

Statement of Purpose

Electrical Engineering PhD Applicant

“Once you decide where it is you want to be, you won’t stop pushing forward until you get there, that’s how winners are made.” Gary Raser

Becoming a winner is what everyone wants, but most of the people forget the important part, ***“where is it you want to be?”*** For me, the answer is to become a professor with specialty in *** and the applications of them, especially biomedical applications. It took me a great amount of time, thought, and consultation to find this answer. In order to explain my response in detail, I have to start from a few years back.

With respect to my perseverance, enthusiasm and talent in Mathematics and Physics, I achieved an excellent result in National University Entrance Exam, *** among 300,000 participants. I chose *Electrical Engineering (EE)* at *University of Tehran (UT)*, the oldest and most prestigious university in Iran, as my major because of its richness in aforementioned topics. It wasn’t until later on that I understood the real value of EE and how this field can change the course of mankind’s life. For now, I am completely satisfied with my choice and think of it as my best decision in life.

During the first few semesters of B.Sc., the courses which imbibed me the most were those which involved **, so I chose to focus more on this topic. In this route, I started to work on the project “***,” as a research job in *** Laboratory of ***. Working alongside with several graduate students in such a project, gave me a taste of research environments and requirements. I found out that conducting research is completely different from passing courses. In research, although others might be helpful, no one actually knows the exact solution to a problem, as it is usually the case of a professor and a student. This means that a researcher needs knowledge, creativity, and commitment to find the solution to a problem. Moreover, everyone involved in a research project should have a general knowledge of all the tasks different group members carry out to be able to work as a group. At last, to be good at anything involving a team, you have to possess communication and social skills. In order to improve these skills in myself, I decided to become the chair of *** and the head of the student committee of *** in which I had to manage a complete *** with *** attendants with only *** volunteer students working under my supervision. These unique experiences helped me reach the ability to work with different groups and if needed, manage them.

This research project and B.Sc. projects and courses, especially “***”, “***”, and “***,” in addition to the advanced equipment and friendly environment of ***, steered my enthusiasm more towards *** and its applications. Thus, I participated in the nationwide university entrance exam for graduate studies to continue my education and ranked *** among *** participants. I started my M.Sc. in *** in ***, which indeed is the best in this field of study in Iran.

In the several projects I conducted, I found out that I'm not a person of abstract studies; I need to get involved in projects with fabrication and measurement, and further on, in every single step of a project, from the definition to the measurement. As a result, taking into consideration the fabrication limitations in Iran, I started to work on "****" as my M.Sc. thesis. In this thesis, ***. Therefore a new structure with a solution for the crucial problem of heating of active elements has been introduced.

Since the time I chose to focus on ***, I knew these fields of study have helped mankind in various ways, but digging further into the applications of my major, I found out about the biomedical application of my field of research. This was the point in my life that I actually felt the effect of EE in every single aspect of human life. This resulted in intensification of my interest in my studies. If I want to state specifically, my research interest includes ***, ***, ***, ***, ***, and ***.

With respect to all the mentioned points, becoming an expert in my research area as a professor will help me achieve my ultimate goal in life. Most of the jobs get repetitive and lose much of their attractiveness over time, but a professor's job always includes novelty. Becoming a professor will give me the chance to confront new scientific challenges on a daily basis. In addition, walking on the edge of science will fulfill my passion for solving mankind's problems and give me the opportunity to improve the quality of life. These features of a professor's job and my experience and interest in teaching and conducting research, makes this job my ultimate professional goal in life.

Finally, I have a great motivation to take the next steps toward my ambition, future and goals by attending an advanced graduate school as a PhD student. The *University of **** has always been a leading university in the field of ***. Moreover, this university offers many opportunities to step in the path towards academic and nonacademic goals. In addition, cooperation of *** department with many other departments and organizations has made it most desirable place for graduate studies. It would be a great honor for me to be in such an academic environment where I can develop my intellectual, cultural, and spiritual potentialities. I found *Prof. **** papers and research fields, especially the application of applied electromagnetics to cancer detection and therapy, very interesting. I also admire *Prof. ****'s work enormously, particularly because of being involved in biomedical applications of ***. So I contacted both of them ahead of time and they encouraged me to apply to ***. I am aware that *** expects very high standards from its students. I can state with confidence that my enthusiasm and experiences will enable me to meet those expectations. My consistency in all previous academic and co-curricular activities is what gives me confidence when I say this.