



## Be a part of **THEIR** future now...

By challenging our future engineers and becoming a partner in education by sponsoring a **Virginia Tech Industrial and Systems Engineering (ISE) Senior Design** capstone project through **GENEDGE** and the **Center for High Performance Manufacturing (CHPM)** at Virginia Tech.



Many manufacturing companies are busy running their day to day operation and struggle to find the time, technical resources, and tools to address operational inefficiencies, solutions to unmet challenges, and facility design opportunities.

GENEDGE offers practical, hands-on student team resources and solutions through the Center for High Performance Manufacturing's (CHPM) Industrial and Systems Engineering (ISE) Senior Design Program.

Participating manufacturers identify and provide projects that require the investment of 8-10 team hours per week, for the duration of the 9 month project. Senior Design Program services include, but are not limited to, a CoreValue Enterprise Value Assessment, project charter, and professional project management and coaching. Services result in a substantial business impact in one or more areas.

### GENEDGE / Virginia Tech - Partnership and Affiliation

GENEDGE has partnered with The Center for High Performance Manufacturing (CHPM) at Virginia Tech to advise and project manage students in the Grado School of Industrial and Systems Engineering Senior Design Program. The program is designed to be the capstone, integrative experience that provides the basic skills needed to effectively plan, manage and implement technical projects. Specifically, students work in teams to apply learned skills to real-world manufacturing opportunities, improving processes and accelerating growth.

During the first semester, students focus on developing a technical proposal as well as performing technical analysis related to their project. During the second semester, students focus on design and implementation as well as hone their technical writing and oral presentation skills. The yearlong capstone experience culminates with the Senior Symposium, a technical conference event at which company representatives, students, GENEDGE advisors, and faculty share and celebrate the project results.

### Project Types

- Facility Planning and/or Design
- Lean Manufacturing Process Improvements
- Manufacturing Systems
- Material Handling
- Ergonomics or Human Factors
- Production or Manufacturing Systems Design/Redesign
- Robotics and/or Automation
- Simulation
- Systems Engineering

### Benefits to Participating Companies

- Improve operational efficiencies to increase profits
- Access Virginia Tech resources to address opportunities for improvement
- Connect with Virginia Tech senior students for future employment
- Develop a supply chain strategy to be more competitive and minimize risks in sourcing
- Identify solutions to unmet technology needs and challenges
- Develop a strategy to effectively and efficiently meeting future challenges and opportunities
- Acquire professional project management and advising through GENEDGE to establish project definition, maintain project focus, and to meet project objectives.
- Gain access to CoreValue Unlock Enterprise Assessment to determine current enterprise value, potential enterprise value, and to identify internal/external value gaps. Companies move closer to potential enterprise value as they address value gaps.

### Cost

The cost is \$2,500 for companies with 49 employees or less, and \$5,000 for companies with 50 employees or more. The cost covers GENEDGE project management and coaching only. There is no cost for student services.

### How to Participate

GENEDGE is currently setting up projects for upcoming class of 2021 in the Grado Department of Industrial and Systems Engineering at Virginia Tech. Please let us know of your interest by contacting **James E. Smith, GENEDGE Regional Growth Manager** at (540) 315-5081 or [jsmith@genedge.org](mailto:jsmith@genedge.org).

### About GENEDGE

GENEDGE is Virginia's best public resource to help manufacturing and industry innovate, compete, and grow. We deliver consulting based expertise and technology transfer to over 200 companies each year. Our team helps clients expand, diversify, improve top & bottom line results, create jobs and sustain employment. We are part of the **Manufacturing Extension Partnership National Network™ (MEPNN)**, which provides access to industry-wide services and proven, results-based solutions. GENEDGE affiliates include the Manufacturing Technology Center (MTC) in Wytheville and a premier network of over 50 partners and service providers. Visit [www.genedge.org](http://www.genedge.org).

