

Mukesh Ghimire

mghimire@go.olemiss.edu | 662.202.2139 | ghimiremukesh.github.io

EDUCATION

THE UNIVERSITY OF MISSISSIPPI | MAY 2020

BS IN MECHANICAL ENGINEERING, 3.98 GPA

Minors: Computer Science, Mathematics

EXPERIENCE

UNDERGRADUATE LAB ASSISTANT | MAY 2019 - JUNE 2019

COMPOSITE MATERIALS RESEARCH LAB - Ole Miss

Manufactured carbon-fiber composites using the process of Pultrusion. Different combinations of resins and epoxy were used to manufacture composites with carbon-fiber as the main component. Compressive strength tests were carried out on the samples.

STEM CAMP COUNSELOR | SUMMER 2018

Conducted Several STEM related camps such as Programming, Biology, Game Development and several others throughout the summer and performed demonstrations such as projectile motion, heat transfer, 3D-printing.

SUMMER STUDENT RESEARCHER | SUMMER 2017

Studied Cannabinoid-I (CB-I) and Cannabinoid-II (CB-II) compounds and read relevant research papers with reported activity of those compounds to create a database.

Database Link: cb.olemiss.edu

RELEVANT COURSEWORK

Thermo-Fluid Dynamics, Elements of Propulsion, Heat Transfer, Mechanical Design, Fluid Mechanics, Mechanics of Materials, Dynamic Systems Modeling and Simulation, Engineering Analysis, Mechatronics

PROJECTS

ACTIVE FLOW CONTROL | 2018 - Current

Attempt to minimize flow separation on aircraft wings by attaching actuators on the wing surface which provide enough energy to the flow to maintain continuity.

SPLIT HOPKINSON PRESSURE BAR | 2018 - Current

Split Hopkinson Pressure Bar Testing to understand failure of composites using high speed camera and image analysis. Different kinds of ballistics are analyzed.

FUEL ANALYSIS ON IDEAL SCRAMJET | Elements of Propulsion -2019

Performed parametric cycle analysis on Ideal Scramjet engine using three different fuels: JP-7, JP-8, and liquid hydrogen to compare the performance parameters: specific thrust and thrust-specific fuel consumption in order to determine the best possible fuel for operation.

SKILLS

Languages

Java, Python, C (Arduino), MATLAB, HTML, CSS

Tools

AutoCAD, SolidWorks, Inventor, Mathematica, Simulink

Platforms

Arduino, Raspberry Pi, Unix

LEADERSHIP

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME- Ole Miss Chapter)

Worked with faculty and students to form a team and participate in events like ASME Student Design Competition and demonstrate projects to the Introductory Mechanical Engineering Courses.

ROBOTICS CLUB

Member

Organized workshops for students from different majors interested in robotics about arduino. Group projects are assigned in the beginning of every academic year and demonstrated at the end.

VOLUNTEER at NEPSA

Helped organize several cultural events of Nepali Students'

Association with an aim to share the culture and traditions of Nepal with the community of Ole Miss and

Oxford.

AWARDS AND HONORS

- Academic Excellence Award (2016-2020) to attend Ole Miss

- Tau Beta Pi

- Phi Kappa Phi