Chunglim Mak

MSc Environmental Engineering Award with Distinction (2011)

What was your background prior to the MSc Environmental Engineering?
I came from a civil engineering background and spent a short while working for a multidiscipline consultancy within the construction industry, immediately after graduation. Through involvements in major projects, I gained interest in sustainability and environmental engineering. Therefore, I decided to pursue my interest by studying this MSc degree at University of Strathclyde.

What did you enjoy about this course?
Throughout this year, I was exposed to many interesting topics and challenging projects. Some of these projects particularly inspired me. A good example would be the topic I decided to choose for the Remediation and Rehabilitation of a Degraded Ecosystem project. I chose to research ground level ozone pollution and its effects on Hong Kong. Through this project I learned about air pollution chemistry, ecology and human health issues. I have never came across these issues before in civil engineering, yet they were interesting to learn and enjoyable to research upon.

Which MSc modules were of specific interest?
I learned much about groundwater and contaminant flow within aquifer systems. Groundwater is a subject topic I already had appreciation for due to my civil engineering background. Yet, I enhanced my knowledge and found a new way of looking at groundwater and soil mechanics issues through doing the hydrogeology and aquifer mechanics subjects. I gained an understanding of the chemical and biological aspects of water via Water and Waste Water Management. I now understand how to treat waste and regenerate contaminated lands via Waste Management and Land Remediation. Additionally, I learned about Geographical Information Systems, which is a subject I particularly enjoy. I learned about techniques to gather good representative samples from sites and techniques to test for environmental contaminants. I also furthered my knowledge on Environmental Impact Assessments.

Where did you undertake your MSc research?
I went to Malawi, Africa for a month in June 2011, to conduct research for my MSc thesis. My thesis was about Malawi’s latrine based sanitation system, with the end goal of designing a device to help with their latrine emptying efforts. I mainly stayed in Blantyre, the country’s 2nd largest city. I worked predominately with the NGO Water for People and also with representatives and students from the University of Malawi Polytechnic College.

Which projects and tasks did you work on?
The work included site visits to observe and learn about the latrine emptying process and interviewing workers to understand the challenges they face and how they feel about their jobs. I also visited hardware stores in Blantyre to understand what kind of materials are locally available that could be used to build my design. Combined with research I had done online and with other literature, I presented my findings to Water For People during the final week of my stay.

Would you recommend this to other students?
I benefited enormously from this research project. I gained invaluable experience working in a foreign country. I improved my communication skills and enhanced the ability to work in different environment with different people effectively. I also managed to provide a completely unique thesis which is immediately beneficial to the people concerned.