

Statement of Purpose

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When I first entered school as an inexperienced child I had a vague picture of education and knowledge in my mind. I had started a challenging and an adventurous journey in the long and untrodden road of my life. However, having been able to get the qualifications of attending a high school for talented students in our town and consequently having the privilege of sitting in classrooms of many great teachers and sharing novel ideas with my classmates in an encouraging and competitive atmosphere was a considerable breakthrough and a good start in the path of my education.

Being a member of the community of the National Organization for Development of Exceptional Talents (NODET) bestowed on me the opportunity to appreciate the real value of knowledge and select the direction of my education in which I was avid for determining my future life. In the second and third year of high school I participated in some local and national competition named as National Computer and Mathematics Olympiad. Thanks to the guidance of my experienced teachers and due to my concerted and constant efforts I ranked first in Provincial Olympiad in computer and second in Provincial Olympiad in Mathematics. I also was Selected student in the first round of the National Computer Olympiad as well as being first and awarded medal of honor in Tolue-Esteghlal-Elmi National Festival.

During this period of high school, I gradually realized the significance of mechanical engineering as a diverse subject that derives its breadth from the need to design, analyze and control everything from small individual devices to large systems such as spacecraft and Robots. Having realized the vastness and indispensable position of mechanical engineering in today's modern world, I made up my mind to take this field as my major at university. In order for my dreams to come true, I had to take part in a vigorous university entrance exam (NOET). In 2013 I Ranked in Top 4% Among more than 250000 participants of the whole country in university Entrance Exam (NOET) and successfully entered the University of Tabriz, one of top ten universities and the second largest and oldest university in Iran.

From the first semester I stuck to my goal of getting as much as possible from mechanical engineering and it was then that I realized little knowledge is a dangerous thing and in the era of expert knowledge, a little knowledge of the world stands nowhere. It has been proved many times that a dumb engineer's bridge is sure to collapse. Having this in my mind I tried to do my best to keep myself updated in order to be somewhere in this world and develop a line of thought.

The first year of the university was an unforgettable experience for me which highly inspired me and ignited the circuits of my potentials. Yet, in the second year of university, due to some financial problems I was forced to take a part-time job in Javid Steel factory. Hence I had to divide my time between work and university affairs which affected the quality of my studies. However, this period

was a rewarding time which endowed me with the chance of gaining practical experience with the help of Mr. Babaei, Head Engineer of Design and Manufacture Part. Thus cooperation with Mr. Babaei led to two industrial projects which consequently broadened my insight to practical application of some subfields in mechanical engineering. Despite the problems that I had to challenge with, I never got disappointed and in the third and fourth year of university I could successfully manage to improve my quality of studies resulting to a remarkable rise in my GPA.

My research experience began with a project named Firefighter Hexacopter with High Pressure Capsule and with Controlled Stands and Arms under the supervision of Dr. Biglari. I developed a different concept of drone equipped with high pressure capsule and having some unique features such as controllable stands and arms in order to perform efficient missions. I also presented some novel ideas in some festivals and congresses and it led to accepting the ideas as one of best ideas in international and national competitions. My sincere accomplishment of all tasks on my own made great impact on Dr. Biglari and therefore choosing me as a member of R&D in his company. Plus, recently I have been appointed as the director of patents edition and submission team which consequently these aforementioned activities have led to some on going research and some of them have been submitted to be registered as invention.

Having the chance of attending in Academic Essay Writing workshop presented by Dr. Eshqi, followed my attendance in the Modern Achievements on Aerospace and Related Sciences Conferences inspired me to discover my real field interest. My huge appetite for research resulted in publication of two paper named "Checking the Number and Ordering of Elements in Modal Analysis of Aircraft Wing (NACA 0012) Finite Element Method" and "Identifying and Comparing the Method of Multidisciplinary Design Optimization (MDO) and its Application in Aerospace Vehicles" which were accomplished with sincere guidance of some friends studying at M.Sc. and PhD level.

Throughout these experiences and studies, I was engrossed with dynamic and control in general and Adaptive Control, Fuzzy Control and their applications in aerospace vehicles and robots in particular. My acquaintance with Dr. Keighobadi, one of the well-known researchers in the field of control, fired up my desire for further research and with his generous cooperation I managed to publish a paper under the title of "Automatic Self-Guidance and Control of Satellites in Orbit". Recently, under supervision of Dr. Keighobadi, with co-operation of his master student, who has accomplished his thesis on stability of UAVs by using Markov and Lyapunov equations, and I have been involved in conducting a new project with the purpose implementing Markov control method on Rotorcraft Aerial Manipulators and in case of achieving desirable outcomes we are determined to publish its finding as a research paper in one of the authentic scientific journal.