CASE STUDY THE INSTITUTE FOR SAFE AUTONOMY

PROJECT
The Institute for Safe Autonomy

SERVICES
Mechanical, Electrical & Public Health Design and Build

CONTRACTOR
Tilbury Douglas

G&H DIVISIONS
Building Services
Air Conditioning
Maintenance

VALUE
£2.7 million

CLIENT
The University of York

DURATION
11 months

HIGHLY TECHNICAL
MEP scheme for world leading robotics and AI facility

MEP DESIGNED
to meet technical specifications for safe autonomy and research

FLEXIBLE
programme management to overcome impact of Covid-19

LATEST REVIT
3D modelling software and cloud-based augmented reality used

ROBOT
connectivity installed to doors

The Institute for Safe Autonomy is University of York's world-leading research facility that addresses global challenges assuring the safety of robotics and systems that use artificial intelligence.

The £45 million scheme is one of the university's most important initiatives that considers how to design safety and assurance into robotics and autonomous systems that are becoming part of everyday life such as driverless cars and hospital robots.

The Institute for Safe Autonomy is now the only facility in the world that draws together skills and strands in communication, robotics, autonomy and assurance in one place.

G&H Building Services' MEP approach mirrored the university's technological lead, with Revit 3D modelling software used in conjunction with the Dalux cloud-based augmented reality app.

This real-time interactive software allowed on-site engineers and project managers to view our design team's drawings via mobile, tablet or laptop with synchronised amends visible on and off-site for all G&H departments as well as the main contractor, Tilbury Douglas.

This, along with a proactive approach and detailed programme management throughout, ensured the scheme was delivered on schedule despite Covid-19 implications.
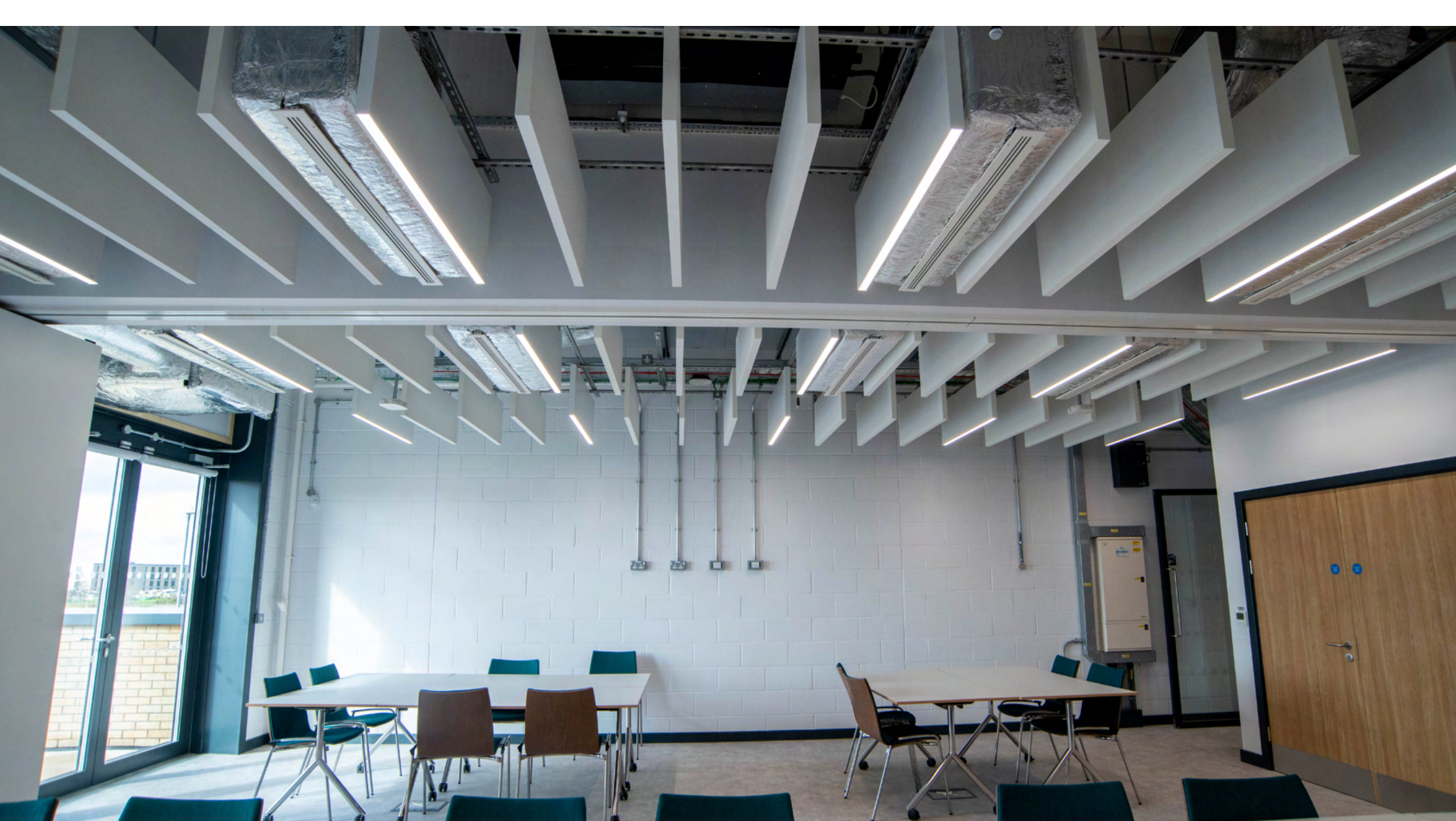
MEP services were installed in the construction of a purpose built, specialist testing facility with rooftop laboratories and offices that are home to in the region of 100 academics, industrial partners, global experts and regulatory organisations.

G&H Building Services provided power, lighting, data, building management system controls, fire and disabled refuge alarms, induction loop, lightning protection and security.

Door entry systems include robot access along with a full egress system.

A complex single and multi-mode fibre network was installed throughout the building for connectivity and experimental uses between laboratory areas.

Gas safe detection equipment was fitted in the quantum technologies communications laboratory where compressed air, nitrogen and chilled water pipework was installed for the institute's experimental purposes.

Low carbon measures included electric vehicle chargers and a district heating network system that reduces fossil fuel reliance. Water and fire hydrant, HVAC, underfloor heating, above ground drainage, sanitaryware and chilled water were also installed.

The high quality design and installation of MEP services now play a central role in the university's 'living lab' for autonomous technologies, equipping the facility with a world-leading system for research, innovation, education, public engagement and commercial realisation.