



# BMS

## INSTITUTE OF TECHNOLOGY AND MANAGEMENT

NBA Accredited UG Programmes in CSE, ECE, ETE, ME, EEE & ISE and PG Programme in MCA;

NAAC Accredited with 'A' Grade ; Approved by AICTE, New Delhi;

Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka, India

It is a pleasure to recommend **Mr. Kaushik Balasundar** for a Master's program at your University. I have taught '*Mechanical Measurements and Metrology Lab*' in his 4<sup>th</sup> semester, '*Computer Integrated Manufacturing*' in 6<sup>th</sup> semester and '*Mechatronics*' in his 7<sup>th</sup> semester. He has been one of the top ranked students in all the subjects I have taught him and is currently ranked 2<sup>nd</sup> in his class. I am confident that Kaushik's passion towards Robotics, high aptitude, and commendable qualities will make him a powerful asset at your University.

Kaushik is a devoted student with a strong inquisitiveness who is constantly on the lookout for opportunities that bring him closer to becoming a world class engineer. He has taken the initiative of leading the college team to take part in highly competitive national level competitions including '*e-Yantra Robotics Competition*' and '*Smart India Hackathon*'. He finished in the top 5% and 0.5% respectively in both competitions, establishing himself as a strong leader and among the best engineering students in the country. His passion for Robotics was evident when he approached me to start the '*Robotics Society*' at our institution. He successfully initiated the club and is currently leading it. He has also made significant efforts in establishing a partnership with '*e-Yantra Lab Setup Initiative*' to set up a Robotics lab with state-of-the art infrastructure to foster Robotics research at our institution.

The Department of Mechanical Engineering hosts an '*Open Day*' for student project exhibition every semester. He has consistently exhibited high quality Robotics projects in every semester and has won the best project award for his projects on '*Head motion & voice-controlled wheelchair*' and '*Single propeller Spherical Drone*'. Through his projects, he has demonstrated a strong ability to solve engineering problems in the most efficient way possible with optimal usage of resources provided to him. Despite his major being in Mechanical Engineering, I was impressed to see his projects involving applications of various domains of engineering including computer aided 3D modelling and analysis, PCB design, programming microcontrollers, sensor fusion, power electronics, machine learning and IoT. He has further bolstered this approach by taking additional elective courses in '*Artificial Intelligence*' and '*Python Application Programming*' during his 5<sup>th</sup> and 6<sup>th</sup> semesters.

I strongly believe that Kaushik's career in Robotics research is on the right track. Kaushik's high calibre in research allowed him to be inducted as a research intern at the '*Robert Bosch Center for Cyber-Physical Systems*', a lab at the best research institution in India, '*Indian Institute of Science*'. He has also received an invitation to work at '*Robotics System Lab*' at *ETH Zurich* for a winter internship from January 2020. He has presented two papers on '*Head motion & voice-controlled wheelchair*' and '*Single propeller Spherical Drone*' at national level technical paper presentation competitions at NIE Mysore and UVCE, Bengaluru and has won 2<sup>nd</sup> and 1<sup>st</sup> place respectively. These achievements clearly demonstrate his potential to excel in a career in research.

Above all, Kaushik is sincere, persistent, hardworking, and takes great pride in his work. I strongly believe that a Master's education would greatly help in further developing and honing his skills in Robotics. It will provide him the platform he deserves to turn his big aspirations to a reality. I wholeheartedly recommend him for a Master's program at your University.

If you have any questions regarding Kaushik Balasundar or this recommendation, please feel free to contact me.

Dr. K.M.Sathish Kumar  
Professor and Head of Department  
Department of Mechanical Engineering  
BMS Institute of Technology and Management  
Bangalore – 64  
Email: [sathishmech@bmsit.in](mailto:sathishmech@bmsit.in), [hodmech@bmsit.in](mailto:hodmech@bmsit.in)  
Phone: +919449178180

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