

## Wits launches CEFF Digital Innovation Challenge

Wits has launched its Campus Personal Navigator Challenge which aims to develop innovative systems to assist students with visual and physical disabilities to independently navigate Wits' vast campus.



Professor Barry Dwolatzky, director of the JCSE

The initiative is calling on developers and entrepreneurs with innovative ideas on how to solve the challenge to submit their entries at <a href="https://www.tshimologong.joburg/challenge">www.tshimologong.joburg/challenge</a> before applications close on 3 March 2017.

The Wits Campus Personal Navigator Challenge is the first in a series of four annual digital innovation challenges led by the Joburg Centre for Software Engineering (JCSE) at Wits University with sponsorship from the Carl and Emily Fuchs Foundation (CEFF).

## 'Personal navigator'

The first such challenge sets its focus on new ways to assist students with visual and physical disabilities, by providing them with a 'personal navigator' to help guide them from one campus location to another.

Professor Barry Dwolatzky, director of the JCSE, explains that in 1986 Wits University established the Disabled Students Programme with the aim of supporting students with disabilities. This programme, now called the Disability Rights Unit (DRU), has grown to assist over 1000 students and staff with a broad range of disabilities. He notes that the challenge for

developers and innovators will be to create a system that safely guides students between locations using predefined accessible routes, bearing in mind the well-documented inaccuracies of commercially available GPS systems.

"The system could be a simple standalone device that attaches to a walking cane or wheelchair or be a wearable device. This unique navigation system may work independently or in conjunction with relevant existing or future systems (software, apps, maps, etc.) to provide visual or audible directions and information to the student. To do this the proposed system might also use multiple sensors installed at key points on campus which will provide location information and alerts to a base unit installed on a walking cane, wheelchair or wearable device," Dwolatzky says. Apart from coming up with an innovative solution, those entering the challenge will be assisted in turning their idea into a viable start-up.

## Weekend-long hackathon

The Wits Campus Personal Navigator Challenge will see approximately 100 aspiring digital entrepreneurs benefit from further training and the opportunity to participate in a weekend-long hackathon. Following this, the top ten entrants will each be given three months' membership in the Tshimologong Precinct incubation programme, and the top three an additional seven months' membership. In addition, one start-up in will spend four weeks at one of the Tshimologong Precinct's international partner hubs located in Canada, USA, Netherlands, UK or India.

"This initiative will encourage young developers to refine their skills in location technology while also benefiting their fellow students and the greater university community and we encourage aspiring digital entrepreneurs not to miss out on this great opportunity," says Dwolatzky.

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