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Bridging the Digital Divide with Cloud-Hosted Geo-Location Spectrum Databases

Tuesday, 2 December 2025 11:00 (20 minutes)

Affordable and widespread broadband access is essential for achieving the United Nations Sustainable Development Goals (UN SDGs) centered on connectivity. This presentation highlights efforts to close the digital gap in South Africa's underserved rural and township communities through innovative use of a CSIR-developed, Geo-Location Spectrum Database technology, hosted by the Centre for High Performance Computing. Utilizing Dynamic Spectrum Access principles, this technology taps into underused radio spectrum to enable wireless network operators to deliver cost-effective wireless broadband to remote areas. This CSIR developed technology has empowered women- and youth-led ICT SMMEs to deploy and manage low-cost network infrastructure, providing affordable internet to schools, businesses, and households in previously disadvantaged regions. By creating job opportunities and fostering digital inclusion, this project supports national goals to accelerate progress towards the UN SDGs.

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Workshop Duration

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