

AI for Connectivity

INTELLIGENT FUTURE NETWORKS: HASC PROJECT SPOTLIGHT

PROJECT TITLE:

ML-Enabled RIS-Aided Waveforms

CORE CHALLENGE:

Connectivity



CHALLENGE:

Challenges currently exist in dense environments such as city centres and indoor scenarios where mobile signal propagation struggles without clear line-of-sight.



This leads to unreliable signals that cannot deliver the capacity that users require.

INNOVATION:

This innovation uses machine learning combined with a novel technology called Reconfigurable Intelligent Surfaces (RIS).



RIS enables improved signal strength, and reduces interference. Machine learning algorithms are used to configure these surfaces to harness the electromagnetic wave energy in the environment.

IMPACT:

This technology brings coverage to places where signals would normally be weak or blocked leading to more stable and reliable mobile signals.

Ultimately this will result in better services to users as we move towards 6G networks.



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With thanks to...

LEAD UNIVERSITY:

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