

# Apurba Sharma

[apurbasharma1996@gmail.com](mailto:apurbasharma1996@gmail.com)

(347) 605-9749

## Education

State University of New York (SUNY) at New Paltz, New Paltz, NY

December 2018

Bachelor of Science, **Electrical Engineering**

**Awards:** Dean's List Spring 2017 & Spring 2018

## Relevant Coursework

Electric Energy Systems, Communication Systems, Microwave Engineering, Digital System Design

## Technical Skills and Proficiencies

**Skills:** Circuit Design, Control Systems, Analysis (Circuit & Logic Diagrams), Microwave Engineering (Design of Radio-Frequency Circuits)

**Tools:** Advanced Design System (ADS), PSpice Design Manager, Agilent Measurement, MATLAB, LVDAC-EMS, Microsoft Office, Quartus II

## Projects

### **Senior Design Project: "Experimental Water Tunnel"**

January 2018 – December 2018

- Designed an electrical schematic for a water tunnel system using PSpice Design Manager and referenced this design to develop a Variable Frequency Drive (VFD) control system.
- Created a MATLAB GUI script to display acquired data and control VFD operation.
- Calculated proper wires sizes for a three phase VFD and water pump to handle current flow.

### **Microwave engineering: "Power Dividers"**

August 2018 – December 2018

- Designed Resistive, T-junction and Wilkinson Power Dividers using ADS and tested the power dividers using Keysight FieldFox RF analyzer.
- Designed and constructed a stepped impedance low pass filter with ADS using the principle of lumped-element circuit and transforming it to a distributed elements circuit.

### **Electronics: "Common Emitter Amplifier"**

January 2018 - May 2018

- Built a Common-Emitter Amplifier design for the purpose of stable and optimum biasing
- Created a high frequency CE Amplifier and low frequency CE Amplifier circuit to observe frequency behavior

## Presentation

### **"Energy Harvesting of Vortex-inducing Auto rotated 3D-printed turbines"**

April 28<sup>th</sup>, 2018

Presented at ASEE 2018 Northeast Section Conference held at University of Hartford, Connecticut

- Created an Arduino data acquisition system to record power produced by a DC motor.
- Developed an application to record produced power and voltage using MATLAB.

## Research Experience

May 2018 – June 2018

**Research Assistant**, Dr. Rachmadian Wulandana, SUNY New Paltz, New Paltz, NY

- Spent two weeks recording temperature data of a Heat Sync using an infrared temperature sensor.

## Leadership Experience

**Peer Mentor**, Scholars Mentorship Program, SUNY New Paltz, New Paltz, NY

January 2015 – May 2015

- Acted as a resource for three freshmen peer mentees and created a friendly environment for them.