

Fashion and Technology

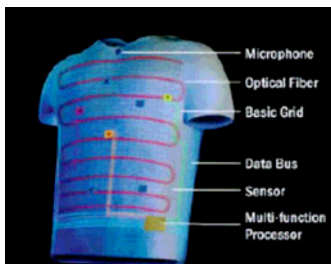
The Power & Energy Society, the Industry Applications Society, and the Life Members' Affinity Group of the New York Section on October 28 last sponsored a presentation on technology in the fashion industry – software, hardware and automation.



Most people still think that the fashion trade continues to depend only on traditional sewing machines. But such contraptions are now considered almost obsolete by the present industrial standards. Modern



technologies play an increasing role in the innovative processes for the production of apparels. Historically, sewing began with bone needles and animal sinew as the thread as far back as 30,000 B.C. Today's apparel production has come a long way from those practiced in the Stone Age. The industry is rapidly modernizing as new investments in automation and information technology have infused to keep up with the growing international competition.



These innovations have had a widespread effect across the industry.

Computers and digital processes, known generally as CAD-

CAM technology, became available around 1997 and they replaced many hitherto manual functions such as design, pattern-making and cutting while a host of new technologies such as 3-D body scanning, Web Product Data Management (WebPDM), design of wearable computers, virtual fashion collections and Avatars in computer-generated boutiques have made the apparel industry more dynamic than ever before. The new apparel industry represents a wide range of technological opportunities for engineers and other professionals. The



evening's speaker Professor Leonard Bess gave us a deeper insight into the use of software, computers and the application of automation in today's apparel industry.

Professor Bess is an expert in fashion-related technologies.

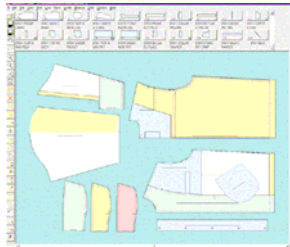
He wears many hats at New York's prestigious Fashion Institute of Technology (F.I.T.),



that is affiliated to SUNY. His responsibilities there have included the management of the day-to-day operations and developing the overall strategy for the fashion design department including its strategic partnerships with other institutions and its funding. Prof. Bess first earned a degree in fashion design from the F.I.T. and then his Baccalaureate degree in organizational communications from the

Empire State College, N.Y. Formerly he was the department's chairperson and the chief fiscal officer. He also occupied the position of the coordinator of the evening programs and is now the department's chief computer liaison.

Prof. Bess spoke about the digital technologies used in apparel making. Such processes in their entirety, from the initial design concept to the final production of a garment, leaping through various phases of patternmaking, marking, cutting, are all computer-driven, without being touched by



human hands. In the industry jargon the processes are said to use a seamless knitwear technology. The driving force behind this is the need for a rapid turn-around time and now this can be reduced to a matter of only a few weeks. Usually, a three-dimensional digital body scan precedes a pattern-making. What is disappointing for us is that much of it is done off-shore.

In the presentation we learned about some esoteric software technologies such as WebPDM, AccuMarkPDS, Lectra, Modaris, Primavision, Photoshop, Illustrator, Design Scope, PDM and PLM, just to name a few. We wonder if these technologies make the industry more competitive and efficient. Also, have the new technologies augmented creativity? Will



from now on the 3-D body scanning be an integral part of the technologies used in making common garments? These are just some of the questions that may confront the fashion industry as we move forward. Clothing of the future may conform to perfect size, will be custom-fitted, be seamless and be designed by computers. At some point, fashion and technology will meet head-on and thus create a new wearable art form. That technology will produce radically different though still socially acclaimed fashions with tiny sensors embedded in them. For example, a garment may be able to warn the wearer of a missing accessory; it could instantly let emergency personnel to retrieve the wearer's medical data stored in embedded memory chips. Imagine a trench coat made with smart fabrics carrying some ten small cameras (to take pictures from various angles), a miniscule GPS locating device and micro-communications transceivers, all embedded in it and worn by a reporter covering an event!



The software developers for the fashion industry are also rapidly creating user-friendly Avatars that reside in a virtual world complete with online fashion shows, and instant online offerings and purchases of garments made to measurements obtained by digital scanning of a potential user's body.

The evening's presentation was followed by a lively Q&A period.