

School of Mechanical & Aerospace Engineering

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18 May 2023

Subject: Letter of Recommendation for Mr. Shivansh Mittal

To Whom It May Concern,

I am writing this letter to wholeheartedly recommend Mr. Shivansh Mittal for further education in the field of mechanical engineering and as a computational fluid dynamics (CFD) engineer. I had the privilege of supervising Mr. Mittal during his final year research project (FYP) at Nanyang Technological University (NTU), where he demonstrated exceptional dedication, skill, and passion for his work. As an Associate Professor in the Mechanical Engineering Department at NTU, I have had the opportunity to mentor and work with numerous undergraduate students, and I can confidently state that Mr. Shivansh Mittal stood out as one of the most remarkable students I ever encountered.

During his final year research project (FYP) at Nanyang Technological University (NTU), he worked under my guidance and demonstrated an exceptional level of dedication, skill, and passion for his work. Under my supervision, he conducted a research project titled "Hydrodynamic performance optimization of horizontal Pinwheel and vertical Savonius tidal turbines using CFD." His project aimed to optimize the performance of these tidal turbines by utilizing CFD techniques and validate the moment-balancing theory proposed by my Ph.D. supervisor, Mr. Yixiao Zhang, who commended his exceptional contributions to their joint efforts (Zhang acts as his mentor).

Despite the complex nature of the project, he exhibited a remarkable ability to grasp and apply the concepts, methodologies, and tools necessary to conduct his research effectively. His problem-solving and organization skills were truly exceptional, as he identified and addressed challenges within his project while informing me timely and properly by preparing weekly meeting minutes.

Throughout the duration of the project, Mr. Mittal's dedication and perseverance were evident. He consistently put in extra hours, conducting extensive literature reviews, developing robust numerical models, and meticulously analyzing the obtained results. Alongside his team collaborator (Mr Zhang), his commitment to excellence resulted in the submission of two research papers to Global Power and Propulsion Society (GPPS) and The International Green Energy Conference (IGEC-XV) held at Hong Kong University (HKU) and University of Glasgow respectively. These papers are expected to be well-received within the academic community and will lay the foundation for further publications, utilizing the outcomes of his research and contribute to advancements in the renewable energy sector.

Beyond his technical abilities, he possesses excellent communication skills, effectively conveying his ideas and findings through written reports and presentations. Moreover, he is a strong team player, collaborating seamlessly with his peers and supervisors, actively participating in discussions, and assisting others when needed. Given his exceptional performance and the valuable during his undergraduate studies, I firmly believe that he is well-suited for both further academic pursuits and professional endeavors as an engineer.

His deep interest in computational fluid dynamics and remarkable aptitude for research make him an ideal candidate for pursuing a master's degree in mechanical engineering. I have no doubt that he will thrive in a rigorous academic environment and continue to excel in his chosen field. Additionally, his ability to tackle complex problems, coupled with his solid understanding of fluid dynamics, numerical modeling, and optimization techniques, will undoubtedly make him a valuable asset as a CFD engineer to any organization.

In conclusion, his dedication, technical prowess, and exceptional research abilities, combined with his exemplary personal qualities, make him an outstanding candidate for both academic and industry pursuits. I have no doubt that he will continue to make significant contributions in his chosen field and bring honor to your esteemed institution.

If you have any further questions or require additional information, please do not hesitate to contact me at mykng@ntu.edu.sg. I am more than happy to provide further insights into Mr. Mittal's abilities and qualifications. Thank you for considering Mr. Shivansh Mittal for the opportunities ahead. I have the utmost confidence in his abilities and potential, and I am certain that he will continue to excel in his future endeavors.

Thank you.

Sincerely,



EYK Ng (PhD, Cambridge, FEUSA [EU], FEASA [EU], FASME [USA], FNAT [USA], FIETI [HK], FIET [UK], DFIDSAI [CN])

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