



WIRELESS WORLD RESEARCH FORUM®

On May 29th – 1st June 2018, the Wireless World Research Forum (WWRF), the Council for Scientific and Industrial Research (CSIR) and the Independent Communications Authority of South Africa (ICASA) collaborated and organized the 5G Huddle and WWRF 40th conferences in Durban, South Africa. The theme for the 5G Huddle was “**5G for All**”. The event was organized by Forum Global on behalf of WWRF in partnership with ICASA, the South African regulator. The theme for WWRF 40th meeting was “**5G & Broadband Internet Connectivity for All**” and it was organized by WWRF, in collaboration with CSIR, one of the leading Science & Technology research institutes in Africa.

Over 150 people gathered at the Durban event, to listen and interact with a high-quality line-up of speakers. It was opened by the South African Minister of Telecoms and Postal services and closed by the Minister for Department of Communication.

The emphasis of both meetings was on how 5G can enrich life of people in developing countries. The fifth generation (5G) mobile communications standard is generally expected to profoundly transform the ICT infrastructure and telecommunications landscape globally. A future where the Internet of Things (IoT) and people merge with new services from medical applications to smart energy, agriculture, smart cities, robots, autonomous driving vehicles, water management and drones. The key issues around the development of 5G technologies are IoT, spectrum management, data security, privacy, regulation and competition, new vertical services and new business operating models. This future will come from the convergence of technologies and applications on a range of infrastructures, from fibre-optics to wireless and satellites.

Main highlights:

- The existing 5G standards Release 15/6 from 3GPP which will be approved by ITU, with its 3 legs (EMBB, mMTC, Low Latency) addresses mainly developed countries use cases. A 4th leg of 5G termed “Affordable Broadband Internet for All (ABI4A) is necessary for meeting the crucial connectivity needs of the next 2-3 billion broadband unconnected population in emerging economies.
- Investment in the interconnection and co-existence for the network of networks aspect in 5G, is important to address the migration towards 5G. Furthermore, technologies in 5G will benefit and integrate with AI & Data-science to meet the requirements for the 4th Industrial Revolution in developing countries.
- Skills development and research in multidisciplinary technologies of networking technologies, sensors, signal processing, software radios, security, spectrum-toolboxes for 5G, AI & data-science, including the human sciences with associated use cases is an important component. Skills development primarily is led by tertiary educational and research institutions; however, Government and private industry stakeholders are also responsible and have a large role to play.



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- The requirement for 5G test-beds and trials of 5G networks in Africa and developing countries is of paramount importance. The 5G test-bed in South Africa is required and will be used for testing relevant 5G Use Cases & Services, supporting 5G technology-based SME industry developments, and proof of concept demonstrations to 5G eco-system stakeholders.
- The need for enabling technical standards, regulations, and policy for emerging technologies in 5G, AI, data-science & cyber security should not be underestimated and requires due diligence by 5G ICT eco-system stake-holders and proponents of the 4th Industrial revolution.