

## FACULTY PROFILE

## Dr. Uma Shama Becomes New College Marshal

By Joan Wilder

**I**t's easy to miss the forest for the trees in the technological age. State-of-the-art computing is so dazzling that its raw power can sidetrack users. It takes wisdom to remember that computers are tools and that their value to humanity is created by what people do with them.

"We have all this technology, and the question is, how can we use it to disseminate relevant information to the public?" said Dr. Uma Shama, professor of mathematics and computer science.

The desire to disseminate useful information as widely as possible is what has motivated much of Dr. Shama's teaching over her 21 years at Bridgewater. And, from the recognition she's garnered lately, it appears that she's been successful.

At this year's commencement ceremony, she formally accepted the honor of becoming Bridgewater's new college marshal, taking the reins from Dr. Janice Harris, who retired this year. On July 1, Dr. Shama begins a three-year term as chairperson of the Department of Mathematics and Computer Science, and late last year, she received BSC's Presidential Award for Distinguished Teaching.

Google and Microsoft's research organizations have recognized the work she, her colleague Mr. Lawrence Harman, and her

students have accomplished to improve public transportation at BSC's GeoGraphics laboratory. Key to this effort, has been their projects using geospatial analysis to integrate and map diverse information within various regional transportation areas across the country. The end product allows users to input starting and ending points and find not only all the available public bus routes and schedules, but also such factors as the location of nearby child care centers. Dr. Shama co-directs the lab, which is funded through grants from the public sector.

"There are about 550 public bus route systems – like the MBTA – in the country. On Earth Day, Google Transit included two of the Massachusetts RTA bus route systems we've done in Google Transit – Metro West and Cape Cod. If you give point A to point B, it'll plan your trip, including the bus routes. The best part is it also has real-time bus data," said Dr. Shama.

It seems likely that Dr. Shama will bring her brand of public good to her role as college marshal.

"Being the marshal ... is as ceremonial as it is about working behind the scenes with committees and groups," said Dr. Shama. "The college marshal works with the committee on every move that happens from convocation to commencement –

selecting honorary degree recipients, speakers and flowers. My goal is to make the students' lives better. That's one of the reasons I was honored and accepted this job."

Dr. Shama's focus on the public good is a clear extension of her early family life in Bangalore, India.

Although she was born into a Brahmin family, the highest caste in the Indian class system, her father so objected to the idea of privilege that he dropped the family name to avoid recognition as a Brahmin.

"He felt people should be treated according to what they accomplish in their lives rather than what they inherit from their parents and never take it for granted," said Dr. Shama, whose family took her father's first name as their surname.

In 1981, after earning bachelor's and master's degrees at Bangalore University, Dr. Shama moved to the United States to get her doctorate at the University of Connecticut. After teaching at there for a while, she applied for other positions and was offered professorships at five institutions. She chose Bridgewater State College because she was impressed with its emphasis on undergraduate teaching and its philosophy of education.

"We are bringing back public service learning," said Dr. Shama. "It is something we are promoting here at the college. It is a college mission, especially after Dr. Dana Mohler-Faria became president. We are strongly encouraging this generation to think about how to share. My colleagues talk about it often and the college also has an excellent and active service learning office."

When Dr. Shama isn't teaching, working with students in the GeoGraphics lab, or spending time with her 16-year-old son and musician husband, she works on a math problem she's been pondering since her University of Connecticut days. She still collaborates with her PhD thesis adviser and mentor, Dr. Domina Eberle Spencer, working on the fundamental mathematical research of electrodynamics and other fields, revisiting the work done by great scientists like Gauss, Weber and Einstein. ■

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*Dr. Uma Shama becomes college marshal at spring commencement.*