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.

India is one of the few countries in the world whose tradition for scientific investigation is very ancient. The need today is to revive her ancient spirit and organized scientific research on modern lines so that the benefits of knowledge in technology can be applied to the well being of the common man. If the country is to catch up with the rest of the world the scientific attitude must replace her traditional mood of thought and action. India's needs of technical personnel are not only quantitative but qualitative also. To help her achieve these goals and to provide her with a quality engineer, I would like to study further and learn the latest in computer technologies. This would all be fulfilled by a degree course in the United States of America.

You might ask as to why a degree from the United States of America only. Since 1994 computers have been out performing automobiles in terms of units sold annually in the U.S.A. All in all computers contributed nearly 10% of the United States of America GDP. The United States of America is way ahead of any other nation in computer technology, manufacture and sales and would thus provide me with the best infrastructure and know-how currently available. Besides, it is a country where science and technology is a way to achieve social progress and where improving human life is very important. All these factors coupled together make the United States of America an ideal place to pursue my further studies.

I have no doubt that University of Florida is 'the' appropriate one for me, since it provides a unique mix of educational advantages. It is one of the most dynamic universities providing personal attention and extensive academic resources along with superior education in the field of Computer Engineering with the help of a capacious course. Here, I will receive an education that gives me both, the technical skills and the intellectual discipline to become a leader in industry. It is a University where research is an integral part of the department and the entire faculty is highly qualified and friendly. This I say from my personal experience while interacting with them through emails. It is a meeting ground of various social lives and cultural ideas. In all, it is a comprehensive university that furnishes an education that will serve me well in my career and prepare me for a lifetime of learning. This will ultimately help me provide vital contributions to society and work in a way to expedite the advancement and betterment of humanity as a whole.

I would be an ideal candidate for your college since I have been consistently performing well in my Bachelors course procuring 68% in the sixth semester that helped me secure the seventh rank in college. However, I am of the opinion that theoretical work alone is of little use unless it is accompanied by practical knowledge. I believe that I would be a suitable applicant for Research work in the university since I've always been inclined towards practical tasks and the everlasting quest to learn more. "Knowledge is power", says Bacon. "A wise man is strong and a man of knowledge increaseth strength". Knowledge is all-powerful and love of knowledge is a pre-requisite for any success in life. If education means merely book knowledge or the passing of periodical examinations, then I am afraid I feel enthusiastic about it. Education should be a medium for the unfolding of ones inborn faculties, enabling him to use his mind, eyes, ears, and hands, as they should be used. This is the kind of education I would want, and one that I know your university will equip me with. There is no greater pleasure than that obtained by teaching. I would make a worthy teacher due to my in-depth knowledge of various subjects and incessant deliberating and conversing skills. It would be a great pleasure and honor for me if given a chance to ensue my graduate studies at your highly esteemed university and if given an opportunity to teach or do research work would not fall short of your expectations. I hope that you will find in me a deserving and creditable student for your renowned University.

STATEMENT OF PURPOSE

There is a very famous adage, " If you think education is expensive, then try ignorance". I could not agree more. I believe research is necessary to acquire data and formulate theories, but it is just as important to know how to apply those theories and use that data in the real world. To be competent and competitive I will require a master's degree. A master's degree will give me the up-to-date tools and knowledge that are the need of the hour.

While in my third year of undergraduate study, I learnt the concepts of signal processing and microprocessors. These topics have fascinated me ever since. When I studied the fundamentals of analog and digital signals, I almost decided that Digital Signal Processing was the career for me. What got me more enthused in this area was when I learnt about microprocessors. I had the opportunity to study some of the processors during my third and fourth (final) year. That's when I realized how the two fields could be merged together by having dedicated processors. I am certain that my interest in this will increase by taking Digital Signal Processing and Microcomputer System Design as electives in my final semester of undergraduate study.

In DSP we shall learn in depth about FIR, IIR and Quantization errors. Here we shall also cover Z-transform analysis, filter design (IIR filter design and FIR filter design), DTF, FFT and its applications. As an introduction we shall learn Texas Instruments and Analog Devices special DSP Processors. In Microcomputer System Design, the Pentium Processor and PCI bus will be covered. Conceptual view of Microsoft Windows NT, Windows NT models- client server is also a part of the curriculum.

Digital signal processing is one of the brightest spots in the semiconductor business today, and one of the few deserving the title "breakthrough". Like earlier advances in microprocessors and computer memories, digital signal processing is a foundation technology with the power to transform broad areas of the electronics industry. Its impact is being felt in applications as diverse as stereo systems, cars, personal computers and cellular phones. In the next few years, digital signal processing should give rise to hundreds of new products and change what people expect from technology.

The fact that the world market in programmable Digital Signal Processor chips hit more than $3 million in 1997, having tripled in just three years shows that Digital Signal Processor have come a long way and are here to stay. It is projected to increase to around $14 million by the end of 2002. The future in this field is ever increasing and provides opportunity for the to-be engineers in this field.

Also being a member of the internationally acclaimed Institute Of Electrical and Electronic Engineers (IEEE - currently Communication Society, next year I will be enrolled for Signal Processing Society) has given me the opportunity to keep abreast with the latest in today's advancing technology. This has also increased my interest in the field of Communication. Hardly surprising, much of the growth of DSP is being driven by communication. Thus this gives DSPs a wide area to exploit.

In my final year, I joined hands with three other students to undertake a project. Our project consisted of designing an Automated Teller Machine (ATM). The heart of our system consisted of the 8086 microprocessor. We shall use assembly language for programming the microprocessor. This is one of the most interesting large projects that I had a chance to be a part of. It is an extremely practical experience, which I really enjoy.

During my undergraduate course in the Department of Electronics I have consistently scored above 65 %, which is a matter of great pride for me, as very few student have achieved this feat. This makes me

several cuts above the commonplace. Our courses were purely theoretical in nature. I would like to change that. As I have mentioned below, I am a practical person and like to see things work.

I enjoy teaching and although I have no formal experience, my naturally strong communication skills will help me considerably. I envisage myself as a teacher and researcher – either in industry or in the university. I definitely see myself in the role of a teacher to undergraduates. In fact, that's something I would enjoy immensely.

I am a very practical person and my understanding is prodded by actually seeing things work. I am a quick thinker and learner. Your university could be the nucleus to accomplish my goals, as ample opportunities exist for students like me to initiate independent study and to become involved in active research programs, both experimental and theoretical. I would be more than happy to be given the opportunity to pursue my graduate study in your university. I am confident that in return for this I can make a perennial contribution to your institution.

STATEMENT OF PURPOSE

Applying for M.S. IN INDUSTRIAL ENGINEERING

Firstly I would like to introduce myself as an undergraduate student of the bachelor of engineering program From the M.S.Ramaiah institute of technology, one of the most prestigious institutions of the Bangalore U University. I have completed my course of engineering in the field of 'Industrial Engineering', which was for a period of four years. I graduated in the first class with distinction. I was ranked among the top five in the class.

During these four years of my undergraduate course, I gained in-depth understanding of the various techniques involved in problem solving, mainly to cater to the services of the industries. Manufacturing Processes, Operations Research, Industrial Management, Quantitative techniques were the other subjects which enabled me to blend the required action whenever an problem was posed to me. Behavioral Science was the most interesting subject which I mastered during this four year peroid.This subject provided me with valuable information which helped me to develop leadership skills .The factor of empathy really coerced me to instigate leadership skills.. Since computers have become inseparable part of INDUSTRIAL ENGINEERING I deemed it fit to learn more about computers and I am presently doing my course in C,C++. I have worked on software packages like MS Project, LINDO, LOTUS 123.To meet my B.E. Degree requirement ,I executed a project titled ' REDUCTION OF LEAD CYCLE FOR MANUFACTURE OF STEAM TURBINES' under the expert guidance of N.V.R.Naidu and this project was presented in the O.R. Society of India. The main aim of the project was to reduce the lead cycle of manufacture of a particular class of turbine so as to reduce the inventory costs and enable the industry to forecast accurately for the period ahead. The techniques involved LINE OF BALANCE METHOD for scheduling and Controlling and
Post college, I AM presently working in KIRLOSKAR ELECTRIC COMPANY WHERE IN I am going through a rigorous training program which will be completed very shortly.

The undergraduate course as well as my training at KIRLOSKAR ELECTRIC COMPANY has provided me with a strong base for further growth in any of my desired fields. I would like to delve deeper into the fields of my choice and their technical aspects completely. I hope to acquire the requisite professional skills and develop a thorough understanding in these following areas.

I wish to contribute towards these areas and indulge in research which ultimately should have a meaningful contribution to science and technology. I AM confident that my academic capability and analytical skills coupled with my perseverance and single minded devotion will see me through to this goal. To this end, the first step is a sound graduate study. I have chosen the graduate program to further my interests.

It is my belief that knowledge gained has to be shared. I believe that imparting knowledge is an enjoyable and satisfying experience. I have enjoyed giving ideas, lectures and making presentations on technical/non-technical topics at college and at the workplace. Hence, I am eager to obtain an assistantship. Consequently, I understand that the choice of the University is of paramount importance. After perusing your brochures and consulting my professors, I reached the conclusion that the with its reputed faculty, excellent facilities and tradition of academic excellence will be the ideal place to work towards the fulfillment o my goal. Moreover, I am confident that the wholesome education that I will receive at the will stand me in good stead throughout my career.

Thanking you,

PERSONAL STATEMENT

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Statement of Purpose

In order to be a highly effective man, I believe that talent and working hard are not enough, one should also go for his own dreams. It took me some time to find out how to pursue my dreams in the real world.

I was a student at the "National Organization for Education of Exceptional Talents" during junior and high school. When I was in junior school, as the eldest and only son of the family, my father bought me a PC and brought me a brother! Thereafter me and my computer spent days and nights with each other and I learnt almost all the things from programming to computer graphics during my junior and high school and became a professional in the field so that nobody could believe me and my abilities. When I was in high school (1998) I participated in National Computer Fair held in Mashhad and presented my Farsi Editor "Maktoob" for English Windows that came with a great ovation. My interest and desire in computer programming was originated from its soul of creativity and innovation. In each new program I encountered a number of problems which forced me to create or invent new solutions. Finding these solutions was filling me with a strong sense of joy and satisfaction. Besides, my passion for new technologies was also a driving factor. In fact, I was a technology lover whose dream was to change all the things and make them mechanized and computerized. Later, these dreams turned out to be an avid interest in the field of Manufacturing.

For my undergraduate study I was accepted to Industrial Engineering (with a major in Industrial Manufacturing) at Sharif University of Technology, known as the best university in whole country, in September 2000. There are only a few public universities (about 10) that offer B.Sc. degree in Industrial Engineering in our country and most of them are located in the capital, Tehran. This fact and other advantages like good job opportunity and high salary after graduation, all together, make the competition for entering this program very intense.

In first two years of my study in IE department of Sharif University of Technology, I focused on my previous skills and tried to educate myself in such fields like "Information Technology", "Management Information Systems" and "Simulation" with the help of my background knowledge of computer programming. Thereafter, during last two years, as I passed more credit hours I noticed that I have a strong desire for manufacturing courses. They have all the things that I wanted to know. I was very successful in this field and in the most of lectures I ranked first in the class. As mentioned in my résumé, I have done several projects with my professors in this field. My extensive knowledge of computers proved to be very useful in practicing and developing the concepts of these manufacturing courses in my projects which all of them are far more than just a written document. The outcome of my projects was so brilliant that made me famous in our department as the best colleague for the course projects and each semester most of my friends invited me to do the project together. Since then I have maintained this excellent performance in all Manufacturing courses I attended, and in fact my GPA in those is 18.75 out of 20, an astonishing GPA, where the mean GPA of the department is as low as 13.28 because of strict policy of grading in our university.

Not only have I passed all the manufacturing related courses that are in our core curriculum and list of elective courses, but I have also passed several graduate courses that some of which are listed in my transcript and some are not because of some educational restrictions in our university that prohibits undergraduate student from attending graduate lectures! However, they have accepted some of my graduate courses like "CAD/CAM" (Prof. Hooshmand, 19.6/20 ranked first among all other graduate students) because of insistence of me, my advisor and lecturer of the course, but there are other courses like "Design for Manufacturing" (Prof. Tavakoli) and "Rapid Prototyping" (Prof. Simchi) that are not listed, although I have participated in all class sessions and final exam.
Although, at my university, teaching assistantships are normally granted to graduate students, two professors selected me as their TA's; Computer Programming (Prof. Abdolahifar) and Manufacturing Automation (Prof. Tavakoli). This experiment helped me greatly toward a deep understanding of the theoretical topics as promoting from a student to a teacher requires to lot of effort for acquiring an overall knowledge of the material being taught, just like the effort needed to turn a student to a researcher.

For the past six months I have been working as a research project leader and R&D manager at Professor Tavakoli's company – Avan Sar Kish. Our work concerns design and development of a Production Planning module of an ERP for a series of companies which are working as suppliers of National Iranian Oil Company (NIOC). This short stint has given me invaluable practical experience. It has given me the confidence to pursue a master degree and also kindled a desire to do research.

In addition to our joint research, Professor Tavakoli and I have written a paper titled "Application of Computer Aided Process Planning Using Feature Technology in an ERP Environment" and currently we are working on translation of a book named "An Introduction to Automated Process Planning Systems" by Tien-Chien Chang and Richard A.Wysk [ISBN 0-13-478140-6]. These two recent experiences significantly improved my understanding of the subject and further enhanced my interest in the field and even assured me that I have chosen the right choice for my future that is fully adopted with my capabilities and talents. Besides, I'm still managing my research team in NIOC. Next semester, for my B.Sc. project, I am going to work on a CAM/CAPP software based on our new structures and concepts that are developed in my joint paper with Prof. Tavakoli and also I will participate in my other favorite graduate courses like "Lean Manufacturing".

In the ever-expanding field of Manufacturing, I am still a child whose wish is to pursue M.S. degree and work towards a Ph.D. My ultimate goal is to develop into research which would provide practical solutions to the ever rising complication. I feel that my endeavor would be incomplete until I achieve my objectives in research. As opportunities to do advanced research are limited in a developing country like Iran, I have made up my mind to pursue higher studies in Canada.

It is by desire rather than coincidence that I apply to your university. It is your university which is at the forefront of technology, and thus I wish to be a part of highly qualified alumni of your university, Firstly my interest match very closely with the faculty in this department. Secondly, since I intend to engage in intensive research later. Most of all, I feel that your university, with the experienced and excellent faculty and modern facilities, will provide the right environment to develop my talents. The only certainty about technology in an ever-changing world, and how it affects modern life, is that, changes in society will accelerate at an increase pace. What ever marveled a few years ago is routine today, the extraordinary that we aspire for now is ordinary tomorrow and the inventions of the future will be things, which we hardly imagine today. I wish to be a small, though significant part of that future of Manufacturing. Ten years from now, I see myself heading an active research team engaged in work of direct industrial relevance.

While study and research are my current objectives, my interests in web programming, web surfing, travel and nature help me maintain a sense of perspective in life. I like to write and have had some articles published on different websites. Besides, I write on my own weblog, named “A wing to fly”, everyday about my personal life and mainly, daily events of my country in fields of economics and politics from my point of view.

Last but not the least I believe that my serious intention for study, my industrial experiences and my strong academic background in various areas of Manufacturing and Industrial Engineering will be beneficial for my graduate studies and research. University of Windsor is a place where I can receive high-level education under the guidance of prominent scientists and excellent teachers with the help of first-class equipments.

I still strongly believe that “it is difficult to say what is impossible. For, the dream of yesterday is the hope of today and reality of tomorrow”.

Statement of purpose

Considering my intelligence with capability of working hard, I believe that I have succeeded in progressing toward my objectives, and in order to continue in this direction I am enthusiastically applying to McGill University for the graduate studies program. I'm going to study for M.S. in Electrical Engineering (EE) field, especially, Integrated Circuits and Systems Design for Communications.

Two main reasons for my pursuing graduate studies are: At first, Finding answers for my numerous questions and doing research in the field of Electronics in my favorite topics. For this aim I should continue my studies to achieve a Ph.D. Secondly, my next purpose is that I want to be a part of industrial activities to show my creativity in the practical situations.

Electronics is my most favorite field because I believe that it's the base of all other fields in Electrical Engineering and one can't progress in any of them without knowing it. On the other hand, Electronics is a progressive science and when dealing with it, always we encounter problems, which are new and unsolved. It is obvious that this field of technology will never end and its existence is combined with the existence of mankind but in the 21st century it has a different and new meaning.

Here, I'm going to state my aims in detail and explain my background and achievements that help me accomplish those goals. Then I will express the reasons for my choosing McGill University for my purpose.

I got interested in Electrical Engineering when I was a student at Kamal high school, performing extra lab works by setting up simple logic circuits with available elements. At the same time, I achieved a great success in my science courses. The honors I won during this period, best prove my success: I received the Silver medal of the National Physics Olympiad in 1996(in my last high school grade) and my total GPA in high school was 19.4/20.0. I was selected and honored in the Iranian Student Conference on Physics, 1995.In 1997, I took part in the entrance exam and was accepted with a very high rank (12/250,000) to study Electrical Engineering at Sharif University of Technology (SUT), the most competitive engineering school in the country. I put a great effort to be successful in my courses and my research.

Up to now, I have ranked 6th among 175 EE students of the Sharif University Of Technology. In addition to my courses, I took part in different research groups of the Electrical Engineering Department (stated in my enclosed resume). There, I gained lots of experiences, besides their technical benefits, such as independent research abilities, teamwork and efficient resource investigation. Among those works I should emphasize on four of them: The first, "Diffusion Methods in Constructing Solid State semi-Conductor devices", second of them is "dynamic of Junction Breakdown in Semi-Conductor; Investigation and simulation and control", The next, "Design and Realization of Electronic Circuits Using Neural Networks (such as Filters and ADCs) and investigation of the behavior of Neural Nets with Discrete Weights" which I accomplished it with 4 of the most talented students of the department, the last, "Nested Miller Compensation and Feedforward Compensation: Exact Modeling and tradeoffs and design rules". The rest of these projects have been stated in my enclosed resume. I submitted my achievements as a paper to 2nd Iranian Student Conference on Electrical Engineering (ISCEE'99) which was selected and honored as the Best B.S. Paper there. I have always tried to be a reliable and diligent student whom professors can rely on him and the proof of this claim is my assistantship of course Electronics III. My GPA during B.S. up to now has been 18.6/20.0 which is a very high rank. (The average GPA of the department is 13.9/20.0). Additionally, even though my transcripts and related enclosed forms clearly indicate my abilities in detail, I would like to highlight 2 points. Firstly, I was almost always graded among the top 5 in my technical courses (specialty and science), and got an in most of them, Secondly, I received A+ in all of my major laboratory works. Furthermore, I have participated in many social and extracurricular activities such as Managing the Web page Design team for the EE Dept. and membership in science group of EE Dept. and I have been Student member of IEEE and SSC for 3 years. Considering all of these achievements and my Extracurricular Activities (stated in my enclosed resume) I was honored by Mr.Khatami (President of Iran) as one of the two "Best Engineering Student in Iran".

I'm seeking an Electrical Engineering Department with high-level research programs in order to express my goal clearly. I'm going to pursue my graduate studies there for M.S. and Ph.D. degree. I enthusiastically intend to complete a M.S. and Ph.D. program. I believe that in this period, I have obtained the capability and efficiency to perform thorough deep investigation on the topics of my interest which are Analog and Mixed-Mode integrated Circuits and Systems Design. Combining my talent with hard work, I am passionate to discover beyond the corners of my major, where there are always new undiscovered directions lying in wait, and I believe my strong background proves that I am qualified enough to do so. Besides, to be more realistic, I see myself to work as an academic or a research engineer of a large company. These have always been my objectives in the last three years and I have actively worked for them. I believe that the world stands aside to let anyone, who knows where he is going, pass and this motivates me to work harder toward my goals.

My intention for applying to M.S. Program at McGill University is due to its honorable faculty, high quality of study, and strong research facilities, where researchers combine theory with technology to deal with challenging practical problems. According to all of my advisors at SUT, and some of my friends, now studying at McGill University Electrical Engineering Department, it has always had a remarkable high rank among other departments with an active and competitive atmosphere for research and study. In addition, there are well-known professors at McGill University Electrical Engineering Department with research interests similar to mine that altogether make McGill University the best choice for me.

Statement of Purpose

Hooman Javaheri

"The world must feel different by my existence in it"

This is the idea in which I have believed throughout my life. From the early years of my education, I found myself extremely interested in scientific study and research activities. To satisfy both these desires, I decided to put my heart and soul into my work so as to become one of the most effective and proficient individuals in my major.

After spending about four successful academic years at the most reputable university in Iran, Sharif University of Technology, among the diverse areas of specialties which are presented in Electrical Engineering department, I have found “Communication Networks” the most fascinating.

From my early childhood, I learned to appreciate originality and value knowledge. Curiosity has been my driving force, as I was more than greedy to learn every single new subject. The stories of hardships in the life of my parents taught me precious lessons of perseverance and dedication in my aims. I come from a four-member family and I have always tried to be a successful model for my younger brother and this adds to my sense of responsibility.

Through school years in NODET high school, the National Organization for Developing Exceptional Talents which selects approximately 1% of students in each major city of Iran for special education, I became profoundly interested in Physics, though I couldn’t suppress my intimate predilection for Mathematics. Because of my interest and enthusiasm for my class work, I succeeded to become a semi-finalist of all existing national student Olympiads (mathematics, physics, informatics and chemistry). Through personal studies of academic materials and getting more familiar with different disciplines I became determined to choose Electrical Engineering as my major. After a successful performance in National University Entrance Exam, and achieving 6th grade among about 400,000 candidates, I entered Sharif University of Technology (SUT) in Fall 2001.

In the first two academic years, I tried to grasp an in-depth understanding of the related concepts to my discipline. In the first semester of my undergraduate study I found "computer programming" course extremely interesting. I did a brilliant job in this course and achieved full mark in it. The charm of algorithm concepts, along with my eagerness to experience teaching were enough reasons to make me become the TA of computer programming in the next semester. I continued to be the TA of this course for 5 semesters. This precious experience taught me how to deal with pupils in an academic environment. Afterwards in the 3rd semester of my studies I took "computer workshop" course. During this course I became familiar with basic concepts of computer networks.

During the 3rd year I was especially attracted to the field of Communications, because I got to believe that the future of our fast-moving era will be fundamentally altered by the implementation of the current technologies in this discipline.

However, the true turning point in my academic track was the "Data Networks" course which I took in the 4th year as a graduate elective course. My whole interests were integrated in this lesson. In this course I got the opportunity to achieve a more systematic understanding of the network concepts. During the past three years I had collected a good knowledge of physical and

mathematical infrastructure of networks, in courses such as computer architecture, Electromagnetics, Fields and Waves, Antennas and Microwave. On the other hand I was personally attached to software applications especially design and implementation of algorithms. Networking delicately combines these two areas in one developing and dynamic field which creates one of the hot-spots of today's research world. Hence, I decided to start a series of studies in the area of wireless ad-hoc networks as a vibrant and lively field of research which will soon find its application in every day communication. Especially I found routing algorithms and MAC problems of wireless ad-hoc networks full of innovation and ideas. My final project in Data network course was focused on "Power-aware" and "Energy-saving" routing protocols in such networks.

Moreover, my projects during "Communication Systems I" and "DSP" provided me practical knowledge in using MATLAB and its various toolboxes such as SIMULINK. We also achieved the best grade in our team project in "Data Networks", in which my colleagues and I utilized NS (Network Simulator) and C++, in a state-of-the-art fashion. This teamwork project also motivated us to realize the many benefits that cooperation can offer.

Furthermore, I have always been interested in management and leadership along with engineering. For example, I took "Engineering Economics" and "Project Control" as my elective courses throughout my studies. During these courses I made an effort to learn as much as I can about being a good manager along with a successful engineer.

In addition to my endeavor in academic activities, I always had a tendency to get involved in research activities. I performed many researches during my studies as research projects of my academic courses. I specially accomplished many researches under the supervision of Prof. Jalali in the subject of rural telecommunications and ICT. Being the research assistant of Prof. Jalali, I succeeded to publish two technical reports, "Rural telecommunication in Iran: A hybrid solution" and "The analysis of telecommunication infrastructure in Iran and internet access" which are accepted and presented in "ITA05, IEE conference, UK" and "ICTM2005, Iran" respectively. In the first paper, after an exact investigation about Information and Communication Technology status of rural regions of Iran along with a deep study of available telecommunication technologies, we suggested a hybrid network solution for development of telecommunications in Iran's villages. In a second one a precise study about telecommunication infrastructure of rural and remote regions was carried out.

Change and adaptation to new environments have been a precious experience for me. I was born in a small city and into an average-income family; nonetheless I paved my way towards higher education. Alteration in the world in a way to make it a better place for every human-being, convergence of the infrastructure utility to facilitate the understanding of us about each other while preserving the diversity, and shaping a vibrant and thriving future are the things in my long scope. I believe that we are able to create the future the way we think it deserves to be, not as an inevitable incident.

I'd like to be present where there is a limit. Limits result into trade-offs. While optimization of a trade-off requires thought and intelligence, I prefer to extend the borders. Example of CDMA shows that how changing the viewpoint to a problem of resource-allocation could alleviate the limits, and even turning the weak points into advantages (for instance, multi-path effect in CDMA, and power dissipation of Electromagnetic waves in cellular design).

The University of Southern California, with a vibrant record of about 125 years, its outstanding ranking and unique position, proximity to lots of resources while possessing a fresh sub-urban

campus, the rich record of performing well-funded -cross-disciplinary research, its livelihood and fast development in recent years, high level of diversity in both faculty and student body, and its high goals and ambitions makes it the exceptional choice for continuing my graduate studies. There are many Research Laboratories in Electrical Engineering compatible with my field of interest, like "Communication Sciences Institute (CSI)", "Autonomous Networks Research Group" and especially "Information Sciences Institute (ISI) - Div7". State-of-the-art facilities and great faculty members, along with research areas fully compatible with mine makes it the once-in-a-lifetime opportunity for me. I have carefully studied the ongoing projects in this laboratory and am determined, if granted the chance, to be a dependable asset to the group.

In the end, I would like to give thanks to my parents. It is they that bestow me the character of diligence, resolution and perseverance. Without their never-ended encouragement and support in these years, I could not even consider applying to the USC.

Statement of purpose

Considering my intelligence with capability of working hard, I believe that I have succeeded in progressing toward my objectives, and in order to continue in this direction I am enthusiastically applying to McGill University for the graduate studies program. I'm going to study for M.S. in Electrical Engineering (EE) field, especially, Integrated Circuits and Systems Design for Communications.

Two main reasons for my pursuing graduate studies are: At first, Finding answers for my numerous questions and doing research in the field of Electronics in my favorite topics. For this aim I should continue my studies to achieve a Ph.D. Secondly, my next purpose is that I want to be a part of industrial activities to show my creativity in the practical situations.

Electronics is my most favorite field because I believe that it's the base of all other fields in Electrical Engineering and one can't progress in any of them without knowing it. On the other hand, Electronics is a progressive science and when dealing with it, always we encounter problems, which are new and unsolved. It is obvious that this field of technology will never end and its existence is combined with the existence of mankind but in the 21st century it has a different and new meaning.

Here, I'm going to state my aims in detail and explain my background and achievements that help me accomplish those goals. Then I will express the reasons for my choosing McGill University for my purpose.

I got interested in Electrical Engineering when I was a student at Kamal high school, performing extra lab works by setting up simple logic circuits with available elements. At the same time, I achieved a great success in my science courses. The honors I won during this period, best prove my success: I received the Silver medal of the National Physics Olympiad in 1996(in my last high school grade) and my total GPA in high school was 19.4/20.0. I was selected and honored in the Iranian Student Conference on Physics, 1995.In 1997, I took part in the entrance exam and was accepted with a very high rank (12/250,000) to study Electrical Engineering at Sharif University Of Technology (SUT), the most competitive engineering school in the country. I put a great effort to be successful in my courses and my research.

Up to now, I have ranked 6th among 175 EE students of the Sharif University Of Technology. In addition to my courses, I took part in different research groups of the Electrical Engineering Department (stated in my enclosed resume). There, I gained lots of experiences, besides their technical benefits, such as independent research abilities, teamwork and efficient resource investigation. Among those works I should emphasize on four of them: The first, "Diffusion Methods in Constructing Solid State semi-Conductor devices", second of them is "dynamic of Junction Breakdown in Semi-Conductor; Investigation and simulation and control", The next, "Design and Realization of Electronic Circuits Using Neural Networks (such as Filters and ADCs) and investigation of the behavior of Neural Nets with Discrete Weights" which I accomplished it with 4 of the most talented students of the department, the last, "Nested Miller Compensation and Feedforward Compensation: Exact Modeling and trade offs and design rules". The rest of these projects have been stated in my enclosed resume. I submitted my achievements as a paper to 2nd Iranian Student Conference on Electrical Engineering (ISCEE'99) which was selected and honored as the Best B.S. Paper there. I have always tried to be a reliable and diligent student whom professors can rely on him and the proof of this claim is my assistantship of course Electronics III. My GPA during B.S. up to now has been 18.6/20.0 which is a very high rank. (The average GPA of the department is 13.9/20.0). Additionally, even though my transcripts and related enclosed forms clearly indicate my abilities in detail, I would like to highlight 2 points. Firstly, I was almost always graded among the top 5 in my technical courses (specialty and science), and got an in most of them, Secondly, I received A+ in all of my major laboratory works. Furthermore, I have participated in many social and extracurricular activities such as Managing the Web page Design team for the EE Dept. and membership in science group of EE Dept. and I have been Student member of IEEE and SSC for 3 years. Considering all of these achievements and my Extracurricular Activities (stated in my enclosed resume) I was honored by Mr.Khatami (President of Iran) as one of the two "Best Engineering Student in Iran".

I'm seeking an Electrical Engineering Department with high-level research programs in order to express my goal clearly. I'm going to pursue my graduate studies there for M.S. and Ph.D. degree. I enthusiastically intend to complete a M.S. and Ph.D. program. I believe that in this period, I have obtained the capability and efficiency to perform thorough deep investigation on the topics of my interest which are Analog and Mixed-Mode integrated Circuits and Systems Design. Combining my talent with hard work, I am passionate to discover beyond the corners of my major, where there are always new undiscovered directions lying in wait, and I believe my strong background proves that I am qualified enough to do so. Besides, to be more realistic, I see myself to work as an academic or a research engineer of a large company. These have always been my objectives in the last three years and I have actively worked for them. I believe that the world stands aside to let anyone, who knows where he is going, pass and this motivates me to work harder toward my goals.

My intention for applying to M.S. Program at McGill University is due to its honorable faculty, high quality of study, and strong research facilities, where researchers combine theory with technology to deal with challenging practical problems. According to all of my advisors at SUT, and some of my friends, now studying at McGill University Electrical Engineering Department, it has always had a remarkable high rank among other departments with an active and competitive atmosphere for research and study. In addition, there are well-known professors at McGill University Electrical Engineering Department with research interests similar to mine that altogether make McGill University the best choice for me.

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Ehsan Afshari

Graduate Program Applicant