## **STATEMENT OF PURPOSE**

At the very beginning of my education life, I had always attracted innovations of science. Afterward, the affection of mine for innovations converted to research for the betterment of humankind as well as living beings. However, from the first year of my under graduation study, I dreamt of going abroad as there will be better research opportunities for me. I have chosen Smart Grids and Demand Management as the field of my Master's studies by which I can obtain a leadership position in research and innovation. Thus, I am confident that Postgraduate study through Erasmus Mundus Joint Master Degree (EMJMD) in Smart Cities and Communities (SMACCs) will help me to make my dream true by achieving my goal.

I got admitted through an entrance exam and by merit in the Department of EEE at the American International University-Bangladesh (AIUB). I always like to delve deeper into the subjects that interest me. This passion, along with my hardworking ability, has not only placed me in the top 10% of undergraduate class but also enabled me to gain detail knowledge of subjects related to Power System Protection, Electrical Power Transmission and Distribution, Power System Analysis, Power Stations and High Voltage Transmission System. However, I was completed my final year undergraduate project with a team of four members in my leadership under the supervision of Assistant Professor Susmita Ghosh which I published in a renowned journal called IJCEE.

Currently, I am joined as Technical Committee Member in IEEE PES. Recently, I joined as an Advisory Panel Member in ELSEVIER. Moreover, I am working as a Researcher under the supervision of Assistant Professor Susmita Ghosh until now. I worked as an Assistant Electrical Engineer in East Asia Electrical Industries Limited. Although, this year I received an invitation from the International Conference on Materials and Energy (India) to join as a Program Committee and a Review Committee member. However, I am selected as the Top Ten Best Presenter Award (Oral) in ICNTET-2018, India. Also, I achieved a 1st prize in the Inter-University Idea Contest at Jahangirnagar University, Bangladesh. Additionally, several papers of mine are accepted and will be published in different journals.

Besides that, to be a student member of IEEE, I also attended several workshops, seminars, tutorials that were related to Smart Grids and Demand Management and Energy Efficiency on Buildings which played a vital role to inspire me for research work. Moreover, I did one research entitled "Scheme of an Automated Poultry Farm Monitoring System by using Solar PV" which is connected with Demand Management of Heriot-Watt University (UK). Another one research had connected with Energy Efficiency on Buildings entitled "A Novel approach to build an official zone with nZEB and micro-grid" which are connected with Smart Grids of Heriot-Watt University (UK) and Energy Efficiency on Buildings of UPV/EHU (SPAIN). Both of this paper had already submitted in the 6th IEEE International Energy Conference (ENERGYCON) 2020.

However, I do believe that through this program I will have the chance to meet leading peers of scientists and an extremely talented pool of students from diverse backgrounds. The rich history, culture and great reputation in the research of the Heriot-Watt University (HWU) in the United Kingdom, the University of Mons in Belgium, the University of the Basque Country in Spain and the International Hellenic University in Greece are also one of the key factors for my application. The Engineering Faculty of the HWU, the UMONS, the UPV/EHU and the IHU all are well structured with courses, lectures, examinations and research project; all of which are targeted to stimulate innovation and to build its graduates as independent researchers who are then ready to enter a doctoral program.

My long term goal is to devote myself to full-time research in an academic setting and to have my laboratory after 10 years. So I think Erasmus Mundus Joint Master Degree (EMJMD) in Smart Cities and Communities (SMACCs) will open the door for me to continue as a Ph.D. student in Smart Grids and Demand Management and thus pave the way to become a competent researcher. I believe from the core of my heart that I will be able to gain so much hands-on experience and skills which will enable me to expand my outlook and widen my horizon of thinking. Being inspired by the spirits I am highly enthusiastic to apply as an international applicant for this Erasmus Joint MSc in Smart Cities and Communities (SMACCS) program scholarship.