

MEDIA RELEASE

Disrupting the norm in higher education: UP's immersive learning exhibition receives Innovation Excellence Award

The University of Pretoria's (UP) innovative teaching and learning initiatives have been disrupting the norm for several years. A significant milestone in its journey of navigating disruption in higher education has been the Innovation Excellence Award its immersive learning exhibition received. This was presented at the [21st Sasol Techno X Science, Maths, Engineering and Technology Exhibition](#), held in Sasolburg from 14 to 18 August 2023.

The award-winning exhibition was hosted collaboratively by UP's [Faculty of Engineering, Built Environment and Information Technology \(EBIT\)](#) and the [Faculty of Health Sciences](#). The exhibition targeted learners from marginalised communities in Grade 8 to Grade 12. It was focused on exposing them to the infinite possibilities of a career in science, technology, engineering and mathematics.

Immersive learning is the teaching method of the future. UP envisages a virtual reality (VR) headset augmenting traditional learning tools in experiential education efforts. Today's learners need to be prepared for the university classroom of the future.

At UP, the [Department of Mining Engineering](#) was at the forefront of this disruptive technology when it established the [Virtual Reality Centre for Mine Design](#) with the visionary support of Kumba Iron Ore, a member of the Anglo American plc group, in 2015. It has since also established a Research Chair in Extended Reality (XR) Technology in collaboration with the Department of Information Science, with the support of Exxaro Resources Limited.

This led to the University of Pretoria being a trailblazer in interactive immersive learning, thereby enhancing education, training and research through an innovative approach to information optimisation and visualisation.

The exhibition introduced learners to immersive learning using VR and XR tools in the disciplines that form part of these two faculties. It focused on the Virtual Reality Centre in the [Department of Mining Engineering](#), the [XR Toybox in the Faculty of Health Sciences](#), the [Digital Twin City in the Department of Architecture](#) and the Information Hub in the [Forestry and Agricultural Biotechnology Institute \(FABI\)](#) of the [Faculty of Natural and Agricultural Sciences](#).

The Health Sciences XR Toybox is an incubator for immersive learning as it exposes the Faculty's students and staff to XR technology. A replica of this toybox formed part of the Sasol X exhibition. It offered visitors the opportunity to experience immersive learning with VR headsets, and to discover how technology will influence the future of education. Calvin Nel, a postgraduate student in radiography observed: "Sasol Techno X presented the opportunity to create awareness about the field of diagnostic radiography as a noble science and career."

The successful exposure the University received at the exhibition as a leader in shaping the future of education can be attributed to the contribution and support of Professor Tiaan de Jager, Dean of the Faculty of Health Sciences; Professor Wynand JvdM Steyn, Dean of the Faculty of Engineering, Built Environment and Information Technology; Koos de Beer, Coordinator of the Exxaro Chair in XR Technology; and Karen du Preez, Faculty Manager in the Faculty of Health Sciences.

Prof Steyn believes that exposing future students to emerging teaching technologies in a transdisciplinary fashion allows them to make the mind shift towards a future in which their unique talents and experiences will further the development and growth of sustainable communities.

Prof De Jager emphasised the collaborative and transdisciplinary team effort behind this achievement, stating: “Disruption is a catalyst for progress. Our transdisciplinary immersive learning initiatives are transforming the educational landscape, preparing our learners for a future where technology and innovation will be integral. This award reflects the power of collaboration and the dedication of our diverse team.”

As UP continues to shape the future of education, its commitment to immersive learning stands as a shining example of innovation and progress in higher education.

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ABOUT THE UNIVERSITY OF PRETORIA

The University of Pretoria (UP) is one of the largest contact and residential universities in South Africa, with its administration offices located on its Hatfield Campus in Pretoria. This 115-year-old institution is also one of the largest producers of research in South Africa.

Spread over seven campuses, it has nine faculties and a business school, the Gordon Institute of Business Science (GIBS). It is the only university in the country with a Faculty of Veterinary Science, which is ranked the best in Africa. UP has 120 academic departments and 92 centres and institutes, accommodating more than 56 000 students and offering about 1 100 study programmes. It has the most academic staff with PhDs (70%), NRF-rated researchers (613).

The 2023 QS World University Rankings by Subject ranked UP first in South Africa in Accounting and Finance, Law, Economics and Econometrics, Mechanical Engineering, Electrical and Electronic Engineering, Chemical Engineering, Mathematics, and Veterinary Science.

For more information, please go to www.up.ac.za