



Dr. B. Ravi, *Institute Chair Professor*, Mechanical Engineering
PI, Biomedical Engineering & Technology Innovation Centre
Professor-in-Charge, Desai Sethi School of Entrepreneurship
Indian Institute of Technology Bombay, Mumbai – 400076

b.ravi@iitb.ac.in
prof.b.ravi@gmail.com
pic@dsce.iitb.ac.in
+91 22 2576 7510/4399

January 19, 2022

LETTER OF RECOMMENDATION

It is my pleasure to write this letter for Mr. Sahil Rajpurkar for admission into the Master's program at your university. I have interacted with Sahil for over one and a half years at BETIC, where he worked as an intern and project team member.

BETIC (Biomedical Engineering and Technology Innovation Centre) based at Indian Institute of Technology Bombay is an inter-disciplinary multi-institution initiative for medical device innovation. The process and the medical device quality management system of BETIC has ISO 13485 certification.

Sahil joined as Embedded System Intern and we noticed him learning something new every day. Over the next two months, he got involved in ICU Ventilator project, in which he developed algorithms for three standard modes and helped in sensor selection and integration. His helpful nature and passion for work prompted us to offer him a full-time position as Project Research Assistant.

Currently, Sahil is involved in multiple projects at BETIC including Auto CPAP, Oxygen Concentrator and Meconium Suction. He helped in developing their algorithms and PCB design, and an autonomous PID tuning for controlling the first two devices. Both these have reached clinical testing. In the third project, he implemented fuzzy logic in an embedded system. He worked on ARM and ATMEL-based microcontrollers and is now also well versed in embedded software. Other key technical skills include Embedded C, C++ and Altium.

In summary, Sahil Rajpurkar has ably demonstrated his technical abilities in a professional setting and has been an excellent team member. His academical track record coupled with self-driven nature and diligence toward goals makes him a valuable candidate for Master's programs in top universities. I strongly recommend him for admission and appropriate scholarship, and wish him success in future endeavors.

Best Regards,