



SONAM GYALJEN TAMANG

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WORK EXPERIENCE

RESEARCH ASSOCIATE

KARLSRUHE INSTITUTE OF TECHNOLOGY

📅 10/2023 – PRESENT ⚙ KARLSRUHE, GERMANY

- Microkinetic analysis of anodic oxidation of methoxylation of hydrocarbons
- Laboratory instruction on electrolysis

Power-to-X | Organic electrosynthesis | Kinetic analysis | Raman Spectroscopy

FRAUNHOFER IGB

📅 12/2022 – 03/2023 ⚙ STUTTGART, GERMANY

- Performing an adsorption experiment
- Preparing and performing a shadowgraph experiment for various samples
- Assisting the department of interfacial engineering and material science on various tasks (80% lab and 20% office work)

Origin | Adsorption | MS Excel | Material Science

STUDENT ASSISTANT

SRH HOCHSCHULE HEIDELBERG

📅 06/2021 – 10/2022 ⚙ HEIDELBERG, GERMANY

- Research assistant on:
 - Plasma technology as a AOPs for removal of micropollutants specifically methylene blue, carbamazepine
 - Application of Humic Substance for the removal of micropollutants e.g., caffeine, carbamazepine, heavy metals
- Imaging processing technique of Microplastics and dead/alive microorganism
- Supporting the digital ideas on the Democratia-Aqua-Technica project

Micropollutants | MS Projects | Social media content creator | Emerging pollutants | Humic substance | Heavy metals | Wetland treatment
Volunteer | VR glass instructor | Teamwork | Time management | Speaking | Problem solving | Report writing | Field documentation
Plasma technology

PROJECTS

Master thesis - Treatment of PFCs-contaminated groundwater using atmospheric plasma technology

📅 11/2022 – 07/2023 ⚙ Fraunhofer IGB, STUTTGART

- Analyzing and optimizing electrical and chemical parameters to obtain high degradation of PFCs
- Determining the possible byproducts formed after plasma treatment using H-NMR

Atmospheric plasma technology | Design Expert | PFCs | PFAS | H-NMR | Groundwater contamination | MS Office | MestReNova
Micropollutants

YIP-Aqua-I

📅 06/2022 - 09/2022

📍 UNIVA, MEXCIO & SRH Hochschule Heidelberg, HEIDELBERG

- Proposing an initial design of filtration and wetland concept to use the locally available resources
- Field visit to pig farm, River Santagio, River Lerma, and lake Chapala to analysis and provide a solution related to solid waste management and balance water life habitat

Wetland treatment

Frugal innovation

Humanitarian engineering

Appropriate technology

Teamwork

MS Office

Speaking

Water Habitat

Solid waste management

Degradation of microplastic (LDPE) using various advance oxidation processes (AOPS)

📅 01/2022 – 03/2022

📍 SRH Hochschule Heidelberg, HEIDELBERG

- Comparing the degradation of microplastic (LDPE) using UV/H₂O₂, Ozone/H₂O₂, and non-thermal plasma technology
- Poster presentation o World Water Day 2022, 23 March 2022

Microplastic

Advance oxidation process

UV/H₂O₂

Ozone/H₂O₂

Poster presentation

EDUCATION

PhD CANDIDATE, ELECTROCHEMICAL ENGINEERING TECHNOLOGY

KARLSRUHE INSTITUTE OF TECHNOLOGY

📅 2023 - PRESENT

📍 HEIDELBERG, GERMANY

MATLAB simulation

Reaction Kinetics

Electrocatalysis

Organic electrosynthesis

Literature

Technical Reports

Power-to-X

MASTER'S IN WATER TECHNOLOGY

SRH HOCHSCHULE HEIDELBERG

📅 2021 - 2023

📍 HEIDELBERG, GERMANY

Substantive law

Environmental Law

Water framework directive

Flood directive

Air pollutions

Minitab

SuperPro Design

MS Projects

Python

Machine learning

Climate Change mitigation

Waste to energy

Artificial intelligence

Risk management

Solid waste management

BACHELOR OF ELECTRICAL ENGINEERING

KATHMANDU ENGINEERING COLLEGE

📅 2014-2018

📍 KALIMATI, KATHMANDU

MATLAB/Simulink

Power electronics

Power generation and transmission

C++

C

Instrumentation

High voltage engineering

HONORS & CERTIFICATIONS

- Volunteer during the 76th Annual Meeting of the ISE in Mainz, Sep 2025
- SRH Stipendium 2021
- Local volunteer in the LRTT program for Volunteer Initiatives Nepal in 2019

LANGUAGES

● ● ● ● ●	Nepali
● ● ● ● ○	Hindi
● ● ● ● ●	English
● ● ● ○ ○	Deutsch

HOBBIES

- Football
- Music
- Hiking
- Spirituality