Achyut Paudel

+1-509-715-7137
achyut.paudel@wsu.edu
/achyut-paudel

Education

Washington State University — Jan. 2021 – Present
PhD Agricultural Engineering (GPA 4/4 (current)) — *Pullman, WA*

Washington State University — Aug. 2018 – Dec. 2020
MS Mechanical Engineering (GPA 4/4) — *Pullman, WA*

Institute of Engineering, Thapathali Campus — Nov. 2012 – Sept. 2016
B.Eng.Mechanical Engineering (GPA 82.81/100) — *Kathmandu, Nepal*

Experience

Washington State University — Jan. 2021 – Present
Research Assistant — *Prosser, WA*

- Using stereo-vision camera to identify traits in an apple tree
- Development of Decision support system for fertilizer recommendation

Washington State University — Aug. 2018 – Dec. 2020
Research Assistant — *Pullman, WA*

- Used stereovision to calibrate large volume and track a shuttlecock to determine its aerodynamic properties using high speed cameras
- Analysed reponses of headforms on NOCSAE and Hybrid III headform using drop tower test

Himalaya College of Engineering — Nov. 2016 – July 2018
Assistant Lecturer — *Lalitpur, Nepal*

- Conducted theory and practical classes for Fundamentals of Heat and Thermodynamics, Workshop Technology, and Engineering Drawing
- Regular assessment and evaluation of students on the subject matter
- Design and development member of Himalaya-EV, an electric go-kart vehicle

Continental Service Pvt. Limited (Kia Motors) — Nov. 2015 – Dec. 2015
Mechanical Intern — *Kathmandu, Nepal*

- Worked alongside the technicians to figure out and solve the problems of the vehicles that were brought to the service center

Projects

Decision Support System for Fertilizer recommendation in apple orchard

- Image and point cloud processing to identify different traits of apple tree which correlate with Nitrogen content and use the output for fertilizer recommendation.

In-flight Shuttlecock Aerodynamics

- Using the images of the shuttlecock in-flight to determine the different aerodynamic properties of the shuttlecock

Courses

- **Robot Kinematics and Dynamics** (Final Project: Control of a Four-Wheeled Mobile Robot Using Image Processing using ROS with Raspberry Pi)
- **Machine Vision** (Final Project: Set up Convolutional Neural Network for MNIST and Cougar-Not a Cougar Data set in PyTorch framework)
- **Instrumentation and Measurements** (Final Project: Canopy density estimation of apple tree using stereoscopic camera)
- **Mechanics of Composite Materials**
- **Fracture Mechanics**
- **Probability and Statistical Models in Engineering** (Final Project: Modeling Motorcycle Fatalities in US (2009-2016))
- **Applied Mathematics**
- **Engineering Administration**

Skills and Competence

- **Programming Languages** Python, C
- **Robot Operating System (ROS)**
- **MATLAB**
- **AutoCAD, SolidWorks, ANSYS**
- **MS Office Suites**

References

Dr. Manoj Karkee
Associate Professor
Washington State University
manoj.karkee@wsu.edu
+1-509-786-9208

Dr. Lloyd V. Smith
Professor
Washington State University
lvsmith@wsu.edu
+1-509-335-3221

Jefferey Kensrud
Assistant Director, Sports Science Lab
Washington State University
jkensurd@wsu.edu
+1-509-335-4784