

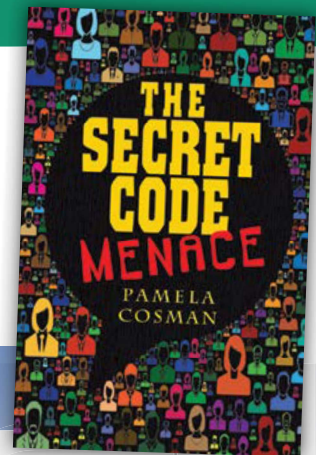
Athena Focuses on Empowering Women Leaders: Parity in STEM



Contributing Writer,
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PAMELA COSMAN
Professor, Jacobs School of Engineering,
University of California San Diego and
Author of *The Secret Code Menace*

I sat down with Pamela Cosman, 2017 Individual in Education Pinnacle Award Winner, to learn more about her role as a change agent for women in STEM. Pamela is a Professor at the Jacobs School of Engineering, University of California San Diego. Her engineering specialty is image/video compression and transmission. This affects us daily yet we probably don't think much about how quickly we can send and receive pictures on our mobile phones (except when things go wrong!). Pamela explained that video transmission uses redundant bits, called parity bits, to detect and correct errors in transmission. Parity also shows up in her current research on gender parity, for example studying the pattern of interruptions during academic seminars. Pamela has been recognized as a change agent for her previous and current roles as the Jacobs School Associate Dean for Students, and Faculty Equity Adviser. It is clear that she is looking to change the patterns of the past, and foster diversity, equity and inclusion on campus.



You can find *The Secret Code Menace* at Amazon.com or at the UCSD Bookstore.

MH – How has winning the Athena Pinnacle Award affected you?

PC – I didn't know about Athena before the Pinnacle nomination, but I joined Athena afterward and I'm discovering the amazing network of women leaders in STEM. I heard my first startup pitch competition at an Athena event and ended up making a great connection with one of the women entrepreneurs.

MH – What is your aim in joining Athena?

PC – My aim is to support women in STEM careers and find new alliances and mentorships that support academia. Women are still very under-represented in STEM fields. We're well represented in bio-science fields, but only about 20% of engineering graduates are women. It's important to actively interest girls in STEM and provide mentorship on campus. When I was an electrical engineering student, often I was the only woman in the class and that's lonely. I didn't want to ask a question in class in case it was a dumb question. Nobody would ever forget that the girl asked it. But things have been changing and Athena helps this progress.

MH – I hear you've published a fiction book to interest girls in engineering.

PC – Yes, *The Secret Code Menace* brings in some concepts of error-correction coding and the main character is a girl. It's for ages 9 to 11 or so. At first, the code is just used for kids to pass secret messages in school, but it winds up playing a very unexpected role in a crisis.

MH – What advice would you share for high school and college-age girls undecided about career paths? Why should they pursue studies in STEM?

PC – Science and technology are totally changing daily living, healthcare, energy, and so many aspects of life. If you care about helping people, or you care about saving the planet, science and technology let you have a huge impact in making things better. Also, it's cool building things and just knowing how things work.

Nominate a leader worthy of industry-wide recognition for the 2018 Pinnacle Awards. For details, visit AthenaSD.org/nominate-a-leader.



Athena turns 20! Join Athena membership and experience empowerment to elevate your STEM career: www.AthenaSD.org
Athena is a professional association dedicated to empowering progress together by advancing women in STEM. Athena's 500+ member community accesses executive leadership initiatives, educational and mentoring programs and targeted networking that empowers women across STEM industries to accelerate their professional ambitions and perform at their highest levels.