Michigan is the Automobile Capital of North America and the home to eight of the 10 largest automobile suppliers in the world. However, many are unaware that Michigan is also important for the production of furniture and apparel. According to Eastern Michigan University (EMU), Michigan ranks number two in furniture production and number seven in apparel production in the United States.

While many textile universities have established programs that address industry needs within their respective state, few are as broadly focused as Eastern Michigan’s Textiles Research & Training Institute (TRTI). The Institute was established in 1999 through a state grant. According to Julie Becker, director of the Institute, the goal of the center is three-fold: To become nationally and internationally known as a leader in textile development, training, and research in providing relevant work across multidisciplines and industries in the areas of textiles and apparel; To close the competency gap for pattern designers and product development CAD engineers; and to enhance the development of undergraduate and graduate curriculum in apparel, textiles and merchandising (ATMI) programs in Eastern Michigan University’s College of Technology.

According to Becker, some of the typical research projects conducted by TRTI have focused on antimicrobial/protective fabrics; “Smart Fabrics,” involving sensors within the fabric; environmentally friendly polyesters for green textiles; and protective garments for security purposes (such as bullet-proof vests).

Staffing for the Institute consists of three professors, who work closely with the Michigan Economic Development Corporation (MEDC) in teaming up with local Michigan designers and textile suppliers to provide resources and training.

Becker explains, “We train industry workers in the use of pattern design software and are currently helping several designers with line sheet development, product development on CAD/CAM, pattern grading and production sourcing. We work with these designers, along with Michigan-based companies to keep their products in the USA, and hopefully within the state of Michigan.”

In collaboration with the MEDC, the TRTI is also in the process of developing the Michigan Garment Industry Council (MGIC). Becker adds, “This council will provide support for small businesses in ways that will help companies to thrive. We are developing workshops, training sessions and individual services tailored to their needs.”

The Institute also helps EMU’s apparel, textiles and merchandising students by providing direct connections with the local industry. Becker states, “Our students gain hands-on experience working with the automotive, furniture and apparel industries, and we are acquiring internships and employment positions for our students with various companies in the area, in the fields of research, design and merchandising. Our program currently consists of 150 plus undergraduate and graduate students.”

One of the most recent programs being developed for TRTI and EMU students involves virtual retailing. Using the “Mockshop Virtual Retail” software, Becker and her colleague, Holly Mosher, an EMU lecturer and retail merchandising specialist, are creating a course that will allow their students to create shop drawings that design and merchandise stores of any size and space grade on their own PCs through an interactive 3D environment.

TRTI clients include Herman Miller, Irish Automotive, Johnson Controls, Second Chance Body Armor, Applied Textiles, Stromy Kromer Hats, and the US Navy. TRTI benefactors include Eastern Michigan University, Gerber Technology, Johnson Controls; La-Z-Boy, MicroGraf and Norwalk Furniture.

For more information on Eastern Michigan’s Textiles and Research Training Institute (TRTI), contact Julie Becker, becker2@emich.edu, or 517-487-8405.

Kathryn Swantko, president of the FabricLink Network, created TheTechnicalCenter.com for industry networking and marketing of specialty textiles, and FabricLink.com for consumer education about everything fabric.