

# MECHANICAL AND AEROSPACE ENGINEERING



[www.fit.edu/AcadRes/engsci/mechanic](http://www.fit.edu/AcadRes/engsci/mechanic)

*Florida Institute  
of Technology*

"In building a project like the Mini-Baja I've become a better engineer by learning all the steps needed to complete a project from start to finish."

Michael Greene  
Senior, Mechanical Engineering



## A SMALL SCHOOL ENVIRONMENT WITH BIG IMPACT

Machinery, power generation, missiles, transportation, aircraft, spacecraft, rockets, telecommunications, power plants, computers, commercial aircraft, aerodynamics, launch operations, computer aided design, rocket propulsion, impact testing ... This is just a taste of what you can expect from the mechanical and aerospace engineering programs at Florida Tech.

Our main campus is located in Brevard County, along the Atlantic coastline of Central Florida. Better known as the "Space Coast," it is home to NASA, Kennedy Space Center, United Space Alliance and many other companies tied to our nation's space program. Florida Tech is also located in Florida's High Tech Corridor, home to more than 5,000 technology companies and the nation's fifth largest high-tech workforce.

## SCHOLARLY INQUIRY

Florida Tech strongly believes in student engagement of scholarly inquiry, or the opportunity to participate in academic activities beyond normal classroom lectures and labs. From professional research and design projects, involvement in regional and national competitions, writing and publishing research papers, portfolio development or participation in a poster session presentation, students are continually pushed to develop the skills necessary for academic and career success.

### Research Highlights

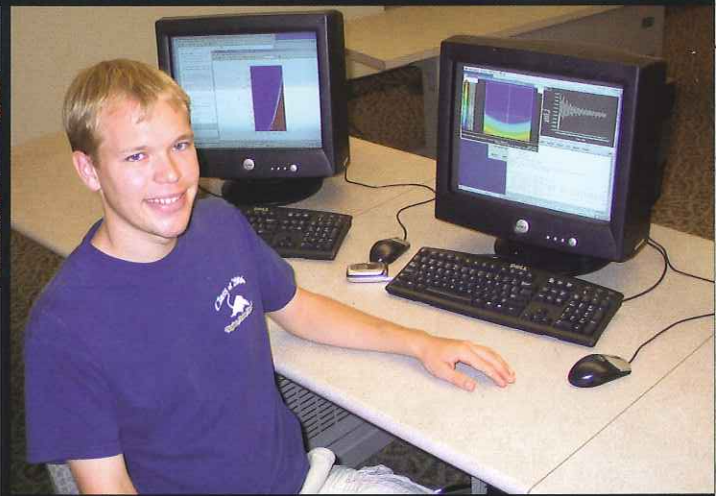
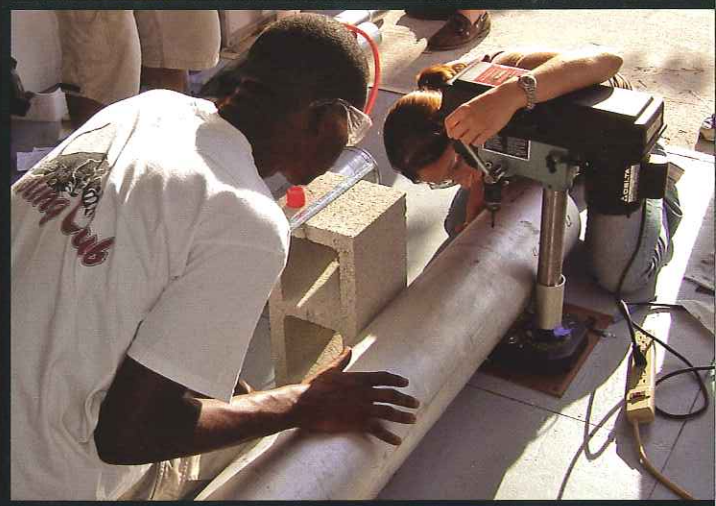
- properties of thermal protection systems such as shuttle tiles
- fuel cell power development
- magnetic levitation
- space vehicle launch systems
- robotics applications in manufacturing
- shock tube development
- new aerospace propulsion systems
- clean combustion engines
- impact resistant composite structures
- computational fluid dynamics
- rocket engine technology
- nanomechanic studies and nanoscale electronic devices

For more information on research projects in mechanical and aerospace engineering, go to: [www.fit.edu/AcadRes/engsci/mechanic/research.htm](http://www.fit.edu/AcadRes/engsci/mechanic/research.htm)

### Senior Design Projects

- SAE Formula Car
- SAE Mini-Baja
- The SOAR Project
- AUV
- ART
- VERTIGO
- MUAV
- 6 DOF Force Balance
- JAMSTAR
- Experimental Shock Tube
- FITSAT I, II & III
- International Collegiate Competition
- National Collegiate Competition
- Sub-Orbital Amateur Rocket
- Autonomous Underwater Vehicle
- Autonomous Robotic Transporter
- Versatile Exploratory Robotic Tilt-Rotor for Information Gathering Operations
- Miniature Unmanned Aerial Vehicle
- For Wind Tunnel Experiments
- Joint Aerospace & Meteorological Stratosphere Analysis Rocket
- Design/Build/Experiment
- Construction of a rocket, deployable vehicle and a control and wireless communications system

For more information on Senior Design, go to: [coe.fit.edu/srproject.html](http://coe.fit.edu/srproject.html)



### GET RECRUITED BY BIG NAMES

- |                       |                    |                                 |
|-----------------------|--------------------|---------------------------------|
| NASA                  | Ford Motor Company | ASRC Aerospace                  |
| Kennedy Space Center  | Rockwell Collins   | Raytheon                        |
| Johnson Space Center  | Siemens            | Delta Airlines                  |
| The Boeing Co.        | Raytheon Systems   | Federal Bureau of Investigation |
| Lockheed Martin       | Harris Corporation | Intel                           |
| Northrop Grumman      | Westinghouse       | Naval Surface Warfare Center    |
| United Space Alliance | DRS Technologies   | And many others ...             |

For more information on employers who recruit Florida Tech students, go to:  
[www.fit.edu/career/students/employprofiles.html](http://www.fit.edu/career/students/employprofiles.html)

### ENGINEERING CLUBS AND ORGANIZATIONS

- |              |   |
|--------------|---|
| ASME         | American Society of Mechanical Engineers            |
| AIAA         | American Institute of Aeronautics and Astronautics  |
| SWE          | Society of Women Engineers                          |
| SHPE         | Society of Hispanic Professional Engineers          |
| SME          | Society of Manufacturing Engineers                  |
| NSBE         | National Society of Black Engineers                 |
| Pi Tau Sigma | National Honorary Mechanical Engineering Fraternity |
| Tau Beta Pi  | National Engineering Honor Society                  |

For more information on clubs and organizations at Florida Tech, go to:  
[www.fit.edu/activities/studentactivities/clubsorg.html](http://www.fit.edu/activities/studentactivities/clubsorg.html)

"I spent most of my summer working as an intern at Lockheed Martin and working on a research project with one of my professors. For my research I've been working with NASA on a project directly related to current missions using expendable launch vehicles. I have been given many opportunities to learn outside of the classroom and work as part of a team. This will be valuable when I continue my education at the graduate level and will be very helpful when I begin working full time."

Adam Linsenbardt  
 Senior, Aerospace Engineering  
 and Applied Mathematics



## DID YOU KNOW...

- Florida Tech is the only independent, scientific and technological university in the southeastern United States.
- 92% of Florida Tech graduates are either employed or in graduate school.
- 98% of employed graduates from Florida Tech are working in their major.
- Florida Tech is listed as a *Barron's Guide* "Best Buy" in college education and named as one of the top 14 technical institutions for engineering in the *Fiske Guide to Colleges 2002-2004*.
- For the 15th consecutive year, *U.S. News and World Report* has ranked Florida Tech among the nation's best national doctoral universities. The listing also places Florida Tech in the top 7% of America's colleges and universities.
- Florida Tech is ranked as a "Best Southeastern College" by *The Princeton Review* in 2006.
- Florida Tech is ranked 4th in the nation for ocean engineering by the *Gourman Report*.
- Florida Tech is ranked among the top 5% of all U.S. institutions awarding B.S. degrees to women in physics.
- Florida Tech is ranked 7th in the nation for marine biology by the *Gourman Report*.
- Florida Tech established the first aquaculture undergraduate program in the United States in 1977.
- Florida Tech is classified by the Carnegie Foundation as a Doctoral Research Intensive University, a classification separating it from institutions that only offer degrees at the bachelor's or master's level.

## *Florida Institute of Technology*

Office of Undergraduate Admission  
150 W. University Blvd.  
Melbourne, FL 32901-6975

Ph: (321) 674-8030  
Toll Free: (800) 888-4348  
Fax: (321) 674-8004

E-mail: [admission@fit.edu](mailto:admission@fit.edu)  
Web site: [www.fit.edu](http://www.fit.edu)