

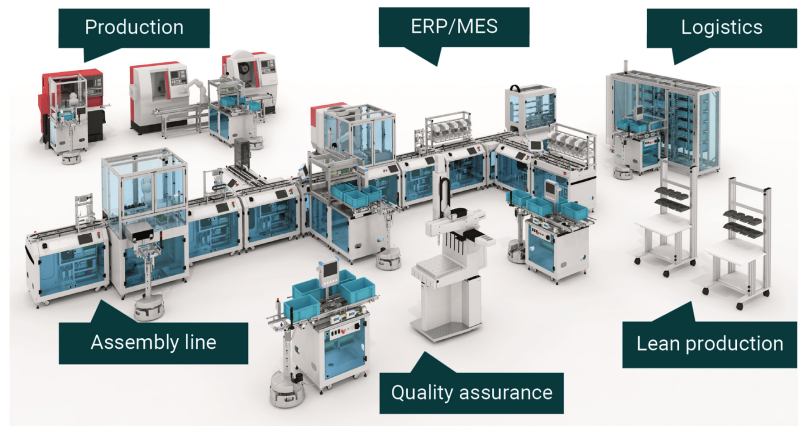
The Greater Birmingham and Solihull's Institute of Technology's (GBSIoT) Hub located in Birmingham city centre is home to a Cyber Physical Manufacturing Rig.

What is a Cyber Manufacturing Rig?

Industry 4.0, CP Lab & Factory.

A scaled down model of the 'factory of the future'.


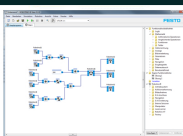



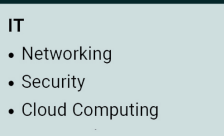
The Cyber-Physical System is the professional and compact Industry 4.0 learning system from Festo Didactic. It includes all the technologies and components needed for communicating an in-depth knowledge of Industry 4.0.



The modular and flexible design has a range of learning scenarios, from individual pallet transfer systems with integrated controller, right up to a connected production system with cloud services such as Siemens MindSphere.

Technologies covered

The Rig will possess the hands on learning capability for production, ERP/MES, logistics, assembly line, quality assurance and lean production, covering a mass of technologies listed below.

CPS	Programming	AR	Energy Monitoring	Mobile Robotics	other
					
Cyber-Physical systems Permit the intelligent networking of people, products and production resources	<ul style="list-style-type: none"> • PLC Programming • HMI Programming • Robot Programming • CNC Programming • Microcontroller Programming 	Augmented Reality Computer-assisted augmented reality, e.g. as in assistance system for maintenance	Enables electrical output and flow rates to be recorded – for resource-efficient production	Autonomous transport robots for logistics tasks in the smart factory	IT <ul style="list-style-type: none"> • Networking • Security • Cloud Computing Radio frequency communication Use radio transmission to read data from labels or write data to labels without contact

How can I use the Cyber Manufacturing Rig?

The Rig will be open to use for both learners and industry in the West Midlands. GBSIoT's Hub and the Cyber Rig will continue to champion a region on the cutting edge of Manufacturing and Engineering and help inspire the next generation of STEM learners.

Are you an Employer wanting to upskill your workforce? Or looking for help with research and development? Are you a Teacher looking to inspire your students in STEM? GBSIoT can help you!

For more information or to enquire about use of the Rig please email enquiries@gsbiot.ac.uk

Cyber Physical Manufacturing Rig - GBSIoT Hub

Production

The CP Factory integrates CNC technologies for use in industrial training projects & scenarios.

ERP/MES

In a modern factory, intelligent machines & workpieces communicate with each other & with the IT systems ERP & MES both inside & outside the factory, up to cloud level.

ERP (Enterprise Resource Planning) - IT systems for business process management.

MES (Manufacturing Execution System) - IT system controlling production in real time.

Logistics

The CP Factory offers a versatile training & research platform for various logistical problems.

Assembly line

RFID technology with service-oriented program architecture & short setup times.

Quality assurance

From a calliper gauge to a fully-automatic 3D measuring machine - all standard measuring devices can be integrated.

Lean production

Facilities can be offered for producing anything, from assembly cells to a supermarket with a 'milk-run'

About the Greater Birmingham and Solihull Institute of Technology

The Greater Birmingham Solihull & Birmingham Institute of Technology;
the Hub for advanced manufacturing and engineering.

For Skills. For training. For Courses. For opportunities. For Employers. For you.

Our Institutions:



The GBSIoT Hub located in Birmingham city centre is a Hub for STEM learning and research in the region. Open for learners and employers to use across the West Midlands.

The Hub brings Greater Birmingham and Solihull to the forefront of manufacturing research and learning, supporting curriculum development to address skills shortages

