



# 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

### TO WHOMSOEVER IT MAY CONCERN

This letter is in support of Mr. Kaushik Balasundar, who is a final year Mechanical Engineering student in our institution. I have known Kaushik for the past 3 years. I taught him Computer Aided Design, Design of Machine Elements – II and supervised him as project guide for two semester projects

Kaushik has demonstrated a keen interest and aptitude for both subjects that I have taught him and has established himself in the top 1% for the same. He has a strong grasp on the fundamental concepts of Mechanical Engineering and approaches Engineering problems with a highly structured thought process. He is a sharp listener and active learner.

During his 4<sup>th</sup> semester, I posed him with a challenge to build a drone out of a single propeller and motor which I had. Despite multiple failed prototypes, he constantly persisted and asked me suggestions to mitigate the problems he faced. He is very curious about the real-world implications and practical applications of the concepts taught to him in class. After grasping the theory of curved beams taught to him in Design of Machine Elements – II, he was able to apply Finite Element Analysis to model and analyze the curved beam frame of his drone to determine critical stresses in the beam and choose the appropriate material for the application. Eventually, he built a working prototype of the drone and wrote a technical paper on the same and presented it at a national level IEEE student conference held at University Visvesvaraya College of Engineering, Bengaluru held on 21<sup>st</sup> October 2019 and won the first place.

I was also his technical guide during the design process of the ICU Humanoid Robot he built for Apollo Hospitals during Smart India Hackathon Hardware Edition held during 8 – 12<sup>th</sup>, July 2019. His task was to design a hydraulically actuated robot that could lift and turn patients in a hospital ICU. Despite not having any prior knowledge about hydraulic circuit design, he was able to learn the required concepts and implement a fully functional hydraulic system within a span of 3 months. His team then built the entire robot within five days. He is an excellent communicator and a brilliant leader. He identifies the strengths of his team members, constantly motivates them and utilizes the resources he has to the best of his ability.

I wholeheartedly and strongly recommend his candidature for admission to graduate program in your esteemed university. I believe that his strong fundamentals and practical experience in solving real-world engineering problems will allow him to excel in his graduate program. Please don't hesitate to contact me if you have any further questions.

Sincerely,

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