**Statement of Purpose: Aadil Shah**

**Objective in Pursuing Postgraduate degree:**

When Pakistan my motherland is mentioned anywhere in the world, people will naturally awaken association with the best quality cotton clothes and different varieties of foods produced in Pakistan. The country that enjoys a long history and reputation in the field of agriculture. Nevertheless, in this current era of technology and innovation, my country is still starving in the energy sector and has fallen far behind the advanced countries in the field of Material science and engineering including both the research and application. It is for this reason I want to pursue my studies in materials science/engineering specifically the application of materials in the energy sector.

**Personal Background:**

Getting an education and earning a college degree had been one of the proudest accomplishments of my life, even though my early childhood pointed in the opposite direction. Beginning with our home destruction due to war against terrorism, at the age of 14. By the age of 19, my father died and I was very frustrated with the mental, financially and responsibility of my family. Throughout the 2010s I lived as one of the poor, worked in car wash centers, steel foundry and street vendors selling fruit and vegetables on the roadsides which have enabled me to get education while supporting my family financially. I always believed that no barrier could beat perseverance, which motivated me to work hard despite severe financial hardships.

**Academic achievements:**

During my school days I have recognize myself having a great interests towards the field of physics, Mathematics and chemistry. Accredited to a good result in senior secondary examination, I was able to joined higher secondary education with Physics, Mathematics and chemistry as my major subjects. In 2015, I completed intermediate with first rank in my district.

A keen desire to pursue Material science and all Pakistan rank that placed me among top 10% out of 120,000 candidates in all GIK engineering entrance examination landed me in the country most reputable and prestigious university, and subsequently completed my Bachelor of Science in Material Engineering at GIK institute of science and technology with a of 3.62 CGPA .I have been place on Dean’s Honor list (GPA equal or exceed 3.50), for consecutive five semesters. Apart from this I was also awarded FATA merit scholarship of worth 600,000 PKR annually (5000 USD) based on academic performance.

The curriculum here at GIK has equipped me with a strong foundation academically and has kindled in me, a passion to chase challenges. The theory courses that I did were well complemented by a number of laboratory courses which have given me hands on experience in fundamental areas of Material engineering.

**Research Experience:**

During my junior year, . I further enrolled in an online course known as *Graphene Science and Technology* by Chalmers University of Technology on edX where I studied in detail about graphene’s properties and synthesis methods and *Writing Scientific Papers and Making Presentations in English* by Tsinghua University, China, on edX With the knowledge developed from these courses and my personal literature review, I successfully synthesized Graphene oxide.

I have striven to perform well in the courses and have tried to gain as much as I could from them. But I feel what qualifies a good graduate student is his ability to perform independent research work. I had an opportunity to do a summer research internship in Bio-Composite lab at the prestigious GIK institute. My project was concentrated on the "Development of Graphene based composites as electrode materials for batteries and super capacitors ", under the supervision of Dr.Ramzan Abdul Karim. For analysis we used characterization techniques like XRD, FTIR and AFM e.t.c. In addition to this I did my one month internship from Heavy industries Taxila (HIT) where I got the opportunity to develop a light weight bullet proof vest from Kevlar fibers, inserts with ceramic material to Obtain increased protection capability. This internship opportunity helped me to improve my technical skills as well as managerial expertise.

**Extracurricular Activities:**

I have been involved in many extra-curricular pertaining to community service and teaching. For the past four years, I have been an active member and co-founder of the Bara Educational Society. The society activities include –Teaching underprivileged children basic skills and education and Arranging awareness camps for the students of FATA regarding reserved seats.

Aside from this, I also lead a project for the counseling and mentorship of college students. And so far I had mentor round about 250 students to choose which program, after secondary school examination. As a part of two student societies, I have planned and organized many successful events in my university. From being a volunteer to executive council member, I was also a member of Team Green Energy Development (GED).The Team focuses on to build a sustainable energy future by reducing air pollution, improve health condition and combat climate changes using renewable.

**Personal Goal:**

I want to pursue my studies in materials science/engineering specifically the application of materials in the energy sector. The modern batteries including Li-Ion batteries, Graphene battery and these are the most demanding and attention required topic.

KINGDOM OF SAUDI ARABIA is renowned for a long tradition of welcoming international students. My choice of KAUST University is based on her internationally acclaimed commitment to innovation, research in traditional materials, Nanoscience, and nanotechnology coupled with her strong ties with both local and international industries and different research centers. Furthermore, KAUST is an institution with great minds from all over the world hence the attribute of a multicultural and diverse university.KAUST could be an ideal platform to realize my aspirations. In my opinion, the University of the KAUST with its commendable research facilities and renowned faculty will provide me with a suitable environment to pursue graduate studies in Material Science. I am fully aware of the high level of commitment and perseverance required for postgraduate studies here at KAUST, and I believe that my attitude, dedication, and motivation will see me through the challenge. I have the confidence to meet the challenge of other rival applicants.

The intended study will certainly benefit me in gaining all the necessary skills needed to excel in the domain of graphene-based nanomaterials for energy harvesting and energy storage materials. After doing this study, I would be quite able to implement my knowledge for the advantage of my country.

After returning to Pakistan, I will join some reputed research institute as a researcher and whatever knowledge and skills I will gain in the KAUST, it will replicate here in my homeland. All this can be achieved only if I would get a chance to study at KAUST. I look forward to a favorable decision regarding an admission. Thank you immensely for considering my application