

Ronak Tripathi

Civil Systems Engineer

A forward-thinking civil engineer who uses data analysis and systems thinking to develop resilient, sustainable solutions to the challenges facing our construction industry



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WORK EXPERIENCE

Studentische Beschäftigung - Seq Kalz TU Berlin - Bauchemie

05/2024 - Present

Achievements/Tasks

- Experimental research on cement mixtures for CO₂ storage; data analysis, testing of mortar and concrete according to DIN 196.
- Development of digital tools and automation solutions (Raspberry Pi/Arduino, GUI) for remote monitoring.

Studentische Beschäftigung - Reib_CFK TU Berlin - Massivbau

07/2024 - 08/2020

Achievements/Tasks

- Research and literature review on CFRP reinforcement and friction fatigue; support in the validation of finite element models (ABAQUS) and the preparation of DFG publications.
- Reinforcement planning and test rig design: Creation of reinforcement plans with AutoCAD and participation in the design of dynamic test rigs using BIM methods (BIM 360).

Project Operations Engineer EXG Logistics Pvt Ltd

03/2022 - 02/2023

Achievements/Tasks

- Responsible for project planning, resource management and coordination of subcontractors for construction logistics projects.
- Creation of technical drawings (AutoCAD), presentations and feasibility studies, as well as conducting site visits to support design and construction planning.

Material Testing Engineer RKC Infrabuilt Pvt Ltd

11/2019 - 01/2022

Achievements/Tasks

- Quality assurance through material testing and monitoring of construction.

EDUCATION

Civil Systems Engineering, M.Sc. Technische Universität Berlin

10/2023 - Present

Civil Engineering, Bachelor of Engineering SPPU, India

2014 - 2019

TECHNICAL KNOWLEDGE

CAD and BIM: AutoCAD Suite, Revit, ArchiCAD

Structural Analysis: STAAD.Pro, Sofistik, ABAQUS

Energy related simulations: OpenFoam, EnergyPlus

Parametric modelling: Grasshopper, Dynamo

Python

MS Office

Power BI

Rstudio

Navisworks

MATLAB

COMSOL

Arc GIS

PROJECTS/ FURTHER EDUCATION

Multi Criteria Decision Making (MCDM) with an AHP-Matrix, developing a Pareto Front

CNN based Computer Vision Projekt

Monte Carlo-based risk analysis for material reuse

6D BIM model of a public library based on the principles of the circular economy

Construction Sequencing in Navisworks

Construction Life Cycle Assessment (LCA) Bootcamp

LANGUAGES

Englisch ● ● ● ● ●

Hindi ● ● ● ● ●

Marathi ● ● ● ● ○

Deutsch ● ● ● ○ ○

REFERENCE / WORK CERTIFICATE

Prof. Dr. sc. Techn. Mike Schlaich – Fachgebiet Entwerfen und Konstruieren - Massivbau, TU Berlin, Deutschland

Mr. Rahul Agarwal Vice President – Projects, EXG Logistics Pvt. Ltd., Mumbai, India