



NEWSLETTER



Letter from our Chair

AIAA Utah Section Members,

Happy New Year! I hope that your holidays were relaxing, rejuvenating and healthy, and that your new year is off to a fantastic start.

Our Section has hit the ground running working on projects that we are excited to share with you. First, we would like to extend a Congratulations to our nominees for the annual Utah Engineers Council (UEC) Awards. Jessica Widrick is nominated as our Engineer of the Year, Justin Wettstein is our Fresh Face in Engineering nominee, and Dr. Douglas Hunsaker is our Educator of the Year nominee. In addition, our annual student scholarship is

This view from the International Space Station, as it orbited above 264 miles above Kazakhstan, looks north towards Russia with its brightly lit cities blanketed by an aurora. (Image credit: ULA)



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now accepting applications until 1/31. This will also be presented to the recipient in conjunction with the UEC Awards Banquet. More information about the scholarship can be found in this newsletter.

In addition, we have begun work for our Wasatch Aerospace and Systems Engineering Mini-Conference, which will be an event hosted in conjunction with the Wasatch Chapter of the International Council on Systems Engineering (INCOSE). We will be opening up our Call for Papers on January 18, so be on the lookout for additional information.

In addition to more exciting events that we are looking forward to in the coming months, there are also volunteer opportunities available to you, our members, which can be found within this newsletter.

We are looking forward to an exciting year with AIAA. As always, should you have any questions or comments regarding the Section, please feel free to send me an email for whatever you may need.

Thank you all, and have a great month!

Caitie Beck

AIAA UT Section Chair

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AIAA Merchandise

Thank you for everyone who participated in the AIAA swag survey. We have collected everyone's input and put together some awesome AIAA merchandise: polo, t-shirt, and mug. Please go to this [link](#) for more details and to make an order. The deadline for orders is January 31, 2021.

Wasatch Aerospace and Systems Engineering Mini Conference - Call for Papers

You are invited to submit a paper for possible inclusion to the Wasatch Aerospace and Systems Engineering Mini-Conference, hosted by the Utah Section of the American Institute of Aeronautics and Astronautics (AIAA) and the International Council on Systems Engineering (INCOSE) Wasatch Chapter. The theme of the conference is "Celebrating the Creativity of Engineers". Please include which technical discipline your paper falls under (you may put more than one). If you put more than one technical discipline, the judges will determine which technical discipline in which your submission best fits. We are soliciting papers in the following technical disciplines:



Advancing Existing Solutions

How have entrants used their creativity to improve the state of engineering? This category includes improvements or innovative applications of *existing* technology, processes, or techniques.

Creating New Solutions

This category showcases *new* technology, processes, or techniques developed by the entrant.

Creativity in Adversity

The year 2020 brought a number of unusual challenges. How have entrants used creativity to bring people together, improve morale, promote safety, or continue to deliver excellence in the face of adversity?

Championing Change

What changes have entrants led which required significant cultural adjustment within their organization?

Artistry in Engineering

Sometimes, form truly meets function. What engineering processes or products have entrants created which express beauty or individuality?

Engineers in Creative Fields

When have entrants used engineering to play a role in a creative field, and how have creative fields influenced engineering?

Abstracts will be reviewed, and authors will be notified upon acceptance. The conference will be an online event using Zoom.

Important Dates

January 18: Call for Abstracts

February 12: Call for Abstracts Closes

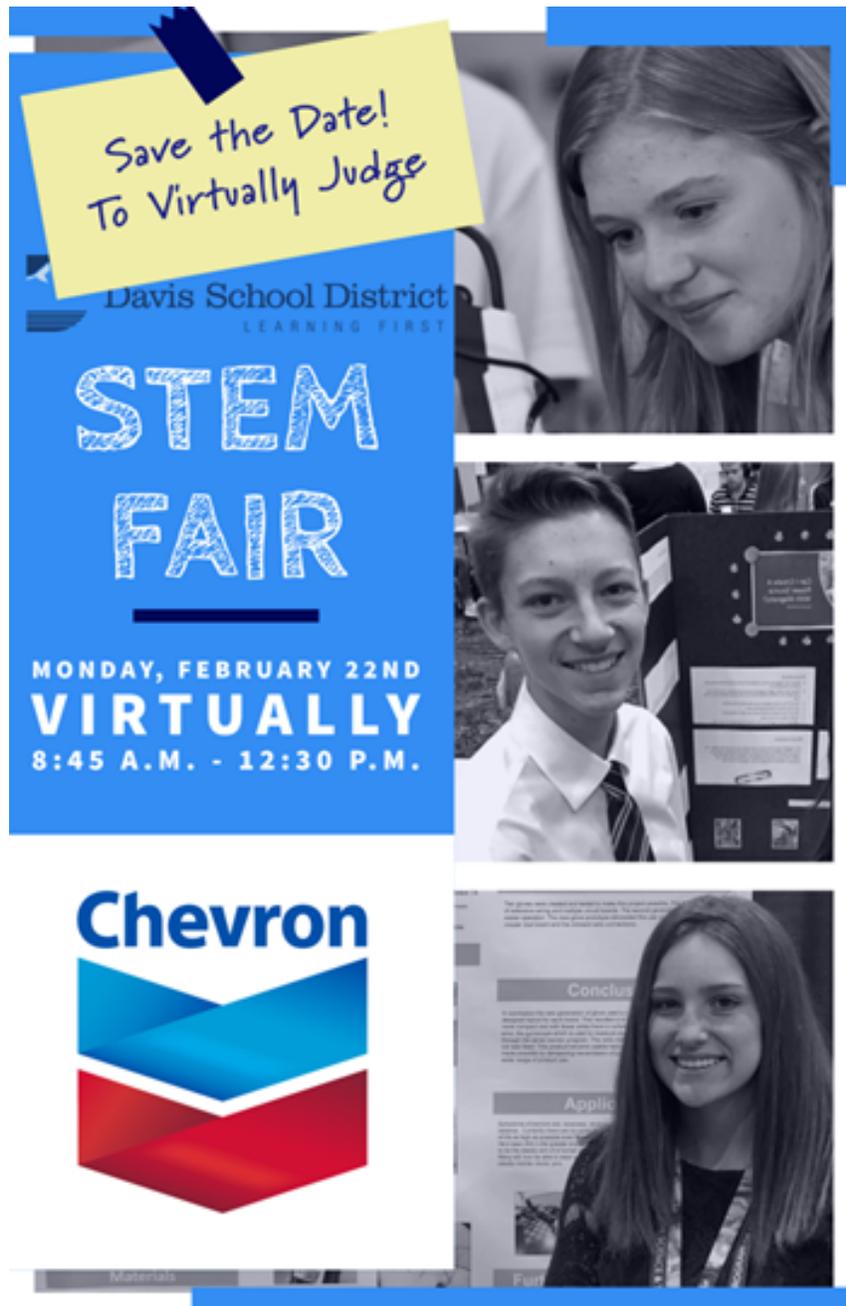
March 26: Selected Paper Submissions Close April 15 – 16: Conference

For how to submit your abstract, please go to our Engage Utah Section Community page ([here](#)) for instructions.

Girl Davis School District Virtual STEM Fair

Davis School District is holding its annual **STEM Fair Virtually on Monday, February 22nd.**

Volunteer virtual judges are needed! Judges would be needed from **8:45 a.m. - 12:30 p.m. virtually.** This is a great opportunity to promote STEM in our communities and create a long-lasting excitement for students. If you can help, please fill out the form at <https://tinyurl.com/VirtualDSDSTEMFAIR> or contact Annette Fonnesbeck at afonnesbeck@dsdmail.net or by phone 435-760-9373.



Save the Date!
To Virtually Judge

Davis School District
LEARNING FIRST

**STEM
FAIR**

MONDAY, FEBRUARY 22ND
VIRTUALLY
8:45 A.M. - 12:30 P.M.

Chevron

AIAA Scholarship Application

We have extended the scholarship application deadline to January 31st. This application is for the American Institute of Aeronautics and Astronautics (AIAA) Utah Section \$1,500 Professional Society Service Scholarship. It is intended to encourage and reward participation and leadership in the student's respective STEM field. As a reminder for the scholarship requirements, you must:

1. Be pursuing a degree in a STEM-related field from a university in Utah
2. You must not be graduating in Spring 2021.

Here is a link for the application: <https://forms.gle/sQjDrGAgFmuFBya87>

Our Utah Engineer's Council Nominees

Today we are featuring our nominees for the Utah Engineer's Council (UEC) annual awards! The Utah Engineers Council is the non-profit umbrella organization for fifteen local chapters and societies within the many engineering disciplines in Utah, including the Utah Section of AIAA. Each year, the UEC hosts annual awards in conjunction with E-week, where outstanding engineers and educators are recognized for their contributions to the engineering field. These awards will be presented in conjunction with UEC's annual award banquet, taking place on the evening of February 27.

We will begin with Justin Wettstein, who is the AIAA nominee for the Fresh Face in Engineering Award. Justin is a first generation college graduate and was Cum Laude of the 2015 University of Utah Mechanical Engineering graduating class. Starting as a product development engineer at Northrop Grumman (formerly Orbital ATK) in 2016, he became a development analysts for solid rocket motor performance supporting qualification of rockets through static tests, analyzing their flight performance, and designing the performance of future rockets. He obtained is Masters of Science in Mechanical Engineering while also working full time. Justin is our Young Professionals Chair, and is a member of the AIAA Solid Rocket Technical Committee. He spends nearly every weekend following his passion for the outdoors by skiing, snowboarding, climbing and mountain biking.

Congratulations, Justin!

The AIAA nominee for UEC's Educator of the Year Award is Dr. Doug Hunsaker. Dr. Hunsaker has been teaching in the Utah State University department of Mechanical and Aerospace Engineering (MAE) since January 2014. His research areas focus on computational methods ranging from



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potential flow to full RANS CFD for both 2D and 3D modeling and optimization. These research efforts support improved aircraft efficiency interests of NASA and the Air Force Research Lab as well as the rapid design and optimization needs of the emerging drone industry. Dr. Hunsaker also has a strong interest in studying unsteady flows as they pertain to flapping flight.

His teaching experience and interest include aerodynamics, flight dynamics, flight simulation, optimization and statistics. He has consistently improved the quality and depth of aeronautics instruction within the MAE Department. He is engaging in the classroom, inspiring to both undergraduate and graduate students, and willing to do anything he can to encourage student participation in projects, publications and professional meeting presentations. A common theme among Dr. Hunsaker's industry and academic collaborators, in particular the University Leadership Initiative, is the quality and exceptional technical expertise of students that he produces. Many of those students are heading into advanced degrees and prestigious research and engineering positions in Utah's aerospace industry.

Congratulations, Dr. Hunsaker!

Our final AIAA nominee is Jessica Widrick for the Engineer of the Year Award. Jessica is an accomplished engineer who has spent the past 15 years working with large solid rocket motors for Northrop Grumman in Utah as a Design Engineer in the metal structures, joints and seals group and as the Design Lead and technical expert responsible for metal hardware components, seals and overall joint performance. She started her career working on the shuttle program with the Reusable Solid Rocket Motors and has since worked on government, commercial and industry entities for both development and production programs. Jessica interacts and coordinates with multiple manufacturing centers and Design Engineers to ensure successful handling, manufacture, and assembly of metal hardware and joints. Jessica not only frequently works with different disciplines, but also maintains a comprehensive knowledge of the production processes to ensure a successful design including an understanding of rocket motor ballistics, fluid mechanics, heat transfer, thermochemistry, and structures. Jessica is an expert of various seal material's capability, joint environmental conditions, potential changes during operation, seal integrity verification, and how to conceptualize and bound failure modes. Jessica maintains and develops engineering design standards within her discipline and teaches others good design practice by creating standards to help train others and create design process consistency.

Congratulations Jessica!

If you are interested in obtaining tickets to UEC's annual award banquet, you may purchase tickets here: <https://utahengineerscouncil.org/>



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Charitable Contributions

We have recently become aware of a workplace donation program at Northrop Grumman where employees may donate a portion of their paycheck to organizations such as AIAA. If you are interested in participating please check with your respective Human Resourcing organization or management for a similar way to donate to AIAA or other organizations.

Future Events

We are currently monitoring the status of COVID-19. As such, our events may change to ensure the safety of our members and others. Please follow our events on Engage and our Facebook page for the latest information.

We encourage everyone to follow the coronavirus safety guidelines set out by the WHO and CDC.

Stay healthy. Stay safe. Stay connected.