

# TILAK R. PANT

MTech (Research) Student, Materials Engineering  
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## **SUMMARY**

Dedicated mechanical engineer currently pursuing MTech (Research) in Materials Engineering at the Indian Institute of Science, Bangalore, with a research focus on the mechanical behavior of materials.

## **EXPERIENCE**



### **Course Instructor**

Korea-Nepal Polytechnic Institute, Butwal-12, Tamnagar  
Department of Automobile Engineering, Block C  
Jan 2023 – Jul 2024

**STRENGTH OF MATERIALS**

**ENGINEERING DYNAMICS**

**APPLIED MECHANICS**

**AUTOMOTIVE ELECTRONICS**

Managed the expectations of over 100 students. Wrote extensive lecture notes for the classes to ensure that the subject matter was clear and coherent. Created tutorials. Improved the course grading method so that individual students' contributions weigh more highly in their final result. Gave lectures. Implemented innovative teaching approaches to help students learn more effectively. Guided and mentored students' research and project work. Encouraged hands-on experience in the practical application of engineering principles. Developed and conducted quizzes, examinations, and practical assessments. Evaluated student performance and provided positive criticism to encourage academic improvement. Collaborated with other instructors and academic staff to improve course materials and teaching methods. Facilitated block meetings between the department and institute administrations.



### **Course Instructor**

Suklaphanta Polytechnic Institute, Jhalari, Kanchanpur  
May 2022 - Jan 2023 (9 months)



### **Claims Adjuster**

Nepal Engineering Surveyors Pvt. Ltd., Mid-Baneshwor, Kathmandu  
Mar 2021 - Apr 2022 (1 year 2 months)

Settled an insurance claim with one of the highest stated quantum of loss ever seen in Nepal's insurance business. Analyzed mechanical systems and assessed damages for insurance claims to ensure correct evaluations. Conducted site visits and inspections, documented findings, and wrote thorough reports. Collaborated with consumers, insurance agents, and legal professionals to expedite claim resolution. Used strong problem-solving abilities to uncover root reasons and propose appropriate remedies.



### **Engineer Intern**

MAW Enterprises Pvt. Ltd. (Skoda Service Station)  
Aug 2020 - Nov 2020 (4 months)

## **EDUCATION**



### **Indian Institute of Science (IISc)**

MTech (Research), Materials Engineering

Aug 2024 - Present

Research Interests: Mechanical Behavior of Materials



### **Kathmandu University (KU)**

Bachelor of Engineering - BE, Mechanical Engineering

February 2021, CGPA – 3.68/4.00 (Grade - A)

Batch: 2016 – 2020

Major: Automobile Engineering

Research Project: Performance comparison and analysis of CN-235 aircraft after adapting a winglet to clean wing, Project Supervisor: Prof. Dr. Bibek Baral

## **PUBLICATIONS**



### **Kathmandu University Journal of Science, Engineering, and Technology (KUSET)**

Conference [paper](#) as a Special Issue (Vol. 15, No. 2, August 2021) of KUSET. Paper title - “Aerodynamic performance analysis and evaluation of NACA 653-218 airfoiled aircraft at different blended winglet configurations”.

## **PROFESSIONAL DEVELOPMENT ACTIVITIES & CERTIFICATIONS**



**Instructional Skills (IS- I)** – Council for Technical Education and Vocational Training (CTEVT), May 2024



**Training Needs Assessment (TNA)** – Council for Technical Education and Vocational Training (CTEVT), November 2023



**Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization** – Coursera

GGW75DWEL8QL, June 29, 2023



**Neural Networks and Deep Learning** – Coursera

6GBBJMNLFEH5, September 24, 2022



**Participant in Shell Eco-Marathon Asia 2019, Malaysia** – Shell April 2019

Given to Team-Junkiri at Kathmandu University, of which I am a member. Shell Eco-marathon is an annual competition that challenges student teams from around the world to design, build and drive energy-efficient vehicles.



**CFD and OpenFOAM using supercomputer** – Association of Mechanical Engineering Students (AMES), July 2020

## **SKILLS AND INTERESTS**

• Teaching • Problem-solving • Laboratory Skills • Analytical Skills • MATLAB • Computational Analysis • Calculus • Linear Algebra • Prototyping and Fabrication • • Survey and Loss Adjustment • Technical Drawing and Blue Print Reading • Quality Control and Inspection

## **HONORS & AWARDS**

**Batch Topper** – Kathmandu University (KU)

Mar 2021

An honored recipient of the Batch Topper Award in the Bachelor of Engineering (BE) program, specializing in Mechanical Engineering. This prestigious recognition signifies the culmination of my academic journey and the dedication I have poured into my studies.

**Merit Based Scholarship** – Kathmandu University (KU)

Aug 2017

**Need Based Scholarship** – Kathmandu University (KU)

Mar 2018

**OTHER SERVICE****President** – Committee for Extracurricular Activities, Korea-Nepal Polytechnic Institute,

December 2023 to Jul 2024

**Author** – ENSSURE October 2023

Authored a trainer's and trainee's manual entitled "Auto Electrical and Electronics" based on the curriculum for Pre-Diploma in Automobile Engineering under CTEVT Nepal.

**Presenter** – Association of Mechanical Engineering Students (AMES) Feb 2021

Presented a paper entitled "Aerodynamic Performance Analysis and Evaluation of NACA 653-218 Airfoiled CN-235-220 Aircraft at Different Blended Winglet Configurations" at the first edition of the University Scholar Conference: Engineering and Innovation.

**Language Consultant** – what3words February 2020

Freelanced for what3words as language consultant of Nepali language.

**Editor** – Association of Mechanical Engineering Students (AMES) Bulletin Feb 2021**Volunteer** – Students' Welfare Council (SWC) – Kathmandu University (KU) Dec 2018

Organized Grand Welcome Ceremony for the first year students. Held the position of leader in the Tickets and Flyers section.