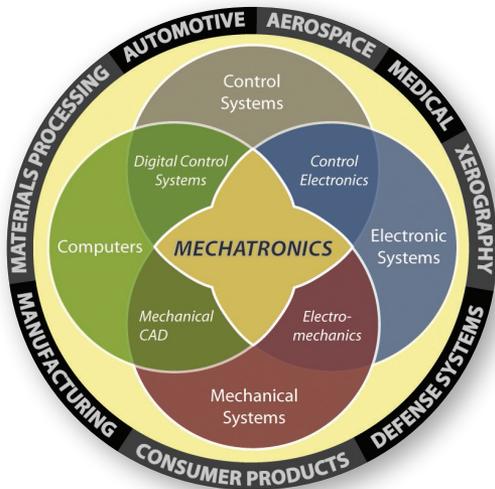


Setting high standards

MTSU's Mechatronics Engineering program is designed to meet the rigorous requirements of the Tennessee Board of Regents, Tennessee Higher Education Commission, Accreditation Board for Engineering and Technology (ABET), and the Siemens Mechatronic Systems Professional certification. Students are encouraged to participate in the nationally conducted Fundamentals of Engineering (FE) exam, which is the first step to earning Professional Engineer's (PE) licensure.



Strong partnerships

The mechatronics program at MTSU enjoys the support of local manufacturing and design industries, community colleges, and Siemens AG. Through these affiliations, the program offers **internship and educational opportunities**. We are also forging partnership agreements with other internationally known automation companies.

For more information, please contact
Dr. Ahad Nasab

Mechatronics Engineering Program
MTSU Box 19
Murfreesboro, TN 37132

615-898-2052 or ahad.nasab@mtsu.edu



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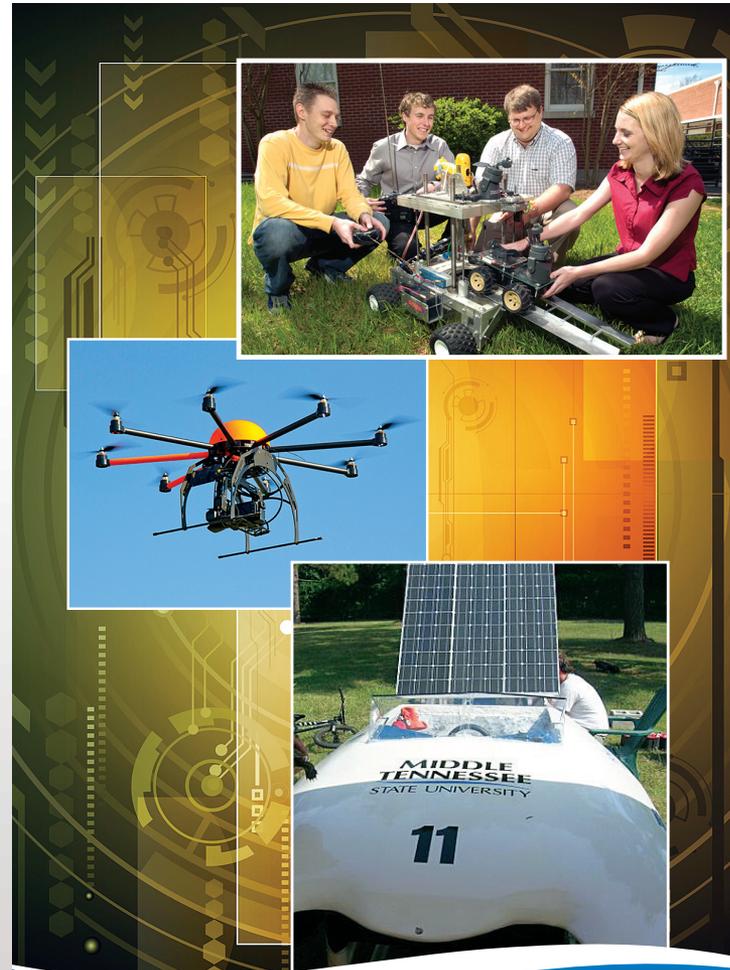
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Mechatronics Engineering

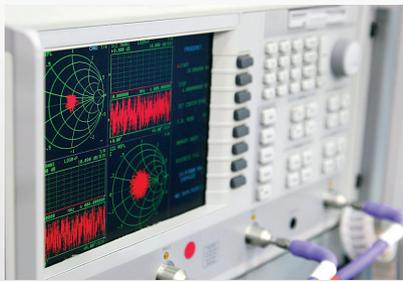


Engineering Technology Department
College of Basic and Applied Sciences

Mechatronics Engineering

A majority of today's industrial and high-tech products fall under the category of **integrated systems**, meaning that machines and products consist of mechanical components controlled by electronic devices using some kind of decision-making component such as a controller (which in turn uses a set of logical steps called software). In **mechatronics**, one learns to analyze, design, operate, and use integrated systems such as robotics, unmanned vehicles, automation systems, smart grids, and advanced sensory devices, among other exciting technologies.

The field of mechatronics encompasses knowledge and skills in mechanical engineering, electronics engineering, digital controls, and computer programming to analyze and



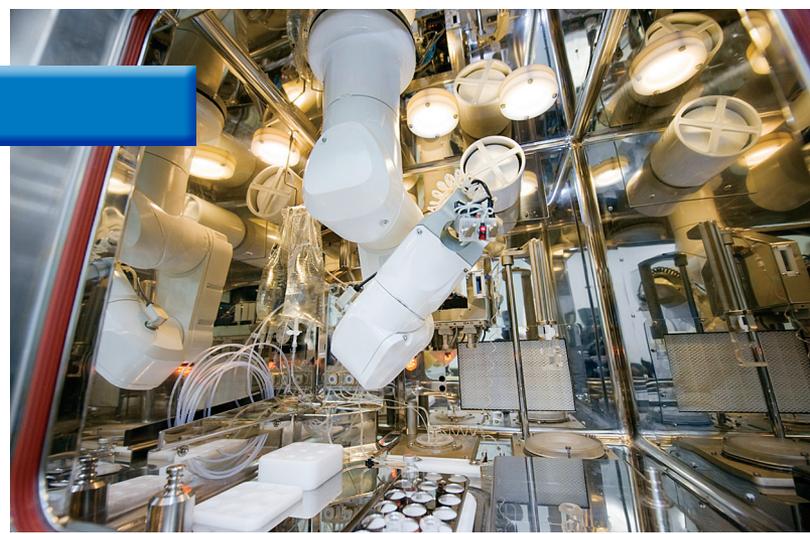
design automation and robotics systems used in today's advanced manufacturing environments.

This program was created in response to industry needs for engineering

graduates who will incorporate a **systems approach in design and problem solving**. The Mechatronics Engineering program is designed to educate and train students in diagnostics, analysis, and design of integrated industrial automation systems.

Employment opportunities

Every year, many positions requiring a bachelor's degree with a mechatronics focus go unfilled because there are not enough graduates with adequate training. The Mechatronics Engineering program is designed to prepare



students for positions as automation system designers and project managers in automotive and aerospace industries, advanced manufacturing, green energy, biotechnology, health care, homeland security and defense, and transportation and logistics.

Mechatronics at MTSU

Besides the traditional benefits of an engineering degree, the Mechatronics Engineering program at MTSU offers the following benefits:

- ❑ A systems approach to problem solving
- ❑ Team dynamics and professional communication
- ❑ Knowledge of total system integration
- ❑ System engineering and project management practices
- ❑ Learning requirement engineering and cost control

MTSU collaborates with Siemens AG of Germany to provide **internationally recognized certification opportunities** for students at the design engineer level.

