

AJAY YADAV

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EDUCATION

Undergraduate (Bachelor in Civil Engineering) (2018 - 2023)

Pokhara University(PoU), Nepal Engineering College, Bhaktapur, Nepal

Cumulative CGPA- 3.9/4.00 (Dean List) Percentage - 87.85%

Departmental Rank- 2/196

Batch Rank - 3/480 (2018 batch)

RESEARCH AND REVIEW WORKS

1. S.C. Sapkota, Ajay Yadav, A. Khatri, T. Singh, D.Dahal (2024), “*Explainable hybridized ensemble machine learning for the prognosis of the compressive strength of recycled plastic-based sustainable concrete with a graphical interface*”, Multiscale and Multidisciplinary Modeling, Experiments and Design. <https://doi.org/10.1007/s41939-024-00567-4> (Q2, ESCI)

2. S.C., D. Dal, Ajay Yadav, D. Dhakal, S. Paudel (2025), “*Analyzing the behavior of geopolymer concrete (GPC) with different novel machine learning algorithms*”, Practice Periodical on Structural Design and Construction. <https://doi.org/10.1061/JSDCCC.SCENG-1724> (Q2, SCI)

3. S.C., D. Dahal, Ajay Yadav, D. Dhakal, Prof. R. K. Sharma PhD (2024), “*A review of a paradigm shifts to using potential corrosion inhibitors in reinforced concrete structures: ‘from conventional to botanical extracts’*”, Innovative Infrastructure Solutions. <https://doi.org/10.1007/s41062-025-01902-5> (Q2, ESCI)

4. Ajay Yadav, S.C.S, P.D, D.B, (2025), “*Climate Change Impact on Hydropower: A Comparative Study of SWAT and BiLSTM-Based River Discharge Forecasting in the Sunkoshi River Basin, Nepal*”, Bulletin of Computational Intelligence 2025. <https://doi.org/10.53941/bci.2025.100006>.

5. Ajay Yadav, D. Dahal, S.C. Sapkota, P. Dumre, B.K. Sah (2024), “*Experimental study on the mechanical properties of sustainable concrete using recycled plastic and glass waste*”, International Journal of Innovative Science and Research Technology. [10.38124/ijisrt/IJISRT24NOV406](https://doi.org/10.38124/ijisrt/IJISRT24NOV406)

WORK EXPERIENCE

- Fast track engineering institute (Jan 2024 - Dec 2024)

Working as a part-time lecturer at Fast track engineering institute since January 5th, 2024.

INTERNATIONAL PROGRAM PARTICIPATION

BHUTAN PLUS NEPAL SUSTAINABLE DEVELOPMENT GOALS (B+NeSDG) (2022-2023)

Co-Funded by Erasmus+ European Union

- **Project:** "Waste Water Management for Irrigation Purpose: A Case Study at Golmadhi Bhaktapur"
- **Role:** Field visits; data collection; report preparation and presentation.

TEXTBOOK PUBLICATIONS

As an author, I have contributed to the following Civil Engineering Textbooks:

- Structural Analysis II (2025) (*ISBN:978-9937-1-7983-6*) – Acknowledged by academics from **New York University Abu Dhabi** and **BAU Jordan**.
- Hydropower Engineering (2024) (*ISBN:978-9937-1-6132-9*)
- Fluid Mechanics (2024) (*ISBN:978-9937-1-6753-6*)
- Design of Steel & Timber Structures (2024) (*ISBN:978-9937-1-6982-0*)
- A Textbook of Introduction to Energy Engineering- Acknowledged by academics from **University of Warsaw, Warsaw, Poland**.

AWARDS AND ACHIEVEMENT

- **Geo -Tech Award** for securing highest mark in **Geology, Soil mechanics & Foundation engineering** during undergraduate studies.
- **Dean's List Award** from Pokhara University for maintaining a CGPA above 3.7.
- **Merit-Based Full Scholarship** for Bachelor's in Civil and Rural Engineering from Pokhara University.
- **Higher Secondary Education Board (HSEB) Scholarship** on a merit basis for +2 Science.
- **Government Scholarship** on a merit basis during school education.

LEADERSHIP AND VOLUNTEERING

- Organized and managed **research camps** in various engineering colleges titled “**3E: Encouraging, Educating, Empowering Nepalese in Research**” in association with the Nepal Research and Collaboration Center (NRCC).
- **Project Coordinator** of **ORBIT Engineering EXPO** conducted by ENGINEERS VLOGS.
- **Program organizer** and **coordinator** in several intra college events like Free Students' Union sports fest, talk programs, interaction programs, orientation for fresh year etc.

SOFTWARE SKILLS

- Microsoft Office (Word, Excel, PowerPoint), ArcGIS, AutoCAD, C programming, ETABs, Smart Road, & ML.

PROFESSIONAL MEMBERSHIP

- **Nepal Engineering Council (NEC)** (Registration No: 81965)
- **American Society of Civil Engineers (ASCE)** (Member I.D: 12438279)