

STATEMENT OF PURPOSE

“Time and tide wait for no man”, this we all know. Hence, having done an inspiring four-year course in Electronic Engineering, I would like to put to use this knowledge to do my Masters in Science. This would give me the leading edge in technology and the practical low-down and information I require. For the past few decades man is advancing into the unknown realms of technology and science. This advancement is to make life easy and to increase human comfort at home and at work and I would like to be an integral part of such betterment. For this, research would be of prime importance with hands on experience in real time applications accompanied by in-depth knowledge of the subject. Technology, today, means power in the widest sense of the term and not merely the power of mind. And it is this power potential that has given it the status it now enjoys. While all this is generally true, since India has been a late comer in the field of science, she has to make up an enormous leeway.

Ever since I was in school I would see my father work with a room full of electronic gizmos on the ship (he is a Radio Officer in the merchant navy) and this is what triggered my fascination for electronics and later computers. The powers they yielded always amazed me. Consequently I decided to attain my Bachelors degree in electronic engineering as it opened up many possibilities and interesting challenges for the reason that science and technology are the roots of many interesting scientific and technical activities. During my engineering course I was introduced to the concepts of microprocessors and microcontrollers and I had taken an instant liking to these subjects. At the same time I became a member of IEEE and by way of their articles learnt a lot more about microprocessors and the role they play in everyday life. It heightened my interest in topics like RISC, CISC and Parallel Processing. All this together aided my decision to specialize in Computer Engineering especially in Computer Architecture & Parallel Processors.

Since then I've covered numerous topics in microprocessors such as the Intel 8085, 8086, 80386 and their instruction sets along with peripheral devices, the ISA bus and the 8051 microcontroller. With every new topic that I studied my interest in this field grew (exponentially). Also my electives for the final semester are Microcomputer System Design and Digital Signal Processing. In Microcomputer System Design I shall learn about the Pentium Processor and the PCI bus. Moreover a conceptual view of Microsoft Windows NT, Windows NT models-client server is part of the curriculum.

Currently I'm working on my final year project “Automated Teller Machine” along with 3 other project members. We will be constructing a complete functional model using the microprocessor knowledge that we've gained along with some electronics know-how. At the core we have the 8086 microprocessor which will be programmed using assembly language. In addition we have designed an optical reader, the printer interface and the all important cash dispenser. Working on this project has given me immense practical knowledge and helped me visualize and design circuits with the least possible hardware and expenditure. It has helped me realize that everything we study in theory might not be that easy to actualize and implement in practice. It has been a great experience and one that I would like to undertake in the future as well.

Microprocessors and controllers entered the industry's lexicon only recently, yet in the short interval since, many different types having different sizes and processing speeds have come up. They have made the world, in its physical dimensions, a small place, and established the means by which people in remote parts of the earth can communicate with each other. With the seemingly unstoppable expansion of the microprocessor domain, the writing is now on the wall: in a few years microprocessors will drive just about everything from PCs to massive parallel systems to household appliances. My interest in this field to some extent, is because even though the microprocessor industry seems to be generally well off, it has never been able to leave a good thing alone. So the future looks to be full of changes, changes which I would like to be part of.