

# Al for Connectivity

INTELLIGENT FUTURE NETWORKS: HASC PROJECT SPOTLIGHT

## PROJECT TITLE:

O-RAN intelligent adaptive Load balaNcing and efficiency in highly Dense deplOyments: ORLANDO

### CORE CHALLENGE:

Adaptivity



O-RAN intelligent adaptive Load balaNcing and efficiency in highly Dense deplOyments: ORLANDO

#### **CHALLENGE:**

Dense O-RAN networks find difficulty maintaining performance under uneven traffic loads, wasting precious spectrum and causing congestion.



Al-driven load-balancing can help alleviate this, and this work will investigate this technique at scale.

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#### **INNOVATION:**

ORLANDO is developing AI and ML-driven solutions for intelligent load balancing in dense Open RAN (O-RAN) networks.

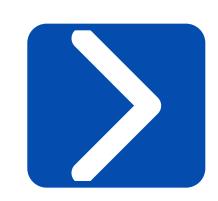
By dynamically distributing traffic across a network, the system improves efficiency, reduces latency and energy use, and enables scalable, self-optimising wireless networks capable of adapting in real time to changing demand.



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#### IMPACT:

Citizens rely on reliable communications, and providing this across different environments, at reasonable cost means that optimising network performance is an important area.



Al will play a key role in this. Success will mean better service in crowded areas, with fewer dropped calls, less buffering, and more reliable connections.



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With thanks to...

### LEAD UNIVERSITY:

University of York

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