

MD HEDAYETUL ISLAM CHY

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I am an electrical engineer with a specialization in embedded systems, bio-surface modeling, medical image processing and machine learning. Currently, I'm fully captivated in the fields of medical image analysis, noninvasive medical technology and biomedical engineering, where I harness my expertise to drive innovation and make a positive impact.

EDUCATION

M.S. Engineering in Electrical and Electronic Engineering , University of Chittagong <i>CGPA: 3.38/4.00 (Till second semester)</i>	Ongoing
B.Sc. Engineering in Electrical and Electronic Engineering , University of Chittagong <i>CGPA: 3.36/4.00</i>	2017 - 2021

THESIS AND PROJECT

Design, Fabrication and Performance Analysis of Anti-splashing Surface	Jan 2022 - Feb 2024
<ul style="list-style-type: none">Designed 3D printed surfaces to reduce fluid splashing and investigated simulations through Ansys Fluent.The Volume of Fluid (VoF) method was used for the optimization process.The finalized structured model is almost 69% more effective than the flat surface model.	

Covid-19 ICU Monitoring	Aug 2020 - Mar 2021
<ul style="list-style-type: none">A system that assists hospital personnel in real-time monitoring of patients' bedside displays from a non-covid space. Experienced how a project becomes a product.Developed a Python Wrapper for conducting image processing and character recognition algorithms.Esp-32 camera for capturing image and send using TCP/IP protocol.Devised an cross-platform application that maintain communication with server.	

PUBLICATIONS

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- Md Hedayetul Islam Chy**, Riya Biswas, Md Fazlul Kader, Mohammad Arif Iftakher Mahmood, "*Design optimization of anti-splashing targets and simulation of droplet impact on it.*" - Physics of Fluids, 36(1).

AWARD AND TRAINING

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- ICT Division Fellowship, awarded by the Government of the People's Republic of Bangladesh, to support research in the field of bio-surface, 2022
 - Former trainee, Ghorashal Training Center, Bangladesh Power Development Board, Palash, Narsingdi, 2021
 - One of the top three team selected for National Hackathon 2019, Title: AI and ML recognized stereo camera for Occupational Health and Safety

TECHNICAL SKILLS

Electrical & Mechanical	PSpice, Proteus, Diptrace, Solidworks3D, Ansys Fluent
Coding	Python, MATLAB, Dart
Microcontrollers	Raspberry pi, Esp32-cam, TTGO camera plus, Arduino
ML/DL	Tensorflow, Keras, Scikit-Learn, Reinforcement Learning
Visualization	OpenCV, OriginPro, ParaView etc
Web server & OS	Flask, Django, UbuntuOS, KaliOS, Raspbian
Others	Flutter, Illustrator, Microsoft Azure services, Virtual machine, GCP, Docker etc.