

The Foundations of an Academic Career



André Archer

PhD in Civil Engineering
Recipient, Hong Kong PhD Fellowship

André specializes in geotechnical engineering, a field within civil engineering relating to the behavior of soil. The current focus of his research is the impact of climate change on transport embankments, specifically how soil embankments, constructed for highways and railways, will respond to future increases in temperature and solar radiation. Aiming to transform current design practice and assist geotechnical engineers, André hopes that his research will be of particular use in his native South Africa, where the impact of climate change could be particularly acute in the coming decades.

Choosing HKUST

The most important factors which led André to choose HKUST was the pioneering geotechnical research of his supervisor Professor Charles W. W. Ng, as well as the university's global reputation.

"If you want to be the best, you need to learn from the best. Prof Ng is an excellent mentor and provides a good example of what it takes to be a world-leading researcher."



Access to cutting-edge research technology and world-class facilities were also essential for him, and HKUST exceeded requirements in this regard.

"The world-class and well-equipped facilities at HKUST make conducting high-quality research pleasurable and help to facilitate key research goals."





Providing a Platform

The first and most important thing that HKUST offered André which allowed him to develop as a researcher is stability. Due to the generous financial support under the Hong Kong PhD Fellowship Scheme, André is able to focus on his research without financial worries. In addition to peace of mind, exposure to the high quality research conducted by his peers and teachers encourages him to always strive for distinction and excel in his field.

"Conducting research with the knowledge that there is good financial support, combined with competent faculty and word-class facilities are a great advantage for any researcher."

André's time at HKUST has allowed him to flourish beyond merely the academic, his PhD has enabled him to develop new ways of thinking and transferable skills.

"A PhD/MPhil is a 'philosophy' degree, it teaches life skills as well as honing your knowledge as an expert on a topic. Obtaining your degree is the start of a new life, not the end, and a long journey to success."

Global University

André's time at HKUST has been defined by new opportunities, particularly interaction with fellow researchers from all over the world.

"I was part of an organizing committee for an international conference... I've also had the opportunity to travel to various countries, including Malaysia, Spain, and Switzerland, through my studies. These have allowed me to experience other cultures as well as broaden my horizons by meeting researchers from other world-class universities."



André's exposure to contemporaries from a variety of backgrounds, cultures and academic disciplines has helped him become a well-rounded researcher. This experience will prove invaluable when he fulfils his desire to return to South Africa to work on future collaborative research projects.

Such is the importance that André has placed in his time at HKUST that he wishes to actively encourage prospective South African students to take up similar opportunities.

"I would advise any postgraduate student to spend some time studying abroad to experience other cultures, to see other people's world views and have complete independence. HKUST is the perfect place to learn good work ethic and provides you with the know-how to become a world-class researcher. Don't be afraid to take risks and believe that any experience abroad will benefit you in the long run."



André's time at HKUST has been defined by more than just hard work, he's also made some fast friends and bonded with his colleagues on an academic and personal level.

"We like to share knowledge and, whenever we can, help each other with our research. This allows us to make progress, but moreover it builds good relationships"

Being able to lean on his supervisor, colleagues and friends has made his time at HKUST more fulfilling and allowed him to excel academically in ways that would have been difficult otherwise.

"Knowing that when times get tough there is a support network with my friends allows me to push myself."

The Aspiring Engineer

André's plan upon finishing his PhD is to return to South Africa and use the platform he's established at HKUST to pursue an academic career.

"I believe the path that I have followed up to now have set a good foundation for me to give back...Moreover, being a researcher will allow me to advance knowledge while still doing something that I love."

On top of teaching budding civil engineers and continuing to contribute to research, André developed an entrepreneurial streak while at HKUST and hopes to start his own geotechnical company.



