

## UT Composites Opportunities

- State of the art advanced materials & manufacturing
- Experiential learning
- Composites training & education
- Industry training workshops
- Materials by design
- Concept to prototype
- Process modeling & simulation
- Work study
- Visiting scholars
- Seamless working between UT, ORNL facilities, IACMI and industry

### Advanced Composites Design, Materials, Modeling and Manufacturing

#### Shaping Engineers from:

- Mechanical
- Aerospace
- Biomedical
- Materials
- Chemical
- Manufacturing
- Automotive
- Civil
- Sustainability
- Electrical Engineering



**BIG ORANGE. BIG IDEAS.**

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## Tennessee Advanced Composite Materials and Manufacturing Ecosystem





## University of Tennessee Composites Facilities

- IACMI Fibers and Composites Manufacturing Facility (FCMF)
- Mechanical Characterization Laboratories
- Joint Institute for Advanced Materials (JIAM)
- Center for Renewable Carbon (CRC)



## Oak Ridge National Laboratory Carbon Fiber Research Group

- Carbon fiber science
- Custom melt spinning
- Activated carbon R&D
- Carbon precursors



## Oak Ridge National Laboratory Carbon Fiber Technology Facility

- Low cost textile & lignin precursor carbon fiber
- 25 ton per year carbon fiber production
- Custom sizing and characterization

## Oak Ridge National Laboratory Manufacturing Demonstration Facility

- Intermediate to large scale composite fabrication
- Hybrid materials
- Additive - Conventional Composites



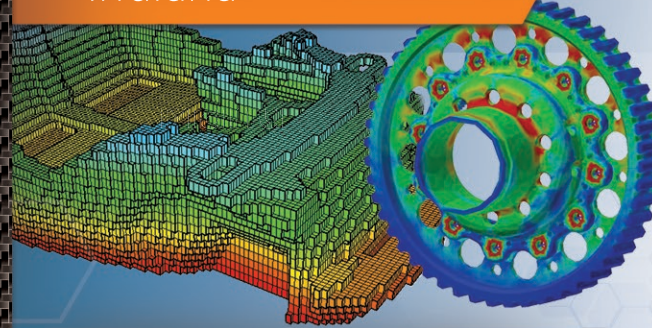
## COMPOSITE MATERIALS AND PROCESS

- Tennessee & Kentucky



## DESIGN MODELING AND SIMULATION

- Indiana



## COMPRESSED GAS STORAGE

- Ohio



## IACMI Technology Areas

BASIC SCIENCE

→ LAB SCALE

→ INTERMEDIATE SCALE

→ PROTOTYPING

## WIND TURBINES

- Colorado



## VEHICLES

- Michigan

