**Statement of Purpose**

[Mahta.mansouri.96@gmail.com](mailto:Mahta.mansouri.96@gmail.com)

"The value of life is not in its duration, but its donation. You are not important because of how long you live. You are important because of how effective you live” Myles Munroe. I believe that one of the best ways for me to become a more productive person to society is by pursuing graduate studies. In this way, I can enrich the knowledge I gained during my undergraduate studies by focusing more on my favorite field and gaining more profound insight in it. This hopefully can be used to benefit humankind's lives in the future. Moreover, I believe that the younger I am, the more and easier I can learn, and since I am determined about studying higher levels, I prefer to continue my studies instantaneously after finishing my bachelor degree.

I was always ranked 1st throughout my school years, and I got into the NODET (National Organization for Developed and Exceptional Talents) when I was 12. I performed well in all subjects. Therefore, I decided to continue my studying in the field that I loved more, which was mathematics and physics. Another reason that I chose this field was that in my country, Iran, women are being overlooked for occupying different jobs in the engineering field. This gave me even more motivation to show that women can be as effective as men in such areas. In the high school I became familiar with Nanotechnology and found it fascinating, so I started reading some books and articles, and I decided to participate in the national Nano Olympiad, in which I was awarded a silver medal. This gave me the opportunity to work in some advanced nanoelectronic labs. It was then when I found my interest in the electrical engineering, and when I ranked 308th among the 350,000 participants of the university’s entrance exam, I eagerly started to study Electrical Engineering in the University of Tehran, which is the best university in Electrical and Computer Engineering in Iran.

During my second year at the university I passed a few courses related to electronics, and found them captivating. Moreover, by doing these courses’ projects I became certain that not only am I more interested in electronics rather than other subfields, but also I am more talented in it. Consequently, in the third year of university, I decided to focus more on the electronics and I am ranked 1st in the electronics subgroup.

Though electronics is my major field of study, since my father is a medical doctor, I'm eager to connect engineering to biomedical science. As a result, most of my projects are around human health, such as a heartbeat counter, which was one of my internship projects. Also for my thesis, I am working on designing a device for measuring Oro-lingual pressure, which will be used for rehabilitation of people with dysphagia problem. This device is supposed to measure the tongue’s force toward palate and wirelessly send it to other devices such as computers. For the rehabilitation part, my group-mate is using feedback from the measured force in my device and based on the normal tongue’s pressure, (according to the user’s gender and age) it produces accurate pulses which are applied to the patient’s tongue to restore the patient's condition. Not only this is a novel idea, but also It made me face various challenges which have taught me great problem-solving skills. First, it required merging electronics with biology which I did not have expertise in. Having done researches on Biology on my own improved my searching skills as well as strengthening my abilities in designing circuits. Second, due to economical sanctions that Iran is facing, I did not have access to a lot of electronic devices. Dealing with such limitation gave me even more strength.

In addition to circuit designing, I have a little experience in the fabrication field and I managed to build a bio-sensor in the fabrication lab in the third year of my university which I found it really interesting. I also accomplished to build a Nano composite in the Nanoelectronics laboratory as part of the final exam of Nano Olympiad in the second year of my high school. During my undergrad studies I had been teacher assistant for several courses. I have learned a lot while being a TA, such as being committed, working as a group, and helping other students in their studies.

Based on my interest in electronics and bioelectronics, it is obvious to me that I want to make a career in these fields. I hope to become an expert in my field of study and use my knowledge and experience to enhance mankind's quality of life. It would be a great satisfaction for me to apply my knowledge in the way that could solve some practical problems or to invent new, practical devices, especially in the biomedical field which I believe is one of the most crucial part of technology and has a lot of potential for improvements. Since Iran is not advanced in this area, continuing my graduate study in Iran would restrain me from Achieving this goal. So, I hope to have the opportunity to study my master in more advanced country such as Canada, which Helps me to progress and contribute in this area.

I have researched on numerous universities in Canada offering related programs and found the one at York University well aligned with my criteria. I read York’s website, and I found the “Micro/Nanoelectronics” and “Medical Devices” areas of research well-suited to my background and interests. I also contacted with Professor Hossein Kassiri, and I’m so flattered that he encouraged me to apply to York University. Furthermore, since most of the people working in this field are men, I can help to the diversity of the university.