

Letter of Recommendation

It is a pleasure to write this letter to express my appreciation for Mr. Manveer Singh, a student who has consistently present at each and every hall of Thapar Institute of Engineering and Technology to showcase this dedication, motivation and spirit to execute every team event. Having served as his faculty advisor for the past three and a half years, I have had the privilege of witnessing firsthand his remarkable growth.

From his earliest days, Mr. Singh captivated my attention with his thirst for knowledge. His academic achievements speak volumes, as evidenced by his consistently high CGPA and his notable contributions to *Mechatronics and Robotics Society (MARS)*. It is, however, Mr. Singh's boundless determination to push beyond the boundaries of conventional thinking that truly sets him apart. Manveer has been an integral part of *MARS* at our institute. As a core member, his participation in various projects within the society has showcased his substantial understanding in the field of robotics and his ability to apply theoretical knowledge to practical situations. He has not only displayed technical expertise but has also exhibited leadership qualities by actively contributing to the organizing various workshops and events. Few of his notable contributions are listed as below:

- Initiating and spearheading the development of a planetary rover as Team Captain in the *International Rover Challenge 2023*. His team, representing Thapar Institute of Engineering and Technology, secured an impressive 6th position out of 30 teams internationally and won “Emerging team of the year award, IRC’23”. His leadership, planning, management and technical skills in all domains were significant in the development of a rover that excelled in the diverse challenges.
- Serving as both Overall Student Coordinator and Joint Secretary, he executed the society's operations, ensuring each project aligned with the larger vision. He guided individual endeavors, navigated financial complexities, and spearheaded events like society fair and orientation.
- Actively shared knowledge by conducting workshops on robotics fundamentals, kinematics and dynamics. But his passion went beyond theory; he saw the immense potential of the Robot Operating System (ROS) and crafted a series of workshops along with a few workshops on basic electronics and PCB designing.
- Worked on revitalizing a warehouse automation robot, aptly named "Robomuse." He keenly diagnosed and repaired its ailing circuitry, while his knowledge of robotics systems allowed him to completely overhaul the outdated ROS framework.
- Led Thapar's team in a robo soccer competition with the goal of constructing a competitive robot.

All these endeavours not only showcase his impressive ability to translate theory into practical solutions, but also reveal his collaborative leadership spirit. Witnessing him rally his peers and tackle real-world challenges has been a good experience.

I have no doubt that Manveer’s journey at Thapar has merely been the beginning of a remarkable career. I strongly recommend him for any opportunity that would allow him to unleash his full potential. I wish him all the best for his future endeavors. Please feel free to contact me if you require any additional information. I am more than happy to discuss in more detail.

Sincerely,



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