

Opportunity Title: 2019 Institute for Advanced Composite Manufacturing Innovation (IACMI) - Summer Internship Program Opportunity Reference Code: 2019-IACMI-Summer

Organization Institute for Advanced Composites Manufacturing Innovation (IACMI)

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How to Apply Applicants must submit a completed applications, including two submitted recommendations, through the Zintellect application system <u>no later than</u> 11:59 PM ET on Friday, February 8, 2019.

Application Deadline 4/16/2019 11:59:00 PM Eastern Time Zone

Description The Institute for Advanced Composite Manufacturing Innovation has an interest in developing the skills of strong technical undergraduate and graduate students who might one day support the workforce in both talent and leadership. The IACMI Internship Program offers undergraduate and graduate students a chance to participate in a short-term summer program with an assigned mentor at one of IACMI's partner sites. The program is managed for IACMI by ORAU.

Selected candidates may also have the opportunity to be assigned to an IACMI industry partner with the noted states locations throughout the U.S. as well. In addition, depending on the host facility, selected candidates may be subject to completing additional screenings and onboarding documents required by the host site to include a drug test and/or background check.

The appointment period dates for the summer appointments are flexible, however, are limited to 400 total hours of full-time participation during a 10-week appointment period.

<u>Technical Area - Composite Materials and Processes</u>

Selected candidates for this opportunity will take part in innovative composite materials and process research with one of IACMI's partners at the following locations: Manufacturing Demonstration Facility (MDF) at Oak Ridge National Laboratory (ORNL), University of Kentucky in Lexington, KY, Vanderbilt University in Nashville, TN, the University of Tennessee, Knoxville in Knoxville, TN, the Composite Recycling Technology Center in Port Angeles, WA or the Composite Prototyping Center in Plainsview, NY. Selected candidates may also be assigned to an IACMI industry partner with the noted states, as well. In addition, depending on the host facility, selected candidates may be subject to a drug test and/or background check. IACMI's Composite Materials and Process Technology Area will help to accelerate this industrialization by prototyping and/or scaling technologies in carbon fiber production, composites manufacturing including thermoset and thermoplastic processes, 3D printing, nondestructive evaluation of composites and composites recycling. To learn more about this initiative, please visit: http://iacml.org/technology-area/.

Technical Area - Compressed Gas Storage

Selected candidates for this opportunity will take part in innovative research for advanced composites manufacturing processes for automotive and CGS applications with IACMI's partner at The University of Dayton in Ohio. IACMI's CGS Technology Area, led by the University of Dayton Research Institute in Ohio, is focused on reducing cost to enable higher manufacturing capacity of carbon composite storage tanks used for natural gas and hydrogen. Compressed natural gas is emerging as a low-cost alternative fuel for vehicles, and demand for compressed gas storage vessels continues to grow. To learn more about this initiative at The University of Dayton, please visit: http://iacmi.org/technology-areas/compressed-gas-storage-technology-areas/.

Technical Area - Design, Modeling and Simulation

Selected candidates for this opportunity will take part in innovative design, modeling, and simulation research with IACMI's partner at Purdue University in West Lafayette, IN. IAMCI's Design, Modeling & Simulation Technology Area, located in Indiana and led by Purdue University, offers modeling and simulation tools to help address the need to shorten the development cycle and decrease the cost of composites

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manufacturing while allowing more time for innovation throughout the entire supply chain. To learn more about this initiative at Purdue University, please visit: <u>http://iacmi.org/technology-areas/design-modeling-and-simulation-technology-area/.</u>

Technical Area - Vehicle Research

Selected candidates for this opportunity will take part in innovative vehicle research with IACMI's partner at Michigan State University in Detroit or East Lansing. IACMI's Vehicles Technology Area, located in Michigan where 70% of all US automotive RD&D occurs at more than 370 R&D centers, is focused on reducing the weight of vehicle structures. Specifically, the institute is focusing on advanced fiber-reinforced polymer composites for vehicles; materials that combine strong fibers with strong plastics that are lighter and stronger than steel. These materials are crucial to the auto industry, which continues to look for ways to manufacture vehicles that are fuel-efficient and safe. Composite materials also are important in the development of efficient power generation and the increase of renewable power production. To learn more about this initiative at Michigan State, please visit: http://iacmi.org/technology-areas/vehicles/.

Technical Area - Wind Turbine Research

Selected candidates for this opportunity will take part in innovative wind turbine research with IACMI's partner at The National Renewable Energy Laboratory (NREL) in Boulder, CO. The Colorado-based Wind Turbine Technology Area will focus on developing advanced composites manufacturing processes for turbine components, including blades, hubs, and nacelles. By building upon the extensive composites and manufacturing expertise of Colorado State University, Colorado School of Mines, Iowa State University, and The University of Colorado, the technology area will develop new materials and production methods for wind turbine blades—resulting in longer, lighter-weight, and more efficient blades for the next generation of turbines. To learn more about this initiative at NREL, please visit: http://iacmi.org/technology-areas/wind-turbines.

Contact Us

For more information regarding eligibility and/or application questions, visit the program website at <u>www.orau.org/IACMI</u>.

You may also contact: Julie Malicoat Project Manager julie.malicoat@orau.org

Qualifications This program is open to qualified undergraduate and graduate students.

To be eligible, an applicant must:

- Be a U.S. Citizen.
- Be a student in good standing at a regionally accredited U.S. college or university and meet one of the following eligibility criteria:
 - Be currently pursuing a bachelor's degree, an associate's degree or a graduate degree/PhD.
 - Have received a bachelor's degree, associate degree, or graduate degree within the last six months (from the start date of the appointment).
- Have a minimum cumulative GPA of 3.2/4.0 scale or the equivalent as verified by updated transcripts.
- Be at least 18 years old at the time of appointment.
- Provide proof of health insurance coverage prior to the beginning of the internship. The participant can purchase health insurance coverage



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through ORAU.

Post-docs are not eligible to apply for this opportunity.

- Eligibility Requirements
- Citizenship: U.S. Citizen Only
 Degree: Any degree .
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 - Overall GPA: 3.20
 - Discipline(s):
 - Business (<u>11</u> [●])
 - Chemistry and Materials Sciences (<u>12</u>)
 - $\circ\,$ Communications and Graphics Design (6)
 - Computer, Information, and Data Sciences (16 (16)
 - Earth and Geosciences (21 (*)
 - Engineering (<u>27</u> ^(©))
 - Environmental and Marine Sciences (14 (1)
 - Life Health and Medical Sciences (45 ♥)
 - Mathematics and Statistics (10 (*)
 - Other Non-Science & Engineering (13 (13))
 - Physics (<u>16</u>)
 - Science & Engineering-related (1.)
 - Social and Behavioral Sciences (<u>28</u>)
 - Age: Must be 18 years of age

Affirmation I certify that:

- I am a U.S. citizen.
- My current/latest cumulative GPA is at least a 3.2/4.0 scale.
- I will be at least 18 years of age at the time of appointment.
- I will provide proof of coverage under a health insurance plan prior to the beginning of the internship.

I certify that I meet one of the following eligibility criteria:

- I am a student in good standing at a U.S. institution of higher learning and am currently pursuing a bachelor's degree, an associate's degree or a graduate degree/PhD.
- I have received a bachelor's degree, associate degree, or graduate degree within the last six months (from the start date of the appointment). Post-docs are not eligible to apply for this opportunity.