AEROSPACE OPERATIONS - CAPABILITIES STATEMENT

EXPERTISE: The Aerospace Operations thematic group contains a diverse range of academics looking at operations and applied logistics, mathematical modelling, AI and machine learning. Key examples include

- **Human Integration with Navigable Taxiway Sequencing (HINTS)** - HINTS investigates the role of optimization-based decision support technology in ATCO decision making and performance.
- **PASSME: Personalised Airport Systems for Seamless Mobility and Experience**– PASSME's principal objective is to reduce door-to-door air travel time by 1 hour.

Specific areas of expertise lie within and across:

Operations and Applied Logistics	Optimisation and Mathematical Modelling	Algorithm Design and Engineering	Artificial Intelligence and Machine Learning	Specialised Computational Techniques
Airport Operations	Heuristic and Exact Optimisation	Algorithm Design	AI (Artificial Intelligence)	Combinatorial Optimisation
Logistics	Maths/Computer Modelling of Real-World Problems	Algorithm Engineering	Machine Learning	Robotics
	Operational Research	Logistics		Mixed Reality

PEOPLE: Over **50 academics and researchers** work within and across this diverse range of research themes to deliver novel, cross-disciplinary, integrated research projects to both industry and research funders.

RESEARCH FACILIITES: Across our research entities, we can provide access to:

Robotics	Intelligent Systems	Mixed Reality
Humanoid Robotics	Haptic Technology	

TRACK RECORD: Our specialist aerospace teams at UoN work in partnership with a range of major aerospace companies and SMEs. We also have an extensive track record in securing key UK and EU funding from Horizon Europe (and its predecessor programmes), Innovate UK, ATI, EPSRC and others.

Engineering and Physical Sciences Research Council

Innovate UK

Natural Environment Research Council

THE ROYAL SOCIETY

CLEAN AVIATION

AEROSPACE TECHNOLOGY INSTITUTE

University of Nottingham

IAT Institute for Aerospace Technology

https://www.nottingham.ac.uk/aerospace