Face Forward

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Facilitating Academic Careers in Engineering and the Sciences is a project of the National Science Foundation Alliances for Graduate Education and the Professoriate. The participating institutions are Georgia Institute of Technology, Morehouse College, Spelman College, and Emory University. Our mission is to increase the number of science professors from underrepresented ethnic groups.

FACES Honors and Awards

• Dr. Manu Platt, an assistant professor in the department of biomedical engineering at Georgia Tech, received a Distinguished Cancer Clinicians and Scientists award from the Georgia Cancer Coalition. He will receive $50,000 in each of the next five years to support his research in stem cells. His accomplishment was featured in the Journal of Blacks in Higher Education weekly news bulletin. Dr. Platt is a graduate of Morehouse College. He holds a Ph.D. in biomedical engineering from the joint program at Georgia Tech and Emory University.

• Meriem Gaval, a graduate student in the department of neuroscience at Emory, received the Carl Storm Minority Fellowship and also received support from the conference chair to attend the Gordon Conference on Catecholamines this past August. She has also co-written and published an invited review in the journal Molecular Interventions: Gaval-Cruz M, Weinshenker D. Mechanisms of disulfiram-induced cocaine abstinence. Molecular Interventions. (Invited review) Mechanism of disulfiram-induced cocaine abstinence: Antabuse and cocaine relapse. Molecular Interventions. 2009 Aug; 9(4): 175-187.

• Dr. Baratunde Cola, new faculty member in the department of mechanical engineering and new member of the FACES steering committee, was one of 33 out of 300 applicants to receive the DARPA Young Faculty Award in the area of Power & Energy. The project is entitled Photothermal Enhanced Carbon Nanotube Rectenna Arrays for Solar Energy Conversion. Selected researchers will receive grants of approximately $300,000 to develop and validate their research ideas during the next 24 months. The objective of the DARPA YFA program is to identify and engage rising research stars in junior faculty positions in academia and expose them to Department of Defense needs and DARPA’s program development process.

CONGRATULATIONS ON YOUR ACCOMPLISHMENTS!!
The importance of mentoring in the success of minority graduate students

Adapted from “Prepping for the Professoriate” by Dr. Crystal L. Joseph and Dr. Patricia A. Green-Powell, Diverse Issues in Higher Education, Volume 26, No 18, p. 29.

Poor mentoring is a major contributor to the low representation of minority faculty in higher education. Consequently, little to no mentoring has a significant impact on the success of underrepresented groups pursuing the professoriate.

Professional development mentoring involves knowledge acquisition, application, and analytical thinking. Professional development mentoring is a tool that can be used by graduate faculty to complement a graduate student’s formal doctoral level coursework with real-world problem solving and career counseling that exposes them the full set of responsibilities of a faculty member: teaching, research, and service. The approach could provide invaluable opportunities for learning and feedback on experiences that will help students in their professional growth and development. With regard to professional development mentoring, in preparation for the professoriate, every doctoral program should ensure that students have the opportunity to serve as a teaching assistant, develop a course along with its syllabus and exams, review academic governance systems, interview faculty and administrators, mentor undergraduate students, serve as a representative on a campus or departmental committee, and conduct and present research. A diverse professoriate provides students with a group of distinctive and unique role models, provides more effective mentoring to a diverse student population, and gives a greater voice to minorities in institutional governance.

Unlike licensed K-12 teachers, doctoral students have to seek out opportunities to build their teaching and service portfolios. Therefore, doctoral students should have formal training designed to help them integrate their graduate school research and experiences into tangible activities that validate their abilities to be successful in the professoriate. However, a major problem faced by nearly all new Ph.D.’s, regardless of ethnicity, is that rarely are they formally trained to be productive college faculty.

Race and gender may have considerable impact on a student’s access to mentoring. Nevertheless, regardless of the race and gender of either the mentor or mentee, mentors should strive to identify creditable opportunities that will lead students to becoming effective members of the professoriate.
Spelman College Junior Invents a Top Downloadable Application Offered by Apple’s App Store Atlanta (Sept. 1, 2009)

Adapted from the Spelman Connection

The mostly white male-dominated field of computer programming and software design (according to U.S. Census Bureau 2007 statistics) has just received a super surge of new energy from programmer Jonecia Keels, a Spelman College junior whose new iPhone application has been on the Apple App Store Top 25 list of more than 2,600 reference apps that are downloaded from the site since being released. “What started out as a fun little side project for me, turned into this ridiculously successful worldwide application,” said Keels. iDex gets downloaded 1,500 times a day worldwide.

Keels, a dual-degree engineering major, who is co-captain of SpelBots, the Spelman College robotics team, designed her application, named iDex, for fans and players of the Pokémon game franchise. As Keels explains its genesis, a playful spirit of competition between sisters is evidently the impetus for iDex’s creation. “My little sister Jonnae and I play Pokémon a lot. During Christmas break last year she was trying her best to beat me; she just shouted ‘I wish I had a cheat sheet to help me win!’ Then I was like ‘I can put that info on my iPhone. I can make a (game guide) that’s at our fingertips.’” Keels explained that her reference application iDex contains information about the hundreds of Pokémon characters, including each of their different abilities and special powers, and helps players make smarter, better moves when playing the game.

Andrew B. Williams, Ph.D., chair of Spelman’s computer and information sciences department, and founder/coach of SpelBots, explained what Keels has accomplished by inventing this application is historic. “Women have been underrepresented in this area, but they have a lot to bring to the table, they offer a different perspective.”

Apple hosts an annual camp for computer tech students at its headquarters in Cupertino, Calif. This is the second year that Keels has been one of 25 students in the nation chosen to participate in Cocoa Camp. She had to first conquer their criteria by demonstrating computer programming skills and going through Apple’s tutorial, which contained their specialized language Objective-C, before she could take advantage of the opportunity. Cocoa Camp is somewhat of an exclusive club with students from MIT, Brown University, Stanford University, Brigham Young University and Georgia Tech, among other prestigious institutions. “There were no other HBCU or liberal arts students there. I was one of two females and the only Black female,” Keels explained about the first year she attended. This year, Keels attended camp with classmate and SpelBots co-captain Jazmine Miller. While she and Miller had fun, Keels said that she learned a great deal about iPhone development, which provided the knowledge she used to create iDex. Keels dreams of starting a computer software company that creates revolutionary applications for mobile and computing platforms. And with the invention of iDex, she is well on her way to making that dream a reality.

Hear Jonecia’s interview with WABE, 90.1 FM
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