

Abrar Fahim

Address: Brooklyn, NY

Mobile: +13474583411 | Email: abrarfahim.afi@gmail.com

LinkedIn: www.linkedin.com/in/abrar-fahim-1610522043/

EDUCATION

M.S. in Electrical Engineering, *New York University*

Sep '21

Relevant Courses: Real-Time Embedded Systems, Computing Systems Architecture, Introduction to VLSI System Design, Digital Signal Processing, Internet Architecture and Protocol, Fundamentals of Analog Integrated Circuits Design (Ongoing), VLSI System & Architecture Design (Ongoing)

B.Sc. in Electrical and Electronic Engineering, *North South University*

Jan '16 – Dec '19

CGPA: 3.91/4.00 (*Summa Cum Laude*)

Relevant Courses: Electrical Circuits, Analog & Digital Circuits, Data Communication & Computer Networks, Mobile & Wireless Communications, Fiber-Optic Communication Systems

PROFESSIONAL EXPERIENCE

Lab Officer (Part-Time)

Feb '20 – Jun '21

Dept. Electrical & Computer Engineering, North South University

- Conducted lab classes and experiments for CSE115L: Programming Language I Lab, EEE111L: Analog Electronics Lab, and EEE342L: Control Engineering Lab.
- Developed course materials and curricula for the lab classes.
- Formulated questions for lab exams and experiments.
- Assessed exam copies and assisted the course instructor in grading.

Undergraduate Teaching Assistant

Jan '19 – May '19

Dept. Electrical & Computer Engineering, North South University

- Tutored undergraduate students of EEE141: Electrical Circuits I outside class time.
- Provided support to the course instructor with grading copies and developing the syllabus.

TECHNICAL SKILLS

- Programming Languages & HDL:** C, Python, MATLAB, Assembly Language (RISC-V), SystemVerilog, VHDL
- Circuit Simulation Software:** Cadence Virtuoso, VCS, Ni Multisim, PSpice, LTspice, Simulink, ModelSim
- MCU/Development Board:** Arduino, RaspberryPI, STM32F429 Discovery Kit, HiFive1 Rev B
- Test Equipment:** DMM, Oscilloscope, Signal Generator, Light Runner (Fiber Optic Test Bench)
- Presentation & Documentation Tools:** M.S. Word, Excel, PowerPoint, Keynote, Numbers

PUBLICATIONS

- A Fahim**, M. A. Chowdhury, M. Hasan, and M. F. Alam, "Smart parking systems: a comprehensive review based on various aspects," *Heliyon*, Volume 7, Issue 5, 2021, e07050, ISSN 2405-8440, <https://doi.org/10.1016/j.heliyon.2021.e07050>.
- A Fahim**, M. A. Chowdhury, M. F. Alam, F. Elahi, E. C. Shourov and M. Hasan, "Smart Transformer Theft Protection and Maintenance Monitoring System," 2021 2nd International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST), Dhaka, Bangladesh, 2021, pp. 607-612, doi: 10.1109/ICREST51555.2021.9331157.

PROJECT & RESEARCH

- KeySynth: A keyboard synthesizer with audio wave visualization and parameter changing tool.
- Embedded Challenge: Designed a system based on STM32F429 Discovery Board to detect Sudden Infant Death Syndrome (SIDS) utilizing a long flex sensor.
- Senior Design Project: EnvironMentric: A Standalone Pipeline to Collect, Process, Archive, Analyze & Visualize Atmospheric Pollutants.
- Junior Design Project: Sun Light Tracking Solar Panel with Real-Time Power Logger
- Directed Research: Position Estimation of a UAV Using 9 DOF IMU & GPS

ACHIEVEMENTS

- Merit-Based Scholarship, Tandon School of Engineering (2021)
- Champion, NSU ACM Innovation Challenge Season Nine (2019)

REFERENCES

- Dr. Shahnewaz Siddique**
Assistant Professor, North South University, Dhaka, Bangladesh. Email: shahnewaz.siddique@northsouth.edu