

# Statement of purpose

“Success is not final is not fatal; it is the courage to continue that counts” as famously quoted by Sir. Winston Churchill has been guiding light all my life. Sharing the same birth date with Sir. Winston Churchill. I was raised in a very progressive family. My mother being a teacher by profession and my father being a Finance Manager in a leading private organization made sure to impart the prominence of good education at a very tender age. Thus, education was always something that came to me easily and eventually scored academically very well through out my life. My first encounter to Science and Technology was at my uncle’s lab. This encounter captivated me so much that I used to visit him frequently. And, he would teach me rudimentary concepts and I would never stop experimenting with the new learnt concepts.

My newfound interest propelled me to take electronics as an elective during my higher secondary course. My early selection helped me dramatically to do well during my first 5 semesters of undergraduate course. I learnt about Programming in C language, learnt about 8086 microprocessor, MSP 430 Microcontroller, 8051 Microcontroller, ARM Microcontroller and lastly about Embedded system components, its design and about RTOS and IDE for embedded system design.

I have spent quite a good amount of time in applying this knowledge on practical aspects through out my Undergraduate course. I did first internship at RTTC Mysore, an initiative of Government of India undertaking; here I was exposed to public exchange services. First time I experienced how generally government powered organizations work by and large to solve problems of general public in the domain of telephone exchange services. After this I collaborated with my mentors and together we published a paper on ‘Auditory Temporary Resolution Based Psychophysical Evaluation Of Healthy Individuals Exposed to Occupational Noise and Solvents in WSEAS. I played a role of working at concrete level; I made use of White noise and Gaussian noise and mainly MATLAB to assess the hearing ability of the workers who were working at two different industries. This resulted in creating awareness and empowering those workers in taking precautionary measures to prevent the future hearing disability.

After attracting a lot of applause from my teaching and non-teaching faculty alike I presented paper on ‘Development of Software based Audiometer to Assess the Hearing Threshold in Human Beings’ in the National Conference on Emerging Trends in Communication and Networking (NCETCN – 18). In the interim I also attended IEEE workshop on Nano Technology and photonics, which was organized by my college. I recently finished another internship at RWF (Railway Wheel Factory) and learnt about how this industry primarily manufactures the wheels and axles for Railways. Certain Interesting facts about this organization that I observed were although it possessed fully automated and advanced technology machines, it still used conventional Brinell ball sensors to test the

hardness of the wheel that needs manual operations. This organization also uses a design for battery charging of electromagnets that hold the wheel weighing 800 KG up to 20 minutes.

At present I'm doing my project on 'FPGA controlled battery charging using Buck regulator' at Indian Space Research Organization (ISRO). We are working on designing a board, which would be controlled by software using MATLAB and C Programming that would reduce weight of the satellite and eventually reduce the cost. If succeeded; our designs would replace the older techno designs that have been in use from long time.

Given this vibrant background that I come from, I desire to follow my dream of pursuing higher education in the domain of Embedded system. With my extensive research on Internet, interacting with my professors and seniors alike on my goals. I found German universities would be the best choice that I can consciously make. After firmly contemplating on the distinct universities' websites and their coursework outline, I found Masters in Embedded Computer System course at Kaiserslautern University offers right mix of knowledge that I lack coupled with unleashing research opportunities that would be available post completion of masters.

Finally, I am grateful to the opportunity bestowed upon me to express my intent to pursue this amazing course at your prestigious university.