

## **Composites Engineer III**

**Deadline: Open Until Filled**

### **Overview:**

Composites Automation, LLC is a Delaware-based small business founded in 2001, conducting research and development in composite materials and structures and located in close proximity to the University of Delaware. Composites Automation LLC has transitioned processing equipment to commercial and DoD customers, evaluated new materials and processes and supported various projects with engineering consulting services. Composites Automation has on-going research programs through SBIR and STTR grants with the Department of Defense, NASA and Department of Energy, related to materials and manufacturing research and product development. We work closely with the University of Delaware Center for Composite Materials, a leading research Center focused on composite materials research, education and tech transfer.

### **RESPONSIBILITIES**

- Lead analytical and numerical model development for composite manufacturing processes. Responsible for developing modeling strategies with team members, model implementation strategy and code development.
- Provide technical input to team members on theoretical modeling and analysis of composite processes as well as structures, to include interpretation of FE results and use of established theories in composite mechanics and processing.
- Develop and execute project plans to implement modeling vision into computer code, user-friendly interfaces and GUIs, as well as provide technical support to users.
- Interact and represent Composites Automation on technical matters, with sponsors, subcontractors, and vendors.
- Assist team members with technical input for purposes of generating proposals.
- Conduct project reviews and make technical presentations with Composites Automation team members to project sponsors.
- Write technical reports, presentations, and other written communications, as required.
- Lead model validation efforts when required to demonstrate specific capabilities ready for commercialization.
- Provide technical input on composite materials test methods and modeling practices.

## QUALIFICATIONS

- Master's Degree in Mechanical Engineering and 2-3 years industry (or industry related) experience in composites modeling. Graduating Ph.D. with thesis focused on composite modeling are encouraged to apply.
- Experience with CAD/CAE codes such as CATIA, ABAQUS is preferred.
- Demonstrated ability to create custom modeling codes addressing composite manufacturing processing aspects is preferred.
- Experience with composite design; mechanics, design, strength of materials background.
- Must be able to independently direct the conceptual and modeling strategy development.
- Technical understanding of the benefits and limitations of various composites processing methods.
- Working knowledge of composite processing methods to include autoclave and liquid molding (RTM, VARTM).
- Basic knowledge of composites test methods and structural testing. Ability to identify performance parameters that are key to the success of the project.
- Knowledgeable of composite standard manufacturing and operational practices.
- Experience with CAD technology (solid modeling, part and assembly design, drawing creation).
- Proficient using computers (Windows operating system/Microsoft office suite).
- Ability to train and coordinate engineering and research efforts with student interns.
- Effective communication (oral and written) of design documentation (presentations, reports, etc.) and engineering presentations.
- Ability to communicate (orally and in writing) and interact effectively with managers, engineers, technicians, subcontractors, and vendors.
- Ability to interact with internal and external customers in a professional manner.
- Ability to assess subcontractor and vendor capabilities and provide direction to satisfy project requirements.
- Permanent resident or US Citizen required due to funding source.

**Submit applications to:** Dr. Shridhar Yarlagadda [yarlagadda@compositesautomationllc.com](mailto:yarlagadda@compositesautomationllc.com)