This is to certify that the project entitled "Manufacturing of Aluminium base PCB" submitted by Shubham Patel in partial fulfilment for the requirements for the award of Bachelor of Engineering in Chemical Engineering is an authentic work carried out by him under my supervision and guidance. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University/Institute for the award of any Degree.

Signature of Internal Guide

Dr. Sayantani Basu

(Professor)

Head of Department

Dr. Sayantani Basu

(Chemical & Environment Engineering)

External Examiner

WACNIN INSTITUTE OF

Dean and Director

Dr. M.B. Dholakia

Swarrnim Institute of Technology Swarrnim Startup and Innovation University

This is to certify that Project-I -Subject code 203103408 of 7th Semester entitled "Studies on Electrochemical Oxidation Treatment of Dye Effluent using Novel Catalytic Electrodes" has been successfully completed by

URVA PATEL (2025002002)

under my guidance in fulfillment of the Bachelor of Technology (B. TECH) in Chemical Engineering of Swarnim University in Academic Year 2022-2023

Project Guide:

Dr. Parwathi Pillai

Professor

Dept. of Chemical Engineering

Head of Chemical Department:

Dr. Sayantani Basu

Project Coordinator:

Dr. Parwathi Pillai

External Examiner:

This is to certify that Project-I -Subject code 203103408 of 7th Semester entitled "OPTIMIZATION STUDIES OF CHEMICAL PROCESSES" has been successfully completed by:

MIT SHAH (2025002003)

under my guidance in fulfillment of the Bachelor of Technology (B. TECH) in Chemical Engineering of Parul University in Academic Year 2022-2023.

Project Guide

Dr. Parwathi Pillai

Project Coordinator

Dr. Parwathi Pillai

Head of Chemical Department,

Dr. Sayantani Basu

External Examiner





This is to certify that Project of 8th Semesterentitled "Soxhlet Extraction" has been successfully completed by:

★ Karankumar Gohil
(2025002005)

under my guidance in partial fulfillment of the Bachelor of Technology (B.TECH) in Chemical Engineering of Swarnim University in Academic Year 2021-2023.

Project Guide:

Asst. Prof. Dr. Sayantani Basu

Head of Department:

Dr.Sayantani Basu

SWARNIM INSTITUTE OF TECHNOLOGY External Examiner



SWARNIM STARTP AND INNOVATION UNIVERSITY CHEMICAL ENGINEERING DEPARTMENT

CERTIFICATE

THIS IS TO CLARIFY THAT

MR. <u>PATEL JAIMINKUMAR J.</u> ENROLLMENT NUMBER <u>2025002006</u> BRANCH BACHLOR OF TECHNOLOGY IN CHEMICAL ENGINEERING SEMESTER <u>8th</u> HAS SATISFACTORY COMPLETED THE PROJECT OF <u>Slurry Acid (LABSA)</u> IN THE YEAR OF <u>2021 – 2023</u>.

DATE OF SUBMISSION:

SIGNATURE OF GUIDE:

SIGNATURE OF H.O.D:

External Examiner: