

In 2016, You are the Answer to the Question



As a successful entrepreneur, author, and expert witness, I am often asked why I continue to be a full-time engineering professor. After almost 23 years, why haven't I chosen to focus solely on highly lucrative opportunities as an engineering business owner, leaving behind halls of students, laboratories, and academic research projects. As the tears rolled down my face this past weekend, I had all the answers to this question I will ever need.

I was excited to fly back from Washington DC, where I am currently serving in my role with the U.S. State Department, to the graduation ceremonies at the University of Central Florida. I was looking forward to being a part of the traditional "hooding ceremony" for my Ph.D. graduate, a student who has worked incredibly hard to see the fulfillment of this goal. I was also thrilled that two of my mentees would graduate, both African American women earning B.S. and M.S. degrees in Industrial Engineering, respectively.



It has been such a great joy to mentor these two amazing young women, to guide them through their rigorous work as human engineering teaching assistants, to help them map out their successful STEM futures, and to simply enjoy conversation over coffee, discussing innovation and leadership and the possibilities of life as an engineer. I often conversed with them not only as a professor but as a woman of color in engineering. I am one of only 23 full professors of engineering who are African American women in the U.S. according to the National Science Foundation. I was able to bring a relatable perspective that is vitally important to empower an I-can-do-this-confidence, the faith of “positive belief” that mentoring can provide, especially to women in STEM.

Mentoring matters. Statistics shows that students who have a mentor are more likely to stay in a STEM major, graduate and pursue graduate degrees. One out of 4 female students reports their greatest challenges in attending college are confidence, motivation, or support. Though

young people today can simultaneously code while they snap chat and stream videos, they still need the powerful human connection that mentoring offers. It can be all the difference in the life of student or professional. Sadly, all too often, we leave these mentoring relationships to chance.

During the graduation ceremony, I received a text message asking if I would be available to meet with the families after graduation. As I waited with the crowds milling around in front of the UCF CFE Arena, I was quickly approached and then embraced by an aunt, a mother, and father, a grandmother; generations of family members who were there wanting to express their appreciation of the continuous support of their daughter.

I felt another tap on my shoulder. This time, it was an elderly woman who extended her hand, grasping my hand firmly. With a gentle, yet powerful voice she said, “ She told me about you. She told me all about you. Thank you for what you’ve done for my granddaughter.” As I turned to my right, I was greeted by the mentee’s mother (an African American female Engineer) who, with tears running down her face, also thanked me multiple times for mentoring and guiding her daughter. Of course, it was my joy to work with such an outstanding student, and I tried to convey this as we began to take pictures.

It was then that my tears began rolling down my cheeks, reflecting theirs. Not just tears of joy, but “Tears of Purpose.” Tears of Purpose telling me I was where I was meant to be, fulfilling the purpose I was meant to fulfill.

It was confirmation that

- the immense life hurdles I overcame to achieve my educational and professional goals
- the day-to-day professional “death by a thousand cuts;”* women in STEM endure through gender and unconscious bias through the chipping away of women’s career resiliencies
- the life trade-offs I had to balance to make teaching and working as an entrepreneur with seemingly never-ending hours, a successful daily endeavor, were all worthwhile and clearly had made a difference.

It was a realization that my dedication to mentoring and teaching students to succeed in STEM served as a powerful resource. Not only directly to these students but, also to the ever-widening circle of family members, to their local communities and the future global STEM community, influenced by the continuous success and innovation of these amazing students.

As I reflected on the years of mentoring students and professionals in their careers, I realize that while they may have benefited from being mentored by me – it was I who was receiving a great gift. I have an opportunity to encourage others to dream big, be more than they ever imagined, and conquer their fear to move into a great destiny. In doing so, I am blessed to be able to make a difference to students’ lives, to families, and to generations. My hope is that in fulfilling this purpose, together with my students, protégés, and mentees – the world will be a better place.

I encourage you to make a difference. Serve as a Mentor. Purposefully. Commit to mentor a girl or woman in STEM for 20 hours out of the year. Investigate joining [Million Women Mentors](#). No matter how busy you are, by mentoring, you will make a difference in the lives of many, including your own.

* <http://www.stemwomen.net/kristin-milton-death-by-thousand-cuts/>

