Curriculum Vitae

Personal Information

Name: M A Hafiz
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Education

Present- Thesis going on	M.Sc. in Medizintechnik, Friedrich-Alexander-Universität Erlangen-Nürnberg	Master's Thesis – Intuitive Control of Franka Robotic Arm Using Hand Gesture. (**Mujoco Simulation** and Implementation)
12/2018	B.Sc. in Electrical and Electronic Engineering, Chittagong University of Engineering & Technology (CUET), Bangladesh	German Grade: 1.9 Thesis Grade: 1.0

Professional Experience

05/2024 – 03/2025	Research Assistant FAPS (Institute for Factory Automation and Production Systems), FAU Erlangen-Nürnberg	1. Designed and developed a web app for social robotics, integrating frontend and backend functionalities to assist researchers. 2. Conceptualized and prototyped an acceptance model to evaluate human-robot interaction.
04/2021 – 04/2022	Lecturer Premier University, Chattogram, Bangladesh	1. Conducted theory courses: Signals and Systems, Electronics, Digital Logic Design. 2. Led lab sessions: MATLAB, Python, Microprocessor & Microcontroller.
04/2019 – 03/2021	Engineer Abul Khair Steel & Power Ltd, Chattogram, Bangladesh	1. Developed sensors and diagnosed abnormalities in **Rolls Royce Gas** Engines. 2. Scheduled maintenance of engines.

Internship

09/2023	EXCITE Zurich Summer School on Biomedical Imaging ETH Zurich, Switzerland	Focused on state-of-the-art biomedical imaging technologies.
25/02/2017 – 16/03/2017	Industrial Technology in Electrical Engineering and Instrumentation TICI, Narshingdi, Bangladesh	Gained hands-on training in industrial instrumentation and electrical engineering practices.

Projects

Various Academic and Personal Projects	Mine Sweeping Robot using Raspberry Pi. Fighting Robot (Python). Car speed measurement device (Microcontroller). Automatic plant irrigation system (Arduino). EMG signal analysis to identify healthy subjects (MATLAB). Banking distress prediction (MATLAB). n-bit comparator design using Cadence Virtuoso (VHDL).

Skills

Programming	C, C++, C#, Python, MATLAB, VHDL, SQL
PCB Design	Proteus, ISIS
Simulation	Mujoco, Gazebo
Software	PyCharm, PyTorch ROS, Simulink, MATLAB, Cadence, AutoCAD
Microcontrollers	PIC, Arduino, Raspberry Pi, ESP32
Debugging Tools	Logic Analyzer, Oscilloscope
Operating Systems	Windows, Linux
Version Control	Git, GitHub

Publications

2021	Implementation of non-contact bed embedded BCG signal measurement and valvular disease detection from this BCG signal	Hafiz, M.A., Hashem, A.M., Khan, A.A.S., Rashid, M.H., Faruqui, M.A.K. "International Journal of Medical Engineering and Informatics, Vol. 13, No. 4, pp. 289–296"
2021	Diagnosis of Malignant Melanoma using Color and Textural Features from Dermoscopic Images	Shahrin Akter, Joynob Binte Ahmed, M. A. Hafiz, Nusrat Jahan "International Conference on Big Data, IoT and Machine Learning (BIM 2021), Sept 23–25, 2021"

Language

Bengali	First Language	German	A2
English	Fluent		