

Cape Design Engineering Co.

# RED LINES

Company Newsletter - Winter 2018

## Company Cruisin'

Maintaining our team with some rest and relaxation -  
CDE goes to the Caribbean! - Page 4



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# REDLINES

Winter 2018

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Wayne Densch Rendering

## **The Executive Message**

We are 21! Yes, CDE is 21 years old, which means it's time to celebrate!

We had our ups and downs as we grew into a successful company. It wasn't easy. But no matter how competitive it got or what the financial concerns were, CDE was determined from our infancy to keep a laser focus on providing the highest quality service. We believed that if we did that, everything would fall into place. So we gave every project our full attention, and we weren't happy unless our customers were happy and completely satisfied.

Along our 21-year journey we diligently paid each subcontractor on time or even ahead of time. As we grew into also being a construction company, we built several multi-million dollar projects without litigation, using the best engineering and construction management practices known.

With all that being said, we also knew that no matter how well we performed for our customers, there was no guarantee that the work would keep coming in. But it did. And we're so grateful for that, and we want to thank all our customers for their continued support as we designed and built a variety of challenging and complex structures.

None of this would be possible without our wonderful engineering and construction team. Our men and women are talented, dedicated, and professional. They work hard to keep our customers happy, and we strive to keep them happy, too. Every year we've been in business we have given our hard-working employees a bonus. This past summer, we took our company on a three-day cruise. We believe we're doing something right, because 90 percent of our employees have been with CDE for five years or longer. We are also proud that 89 percent of our engineers have achieved Professional Engineer status and 44 percent have earned a master's degree.

We also know that it's not all about us and our customers. So we strive to give back by contributing to scholarships, as well as training and mentoring other companies and young, up-and-coming engineers. Although we are 21 years old, we believe we have just begun our journey and that we have a lot more to achieve and learn. We look forward to providing our customers with the same standard of excellence while continuing to show our team how much we value and appreciate them.

We have much to be grateful for, and good reason to celebrate.

Year 22, here we come.

Sincerely,

Kannan Rengarajan, P.E. & Lutfi Mized, P.E.



# Pinecastle Bombing Range

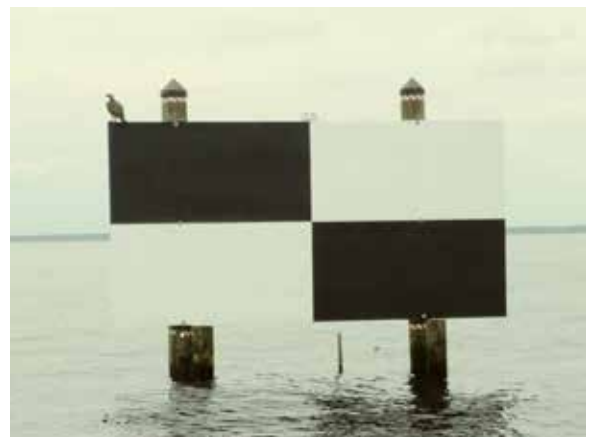
You wouldn't think that a site designed to train pilots to blow things up would need much maintenance, but the Pinecastle Impact Bombing Range is undergoing several renovations, thanks to CDE's construction division.

Located deep in Ocala National Forest is a 450-acre range, a portion of which extends into the east side of Lake George. The target range located on the lake is where the pilots practice bombing runs. The jet fighters and other aircraft that utilize this range may come from bases in Florida or sometimes further away. The pilots practice what they have previously learned in simulators and combat. In order for the pilots to be scored on the accuracy of their drops, the range needs vector points from two different cameras lines of site. The 8x16-foot placards, half of which are black and the other half are white, that were replaced by CDE provide a calibration point for the line of site vector points. Pilots are graded as to how well they hit the target in relation to these placards.

CDE's scope of work was to replace the 50-foot columns/piers that support the placards as well as the placards. This was a difficult task because it isn't easy to put columns in the middle of a lake. The job requires demoing what was left of the old placards and then replacing the piers and setting new placards in place. Keep in mind that everything needs to be set in the exact specified GPS coordinates for the placards to function as an accurate range vector calibration reference. "Our workers had to deal with both water and weather conditions to get everything just right," says Mark Lueders, CDE's Director of Construction Operations.

It's not all that CDE is doing at Pinecastle. When Hurricane Irma made its presence known in September of 2017, it did its own damage – of the non-bombing type, to be sure. Instead of hitting placards, Irma did a number on roofing, flashing and canopies at the Pinecastle's command center. CDE completed the construction repair from that damage.

Finally, out on the range itself, CDE finished repairs and maintenance work on Building Z. Water intrusion did some damage in the break room and was in need of repair. CDE is also making improvements to the structure in order to prevent future water intrusion. In addition, CDE has shored up and provided additional support for the main range access signs to the east and west of the range – or what are known as the main range signs. ■■■



*TOP - The barge and rig needed to replace the placard piles in Lake George.*

*MIDDLE - One of many placards installed in Lake George.*

*BOTTOM - Work being done in the interior of Building Z.*

# TRACES: Coming Full Circle

When CDE was a young company, striving to establish a reputation for quality work, one of the early bigger contracts it secured was on TESS, which at the time stood for Technical Engineering Spacelift Services. It wasn't exactly new support work for CDE co-founders Kannan Rengarajan and Lou Mized, because the two of them worked on TESS prior to starting their own firm. So there is a long history there, reaching back decades.

CDE in its early years was a TESS team partner with QTSI. The TESS contract then transitioned to RAEIS, or Range Architect Engineering Inspection Services. Now the acronym is TRACES and CDE is back as a subcontractor, having recently secured a five-year contract. For Rengarajan and Mized, it feels like reestablishing an old friendship.

"TRACES, going back to when it was TESS, is part of our growth history as a company," says Mized, who serves as CDE's president. "It feels good to be supporting a customer again that we go back to our roots with."

TRACES – Technical Range Architect Engineering Services – provides architect and engineering services to support the mission of the 45th Space Wing, mission partners, tenant units, and the entire eastern range. Work will be performed at Cape Canaveral Air Force Station, Florida; Patrick Air Force Base, Florida; Jonathan Dickinson Missile Tracking Annex, Florida; Malabar Missile Tracking Annex, Florida; and Ascension Auxiliary Airfield, South Atlantic. However, the majority of the work is expected to be at CCAFS and PAFB.

The Orlando-based architectural firm Rhodes+Brito is the prime contractor, with CDE and fellow Merritt Island firm Nelson Engineering serving as team member providing services. CDE's role is to provide engineering support and construction management services. TRACES also provides construction quality control by providing construction inspectors.

Because of its desire to provide immediate access, should the need arise, TRACES set up the support team with office space at CCAFS. This way, in addition to doing offsite work, CDE will be capable of supporting TRACES on-site. This could come in handy since part of CDE's function is to provide emergency construction when needed. CDE is also overseeing all the inspection, which includes overall management of the inspection team.

"We feel comfortable being back with TRACES and 45th SW," Mized says. "And we look forward to continuing our relationship with them."



*Just a few of the past projects CDE performed over the life of the previous TESS contracts.*

*TOP - SLC-14 was the subject of many renovation projects including HVAC, white-room HVAC, and resolving pad settlement and cracking.*

*MIDDLE - Re-milling and re-pavement of the CCAFS Skid Strip to accommodate mammoth Antonov AN-124.*

*BOTTOM - Complete renovation of CCAFS Building 44410 to convert the 40,000 sq. ft. facility into an office space.*

# We Went Cruisin'

Rather than tell its employees how much they are appreciated, CDE has always preferred to show it. Annual dinners, usually toward the end of the calendar year, have been the norm, as have picnics and other social gatherings. But to celebrate 20 years as a company, CDE decided to do something even more – take the staff and their families on a cruise.

The idea first percolated from CDE human resources director Peggy Mized, and the more that company co-founders Kannan Rengarajan and Lou Mized considered the idea, the more they liked it. So on September 7, CDE set sail on a three-day cruise out of Port Canaveral on Royal Caribbean's Enchantment of the Seas. The ship's itinerary included stops in Nassau and CocoCay – both in the Bahamas.

Twenty of CDE's employees took advantage of the cruise. Tallying both family and guests, the number came to 41 people traveling together and enjoying each other's company.



"I thought it went great," says Kannan. "Having all of us together, with our families, mingling together, enjoying meals together, I felt like we really bonded. We always say that at CDE is a big family. Being together on a cruise really made it feel that way. We had thought about taking everyone to one of the Disney parks. But when you do that, everyone says hello and then goes their separate ways. This was so much better."



When CDE approached its employees about the idea of taking them and a guest on a cruise, it was initially met with amazement. In fact, some are still amazed that the company would do that.

"When I first heard about the cruise, I had only been with the company several months, so I was wondering if I would be eligible to go," says Krutika Kanfade, who joined CDE as a mechanical engineer in March. "I couldn't believe that not only was I told that I was invited, but that I could also invite a guest. I still can't believe. My friends were all saying to me, 'What kind of company does that for its employees?'"

"It was definitely a surprise," says Victor Benziger, one of CDE's structural engineers who recently earned his P.E. license. "I definitely appreciate what they do for us. It was a really nice time."

Victor Diaz took his wife, two kids and a niece on the cruise, and thoroughly enjoyed it. "My son studies overseas in London, so this was an opportunity for us to spend time together and have a family vacation, in addition to spending time with my CDE family. It was an extremely nice thing for CDE to do for its employees." ■■■



*TOP RIGHT: Relaxing poolside with refreshments.*

*MIDDLE: The complete CDE family and staff.*

*BOTTOM: Victor's son was able to take a break from his studies in England to join his family.*



# Employee Spotlights

The key to any business is having an excellent supporting staff. CDE believes that our success is largely related to our dedicated and hard-working team members. While you may know them on the surface, we want to help you to get to know them even more. Take a moment to get to know some of our newest team members.

**Krutika Kanfade** was in the tenth grade in her home country of India when she decided to pursue a path toward engineering. It was either that or the medical field, and she couldn't envision herself as a doctor.

"Being a doctor is a noble profession," she says. "But the thought of operating on a person made me nervous. It's a big responsibility when you're overseeing what happens to a human body."

So when she decided on engineering, Krutika's next step was choosing a specific discipline, and she naturally gravitated toward mechanical engineering. "Gears and massive mechanical structures always fascinated me right from my childhood," she says, adding that she likes to be able to see and touch what she is working on. When she rode a moped in India, she marveled that it was "a two-wheel performance outcome from a mechanical system operating by itself."

Krutika got her undergraduate degree from India's Yeshwantrao Chavan College of Engineering, graduating as the top female in her class. Her high grades and the feedback from her professors gave her confidence and convinced her that she had chosen the correct career path.

But where to go next?

Krutika decided to pursue a master's degree and to do so in the United States. She had a cousin in Houston and applied to four schools in Texas. She settled on the University of Texas at San Antonio on a partial scholarship and fell in love with it and with the new country she was living in.

"One day I was leaving my parents and boarding a plane and the next day I was in Houston," she says. "I found it beautiful, clean, with wide roads. It fascinated me."

At UTSA, Krutika was amazed at the resources available, the enormity of the library and the willingness to help that came from faculty and fellow students. "I never wanted to leave the library," she says. "It was four floors and the ground floor had a food court and a Starbucks that stayed open to 2 a.m. It was the perfect atmosphere for studying."

After getting her master's degree, Krutika's father wanted her to pursue a doctorate degree, but she felt as though she was ready for the workforce. "To keep learning and not execute, I don't think that's a good idea," she says. "Education makes you think. Work gives direction to your thinking. You can't just go on acquiring knowledge without executing something."

Krutika, 25, came to Cape Design Engineering as a mechanical engineer in March of 2018 and she couldn't be happier. "The people are amazing," she says. "All my coworkers are so helpful. You don't have to knock on doors



*Ms. Krutika Kanfade, M.S., E.I.*

because the doors are always open.”

Away from work, Krutika enjoys cooking, camping and traveling. But she is never too far away from her chosen profession, as she is already working toward becoming a Professional Engineer. ■■■

**Emily Tirado** knew it was time for stability. Approaching 31 years old, and with a 20-month-old son depending on her, she was looking for a job with sustainability, something where she could apply her skills and settle into. While perusing a job site one day she came across an opening at CDE for a receptionist who could also perform administrative duties.



*Ms. Emily Tirado*

“I thought it would be a good fit,” she says.

So far – and it’s barely been a month – so good.

It’s a funny and often a circuitous route people take to get to where they are today. Emily graduated from the University of Florida in 2010 with a major in Spanish and a minor in geology. She spent a semester studying abroad in Guanajuato, Mexico and figured she would gravitate toward teaching after graduation – and she did.

For four years – from 2011 to 2015 – Emily lived in Santa Cruz, California, teaching children from ages two to nine years old. She enjoyed it, loved the West Coast, and likely would have stayed in California. But all her family was in Florida – her mom Liz, grandmother Grace, sister Lauren and nephew Hunter.

Wanting to be close to her loved ones, she moved back to Florida three years ago and quickly discovered what is fairly well known – that teachers in the Sunshine State are almost criminally underpaid. So instead of returning to teaching, Emily took a job at Merritt Island Boat Works as an office administrator. But when she got pregnant she took a year off to be with her baby, whom she named Jonah, before returning to the workforce – taking a part-time position at Cocoa Beach’s Endless Summer Tattoo.

“I liked it. I had a lot of fun there,” Emily says. “But the pay wasn’t that great and I have a son to support now. It’s not just about me anymore.”

When she saw the ad for a receptionist/office administrator opening at CDE, she applied, interviewed, and was immediately hired.

“It’s a lot of new information. I’ve never worked in an engineering firm,” she says. “It’s slightly overwhelming, but I’m learning, picking it up, and I’m thankful that they’re patient with me because I’m asking a lot of questions.”

Her duties include being the company’s friendly face when people stop by the office, checking the mail, answering the phone, editing specs, logging submittals and RFIs, and reviewing and rerouting work back to the proper person. In her spare time, she teaches Zumba, scrapbooks, enjoys the beach, and especially enjoys being a mom.

“I’m naturally an organized, neat and clean person, so I enjoy helping keep things organized here,” she says about her new job. “Everyone here has been great. It especially feels good to have stability, to know that I have health care and a 401k. There are tons of positives.” ■■■

## **A new contract with ULA**

When the United Launch Alliance sent out an invitation to only a handful of companies to assist them with their spacecraft launch facilities, CDE was one of those companies. Since ULA is a private sector company, it has the leeway to pick and choose the best companies to surround itself with. So when ULA signed CDE to a multi-year basic ordering agreement, it meant a lot to the company.

“It feels good from the standpoint of respect,” says CDE president Lou Mized.

Though ULA was founded only a dozen years ago, as part of a joint venture between Lockheed Martin Space Systems and Boeing Defense, Space & Security, Mized and CDE chief executive officer Kannan Rengarajan have a history with some of the principals involved with the company.

Mized was the design manager and lead structural engineer for Launch Complex 41 EELV program – EELV standing for Evolve Expendable Launch Vehicles. And Rengarajan was in charge of the mechanical systems for the EELV program. CDE has also provided multiple tasks in support of Boeing’s EELV programs. ■■■

## **An Author in the office...**

When he isn’t assisting CDE with proposals, newsletters and anything else involving the printed word, our resident writer Peter Kerasotis does regular work for The New York Times, Orlando magazine and various other publications. He also has authored four books, the latest of which – *Alou: My Baseball Journey* – can be found in bookstores as well as at all the other usual book purchasing places like Amazon and Apple iBooks.

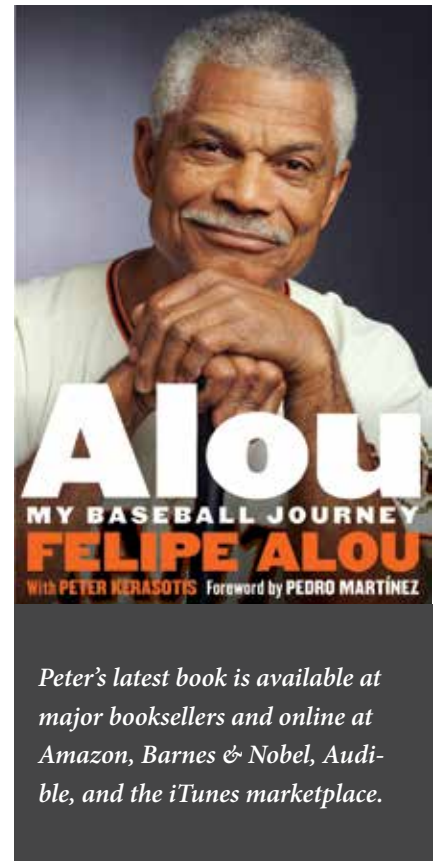
With this book, Peter coauthored with baseball legend Felipe Alou on his autobiography. Alou is considered the Jackie Robinson of the Dominican Republic, having been the first born-and-raised Dominican to go from that country and become a Major League Baseball player, manager, and the first to play in the World Series. Today, the Dominican Republic produces more MLB players than any other country outside the United States.

Discovered serendipitously when he was in Mexico City to compete in the 1955 Pan-Am Games as a track-and-field athlete, Alou signed a baseball contract for 200 pesos. Turned away from playing in Louisiana because of segregation, Alou played for the 1956 Cocoa Indians at old Provost Park, leading the Florida State League that year with a .380 batting average. Two years later he was playing in the San Francisco Giants’ outfield alongside Willie Mays.

Alou was soon followed into MLB by his younger brothers Matty and Jesús, with all three of them simultaneously playing the three outfield positions together with the Giants, something no other brother combination had done before or has done since. Alou’s son, Moisés Alou, also became a star major league player.

Hall of Fame pitcher Pedro Martínez, who is also from the Dominican Republic, wrote the book’s foreword. Another Hall of Famer, Reggie Jackson, said of Alou that “he is one of the best ambassadors for baseball and an even better ambassador for the human race.” Alou’s former roommate and Hall of Fame manager Joe Torre added about Felipe, “He is one of the best and most caring teammates I ever had. I learned from him what leadership is all about and what it means to be a man.”

The book was recently released in audiobook format, and is available via audible. In Canada, the French addition came out on November 1. If any who live locally purchase the book, Peter would be happy to personally inscribe it. E-mail at [HeyPeterK@aol.com](mailto:HeyPeterK@aol.com) to inquire. ■■■



*Peter's latest book is available at major booksellers and online at Amazon, Barnes & Nobel, Audible, and the iTunes marketplace.*



## Update: UCF Wayne Densch

In its quest to continue to elevate itself as a premier destination for student-athletes, UCF has been building a state-of-the-art extension to its Wayne Densch Sports Center, and CDE has been providing the project with MEP, fire protection and structural design services.

The expected completion date for the 40,000-square-foot facility is scheduled for August of 2019, though there is still much work to do to ensure that it will be a centerpiece not only for the athletic department and its student-athletes, but also for recruits when they visit UCF's campus.

The university continues to gain national attention by means of its football team. The UCF Knights entered the bowl season with back-to-back undefeated seasons, a 25-game winning streak, and another American Athletic Conference championship. Currently ranked No. 8 in the CFP poll, the 12-0 Knights are slated to play 9-3 LSU in the January 1 Fiesta Bowl in Glendale, Ariz.



The new two-story extension that is under construction will be situated between the existing Wayne Densch

Athletic Offices and the Nicholson Field House, and it will include training facilities, classrooms, locker rooms, and offices.

The lobby promises to be one of the building's *wow!* factors. It will feature interactive and static displays of UCF's burgeoning sports history, along with a Hall of Fame exhibit.

The extension will house all the athletic support staff, including the offices of athletic director Danny White and all of UCF's coaches. As a nice perk for the staff, there will be a gym with a cardio workout area and a physio room. The football team will have a lounge area, and all sports will have a cutting-edge video room. UCF's social media staff will also be housed in the new extension. ■■■

## Welcoming a new P.E.

Standing in Lou Mized's office, discussing work, Victor Benziger was also checking his smartphone. In fact, he had been checking it every 15 minutes or so, looking to see if he had passed the grueling eight-hour exam he took in Kissimmee on October 26 to get his Professional Engineer's license.

Suddenly, he yelled out a "Yes!" with a fist pump. The website on his smartphone had switched from saying "Results Pending" to "Passed." An office party soon followed, with CDE ordering cake to celebrate the occasion.

With Victor going from an Engineer in Training to a Professional Engineer, it now means CDE has nine fulltime Professional Engineers and one part-time. It also means that Victor will go from a cubicle to his own office at the firm.

"It's well-deserved," says Mized. "Victor has worked hard to achieve this."

In the engineering world, getting a P.E. confirms the highest standard of competence, and it is no small process. Victor began working at CDE

as an intern in January of 2013. Several months later, he graduated from UCF. As an Engineer in Training, Victor then had to work under a P.E. for four years before he could take the exam.

"It feels good," says Victor, who passed the test on his first attempt. "It was a big relief to see that I had passed." ■■■



*Victor's mentor, Lou Mized, giving the new Professional Engineer some words of advice on his new responsibilities during an impromptu celebration.*

# CDE COMPANY

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