

MAYURI MATHPATI

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PROFESSIONAL SUMMARY

Analytical Engineer and Academic with 6+ years of international experience combining a strong German R&D background in semiconductor/polymer testing with knowledge in AI/ML and Data Science applications. Proven track record in simulation modeling, advanced technical curriculum delivery, and institutional compliance leadership.

LANGUAGES

- **English:** C2 (Full Professional Proficiency)
- **German:** B1 (Professional Working Proficiency)
- **Hindi & Marathi:** Native / Bilingual Proficiency

PROFESSIONAL EXPERIENCE

Assistant Professor

FR.CRCE,Bandra, Mumbai, India

27 July 2025 - Present

- Conducted comprehensive undergraduate lectures for Data Science for Health and Social Care, and specialized practical Skill Lab modules.
- Supported institutional student admission processes, contributing directly to candidate screening workflows, evaluations, and final onboarding logistics.
- Assisting in compiling critical data repositories and documentation required for successful National Board of Accreditation (NBA) departmental audits.

Assistant Professor (Adhoc Faculty)

VJTI - Mumbai, India

August 2024 - June 2026

- Delivered comprehensive undergraduate lectures on Electrical Network Theory, Embedded Systems, IoT, German Language, and the IT Act.
- Optimized institutional scheduling by leading time-table management operations for the department.
- Contributed directly to the preparation and auditing of course files and Self-Assessment Report (SAR) documentation for NBA accreditation and alignment of National Education Policy (NEP).

Project Officer

SGGS-AICTE-IDEA Lab., Nanded, India

May 2023 - April 2024

- Mentored and coached student teams for prestigious national competitions, including the Smart India Hackathon (SIH) and robotics challenges.
- Managed end-to-end lab procurement processes and successfully coordinated high-impact technical workshops and seminars.
- Cultivated institutional innovation by orchestrating localized R&D activities and technical research initiatives.

Contractual Faculty

SGGS Institute of Engineering and Technology, Nanded, India

January 2023 - May 2023

- Instructed engineering cohorts in core curriculum courses for Embedded Systems and Communication Engineering.
- Supported structural documentation requirements for departmental NBA accreditation and NEP rollout.

Research Assistant (Student HiWi)

IMTEK, University of Freiburg, Freiburg, Germany

October 2020 - May 2022

- Executed advanced simulation and high-temperature stress testing on injection-molded IC housings to evaluate structural reliability.
- Characterized adhesion promoters and quantified leakage behavior variations in hybrid polymer-metal material interfaces.
- Performed precise mechanical tensile testing utilizing Zwick machinery and programmed automated dispensing profiles via Dispense-Master.

- Analyzed polymer-metal flow interactions to isolate, evaluate, and optimize self-healing material mechanisms.

Systems Engineer

Tata Consultancy Services Ltd., Hyderabad, India

August 2015 - March 2018

- Upgraded enterprise SAP support packages and robustly maintained core system security configurations.
- Administered user roles, managed client access provisioning, and monitored system performance baseline metrics.
- Ensured strict SLA compliance across global deliverables while facilitating seamless technical project transitions.

EDUCATION

Master of Science in Embedded Systems Engineering

University of Freiburg, Germany

April 2018 - November 2021

- Thesis: *Analysis of Adhesion Promoter for Self-Healing Mechanism in Injection-Molded Housing*
- Core Focus: Microsystems (Assembly & Packaging), AI/ML Electives (Computer Vision, Robotics)

Bachelor of Technology in ExTC Engineering

SGGS Institute of Technology, Nanded, India

July 2011 - June 2015

- Major Project: Face Recognition using Principal Component Analysis (PCA) and Backpropagation Neural Network (BPNN)

PUBLICATIONS & RESEARCH PAPERS

- A. Hallak, M. Mathpati and J. Wilde, "Self-Healing Mechanisms in Thermoplastic, Media-Tight Injection-Molded Housings," 2021 44th International Spring Seminar on Electronics Technology (ISSE), Bautzen, Germany, 2021, pp. 1-7, doi: 10.1109/ISSE51996.2021.9467648.

SKILLS & TECHNICAL TOOLS

- **Core Competencies:** Semiconductor Packaging, Adhesion Characterization, Clean-room Operations, Failure Analysis, Stress-Strain Evaluation, Microcontroller Basics, Algorithm Development.
- **Software & Simulations:** SolidWorks, ANSYS Workbench, MATLAB / Simulink, Origin Pro, testXpert III, SAP Basis.
- **Lab Equipment:** Zwick (Tensile Testing) Machine, GOM ARAMIS (Digital Image Correlation), Dispense-Master.

ADDITIONAL ACTIVITIES

- **Cultural Exchange:** Selected participant in Yuva Sangam (Phase-3) cultural & technology exchange program in Assam.
- **Mentorship:** Peer-mentored international engineering students during the academic winter semesters.