

Angkon Biswas

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🌐 Angkon Biswas | 🌐 <https://sites.google.com/view/angkonbiswas>

Education

Purdue University Aug 2024 - Present
PhD in Biomedical Engineering

Bangladesh University of Engineering & Technology Mar 2018 - Apr 2023
B.S. in Biomedical Engineering CGPA: 3.72/4.0

Research Interest

- Biomedical Imaging
- Biofluid Mechanics
- Deep learning
- Computer Vision
- Particle Imaging Velocimetry
- Computational Fluid Dynamics
- Finite Element Analysis
- Fluid-Structure Interaction

Research Experience

Research Assistant: April 2019 – January 2024

BioInnovation Research Group, Department of Biomedical Engineering, BUET

Graduate Research Assistant: August 2024 – Ongoing

Vlachos Research Group, Purdue University

Publications

Conference Proceedings:

Biswas, A., Azam, M. G., & Arafat, M. T. (2024). Study of Navier-Stokes informed neural networks to predict wall shear stress on left coronary artery. *SSRN Electronic Journal*. DOI: [10.2139/ssrn.4932304](https://doi.org/10.2139/ssrn.4932304)

Academic Projects

Fetal Movement Counter | [Report](#) | [Presentation](#) **2022**

- Programming and construction of the wearable belt with Gyro-accelerometer sensor .
- Incorporated ML algorithm to detect abnormal fetal movement rate.

Hand Gesture Recognition Based on Surface Electromyography | [Report](#) **2021**

- We proposed a common statistical feature extraction based approach on the time domain using variance, combined with a Random Forest Classifier which acquires an average of 74.99% accuracy on open source hand gesture data.
- Statistical comparison shows our algorithm outperforms PCA and DNN algorithm implied on the same dataset.

Emergency Evacuation Chair | [Report](#) **2021**

- Novel SOLIDWORKS model design.

Technical Skills

Programming Languages: Python, MATLAB, C/C++, Arduino, L^AT_EX

Simulation: Ansys, COMSOL, Simulink, Solidworks, Mimics, 3-Matic

Graphing & Reference Softwares: OriginLab, Mendeley, EndNote

Hardware skills: Arduino, Microcontroller

Others: Microsoft Office, Adobe Illustrator, Adobe Photoshop, Adobe Premiere Pro

Training

Industrial Attachment Program for Biomedical Engineer **June 2022**

Beximco Health & PPE, Beximco Industrial Park, Dhaka

- Detailed knowledge of manufacturing medical equipment, PPE and masks.
- Acquaintance with professional work environment.

Awards & Honors

Dean's List Award for Excellent Scholarly Achievement **2018-2019**

Bangladesh University of Engineering & Technology, Dhaka

Level 1-2

Higher Secondary School Certificate National Board Scholarship **2017**

Secondary School Certificate National Board Scholarship **2015**

Leadership & Extracurricular

Coordinator (Logistics), BUET Photographic Society **April 2022**

Bangladesh University of Engineering and Technology, Dhaka