

NEWS RELEASE

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Jan. 13, 2005

Start-up Company Aims to Revolutionize Textile Dyeing

FOR IMMEDIATE RELEASE

HueMetrix, a start-up company based on 15 years of research at North Carolina State University's College of Textiles, is poised to potentially revolutionize textile dyeing – saving time, money and perhaps even jobs – by creating a device that monitors the dyeing process in real time.

The new system will enable textile companies to further improve the quality and consistency of their products, reduce manufacturing costs, decrease time to market and help make their processes more environmentally friendly.

In the traditional textile dyeing process, variables like time and temperature can be adjusted before fabric is dyed, but until now there hasn't been a way to accurately monitor the process in real time and thus no way to make any needed adjustments while fibers are being dyed. If the product doesn't come out of the dye bath with the correct color shade, it must be either redone or discarded, costing both time and money.

“One of the biggest economic losses in textiles is when you dye fabric and it doesn't come out the right color and it has to be corrected. Environmentally it's expensive, it makes the materials more expensive and it costs you time, which is a big factor in getting to market,” said Dr. Brent Smith, HueMetrix co-founder and Cone Mills Professor of Textile Chemistry at NC State.

The new system works by “reading” how much color remains in the dye bath, says Dr. Keith Beck, a HueMetrix co-founder, member of the company's board of directors, and a professor and department head of textile engineering, chemistry & science at NC State. “You have to be able to sense what's going on with the dyes that are used in the process. That information is then fed forward to the controller where adjustments are made if needed,” Beck said.

Once a minute, the dye bath is measured to determine how much dye is left in the bath. That indicates how much dye has moved to the fabric. According to Smith and Beck, real-time

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monitoring has been attempted for a long time, but the difficulty is in making it work accurately and consistently.

Dr. Warren Jasper, another co-founder of HueMetrix and professor of textile engineering, chemistry & science at NC State, worked on many of the system's software elements. "We have predictive computer models in the system, so we know when we make a change how it's going to affect the process," he said.

Two prototypes of HueMetrix's machine are currently in use. Right now the company is working on engineering development – building a non-prototype, bulletproof system that will survive the rigors of daily textile-plant use. Marketable systems are expected to be ready in 12 to 24 months.

In a state that has recently lost thousands of textile jobs, the founders of HueMetrix hope their products can turn that trend around by making dyeing plants more efficient and cost effective. That could translate into saved jobs and new jobs.

According to Beck, the College of Textiles is directly focused on applications. "We are working on high-tech discoveries as well as high-tech solutions to existing market problems. This is dual-use technology that not only can give increased competitiveness to American companies – perhaps save American jobs – but that may also lead to new product opportunities even beyond textiles," he said.

With licensing support and assistance from NC State's Office of Technology Transfer, the research faculty who developed the real-time dye monitoring system were assisted by the High Technology Entrepreneurship and Commercialization (HiTEC) center located within NC State's College of Management. HiTEC educates business and technical graduate students and faculty in entrepreneurship and innovation so that they understand how to turn technologies into successful businesses. The center's efforts have helped raise about \$120 million for clients and new ventures since 1995.

HueMetrix co-founders worked with technology transfer professionals, graduate students, successful local entrepreneurs, venture attorneys and venture accountants to evaluate the commercial viability of their research, license the intellectual property and form a company. Company leaders are now fine-tuning the business plan, attracting the remaining management team, and determining product development schedules.

"The folks in the HiTEC Program at NC State know how to bring technology to market. This start-up is just another example of their successes," said Michael Zapata, HueMetrix chairman and entrepreneur-in-residence at NC State. "HueMetrix is an excellent example of how the College of Textiles at NC State has used cutting-edge technology to develop new products that provide manufacturers with a strong competitive advantage."

For more information on HueMetrix, visit the Web at www.huemetrix.com. Additional information about the HiTEC Program is available at <http://hitec.ncsu.edu/>.