**STATEMENT OF PURPOSE**

Electrical Engineering is at the heart of the most current technological breakthroughs. Any device with an energy or IT component is derived from EE knowledge. Right from providing accurate medical diagnoses at a distance to exploring distant planets, EE plays a crucial role. This dependency on EE motivated me to pick this department. Since childhood, I always had the urge to know what was inside my toys and gadgets and how it worked. The mysteries amazed me as my romance with technology grew stronger day by day. My strong inclination towards Mathematics and Sciences made me go for engineering to calm my thirst only to realize that what I have learnt are just a few drops in an enormous ocean of knowledge. My decision to pursue Master’s is a natural consequence of my desire to gain as much knowledge as possible in my field of interest and help myself to be able to achieve and put my wildest dream to life.

I obtained admission at Government Sri Krishnarajendra Silver Jubilee Technological Institute (GSKSJTI), Bangalore, where I pursued my Bachelors of Engineering with a specialization in Electronics and Communication Engineering. The core courses included Analog Electronics, Microprocessors, Digital Systems Design, Digital Signal Processing, VLSI, Analog and Digital Communication and Antennas have given me a good understanding of the theoretical knowledge. The corresponding practical classes have equipped me with abundant practical experience. I consistently maintained a First Class with Distinction in almost all the semesters and realized that it was more important to gain a thorough knowledge of my subjects and kept in touch with all the new discoveries by reading various magazines such as Electrical India, Data Quest, Electronics For You and these have helped me keep abreast of the latest developments in technology. I have also attended various seminars and workshops such as Sixth sense, Open day at IISc(Bangalore), and IOT workshop conducted in my college by BITES.

The seminar I attended on 5G conducted by Nokia and the training I attended of the Sixth Sense technology (the wearable gestural interface that augments the physical world) conducted by Technophilia Systems (2015) and cadence workshop conducted by cadence at GSKSJTI (2016) have made me realise the beauty of the ECE domain. I have also participated in numerous training and I have taken courses on IoT, Java, Cadence and Python programming.

I have presented many papers such as Channel Modelling of Underwater Acoustic Communication, Vehicle Detection using Simplified Fast R-CNN, Audio Spotlight, and Image Fast Template Matching Algorithm Based on Projection and Sequential Similarity Detecting on the Performance of AOA Estimation Algorithms in Cognitive Radio Networks. I have also done many projects throughout my engineering, few of them are Intelligent Driver Assistance, Gear Display System in Bikes, Conversion of Non-touch screen to touch screen using Wearable Gestural Interface, Image Detection and Alerting. For each and every project, I chose a new technology and that was how I improved my skill set to work on multiple projects which gave me a wide knowledge on the real-time problems.

I have presented five seminars and participated in six coding challenges, technology games and Hackathons together. Wherein three of them were conducted by the CS department, one by the ECE department, I also attended coding challenges conducted by Technophilia and e-Yantra which was conducted by IIT-Bombay and a hackathon conducted by AWS. Though I have worked on many projects, one of my favourites is the Geofence creation for child monitoring whose main goal was to enable the parent to create/draw a fence on the map and help the parent to activate and monitor the kid’s location in real-time and would give an alert if the kid is outside the location. I worked on the front end, database creation, and real-time monitoring of the system (back-end). I feel proud to have worked on a deep-learning project, where our team of eight had to train our own model and enable it in detecting the vehicle density on the road and adjust the timer accordingly for the traffic signal. It was through this project, I learnt how deep-learning works from end-to-end and also to write algorithms to help the system detect the objects in the ROI. This project was one of the key elements of the pilot projects of the government of KARNATAKA.

I have a work experience of one year and three months. When I worked at Adisys(R&D)Pvt. Ltd. I was involved in Image Processing, i.e., enhancing the image using Machine Learning and object detection using deep learning. In this, a team of eight had to train our own model and enable it in detecting the vehicle density on the road and adjust the timer accordingly for the traffic signal. As a part of this project, I was responsible for object identification by processing the image in the region of interest.

I am currently working at SASKEN Technologies Pvt. Ltd., a company that provides Product Engineering and Digital Transformation services. Here, I am working as a Software Engineer in the Digital R&D on an internal project that demands a lot of coding. Working on this project has let me understand all the protocols and other documentation procedures, patterns that the market expects from a developer.

The University at Buffalo is ranked one of the best in terms of research and the courses it offers. The research work that is happening at the university and the highly trained and research-oriented faculty would enable me to quench the thirst for knowledge in a more easy way. The [Department of Electrical Engineering](http://engineering.buffalo.edu/ee.html) offers an extensive researches in Masters in [Signals, Communications and Networking](http://engineering.buffalo.edu/ee/research/areas/signals.html) specialization which includes researches such as Underwater acoustic communications ,Algorithmic and combinatorial aspects of information in communication, management, and storage and Magnetic induction-based wireless communication and networking in RF-challenged environments,. I also want to get mentored by. Prof. Konstantinos Slavakis I have studied his research “Feasible point pursuit for non-convex QCQPs: Algorithms and signal processing applications." which is aligned with my interest. Also, I am impressed by the work and achievement of Prof Michael Langbergas and would love to work under him. I am also intrigued to find out other facilities like research laboratory and teaching labs and lecture halls would be helpful in achieving my dreams.

My immediate goals happen to work for an organization of international repute in a commendable role. This will not only help me apply the knowledge I have accrued but also help me get a much more globalised perspective. Professional recognition and fame though not of paramount importance to me is something which I feel would be a logical fall out to. My long-term career objective is to leave a legacy that will live on after me It is not how many years one has lived but how one has lived them has always been the guiding philosophy of my life. Life for me does not merely exist for the pursuit of one’s own happiness, but a never ending mission to make a difference to the lives of multitudes.

Having made my goals and aspirations lucid, I hope that a graduate study in your university will be the most logical extension of my academic pursuit. It would be a stepping-stone to higher echelons in academic researches that I intend to pursue. I aver that my talent will be utilized to its optimal best if I have an opportunity to be a part of the intellectually stimulating environment of your university. I shall persistently strive to do your institution proud.