# **Industry alliances**

An active industry advisory group offers input to help ensure that our program produces graduates who meet industry needs. This group also helps through internships and real-world projects for students.

The following quotes from graduates in manufacturing managerial positions illustrate the result:

"A degree from MTSU's Engineering Technology Department allowed me to be immediately successful in the workforce. The hands-on applied learning helped to build my adaptability and problem solving skills. These are key skills sought out and valued by industry."

Bobbie Jo Meredith Product Manager, Schneider Electric.

"I am proud to be a graduate of MTSU's ET Department. Receiving my degree prepared me to enter the workforce with the ability to make immediate contributions, providing an advantage in reaching my career goals. The instructors approach toward education allows students to apply their knowledge to real-world workplace examples."

Mike Bailey Sr. Engineer, NISSAN North America.

"Under the umbrella of ET, I was exposed to the engineering as well as financial training necessary to build business cases, project management and soft skills necessary to plan and execute, and measurement methodologies necessary to quantify success. The breadth and hands on approach were essential to my success and growth with one of the largest employers in Middle Tennessee."

Rob Stewart Director, Business Analytics Customer Solutions, Asurion Corp.



## **For More Information**

Engineering Technology Department Box 19 Middle Tennessee State University Murfreesboro, TN 37132

www.mtsu.edu/et 615/898-2776 fax: 615/898-5697

#### **Admissions Office**

admissions@mtsu.edu

615/898-2111 1-800-331-MTSU (in Tennessee) 1-800-433-MTSU (out of state)

#### **Financial aid**

Scholarships and grant programs are available to qualified students. Applications should be made through the ET Department and the Financial Aid Office.

# IAMtrueblue

0615-1899-Middle Tennessee State University does not discriminate against students, employees, or applicants for admission or employment on the basis of race, color, religion, creed, national origin, sex, sexual orientation, gender identity/expression, disability, age, status as a protected veteran, or genetic information or against any other legally protected class with respect to all employment, programs, and activities. The following person has been designated to handle inquiries related to nondiscrimination policies for MTSU: Assistant to the President for Institutional Equity and Compliance. For additional information about these policies and the procedures for resolution, please contact Marian V. Wilson, assistant to the president and Title IX coordinator, Institutional Equity and Compliance, Middle Tennessee State University, Cope Administration Building 116, 1301 East Main Street, Murfreesboro, TN 37132; Marian.Wilson@mtsu.edu; or call (615) 898-2185. MTSU's policy on nondiscrimination can be found at http://www.mtsu.edu/itleix/.



# Electromechanical Engineering Technology



# **The Program**

The Engineering Technology Department at MTSU offers a Bachelor of Science degree in Engineering Technology. This four-year, technologically advanced program provides both theoretical knowledge and hands-on experience in several technical areas. The goal of this program is to prepare students to work as engineers/technical staff in manufacturing, technical service, and related fields.

Electromechanical Engineering Technology is one of the technical concentrations in the Engineering Technology program. In today's industry, many job assignments require technical people with expertise in both electrical and mechanical areas. The Electromechanical Engineering Technology concentration is structured to prepare students for industry positions requiring the integration of electricity (for power and control) and mechanical devices (for force and motion) to perform tasks associated with manufacturing automation and the performance of services.

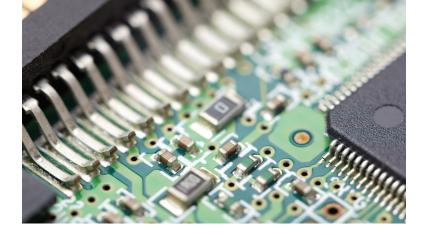
#### **Accreditation**

The Electromechanical Engineering Technology concentration is accredited by the Engineering Technology Accreditation Commission of ABET (www.abet.org).

# The University and Community

MTSU has been ranked by *Forbes* magazine as the best public university in Tennessee. The campus features modern buildings that exist harmoniously with historic structures. New residence accommodations,





a fully computerized library, a recreation center, and computer access make it possible to provide solid programs to more than 26,000 students. Individual help and attention from faculty members is an important aspect of MTSU's educational philosophy.

The campus is in the historic town of Murfreesboro, only 30 miles southeast of Nashville and in the center of manufacturing for the region. Living in Murfreesboro allows students to enjoy a metropolitan atmosphere without the impersonalization of a large city.

# **Evening Classes**

The department offers evening sections of technical courses required for all Engineering Technology concentrations.

## Transfer with an Associate's Degree

A student with an associate's degree in electrical engineering technology, mechanical engineering technology, or a related field may continue his/her study in this concentration. Many credit hours from the associate's degree could be applied toward the requirements. Usually, it takes about two years to complete the B.S. degree in Engineering Technology for students with associate's degrees in one of the above areas. A grade of C or better is required on transfer credits accepted as part of the major in Engineering Technology.

# **Cooperative Education/Internships**

Cooperative education and internship opportunities are available to help students obtain industrial work experience before graduation.

# **Laboratories**

Several laboratories are used for completing the required courses in this department. These laboratories

are up-to-date facilities maintained to provide students with excellent opportunities for hands-on experience with today's technology. They include the following:

- Computer aided drafting and design
- Metallurgy and material characterization
- Robotics and automation
- Hydraulics and pneumatics
- Machine tool technology
- Basic electronics
- Advanced electronics
- · Electric motors and controls, sensors, PLC
- Microprocessors

#### **Technical Courses**

Technical courses required include

ET 2310 Computer-Assisted Drafting and Design I

ET 3210 Machine Tool Technology

ET 3360 Computer-Assisted Drafting and Design II

ET 3601 Electrical Circuit Analysis I

ET 3602 Electrical Circuit Analysis II

ET 3620 Digital Circuits Fundamentals

ET 3630 Electronics

ET 3650 Introduction to Microprocessors

**ET 3810** Engineering Thermodynamics

ET 3860 Strength of Materials

ET 4600 Programmable Logic Controllers

ET 4610 Instrumentation and Controls

ET 4640 Industrial Electricity

ET 4710 Professional Development Seminar

**ET 4802** Senior Problem: Electromechanical Engineering Technology

ET 4850 Fluid Power

ET 4860 Robotics

**ENGR 1100** Engineering Fundamentals

**ENGR 1210** Introduction to Material Science and Engineering

**ENGR 2110** Statics

**ENGR 3915** Technical Project Management and Soft Skills

**ENGR 3920** Engineering Safety

**ENGR 3970** Engineering Economy

A total of 124 semester hours is required for the bachelor's degree.