As an engineer and computer scientist, I have a natural bias toward any and all science, technology, engineering and math (STEM) disciplines and raising awareness around this extremely important economic driver.

And as a female in a male-dominated field, I'm even more interested in identifying ways to ignite a “sense of urgency” under our community and our country when it comes to the topic of STEM. James Brown, Executive Director of the STEM Education Coalition, recently asserted that STEM is “more than a buzzword.” He pleaded that STEM education “must be elevated as a national priority because it is the core of our country’s economic future.”

We all know this, right? Every day, there are dozens of new programs coming online that claim to be focused on STEM, and plenty of well-meaning organizations are pounding the pavement to deliver the latest technology to young people. So why are we as a nation still struggling to connect the dots and failing to realize significant gains in student success in the STEM subjects? And why do we collectively have such a shallow pool of qualified technical workers?
Brown claims that in 2010, 14 percent of companies in the United States were unable to hire due to applicants’ lack of STEM skills, and by 2013 the same skills gap kept 40 percent of U.S. companies from hiring the people they needed. Our biggest problem now is that the supply is not keeping up with demand. Even more concerning for me, is the lack of interest by women in STEM fields, which is causing a continued decline.

A recent Snapshot Report from the National Student Clearinghouse (NSC) Research Center compared the 2004 and 2014 STEM bachelor degree attainment rates and showed that women’s bachelor degree attainment in science and engineering fell by one percent overall.

In 2014, women earned just 19 percent of engineering and 18 percent of computer science bachelor’s degrees. The gender disparity in STEM is even more obvious when you look at the fact that women accounted for 57.3 percent to men’s 42.7 percent of all degrees granted.

In 1990, I was one of five women in a class of 300 engineers pursuing a bachelor degree. I was positive that over the next 25 years, that ratio would change. But it hasn’t. And not only has the gender disparity ratio increased, but overall progress toward improving our country’s STEM understanding has declined.

As I see it, part of the problem is that as a buzzword, STEM is now synonymous with CASH. Companies are profiting from STEM as a moneymaking machine and classifying it as a “bandwagon” cause at this point. While improved economics are part of the big picture, I really don’t think the intent was to create a new financial stream with no clear direction toward true outcomes for a high-tech workforce.

As negative as that may sound, there ARE organizations that are doing it right. One such success story is Eastern Florida State College. Leadership there are actively listening to industry and working to bring online a more technically rigorous line of programming for workforce development in our local area, to include both CNC Machining and FAA-approved Airframe and Powerplant (A&P) certificates.

At the K-12 level, the Space Coast Science Education Alliance (www.spacecoastscience.com) has been diligently working for years to provide a direct connection between local community resources and the public schools through STEM enrichment and recognition events such as the often overlooked Middle School Science Bowl and the understated Exemplary Science Teacher Awards.

Even for these organizations, the piece that is missing is a consistent approach that can be adopted by all so we truly march to the same drummer and stop competing for dollars and resources.

As a clearinghouse and regional connector, the STEM Alliance of Central Florida (www.stemalliancecfl.org) is working to do just that. Aiming to bring together the leadership of
industry, academia, government and non-profit to create a more comprehensive approach to STEM education across the High Tech Corridor.

So, where do you fit in? As a business owner, I believe it is important to make STEM support a strategic goal. This doesn’t mean spending money but can be as simple as providing internal resources to support existing programs. Consider serving as a volunteer or mentor and urge elected officials to make STEM a priority. If you are a parent, actively seek opportunities for your children to become involved in STEM enrichment when school is out of session.

What is truly missing from STEM is a unified voice. Let’s all work together to become that voice.

Craig is founder and CEO of Cape Canaveral-based Craig Technologies, a $45-million engineering and advanced manufacturing firm. Craig Technologies is a founding sponsor of the weVENTURE IGNITE Mentoring Program and Carol served on the weVENTURE board. www.craigtechinc.com

Columnist series sponsored by weVENTURE (formerly the Women’s Business Center) powered by the Florida Institute of Technology. weVENTURE has locations in Melbourne, Rockledge and Orlando. The Center is funded in part through a cooperative agreement with the U.S. Small Business Administration. For more information, visit wbc.fit.edu or call 321-674-7007.