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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