



भारतीय प्रौद्योगिकी संस्थान मुंबई  
पवई, मुंबई-400 076, भारत

**Indian Institute of Technology Bombay**  
Powai, Mumbai-400 076, India

दूरभाष/Phone : (+91-22) 2572 2545  
फैक्स/Fax : (+91-22) 2572 3480  
वेबसाइट/Website : [www.iitb.ac.in](http://www.iitb.ac.in)

**IIT Bombay**

Date: September 01<sup>st</sup>, 2025

### CERTIFICATE OF EXCELLENCE

This is to certify that Mr. Siddhant Remma from, worked in my research facility at Machine Intelligence programme in IIT-Bombay from 03<sup>rd</sup> February, 2025 to 31st August, 2025 as a Research Intern.

During his internship, Mr. Siddhanth worked on a CNC Machine Real-Time Monitoring System. He developed a Docker-orchestrated system using custom Docker images for C/C++ projects, working with Docker Desktop (Windows) and Visual Studio Code. He connected live Haas CNC machine data using the MTConnect protocol, designed PostgreSQL schemas to store real-time machine metrics and built a Python data logger to parse XML data and insert into the database, and integrated PostgreSQL with Grafana to create live dashboards for real-time visualization. In addition, Mr. Siddhanth contributed to a web-based composite materials tool using JavaScript, PHP, Python, and HTML/CSS, implemented CSV-to-HTML table rendering, fixed bugs, validated data, and integrated the front-end with the back-end for deployment.

During his tenure with us, he demonstrated a keen enthusiasm for learning and showed strong comprehension skills. He is diligent, sincere and hard-working. We are very much satisfied with the work that he performed.

We wish him all the best in all his future endeavours.

*Asim Tewari*

Prof. Asim Tewari  
Professor,  
Center for Machine Intelligence and Data Science (C-MInDS) and  
Department of Mechanical Engineering,  
IIT Bombay, Powai, Mumbai 400 076, India  
Ph:+91-22-2576-7521.