Vinay Dhakal

Mechanical Engineer

dhakalvinay@gmail.com 9867232552 Butwal-11, Rupandehi

EDUCATION

High School (+2, Science)	*80%*	2072-2074
The Times International College, Kathmandu		
Bachelor in Mechanical Engineering	*75.13%*	2074-2078
Thapathali Campus, IOE, Kathmandu		

PROFILE

Detail-oriented Mechanical Engineer with excellent technical skills in designing and simulation as well as profound knowledge in Quality Management Control of Product design. Seeking to enhance these skills and ready for any new challenge that the company offers.

PERSONAL DETAILS

Date of Birth : November 27th, 1999

Place of Birth : Butwal

Driver's License : Category B

LinkedIn : https://www.linkedin.com/in/vinaydhakal/

SKILLS

- SolidWorks
- AutoCAD
- ANSYS and ANSYS Fluent
- Excel Spreadsheet
- MS Word and PowerPoint
- Blogging
- Quality Control
- Learner attributes
- Team Work
- Reliable and Dedicated
- Communication skills
- Diligent and hardworking
- Time Management

HOBBIES

- Reading books, articles
- Playing cricket
- Blogging
- Travelling

ACHIVEMENTS

- Involved in different projects and programs being one of the Board members of the Science and Technology club in High School
- **Line Follower Robot** in Budhanilkantha Science Festival 2016 (4th position)
- Selected for project demonstration at JIGYASA 2019 event **(Lawn Mower)**
- Stood 2nd position in **Go Kart designing and racing competition** during MechTrix event at Pulchowk
- Selected for project competition and demonstration at Military Science and technology competition by Nepal Army recently **(Exoskeleton Arm)**
- Final year project on **Battery Thermal Management System (BTMS)** of Electric Vehicles.
- Finalist of **Hult Prize Competition** at HultatIOE in Feb 2022

TRAININGS

- Participated in a 7-day training session of **Boiler- its operation and safety** at Vocation and skill development training centre, Bhaisipati
- Participated in a 7-day training session on Designing software- **CATIA** organized by AMESIN in Thapathali Campus.
- Participated in a 7-day training session on Simulation Software - **ANSYS** organized by AMESIN in Thapathali Campus.

FINAL YEAR PROJECT

- "Design and simulation of the Li-ion battery and heat-pipe based cooling system using CFD modelling"

  Higher C rating is a critical for battery performance as thermal behavior is poor for high value of C rating hence proper cooling is required to maintain optimal temperature for battery operation.

- Thermal behaviour of single-cell: the core temperature was found to be higher than the surface temperature. The temperature difference between core and surface was found to be 0.2℃ to 0.3℃.
- Thermal behaviour of battery module: The cell near to the core was found to have a higher temperature than the cell around the outer boundary under natural convection. The temperature difference was found to be 0.5℃ to 2.5℃.
- Heat pipe-based cooling system: The cooling system designed was able to maintain the temperature range for the battery module between 25℃ and 34℃. The temperature range after cooling was 26.311℃ and 33.060℃ for Monoethylenglycol and 27.081℃ and 33.618℃ for Hydrofluroether.

COURSES

Operation Research

- Mathematical formulation of a Linear Programming problem and its graphical solution
- Regression and Time series analysis
- Risk analysis with CRYSTAL BALL
- Decision analysis

Quality Management

- Seven tools of Quality Control
- Statistical Quality Control
- Taguchi loss function and six sigma

Advance Mechanical Design

- Design against different types of failure
- Introduction to ergonomics and human design consideration
- Design for substitute materials