

## Motivation Letter

Dear Dr. Dhar & Dr. Busolin,

I was very glad when I found this particular opportunity to apply for your Doctorate program, and with this letter, I would like to express my strong motivations.

Through my bachelor degree in Civil Engineering, Mansoura University, I was able to get solid knowledge in the field of water science and engineering: hydrology, hydraulics, irrigation, sanitation, harbours and coastal protection. I learned in practice how to apply principles and methods to design, construct and manage water infrastructure.

During my first master degree in Sustainable Engineering Design & Construction at the British University in Egypt (BUE), the modules raised my awareness and developed my understanding of being sustainable and green with the importance of public participation and respecting the economic viability. In my dissertation, I tried to understand the mechanism of storm flow generation within ungauged arid wadis, where I extensively analysed quantitatively the morphometric parameters for the ungauged Wadi Billi, Egypt, then the flood hydrograph for storm event of 14<sup>th</sup> March 2014 has been modelled. Finally, I studied the hydrological implications for the morphometric parameters statistically and in the light of literature.

During my work as a research assistant in the Center of Sustainability & Future Studies (CSFS) at the BUE, I got further academic and management knowledge and experience, in addition to scientific writing skills and ethics of research.

In my second master degree in Water Engineering at TU Berlin Campus El-Gouna. I got the opportunity to develop deep theoretical and practical knowledge in hydraulics, hydrology, hydrogeology, and modelling the environmental systems in nature. I worked over multiple modelling software and designed sustainable solutions for offered problems. Throughout my dissertation, I found out the best hydrological approach to model the rainfall-runoff processes within ungauged arid wadis. In addition to model the transported sediment, determine the susceptible areas for flood risks using GIS techniques, and finally, design a suitable storm water management system to recharge the floodwater into shallow aquifers to be used later as a non-conventional source for fresh water.

I was able to perceive the complexity of this field and to realize that I would like to develop my academic career more in this area. So, this is the reason behind my seeking to be a researcher in one of the leading institutes that offers high quality and friendly research environment.

After a careful overview of the research project that you work on, I believe that it fully suits my intentions.

I am grateful for considering my application and I look forward to a favourable reply.

Sincerely,

Omar Al-Masalmeh