Suman Subedi

Student
M Sc Aerospace
at TUM

Email : sumansubedi644@gmail.com
Web. : http://sumansubedi644.github.io

Links

Github: **/sumansubedi644**
Linkedin: **/in/sumansubedi644**

Skills

Languages :	Nepali, English German (Basic+)
Prog. Languages :	Matlab, Simulink C++, Python
Software :	CatiaV5 SQL, MS Excel Adobe Suite
Tools :	Git, Pandas, LaTeX

Interests

Dynamics and Control
Computation
System Development and Safety

Mathematics
Computer Science
Brain-machine Interface
Music, Digital Art, and History

Education

2019-PRESENT
MSc Aerospace
TUM
Germany

2013-2017
BE Mechanical
Institute of Engineering
Tribhuvan University
Nepal

2010-2012
High School - Science
Sagarmatha HSS
Nepal

Certifications

Databases and SQL for Data Science by IBM

Experience

JAN 2018 - APRIL 2019 **National Innovation Center, Nepal.** — **Mechanical Engineer**

- Designed the UAVs (multicopter and fixed wing) with aerodynamic and structural considerations to confirm with specific functional mission requirements. Mission requirements were: 1 kg payload delivery to node health posts upto the distance of 25 km from hub at an average altitude of 3000m.
- Fabricated and tested the UAS for manual and automatic flight.
- Worked with Software Developers on flight guidance (visual based precision landing system) and feature integration (automatic startup during launch by catapult launcher and automatic payload jettison).
- Successfully presented the project proposal winning the UNICEF Innovation Fund.
- Worked with donors and partners in making the project self sustainable.

CatiaV5, XFLR5, CPACS, CEASIOM, GIS, Python, C++, Git, LaTeX

OCT/NOV 2016 **Middle Marshyangdi Hydropower Project** — **Intern**

- Seasonal inspection and maintenance of Dam and Desander.
- Reported the inspection results and conclusions.
- Worked with the staffs and the community for daily operation and maintenance.

Projects

2016-2017 **Modeling of Gas-Phase Combustion** — **Bachelor Thesis**

- Developed closed homogeneous constant pressure reactor and adiabatic premixed flow reactor solvers based on iterative Newton Method in Matlab.
- Studied transient characteristics of premixed hydrogen-air combustion involving 9 species and 20 chemical reactions using the developed solvers.
- Preliminary design of one-dimensional combustor for exit temperature control with inlet conditions and successive bypass air injection as input parameter.

Matlab, Fluent, CHEMKIN, LaTeX, MS Excel

2017 **Aircraft model development**

- 3D modeling and fabrication of a 1:6 scaled-down model of the Wright Flyer to showcase at the Aviation Museum, Kathmandu, Nepal.

Awards

2013 **Full-scholarship for Bachelor ME** — **Grant Winner**

Top 20th scholarship awardee among approx. 13,000 applicants.

2013 **Outstanding Academic Award**

For high school Science Batch 2011/12.

Additional Experiences

2017 **National Mechanical Engineering Exhibition** — **Design Lead**

Designed and controlled overall aesthetics and design-functionality of the event.

2016 **Post earthquake relief campaign (Nyano Initiative)** — **Lead**

Fundraising and distribution of clothes to the sufferers of 2015 Nepal Earthquake residing in rural settlements of Nepal.

Publication

- A.Acharya, S.Pokharel, S.Subedi, S.Lama, B.Bomjan, S. Bhattrai, Modeling of Fuel-Air Combustion with Detailed Reaction Mechanism and Thermodynamics, International Conference on Physics of Space and Materials (ICPSM) 2017, Nepal. [Poster Presentation] Aug 2017