

[REDACTED]  
Bangalore, India

Date: 11- Jan - 2019

Subject: Letter of Motivation for Masters in ESPACE

Dear Sir/Madam,

I would like to propose my candidature for Masters of Science in ESPACE – Earth Oriented Space Science & Technology at Technical University of Munich (TUM). The motivation in doing so is advocated in this letter from various instances, discussions, and experiences of my life. My contemporary work at Beta CAE systems unleashes new challenges pertaining to automating preprocessing and post-processing steps in Mechanical design and expects to address these challenges with my programming skills on a platform like python coupled with mathematical abilities using numerical modeling. My work at current organization discharges the skills that are pertinent to be a satellite application engineer. Likewise, there are other vital skills that I have acquired through various other instances in my life.

During my undergraduate program, I volunteered in an In-plant training to learn the basics of Telemetry, Tracking, Altitude Correction, Uplink & Downlink of data at an organization named ISTRAC (ISRO Telemetry Tracking and Command Network). In the interim, I learned rudimentary aspects of designing antennas; adjust the course of satellites; Space mission design. My final year project work stimulated me to learn differential equations for simulating the halo orbits around L1 Libration using MATLAB software. I also learned the basics about Orbital Dynamics, Halo Orbits, and Lagrange points. My workmanship was amplified under the guidance of Scientists & Engineers at ISRO. This, as a result, encouraged me in publishing my thesis in Journal during my final year – “Design & analysis of Halo Orbit Mission around L1 libration point in Sun-Earth System”.

After my under-graduation, I worked at Raman Research Institute under visiting studentship program. My core responsibilities included designing and looking over the fabrication of a 7 m prototype radio telescope. My takeaway from this experience was design thinking coupled with working conductively with a culturally diverse group. Later, I started working with a startup in the field of CANSATS. Startup culture challenged my core traits like resilience and smart working. My work not only involved designing coupled with interfacing various sensors but also set up ground station to receive signals and data. Recently, we deployed payload with an onboard-activated glider to decelerate drop and gather larger atmospheric data to study variation in temperature, pressure, and airspeed.

What really attracted me was studying atmosphere through data collected by the CANSAT. This preliminary exposure invigorated my passion to continue further in this field. And, I realized various possibilities of application oriented analysis using the data collection from satellites and other platforms. This instilled in me a sense of criticality and then I decided to do masters in satellite application engineering. And, started to look out for courses, the course MSc in ESPACE at TUM is exactly something that I sought. The curriculum suggests courses and specializations in Navigation, Earth System Science, and Remote Sensing. As a result, this can help me in ascertaining a large amount of data, assess them & reveal the reasons for natural occurrences on earth. Professor like Dr. Christoph Kiemle, whose field of work in assessing the accuracy and precision for future spaceborne Lidar instruments for remote sensing of atmospheric greenhouse gases aligns with my goal of studying atmospheric elements and eventually contribute in finding solutions pertaining to adverse climatic conditions and global warming. I firmly believe my perseverance, analytical thinking and interdisciplinary background in mechanical engineering, numerical analysis and programming complement the intent of pursuing my masters.

Ultimately, I'd like to extend my gratitude to the admission panel to take time in reading my letter of motivation and bestow me an opportunity with an informational interview at your convenience.

Yours Sincerely,

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