



Connecticut Manufacturing Simulation Center

CMSC provides small and medium-sized enterprises (SMEs) a shared technical assistance resource for computer modeling-based design, development, testing, and validation that is capable of supporting product development and innovation and improving SME competitiveness in the global economy. In addition, CMSC provides training to SME workforce to attain a higher level of technical literacy in modeling and simulation and to promote long-term innovation and business development.

UNIVERSITY

University of Connecticut

SERVICE AREA

State of Connecticut

DIRECTOR

Jeongho Kim

CENTER CREATED

2016

CENTER LOCATION

Innovation Partnership Building, UConn

CENTER ACTIVITIES

Innovation and Economic Development
Workforce Development

INDUSTRY CLIENTS

Aero Gear Inc.
Barnes Group Inc.
(Associated Spring)
Dur-A-Flex
GE Gas Power Systems
GKN Aerospace
Jonal Laboratories
Sperry Rail Service
Stanadyne LLC
Whitcraft

CENTER WEBSITE

www.cmssc.uconn.edu

CONTACT

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ACTIVITIES

CMSC recognizes that computational design, modeling and simulation using high-performance computing can lower the cost of new product design and development and enhance product testing and validation processes for virtually all manufacturing companies. CMSC provides SMEs modeling and simulation service for product design and optimization. In addition, CMSC training program will enable SME workforce such as working professionals and students to attain a higher level of technical literacy in finite element simulation.

LEVERAGING

CMSC is a partnership between UConn and Connecticut Innovations (CI), the state's quasi-public venture capital arm, which promotes innovation capacity-building activities in Connecticut. CMSC has purchased 504 high-performance computing cores supported by UConn. Under the leadership of CI, CMSC partners strategically with IMCP consortium members, manufacturing companies, the Advanced Manufacturing Centers (community colleges) and the Quiet Corner Innovation Cluster (QCIC), the Proof-of-Concept Center (POCC), and UConn's Innovation Partnership Building. In addition, UConn team with multiple PIs at UConn have recently secured multi-million federal grant from DOD-AFRL on manufacturing simulation technologies. CMSC supports both research and outreach activities for this program.

INNOVATION & ECONOMIC DEVELOPMENT

CMSC have engaged in twenty-five manufacturing simulation projects with small and medium-sized manufacturing companies in the State of Connecticut. Those include Aero Gear Inc., Associated Spring, Dur-A-Flex, GE Gas Power Systems, GKN Aerospace, Jonal Laboratories, Sperry Rail Service, Stanadyne LLC, and Whitcraft. By using computer models to test and modify new product designs and to optimize manufacturing processes virtually, manufacturing companies can lower their design and manufacturing costs. The CMSC's capability and service to Connecticut manufacturers promotes innovation and economic growth.

WORKFORCE DEVELOPMENT

CMSC have trained 24 Quinebaug Valley Community College students through a 4-week training program by working with the instructor of EGR 211: Engineering Statics. CMSC have also trained more than 700 University of Connecticut students and 65 working professionals by offering software workshops.

SOFTWARE PARTNERS

CMSC have established partnerships with ANSYS and MSC Software. This partnership enables us to educate UConn graduate and undergraduate students and professionals who are trained to use modeling and simulation software tools.