

XR technology Chair promotes mining

A safer, economical, and more environmentally sensitive form of mining may be achieved through the cutting-edge technology of extended reality (XR).



Source ©Michal Bednarek [123rf](#)

To bring this technology's benefits to the mining industry the first ever Exxaro Chair in XR technology has been established between Exxaro Resources and the University of Pretoria (UP).

The chair will offer a framework on how the XR technology can be used to address mining industry challenges as well as identify the best available technologies for the solutions. This investment will allow for constant research towards these ends.

Extended reality technology refers to all real-and-virtual combined environments and human-machine interactions generated by computer technology, including augmented reality (AR), mixed reality (MR) and virtual reality (VR).

The Exxaro Chair in XR technology programme will assist in selecting the most effective XR technology for the specific applications, and then design interactions that can enable intuitive interaction with the virtual environment. It will also offer extensive user testing of proposed solutions to ensure that the solutions address and solve as many of the challenges as possible.

Among the solutions that will be explored are the application of individual and shared VR, mobile, tethered and cave setup

VR, communication VR, tracked and untracked VR space as well as hand tracking and full body tracking.

Exxaro will work with the Virtual Reality and Interaction (VRI) Lab, an initiative of the Department of Information Science at the UP as well as the Department of Mining Engineering. The VRI lab applies XR technologies to create interactive user experiences for various applications.

Prof Ina Fourie, the head of Department of Information Science and the inaugural Exxaro Chair in XR Technology, says this offers the country the opportunity to become an international leader in the use of XR technology in the mining industry and mining safety.

Exxaro CEO, Mxolisi Mgojo, believes the possibilities are endless.

“We are extremely excited for this partnership as part of our drive to support research that overcomes the obstacles associated with the 4IR. We believe that XR technology has immense applications for dealing with mining-related challenges and that can optimise the resources of companies like Exxaro,” he says.

For more, visit: <https://www.bizcommunity.com>