**STATEMENT OF PURPOSE**

Fascinated with the gadgets since my formative years, I have always looked forward to knowing about the applications of Electrical Engineering. Through my research I have come to know about its applications in the field of medical diagnoses as well as at distant planets and orbits, and since then I have looked forward to garnering more knowledge in this subject. My strong inclination towards Mathematics and Sciences coupled with my conviction to study Electrical Engineering, made me choose Electronic and Communication Engineering for my undergraduate studies.

In 07/2013 to 06/2017, I pursued Bachelor of Engineering with a specialization in Electronics and Communication Engineering from Government Sri Krishnarajendra Silver Jubilee Technological Institute (GSKSJTI), Bangalore, and studied subjects such as Analog Electronics, Microprocessors, Digital Systems Design, Digital Signal Processing, VLSI, Analog and Digital Communication and Antenna. I consistently maintained a First Class with Distinction in almost all the semesters. My success motivated me to keep abreast of the latest developments in technology and thereby, I attended various seminars and workshops such as Sixth Sense, an Open day at IISc(Bangalore), and IOT workshop conducted by BITES. I also attended a seminar on 5G conducted by Nokia and training of the Sixth Sense Technology, the wearable gestural interface that augments the physical world, conducted by Technophilia Systems in 2015. Moreover, having attended the cadence workshop conducted by cadence at GSKSJTI (2016), I was able to understand the extensive applications in the domain.

These motivated me to present many papers such as ‘Channel Modelling of Underwater Acoustic Communication’ in mmyy, ‘Vehicle Detection using Simplified Fast R-CNN’ in mmyy, ‘Audio Spotlight’ in mmyy, and ‘Image Fast Template Matching Algorithm Based on Projection and Sequential Similarity Detecting on the Performance of AOA Estimation Algorithms in Cognitive Radio Networks’ in mmyy.

I have always engaged myself to get hands on experience and exposure by working on various projects throughout my engineering, few of them are Intelligent Driver Assistance, Gear Display System in Bikes, Conversion of the Non-touch screen to touch screen using Wearable Gestural Interface, Image Detection and Alerting. For each and every project, I chose a new technology to workwith and that was how I improved my skill set to work on multiple projects which gave me a wide knowledge of the real-time problems.

My final year project titled ‘Intelligent Driver Assistance’ was to ensure an assistance to the vehicle drivers. It addressed three cases of real time traffic scenario. The focus of the project was to help the drivers to know the traffic sign in a particular zone through voice and image assistance. Also, involved to have automatic speed control/limiting mechanism based on the speed limit in a zone. Last issue addressed was the overtaking assistance to the driver based on real time inter vehicle distance, speed and on road situation.

One of my favourite projects was titled as ‘Geofence Creation for Child Monitoring’ where the main goal was to ensure the safety of the children so that they cannot go beyond the specified area. In order to enable this, the parents were required to create/draw a fence on the Google map. This monitored the kid’s location and alerted parents in case the kid went outside the area. I worked on the front end, database creation, and real-time monitoring of the system (back-end).

In order to garner real life experience, I joined Adisys (R&D) Private Limited and worked on Real-Time Object Detection with Deep Learning from October 2017 to March 2018. As a part of a team of eight, we had to train our own model using Faster RCNN for detecting the vehicle density on the road and adjust the timer accordingly for the traffic signal. This project provided me a platform to learn the working of deep-learning from end-to-end. I was also involved in writing algorithms to help the system and detect the objects in the ROI. This project was one of the key elements of the Karnataka Government Pilot project. The release of the project is currently under consideration. Having worked on this, I presented a paper on ‘Vehicle Detection using Simplified Fast R-CNN’ and elucidated about the training and testing of the given model, thereby reducing the time taken by the system.

Moving forward, I joined SASKEN Technologies Private Limited which provides Product Engineering and Digital Transformation services. Here, I am working as a Associate Software Engineer in the Digital R&D, and I am working 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.

Why MS now?

Post MS, I want to work as …..in companies such as ……………and work on technologies such as ……………………..In the long term, I want

The University at Buffalo offers a comprehensive course and offers subjects such as [Signals, Communications and Networking](http://engineering.buffalo.edu/ee/research/areas/signals.html) as specializations. I am also looking forward to work on 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’. Having studied Prof. Konstantinos Slavakis’s research ‘Feasible point pursuit for non-convex QCQPs: Algorithms and signal processing applications’, I look forward to studying under his mentorship. I am also looking forward to studying under Prof Michael Langbergas because his publication Generalized Gray Codes for Local Rank Modulation motivating.

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 make your institution proud.