Description Paper in Workshop on Speech and Language Technologies for Dravidian Languages (**EACL**)*. **2021**.

10 **Eftekhar Hossain**, Omar Sharif, Mohammed Moshiul Hoque. "Multilingual Code-Mixed Hope Speech Detection using Cross-lingual Representation Learner". *Shared Task Description Paper in Workshop On Language Technology For Equality, Diversity, Inclusion (**EACL**)*. **2021**.

11 Omar Sharif, **Eftekhar Hossain** and Mohammed Moshiul Hoque. "Offensive Language Detection from Multilingual Code-Mixed Text using Transformers". *Shared Task Description Paper in Workshop on Speech and Language Technologies for Dravidian Languages (**EACL**)*. **2021**.

12 Omar Sharif, **Eftekhar Hossain**, Mohammed Moshiul Hoque. "Combating Hostility: Covid-19 Fake News and Hostile Post Detection in Social Media". *Shared Task Description Paper in CONSTRAINT Workshop (**AAAI**)*. **2021**.

To get full list of publications visit my Google Scholar

Technical Skills

Languages	Python, C, Matlab, C++
Machine Learning	Scikit-Learn, Tensorflow, Keras, PyTorch
Data Science	Pandas, Seaborn, Numpy, Beautiful Soup
Web Development	Flask, Bootstrap, PHP, MySQL.
Electronics	Proteus, Micro-controller, Mickro C, PicKit.
IDE & Tools	Jupyter, Spyder, LaTeX, Hugo.

Undergraduate Projects

Final Year Thesis	Developed a System that Can Detect Cancer From Bone MR Images Using Neural Network and Neuro Fuzzy Classifier. **Skills Used:** *MATLAB, Image Processing, Machine Learning.*
Web Dev Project	Developed An Online Based Semester Registration System **Skills Used:** *HTML, CSS, SQL, PHP, Xampp*
Electronics Project	Designed a Heart Beat Rate Monitoring System **Skills Used:** *Proteus, MikroC, PicKit*

Misc

Awards and Achievements

2023	**Best Research Award**, Faculty of ECE, CUET.
2021	**Winner**, Hope speech detection shared task, EACL-2021.
	2nd Runner-up, Multimodal troll meme detection and offensive language classification shared task, EACL-2021
2016	**Merit Award**, Obtained Highest CGPA in an Academic Year, CUET.
2017	**1st Prize**, Project Show competition, CUET
	Best Web Development Project Award, CUET.

Certification

June-2020	**Natural Language Processing Nanodegree**,*Udacity.*
April-2020	**IBM AI Engineering Professional Certificate**, *Coursera.*
March-2020	**TensorFlow: Data and Deployment Specialization**, *Coursera.*
Oct-2019	**DeepLearning.AI TensorFlow Developer Specialization**, *Coursera.*
Sep-2019	**Deep Learning Specialization**, *Coursera.*

Teaching

2022	Computer Programming (CSE 181) Object Oriented Programming (CSE 284)
2021	Neural and Fuzzy Systems (ETE 455) Multimedia Communication (ETE 407)
2020	Data Structure and Algorithms (CSE 281) Information Theory and Coding (ETE 311) Antenna and Wave Propagation (ETE 317).
2019	Signal and System (EEE 201) Electrical Circuits-I (EEE 101).
2018	Cellular Mobile Communication (EEE 435).

Conducted Training

Feb-2024	**Short Training on Machine Learning with Python**, *CUET IT Bussiness Incubator.*
Feb-2023	**Hands on Training on Bangla Language Processing**, 2nd *International Workshop on Computational Linguistics and Bangla Language Processing (CLBLP).*
Oct-2022	**Machine Learning with Python**, *CUET IT Bussiness Incubator.*
June-2022	**AI and Machine Learning with Python**,*CUET IT Bussiness Incubator.*

Test Scores

GRE	**Overall**-306 (Q-163, V-143)
IELTS	**Overall**-6.5 (L-7, R-7.5, W-6, S-6)