IEEE Africon, Nairobi, Kenya, 20 - 22 September 2023

Sustainable Internet4All in South African rural and township communities

Mthethwa, Nosipho B; Sebopetse, Nakampe; Vilakazi, Mlamuli C; Mfupe, Luzango P; Mofolo, Raarone OM; Mekuria, F

Abstract

International Telecommunications Unions (ITU) and Global System for Mobile Communications (GSMA) statistics show that over half of the world's population is still not connected to broadband Internet, let alone to get services based on emerging digital technologies. Most of these digitally excluded communities are situated in rural emerging economy countries and experience the brunt of the adverse effects of the digital divide. This paper presents the Council for Scientific and Industrial Research (CSIR) Television White Space (TVWS) deployment ecosystem and the complementary projects for the provision of affordable broadband connectivity in rural and township communities in South Africa. Subsequently, the paper presents the socio-economic impact achieved by the four women and youth-owned beneficiary Small, Micro, and Medium Enterprises (SMMEs) Rural Network Operators (RNOs) which were supported by the CSIR in Phase I of the project. Furthermore, this paper briefly introduces the nine women and youth-owned beneficiary RNOs that will be supported in Phase II of the project.