



Years of Industry Experience

- 15+ years (5 years in Dams & Hydropower)

Qualifications and Memberships

- Master of Engineering, Saitama University, Saitama, Japan (2015-2017)
- Bachelor of Civil Engineering, Tribhuvan University, Institute of Engineering, Pulchowk Campus, Lalitpur, Nepal (2003-2007)
- Nepal Engineering Council, Catogry-A, Council no. 5549 “Civil”

Key Skills and Competencies

- Hydraulic and Structural design based on Indian Standards, British Standards, ACI and Euro codes.
- Finite Element Software like StaadPro, Ansys, SAP
- HEC-RAS
- Rocscience packages such as RS2 (Phase2) and Slide

Professional History

- 2024 – Present | SMEC Senior Structural Engineer
- 2023 – 2024 | Blue Energy Pvt. Ltd.-Senior Structural/Civil Engineer/Design coordinator
- 2022 - 2023 | Urja Engineering and Management Service Pvt. Ltd.-Senior Structural/Civil Engineer/Design coordinator
- 2018 – 2022 | Angel Engineering and Consultancy Pvt. Ltd.-Technical coordinator.
- 2017-2018 | Chodai Co. Ltd.- Civil Engineer
- 2008-2017 | Sanima Hydro & Engineering Pvt. Ltd.-Sr. Civil Engineer

Nabin Kumar Ijam

Senior Structural Engineer

Professional Overview

Nabin has more than 15 years of experience in hydropower in Nepal, Japan, Indonesia, and Philippines. He has experience in both construction supervision and design from the scratch to the commissioning of the project.

He has vast experience in design; mainly in hydraulic and structural design of the hydraulic structure of the small hydropower projects ranging from 10MW to 100MW. Furthermore, he has an experience of construction supervision of a project of capacity 22MW in Nepal, where he has involved in quality control, construction supervision, bill verification with frequent opportunity of Resident Engineer.

In addition, he has the good knowledge on standards of countries like India, Britain, Europe to accomplish the structural design. Similarly, he has an excellent knowledge on hydraulic design of the projects.

Relevant Project Experience

Nenggiri Hydroelectric Project (300 MW), Malaysia

Client: TNBGP Hydro Nenggiri Sdn. Bhd. | **Date:** March 2024 – Current

The project is Peaking Runoff River Project located in Nenggiri, Malaysia. The project consists of three dams: Main dam, Re-regulating dam and Saddle dam. The main dam is 88.1m high which constituents of power station at the toe which generates average yearly energy of 583.7 GWh.

I am mainly responsible for structural design, its verification assistance to drafter for the preparation of structural drawings of all the structures from SMEC (Malaysia) which is the design consultant and construction supervision of this project.

Upper Tamor Hydropower Project (285MW), Taplejung District, Koshi province, Nepal

Client: Tamor Energy Pvt. Ltd | **Date:** July 2023 – Feb 2024

This project is Peaking Runoff River Project (PRoR) project located in eastern Nepal. The design discharge of the project is 69m³/s, and the annual energy is 1452 GWh. This project has 6 hours of peaking which has been separated in 2 hours peaking at upstream of barrage and 4 hours peaking at reservation at peaking pond.

I was involved in verification of hydraulic calculations of the projects. The project constituent barrage, intake, gravel trap, settling basin, peaking pond, tunnel, vertical shafts, penstock, and powerhouse. I was also involved in preliminary structural design of the project.

Tamor Khola-5 Hydropower Project (RoR), 37.5 MW, Taplejung District, Koshi Province.

Client: Tamor Energy Pvt. Ltd | **Date:** July 2023 – Feb 2024

This project is Runoff River project located in eastern Nepal. The design discharge of this project is 47.5 m³/s. I was involved in verification of hydraulic calculations of the projects. The project constituent gravity weir, intake, gravel trap, settling basin, peaking pond, tunnel, vertical shafts, penstock, and powerhouse. I was also involved in structural design of the project. In addition, I had helped to other design Engineers in detailed design and drawing preparation.

Super Trishuli Hydropower Project (PRoR), 100MW, Chitwan district, Bagmati Province, Nepal

Client: Blue Energy Pvt. Ltd. | **Date:** Dec 2022– July 2023

The project is Peaking Runoff River project located in Bagmati Province of Nepal. The main task in this project is the design coordination between consultant and owner Engineer.

Upper Kalanga Hydroelectric Project (RoR), 38.46 MW, Bajhang district, Sudurpaschim Province, Nepal

Client: Sanigad Hydro Pvt. Ltd | **Date:** June 2018 – Feb 2022

Upper Kalanga Hydroelectric Project is runoff river project located in western Nepal. The project is low discharge but high head project. The design discharge of this project is 7.5m³/s and head is around 480m.

I was mainly involved in detailed design of the project to prepare for construction drawing for the execution of the project at site. The project constitutes boulder riprap type weir, intake, gravel trap, settling basin, headrace tunnel, penstock protection valve, penstock, powerhouse, tailrace, and switchyard. I was the main structural designer of the project. I was also involved in design coordination with the design team and site representative to execute the project.

Kalanga Hydroelectric Project (RoR), 15.33 MW, Bajhang district, Sudurpaschim Province, Nepal

Client: Kalanga Hydro Pvt. Ltd | **Date:** June 2018 – Feb 2022

Kalanga Hydroelectric Project is runoff river project located in western Nepal. The project has design discharge of 15m³/s, and the head is 110m.

I was mainly involved in detailed design of the project to prepare for construction drawing for the execution of the project at site. The project constitutes concrete gravity weir, intake, gravel trap, settling basin, headrace tunnel, penstock protection valve, penstock, powerhouse, tailrace, and switchyard. I was the main structural designer of the project. I was also involved in design coordination with the design team and site representative to execute the project.

Upper Sanigad Hydroelectric Project (RoR), 10.7 MW, Bajhang district, Sudurpaschim Province, Nepal

Client: Bungla Hydro Pvt. Ltd | **Date:** June 2018 – Feb 2022

Upper Sanigad Hydroelectric Project is runoff river project located in western Nepal. The project has design discharge of 3.3m³/s.

I was mainly involved in detailed design of the project to prepare for construction drawing for the execution of the project at site. The project constitutes concrete gravity weir, intake, gravel trap, settling basin, headrace tunnel, penstock protection valve, penstock, powerhouse, tailrace, and switchyard. I was the main structural designer of the project. I was also involved in design coordination with the design team and site representative to execute the project.

Sankhuwa Khola Hydroelectric Project (RoR), 41.0MW, Sankhuwa sabha District, Koshi Province, Nepal

Client: Guras Hydro Pvt. Ltd. | **Date:** June 2018 – Feb 2022

Sankhuwa Khola Hydroelectric Project is runoff river project, located in eastern Nepal. I was mainly involved in detailed design of the project to prepare for construction drawing. The project constitutes concrete gravity weir, intake, gravel trap, settling basin, headrace tunnel, penstock protection valve, penstock, powerhouse, tailrace, and switchyard. I was the main structural designer of the project. I was also involved in design coordination with the design team and site representative to execute the project.

Asiga Small Hydropower Project (RoR), 10MW, North Sumatra, Indonesia

Client: Pt. Citra Multi Energi | **Date:** Feb 2016 – June 2018

Asiga small hydropower Project is runoff river project, located in Butuan, Philippines. The design discharge of the project is 9.0m³/s and gross head is 121.5m.

I was mainly in the structural design of anchor block, and hydraulic design review of settling basin, intake, surge tank of the project with frequent visit of site for design supervision while working in Chodai Co. Ltd., Japan

Sion Small Hydropower Project (RoR), 10MW, North Sumatra, Indonesia

Client: Pt. Citra Multi Energi | **Date:** Feb 2016 – June 2018

Sion small hydropower Project is runoff river project, located in North Sumatra, Indonesia. I was mainly in the structural design of various components of the project such as weir, intake, desander, headrace pipe, anchor blocks and powerhouse while working. Furthermore, I was also involved in construction drawing preparation for the execution at site.

Mai Hydropower Project (RoR), 22MW, Ilam district, Koshi Province, Nepal

Client: Sanima Mai Hydropower Limited | **Date:** Dec 2008 – March 2017

Mai hydropower project is small hydropower project located in eastern Nepal. It has design discharge of 23.4m³/s and gross head of 116m.

I was involved in the project from initial stage of the project. I had started my career from this project with the involvement of tender drawings, tender documents, infrastructure development at site to the construction supervision, quality control, contractual works, bill verification and so on. This project is the milestone of my career in hydropower.

Hewa Khola “A” Hydroelectric Project (RoR), 14.9MW, Panchthar district, Koshi Province, Nepal

Client: Panchthar Power Company Limited | **Date:** Dec 2008 – March 2017

Hewa Khola “A” Hydroelectric Project is small hydropower project located in eastern Nepal. It has design discharge of 15.0m³/s. I was involved in the project from initial stage of the project with the involvement in construction supervision, quality control, contractual works, bill verification and so on.

Languages

English: Reading, Writing and Speaking – Excellent

Nepali: Native Speaker