

MITES director, students face new challenges together

by Lauren Clark



Engineering Outreach Program Director Dedric Carter (far left in tie) with the MITES (Minority Introduction to Engineering and Science) class of 2006. Photo: Justin Knight

July 10, 2006

The 62 high school seniors who recently arrived at MIT for the annual summer MITES (Minority Introduction to Engineering and Science) program discovered a mentor who shares with them the experience of taking on a new challenge. In April, Dr. Dedric Carter (S.B., M.Eng. '99) left a career in industry to become the director of Engineering Outreach Programs, academic enrichment programs for middle and high school students primarily from populations underrepresented in engineering and science. The oldest of these programs is MITES; it began one year before Carter, 30, was born.

"I have the utmost respect for what these programs do," Carter said. After all, his own path to an MIT education and the career that ensued began with MITES.

He attended the program in 1993 under the directorship of the late Bill Ramsey, whom Carter describes as a "great, sort of grandfather figure." His experience made him realize he was capable of doing MIT-caliber academics. He applied and was admitted to the Institute, earning a

bachelor's and then a master's in electrical engineering and computer science. About 40 percent of MITES scholars go on to attend college at MIT.

As a former MITES scholar, Carter knows first-hand what an intense and eye-opening summer is in store for his students, who come from 24 U.S. states and territories and the District of Columbia. Selected by a competitive admissions process, they spend six weeks learning much of what an MIT freshman studies in an entire semester. Subjects include calculus, physics, chemistry, humanities, and engineering design.

"I don't care how bright you are, MITES will challenge you," Carter said.

As this summer's students settled into the futuristic-looking Simmons dormitory on Vassar St., he recalled his first day in the program 13 years ago. Cambridge, MA, seemed far removed from his small town of Clinton, SC. A talented, driven student, he was nonetheless reluctant to spend the summer in a strange city at a university he barely knew existed. But after just one day on campus, things clicked. It was thrilling to suddenly be surrounded by bright, inquisitive people like himself.

"I was always the kid who had lots of 'why' questions. Being from a small town, in certain classrooms it was disrespectful to ask these 'why' questions," Carter said. "And here I was, in a place where everybody was asking the 'why' questions! It was a true homecoming for me."

Current MITES students echo that sense of excitement and belonging. Zaira Garate of Brownsville, TX, whose passion is aerospace engineering, said, "Ever since I was a little girl, I wanted to know how stuff works. And I guess here I'm going to be able to ask the people who know the answers, the real answers, to the stuff I've been asking all my life."



Zaira Garate of Brownsville, TX

Photo: Grant Oladipo



Quinntin Harris of Maywood, IL
Photo: Grant Oladipo



Pablo Crespo-Bosque of San Juan, Puerto Rico Photo: Grant Oladipo

"I just felt at home here, really welcomed," said Quinntin Harris, who lives outside Chicago, IL. He added that he was excited to meet "people from all over the place. My roommate is from Puerto Rico. He's teaching me a little Spanish."

Harris' roommate, Pablo Crespo-Bosque of San Juan, worried that his MITES peers "were going to be, like, weird people. But they're just bright. All of us are nervous, so we feel the same." He also noted that his first day in MITES was also his "first whole day of English." He seemed optimistic about the challenge of learning advanced material in a language he has yet to master. "I'm hoping for the best. I think here they want to help us."

That's true, confirmed Carter. While the program is rigorous and the expectations for the students are high, participants in MITES almost always feel a strong sense of support, both from their peers and from the MITES staff, instructors, and TAs.

Carter likened his own experience in the program to a more recent challenge: running a half-marathon, a difficult feat given that his asthma makes running more than a couple of miles agonizing. He remembers feeling hopelessly winded as he crested a hill in the middle of the race. Just then, he heard friends cheering him on.

"If it were a movie, I'd think it was concocted. It was just what I needed to get my stride again and get through the race. I feel like I got a lot of that at MITES — people who know and understand where you're coming from and where you want to go."

Over the last decade, Carter pursued a career as a technology and strategy consultant in the mobile and wireless industry, chiefly with American Management Systems, a systems integration company. He had accepted a new position with Deloitte Consulting L.L.P. in Washington, D.C., when the offer to lead Engineering Outreach Programs came.

"Several things were coming together to tell me [taking the job at MIT] was the right thing to do," said Carter. For example, he had been mulling over the National Academy of Sciences' recent report, "Rising Above the Gathering Storm," outlining concerns about American education and global competitiveness.

"The report was a great overview of some of the issues I've been struggling with. They talk about R&D investments, about intellectual property, about K-12 education, and how all those things need to fit together for us to get above this 'gathering storm' and continue to be competitive in the U.S."

At the same time, Carter's father, a minister active in the civil rights movement, survived a heart attack. That incident sparked reflection on ways in which, like his father, Carter could engage in

civic leadership. "Where did I think the challenge was that was equivalent to a civil rights struggle?" he asked himself. As director of MIT's Engineering Outreach Programs, he could expand opportunities for promising students who otherwise might not have imagined applying to elite colleges or pursuing careers in science and engineering.

Finally, Carter simply feels a close connection to MIT. In his post-graduate years, he maintained a presence at the Institute, serving on the MIT Corporation from 2000 to 2005, the visiting committee for the Engineering Systems Division and for music and theater arts, and the board of directors of the MIT Club of Washington, D.C.

The excitement about MIT that started with his MITES experience "did not wane," Carter explained. "I really did fall in love with this place then, and that love has just grown and is the reason I left industry to come back to work with [Engineering Outreach Programs]."

In addition to MITES, the Engineering Outreach Programs include the Saturday Engineering Enrichment and Discovery (SEED) Academy and Science Technology Engineering Math (STEM), academic enrichment programs for Boston- and Cambridge-area high school and middle school students, respectively. Next summer, the Office will launch the MIT Science and Baseball program for local middle school boys. All of these programs are provided through the generous support and partnership of alumni and private donors, foundations, and corporations.