RESEARCH @ EMU

Elevating Communities, Inspiring Generations

EASTERN MICHIGAN UNIVERSITY

CAPABILITIES STATEMENT

College of Technology

1. CORE COMPETENCIES – TEXTILES RESEARCH & TRAINING INSTITUTE (TRTI)

- ☐ Anti-bacterial / Protective, Fire Retardant Fabrics / Smart Fabric Development
- ☐ Environmentally Friendly Polymer for Textiles “Green Textiles”
- ☐ Training/instruction in CAD/CAM

2. EQUIPMENT; SPECIALIZED

- ☐ Coatings Research Institute, Textile Science Lab, Industrial Fabric Cutter Equipment: **Reference URL**

  http://www.emich.edu/cri/equipment.html

3. DIFFERENTIATORS (KEY PERSONNEL; EXPERTISE, TECHNICAL EXPERIENCE)

- ☐ **Julie Becker** - expert with Gerber Technology pattern design software(all platforms) pattern design / product development for the sewn goods (soft goods) industries which includes automotive trim/interiors, furniture, apparel, industrial engineering for process flow through manufacturing facilities which includes industrial fabric / leather cutters, industrial sewing machines, etc.
- ☐ **Dr. Subhas Ghosh** - Dr. Ghosh has worked in industry for 10 years along with over 30 years of academic and research experience in the areas of textile structure, fiber science, analytical methods, and textile technology. During this time he was involved in joint research with such U.S. Companies as Milliken & Co., DuPont, Fiber Industries, Monsanto Chemicals, Shell Chemical Co., Cargill Inc., etc. He has acted as Principal Investigator for three U.S. Army ARDEC grants to develop and demonstrate specific advantages of using nanosized materials to enhance textile fabric's functional properties, such as antibacterial garments. Published 90 technical / research papers in journals and presented world wide.
- ☐ Technology evolution and enhancement through graduate level courses; Industry Focus

4. PARTNERSHIPS; CLIENTS

- ☐ **Pattern Design Software Training Provided to: Herman Miller; Irvin Automotive; Johnson Controls Inc.; Second Chance Body Armor; Applied Textiles; and the U.S. Navy**
- ☐ **Milliken & Co., DuPont, Fiber Industries, Monsanto Chemicals, Shell Chemical Co., Cargill Inc. and U.S. Army ARDEC**
- ☐ **University Collaboration**

5. ADDITIONAL SOURCES OF INFORMATION

- ☐ Publications: Noted on a separate page
- ☐ Projects: Anti-bacterial / Protective, Fire Retardant fabrics; “Smart Fabric” involving sensors with the fabric; Environmentally friendly polymer for textiles “Green Textiles”; Protective garments for security purposes i.e. bullet-proof vests.
- ☐ US 8,764,851: Antimicrobial Fabrics Made Using Sol-Gel/N-Halamine Chemistry, And Methods of Making Same
- ☐ **EMU Patent Library (URL):**

  http://www.emich.edu/techtransfer/patents.php
- ☐ **University website (URL):**

  https://www.emich.edu/trti/index.htm