Female students come out tops in civil engineering at UCT

University of Cape Town (UCT) women are making significant strides in civil engineering, where they account for six of the department’s 11 first-class honours students. The students are part of the class of 2018 that will graduate on Friday, 12 April.

Their achievement is an emphatic endorsement of the Dean of Engineering & the Built Environment Professor Alison Lewis’s strong rebuttal last year of former South Africa Institution of Civil Engineering (SAICE) chief executive Mangin Pillay’s negative view about investing in attracting women into science, technology, engineering and mathematics (STEM) careers.

Thirty percent of the Department of Civil Engineering’s students are women, according to the department’s Professor Mark Zuidgeest, director of undergraduate studies. The six top women are Chloe Bolton, Juliana Diniz, Jemma Richmond, Dilys Mneney, Waseefa Ebrahim and Lansea Loubser, who are now working in engineering fields as diverse as transport and coastal infrastructure.

The UCT faculty has actively campaigned to attract more women, primarily through its #WomeninEngineering and “This is what an engineer looks like” campaigns, as well as the UCT chapter of Women in Engineering’s “I am an engineer” drive.

Last year, civil engineering master’s student Suzanne Lambert made global headlines when she produced a world first: a bio-brick made from human urine, signalling an innovative paradigm shift in waste recovery.

Chloe Bolton was the department’s top honours student. She also won the second-best civil engineering research thesis in SAICE’s National Investigative Project (IP) Showdown last month, as well as first place in the engineering stream of the 2018 Greenovate competition.

Engineering is where Jemma Richmond thought she could be most useful to society – “working with people, improving their lives, and doing so sustainably”.

Richmond now works for Transnet Freight Rail, which provides the platform to do this. Dilys Mneney has taken her skills back to Tanzania, although she has been granted a critical skills visa that will allow her to return to South Africa. “I never imagined myself as
“anything but a civil engineer,” she said, adding that women play a vital role in the engineering field.

Lansea Loubser chose civil engineering to make positive environmental and social change in the world around her. “An important thing I have learnt from being in a male-dominated industry is to always be myself. I never try to change who I am, to try and fit in with the males around me.

Juliana Diniz is of the view that women are vital to creating diversity in the industry. “This is proved to create innovation and increase productivity. We’re in an era where just solving problems with some concrete and rebar is not the answer. We have started understanding that infrastructure is much more complex, and the way it interacts with society is critical for its success,” she said.

Although Waseefa Ebrahim has always lived in Cape Town, she had never been to a township until the “Better Living Challenge” design workshop took her into Khayelitsha. Interacting with community members, mostly women, she was inspired by their simple desire for change – and how they envisioned this change happening.

If designers don’t understand the thinking, emotions, aspirations and motivations of these women and communities at large, she warned, then the service being provided is unlikely to be successful.

“There is no better way to understand this than by educating and employing women as civil engineers,” Ebrahim said.

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(From left) Waseefa Ebrahim, Juliana Diniz, Lansea Loubser, April, Jemma Richmond and Chloe Bolton. Dilys Mheney is absent.

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