# **UCONN TECH PARK** Supporting Small Businesses in Connecticut

### **Advanced Manufacturing and Automation**

1	Finite element modeling and simulation	Simulations can identify potential failure points to improve product quality
1	Machining, forming, forging, and casting validation	Not sure if your design will work? Let us validate it for you
1	Manufacturing process optimization	Improve feeds and speeds, or find root causes of manufacturing issues
<b>\</b>	3D printing and prototyping	Support for rapid prototyping before full-scale production

#### **Materials Science**

1	Materials characterization and testing, failure analysis, and forensic examination	We can help develop failure reports to address warranty concerns
$\checkmark$	Remote access to high end microscopy	Give your microscopists access to top end equipment
$\checkmark$	Electrical insulation testing	Ensure reliability and compliance of power distribution components
$\checkmark$	Mechanical, thermal, and molecular analysis	Gain insights into material properties and performance
$\checkmark$	Structural and chemical analysis	Assess composition, stability, and integrity of materials
$\checkmark$	Composite materials development and testing	Optimize strength, durability, and functionality of your designs
$\checkmark$	Corrosion analysis	Gain insights and mitigation strategies to enhance material durability
1	Rheological and interfacial measurements	Predict material processability and product stability

#### **Energy and Sustainability**

<b>√</b>	Free facility energy audits	Receive a detailed report with cost reduction strategies and efficiency optimization, including assessments of electricity use, heat generation, waste production, equipment efficiency, and overall operational performance
<b>\</b>	Energy management services	Monitor, analyze, and optimize energy usage with real-time insights
1	Renewable energy microgrid integration	Assess feasibility of solar, wind, or battery storage solutions to lower your energy bills

## **Data Sciences**

$\checkmark$	Cybersecurity assessments	Identify risks and safeguard critical systems
$\checkmark$	Hardware security and circuit debugging	Detect vulnerabilities and optimize electronic performance
$\checkmark$	Computational access to GPUs	Accelerate data processing and AI model training
1	Al-driven fault detection and diagnostics, and health prognostics	Enable predictive maintenance for manufacturing and infrastructure

### **Short Courses and Expert Consulting**

Non-credit training and consulting tailored to
your business needs

Covering topics like advanced manufacturing techniques, Al-driven process optimization, and more, Conn's tailored short courses can power up your engineering team. Faculty experts also provide consulting, offering insights in engineering, healthcare, data science, and other key areas

### **Senior Design Projects**

Support from Senior Design teams

Access UConn engineering seniors for small projects to support your business needs across a broad range of fields, from materials science to life sciences

Contact Us

michael.didonato@uconn.edu

www.techpark.uconn.edu