

Aerospace Frontiers

September 2019

Section Chair's Corner

Hi everyone! Thank you for taking the time to read through our section newsletter. My name is Elizabeth Balga and I am serving as the 2019-2020 Chair of the Cape Canaveral section. I am a young professional engineer at The Boeing Company working at the Kennedy Space Center and an Astronautical Engineering Master's student in my spare time.

In my few short years in the Aerospace industry, I have been involved in student and professional AIAA sections spanning the US, including Atlanta, GA, Huntsville, AL, Los Angeles, CA, and now Cape Canaveral, FL! I am excited to try to bring a fresh perspective to the section and help re-invigorate our local industry presence, community impact, and member program offerings.

Our section features a spectrum of students, educators, and professionals—early career to retirees; engineers, scientists, policymakers, and more—and we want to build an engaging calendar of events for that audience. If you have ideas for events, speakers, technical or professional workshops, outreach opportunities, sponsorships, or simply want to connect – please don't hesitate to reach out to me directly or to any of our section council! We're available via email, the Engage portal, and multiple social media platforms, and we're excited for your input!



Fall Banquet to Feature Robert Zubrin "Destination Mars"

Our section teaming up with the AIAA Central Florida Section and the AIAA UCF Student Branch for a joint banquet on Monday, September 30, 6-8 PM at the University of Central Florida in the Student Union Cape Florida Ballroom. Cost is only \$10 for AIAA Members, \$15 for guests, including dinner!

Guest Speaker Dr. Robert Zubrin will discuss "Destination Mars: Human Mars Exploration & Colonization." Dr. Zubrin, formerly a Staff Engineer at Lockheed Martin Astronautics is now president of his own company, Pioneer Astronautics. He holds Masters degrees in Aeronautics and Astronautics and a doctorate in Nuclear Engineering from the University of Washington. He is the inventor of several unique concepts for space propulsion and exploration, the author of over 200 published technical and non-technical papers in the field, as well the nonfiction books "The Case for Space" and "The Case for Mars" He founded the Mars Society, an international organization dedicated to furthering the exploration and settlement of Mars by both public and private means.



Be sure to grab a raffle ticket from a Cape Canaveral Section Officer when you sign in for a chance to win a free copy of "The Case for Mars" to be signed by Dr. Zubrin!



Learn more at Engage.AIAA.org/CentralFlorida
Register now at https://squareup.com/store/aiaa-cfl

☼ National AIAA Leadership Visit

The planned Leadership Visit with AIAA Executive Director Dan Dumbacher had to be postponed as a result of Hurricane Dorian. The Section is working to reschedule this event, and will announce a new date soon.

Go For Launch! Inspiring the Next Generation of Space Scientists & Engineers

Our section sent two volunteers to support the Go for Launch! program at the Kennedy Space Center, an educational program run by Higher Orbits and sponsored by AIAA. During the two-day workshop, over 70 students worked with an astronaut, a Mission Patch artist, the lead scientist that oversees experiments flown into space, and various other scientists and engineers from across the aerospace industry.



They learned about the astronaut application process, astronaut training, experimenting in micro gravity, designing official NASA mission patches, and the role of civil and other engineers in the space industry. They also had special tours of the Astronaut Memorial and visited the Atlantis Space Shuttle with Astronaut Mike Foreman who flew on the Atlantis. One team of students won the Mission Patch design contest and had their experiment selected as a finalist to fly to the ISS next spring!



Submit a Nomination for Engineer of the Year

It's time to submit your nomination for Engineer of the Year! AIAA is accepting nominations through 1 November 2019. Surely there are some good nominees from among our local section. Please consider making a nomination using this form from AIAA.

Engineer of the Year is presented to an AIAA member who, as a practicing engineer, has made a recent, individual contribution in the application of scientific and mathematical principles leading to a significant technical accomplishment. This award carries a \$500 honorarium and will be presented at the AIAA Aerospace Spotlight Awards Gala.

The is intended award for accomplishment, specifically within the last three years, with the intent to "capture the moment." Thus, both the individual's specific technical contribution and the recentness of accomplishment need to be conveyed in the award write-up. Nominations will be evaluated on the significance of the contribution, the impact of the contribution to the aerospace community, and the quality of the references. Diversity in the reference pool is highly recommended.

Council Member Spotlight



Hi fellow AIAA members! My name is Jake Shriver and I am the Communications Officer for the AIAA Cape Canaveral Section. I have a B.S. in Aerospace Engineering from the University of Tennessee in Knoxville and a M.S. Technical Management from Johns Hopkins University. I work for NASA at Kennedy

Space Center as a NASA Test Director in the Test, Launch, and Recovery Management branch supporting Exploration Ground Systems (EGS), SLS, and Orion. My goals for this year are to help expand the connection with our section members and enhance outreach with the local community. It's an exciting time in aerospace and on the growing Space Coast. I look forward to working with everyone this year and contributing to our AIAA mission!

Tembry-Riddle Student Branch **Update**

Written by Thomas R. van Veldhuisen Chairman, Embry-Riddle Aeronautical University AIAA Student Branch

In the past year, the Embry-Riddle Daytona Beach branch of the American Institute of Aeronautics and Astronautics has been growing in number and member participation in the organization. To this end, the branch is growing two newer design team projects, in addition to the previously sponsored Design/Build/Fly team, as well as beginning to work on a Women of Aeronautics & Astronautics chapter, in an attempt to reach a larger number of the aerospace engineering community on campus. The two newer projects, the CubeSat and Free Flight design teams, are an effort to meet the interests of more students in the organization.

The Free Flight design team consists of ten people and focuses on the design, build, and testing of ultra-lightweight, rubber band powered aircraft. Two members of the team currently hold national records in different classes of free flight aircraft. One of these members designed and built an aircraft that weighs less than a dollar bill and flies for over 25 minutes under its own power. AIAA hopes to design and compete with an aircraft that can match and surpass this to claim a national record for the branch. The other new project, the CubeSat Design Project, is the branches first team to participate in NASA's CubeSat Launch Initiative. The team aims to develop a design for a lunar lander in line with competition rules provided by the national branch. This project is helping to support the students interested in astronautics. In addition to the two new design teams, the Daytona Beach student branch has completed its development of the aircraft intended to compete in the AIAA's annual Design/Build/Fly competition. Last year the team got 6th overall and this year is aiming for top 3.



On a regional level, several officers have gone to regional dinners and the chapter co-hosted the regional conference with FIT in Coco Beach. Co-hosting the Region II student conference with FIT has been an exciting challenge for the chapter. The conference marked the first time in many years that the Daytona Beach student branch has hosted a conference and inspired many members to become more active in their research and

participation in branch events. In addition to all design teams and official events, the chapter has sponsored several fellowship events outside of general meetings between students and professors to get them to engage with each other and possibly get together for future collaboration. The chapter has also brought research opportunities to meetings as part of a continuing effort to help students find what they might be interested in. There is a lot of energy in the Embry-Riddle Daytona Beach branch of AIAA, and more great things are yet to come as it continues its upward trajectory.



CCTS Space Coast Robotics Showdown

The Canaveral Council of Technical Societies (CCTS), of which the Cape Canaveral Section of AIAA is a member, is presenting the **Space Coast Robotics Showdown** in collaboration with FIRST Robotics on September 28 at Viera High School. Come witness the battle between robots built by Space Coast High School students. Entrance to the public is FREE. The event runs from 7AM-6PM, but you are welcome to stay for as little or as long as you like. See this link for more detail.

AIAA Technical Committee Nominations due Nov. 15

Participating on an AIAA Technical Committee (TC) or Integration and Outreach Committees (IOC) is a great way to share your expertise with the worldwide professional community, to make new contacts in your field, and to gain recognition as a technical leader. The AIAA Technical Committee (TC) Nomination period is now open for nominations for terms beginning 1 May 2020. The Nomination Packet attachment includes instructions for completing nomination forms, a listing of the TC Chairs, and the 2020/2021 TC and Integration and Outreach Committee (IOC) Requirements.

Nominations are being submitted via the AIAA website. The online nomination form for TCs is located at this link, and for IOCs at this link.

The nominations are due by 15 November 2019. Section Honors and Awards Chair (and TC Member) Dr. Razvan Rusovic is available to help with the TC process. Contact rrusovic@fit.edu.

Social Media and we want to hear from you! Find us @capeaiaa

Take a minute to follow the AIAA Cape Canaveral Section on Facebook, Instagram, and Twitter at username @capeaiaa, or find us on Engage at engage.aiaa.org/capecanaveral/home

We want to hear from our members! Tell us what you think. Do you have a question you need answered? Do you need a guest speaker and/or volunteers for your event? Use these tools to ask your fellow section members for their help!

\$\infty\$ 2019 - 2020 Cape Canaveral Section Council Members

Chair Elizabeth Balga

Vice Chair Rachel Mocini

Secretary David Fleming

Treasurer Matthew Zuk

Programs Dennis Dali

Education Naveen Sri Uddanti

Honors & Awards Razvan Rusovici

Communications Jacob Shiver

STEM K-12 Melissa Sleeper

Public Policy Holly Petrucci

Career and Workforce Development

Dhuree Seth

Young Professional Ashley Scharfenberg

⋄ Vacant Positions

The Executive Council currently has two vacancies: Technical Officer and Membership Chair. If you are interested in joining the leadership team, please contact Section Chair Elizabeth Balga at aiaacanaveral@gmail.com.

Announcements

Technical Excellence Awards

AIAA offers awards in numerous categories including the **Lawrence Sperry Award** for notable contributions by a young person, age 35 or under, to the advancement of aeronautics or astronautics. (Nomination

Deadline October 1), the **Space Operations** & **Support Award** for outstanding efforts in overcoming space operations problems and assuring success, and recognizes those teams or individuals whose exceptional contributions were critical to an anomaly recovery, crew rescue, or space failure. (Nomination Deadline Feb. 1, 2020). The full list of Technical Excellence Awards can be found at https://www.aiaa.org/home/get-involved/honors-awards/awards/technical-excellence-awards/2.

Please consider nominating one of your colleagues for this recognition. Section officers can assist with preparing the nomination packet (which is easier than you think!).

AIAA Career Center

AIAA is pleased to provide members with a <u>Career Center</u>, with extensive lists of resumes and available positions. A powerful and user-friendly search tool allows you to find the ideal job or candidate.

Attend an AIAA Cape Canaveral Council Meeting

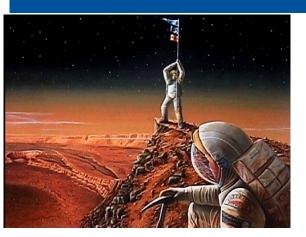
Many things take place behind the scenes to keep your AIAA Section running smoothly. We would like to encourage you, as members, to attend one of the Section Council Meetings. These meetings are the forum for discussing new ideas for events, speakers and outreach, among other things. One of the best things you can do is to tell us what interests you. We want to do things that you find valuable.

Please feel free to contact any of your Section Officers for further information.



American Institute of Aeronautics and Astronautics Central Florida Section, Cape Canaveral Section, and UCF Chapter

2019 Fall Banquet



Monday September 30th 6:00-8:00 pm

Student Union Cape Florida Ballroom University of Central Florida





AIAA CELEBRATES THE

ANNIVERSARY OF APOLLO 11

Guest Speaker - Dr. Robert Zubrin

"Destination Mars: Human Mars Exploration & Colonization"

President of Pioneer Astronautics Dr. Zubrin is the inventor of several unique concepts for space propulsion and exploration, the author of over 200 published technical and non-technical papers in the field and founded the Mars Society; an international organization dedicated to furthering the exploration and settlement of Mars by both public and private means.

6:00-6:30 - Networking

6:30-7:00 - Dinner

7:00-8:00 - Dinner/Speaker

Cost to Attend:

Students (Members) - \$5

Students (Non-Members) - \$10

Professionals (Members) - \$10

Guests (Non-Members) - \$15

Register at https://squareup.com/store/aiaa-cfl

facebook.com/aiaacfl facebook.com/capeaiaa facebook.com/aiaaucf engage.AIAA.Org aiaaucf.com

