HASC
HUB IN ALL-SPECTRUM CONNECTIVITY

AI for Connectivity

INTELLIGENT FUTURE NETWORKS: HASC PROJECT SPOTLIGHT

PROJECT TITLE:
ML-Enabled MA And ISAC Waveforms

CORE CHALLENGE:
Connectivity

CHALLENGE:

Tomorrow's 6G networks must deliver reliable high-speed communications to citizens wherever they are. New communications signals and waveforms can help with this goal.

The University of Sheffield is using a state-of the-art test bed to evaluate new types of signals. The challenge is to keep the signal stable and reliable even when the environment is rapidly changing.

INNOVATION:

We're testing how well ML can improve the way wireless signals are sent and received in future networks - especially in highly mobile scenarios, such as in cars, trains or even drones.

ISAC waveforms are Integrated Sensing and Communications. These waveforms let wireless signals send data *and* sense the environment. This could be used for detecting where people or objects are and works like radar.

IMPACT:

This project is focused on testing how well machine learning (ML) can improve the way wireless signals are sent and received in future networks.

Ultimately this will help to deliver more reliable communications to citizens, even as they move around.

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With thanks to...

LEAD UNIVERSITY:
University of Sheffield

PRINCIPAL INVESTIGATOR:
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