

Posters and Demonstrations Presentations

*(Number Corresponds to Poster/
Demonstration Number)*

Friday, March 23, 2018

AC1-Atrium, 11 a.m. - 3 p.m.

Eagle Gym, 7 - 9 p.m.

- 1. Adapting to Subordinates with Leadership Experience**
Zane Zylstra, Alan Pacheco and Anthony Valenza
Mentor: Lt. Col. Marella Tobolt Big Mountain
- 2. Search and Rescue Ground Explorer (S.A.R.G.E.)**
Jacqueline Worley, Sara El Baissi, Morgan Garone, Grayson Lynch, Chad Abramson Jr., Garrison Bybee, Mathew Todd and Riley Griffin
Mentors: Iacopo Gentilini and Richard Mangum
- 3. VEX Robotics Club**
Lucas Widner, Adam Scott, Kyle Lutterman, Braxton Kendall, Jeffrey Ryan, Christopher Allyas and Geoffrey Winship
Mentor: Joel Schipper
- 4. Women in Leadership by The Fifty-One Percent**
Jillian Green and Kerrigan McDonald-Ortega
Mentors: Suzie Roth and Lt. Col. Marella Tobolt Big Mountain
- 5. Optimization of Staging Mechanisms for Two-Stage High-Power Rockets**
Matthew Boban, Robert Hagen, Joseph Scrivens, Reece Krantz, Matthew Espiritu, Alisha Lewis, Anna Bartz, Luke Tronstad, John Bannon, Reece Duenow, Indigo Kaul, Cody Warren, Dan Keaty, Eric Fitzgerald, Henrik Hoffman and Ryan Maslowas
Mentor: Elliott Bryner
- 6. FAR-Mars Challenge by 45kBiProp**
William Carpenter and Daniel Dyck
Mentor: Elliott Bryner
- 7. How DISC Personalities Work in a Cockpit Setting**
Andrew Barana, Jason Fung and Shane Hamman
Mentor: Lt. Col. Marella Tobolt Big Mountain
- 8. Toxic Leadership in the Cockpit**
Tate Ottaway, Dominick Peluso, Jerad Richardson and Troy Fenner
Mentor: Lt. Col. Marella Tobolt Big Mountain
- 9. Hypoxia Training for General Aviation Pilots**
Pamela Ward
Mentors: Tim Holt, Jacqueline Luedtke and Jenna Perry
- 10. An Empirical and Numerical Analysis of the Relationship Between Stall Hysteresis and Circulation Parameter**
Cole Zenker and Jesse Ingraham
Mentor: Wallace Morris
- 11. Aviation Augmented Reality Glasses by Aero Glass**
Jacob Ponter
Mentors: Michelle Parker and Timothy Sestak
- 12. A Longitudinal Analysis on the Cyclical Pattern of the US Airline Industry**
Michelle Bennett
Mentors: Brent Bowen and Jacqueline Luedtke

- 
- 13. Airline Schedule Padding and Consumer Choice Behavior**
Siddharth Varkey
Mentor: Jules Yimga
 - 14. Marketing Analysis of Scholarly Journals in a Social World**
Hunter Watson
Mentors: Brent Bowen, Jacqueline Luedtke and Tim Holt
 - 15. Modes of Monsoon Precipitation in Arizona and New Mexico**
Cynthia Kobold
Mentor: Dorothea Ivanova
 - 16. Changing Fire Conditions**
Matthew Johnson
Mentor: Mark Sinclair
 - 17. Radiosonde Recovery Guiding Unmanned Aerial Vehicle**
Connor Anderson and Riley Griffin
Mentor: Johnny Young
 - 18. Transformational Leadership from the Eyes of a Follower**
Jennifer Ruth and Brandon Ruth
Mentors: Lt. Col. Marella Tobolt Big Mountain and Capt David Gardner
 - 19. Psychological Effects of Leadership**
Alani Pon and Moritz Wienke
Mentor: Lt. Col. Marella Tobolt Big Mountain
 - 20. Detecting Small Unmanned Aircraft in Controlled Airspace with Automatic Dependent Surveillance Broadcast**
Destiny Penna and Jacob Huston
Mentors: Jennah Perry, Johnny L. Young, Jacqueline Luedtke and Michelle Parker
 - 21. The Future of Unmanned Traffic Management: Transforming and Combining Technologies to Implement Commercial Unmanned Aircraft Operations in Controlled Airspace**
Jacob Huston and Destiny Penna
Mentors: Jennah Perry, Johnny L. Young, Jacqueline Luedtke and Michelle Parker
 - 22. UAS Paratroque Research and Development**
Forrest Mobley
Mentor: Shigeo Hayashibara
 - 23. Unmanned Aerial Vehicle Winglets**
Cindy Ma, Daniela Baroni and Andrew Carlson
Mentors: R. Andrew Gerrick and Shigeo Hayashibara
 - 24. UAV Research – CFD Studies in Venturi Wing Design**
Jiyoung Hwang
Mentor: Shigeo Hayashibara
 - 25. Micro Air Vehicle Platform Design**
Nitin Susendran, Nathan Mills, Adam Bergamini, Jacob Schneider and Joseph Grosjean
Mentors: Akhan Almagambetov and William Crisler
 - 26. AIAA Design Build Fly Regional Passenger Aircraft *Nova Forte***
Brian Study, Paul Sanders, Marcus Ross, Trevor Lau, Adam Bergamini, Bryan Shaefer, Nathan Mills, Joseph Grosjean, Simon Zemana, Bailey Symes, Samantha Carter, Cole Reeves, Corey Bullens, Indigo Kaul, Max Eisenstadt, Luke Tronstad, Mack Westerfeld and Alex Malinowski
Mentors: David Lanning, William Crisler and Jacob Zwick

- 27. Recharging a Drone In-Flight through Wireless Power Transmission**
Michael Buck, Kristina Landen, Christina Openshaw and Paloma Symmonds
Mentors: James Doyle, Dennis Kodimer and Ed Post
- 28. Eagle Aero Sport: Student-Built Aircraft**
Rachael Bradshaw and Chloe McBride
Mentors: Brian Davis and Wallace Morris
- 29. Crisis Leadership**
Joshua Pederson
Mentor: Lt. Col. Marella Tobolt Big Mountain
- 30. Effects of Perspective Bias on Leadership and Decision Making by Perspective Leadership**
Alexander Michael Lubiarez and Anthony Aurelio Tudela Viadoy
Mentor: Lt. Col. Marella Tobolt Big Mountain
- 31. Hybrid Hydrogen-Octane Internal Combustion Engine by Evolved Combustion**
Ryan Arnold, Monty Bruckman, Dan Reynolds, Logan Strople, Michael Cruz and Nate Larson
Mentor: Daniel Dannelley
- 32. Formula SAE**
Robert Graham, Stefan Johnson and John Rees
Mentors: Shigeo Hayashibara and Richard Gibson
- 33. The Future of Transportation Technology (AZLoop: Arizona's SpaceX Hyperloop Competition Pod Team)**
Maciek Czyz, Akhil Gampala, Angel Rodriquez, Blake Tangora, Kale Shumard-Crippin, Kevin Gray, Leon Brown, Luke Hein, Monica Choiniere, Shadman Alamgir, Tristan Minkoff, Alan Izquierdo Ramirez, Matthieu Rada, Steven Duhamel, Kevin Pereira and Nedah Ibrahim
Mentors: Samuel Siewert and Michael Fabian
- 34. International Model NATO**
Holly Focareto, Lucy Bebbington, Brandon Embrey, Jordan Long, Jack Lupori, Shannon McGirk, James Ritchey, Mason Russell, Stefan Johnson and Marc Rego
Mentors: Brooke Shannon and Tyrone Groh
- 35. Cross-Cultural Leadership Studies**
James Ritchey
Mentor: Lt. Col. Marella Tobolt Big Mountain
- 36. Edson's "Bloody" Ridge: A Study of Leadership, Morals and Their Effects on Human Decision Making in Combat**
Andrew Ruffini
Mentor: John Strandberg
- 37. Project Management in Academia as Seen by the Management of: "Identifying Cost-Effective Security Barrier Technologies for K-12 Schools: An Interdisciplinary Evaluation"**
Ashtin Martinson and Shannon McGirk
Mentor: Reginald Parker
- 38. Separating the Effects of Film Cooling and Pressure Gradients on Curved Surfaces from Pressure-Sensitive Paint**
Sarrah Bramblett
Mentor: Elliott Bryner
- 39. Development of a Remote Mountaintop AllStar HAM Radio Node**
Austin Macosky, Cole Reeves and Kyle Bergmann
Mentor: Ed Post
- 40. The Effect of Leadership Traits and Training on the Effectiveness of a Team**
Connor Golley, Anthony Quezada, Robert Myers and William Smith
Mentor: Lt. Col. Marella Tobolt Big Mountain

- 41. Leadership in the Classroom: Teaching Effectiveness Based on Leadership Principals**
Austin Fischer and Evan Bozanic
Mentors: Col Randy Kaufman, Lt. Col. Marella Tobolt Big Mountain, Jessica Butts and Kaela Martin
- 42. Protective Factors in the Development of Psychopathy from Adolescence to Adulthood**
Duran Delgadillo
Mentors: Michele Gazica and Erin Bowen
- 43. NASA Human Exploration Rover Challenge**
Miguel Recabarren, Lars Grantz, Vaishnavi Harikumar, Karun Paul, Oliver Davis, Hossain Samei and Jacob Stites
Mentor: Brenda Haven
- 44. Team KRATOS: Solar Concentration Power Generation on Mars Utilizing a Carbon Dioxide Brayton Cycle**
Margaret Mueller, Emily Lambert, Tyler Green, Eric Trevenna and Madalyn Markham
Mentors: Daniel Dannelley and Elliott Bryner
- 45. EagleSat 2**
Hilliard Paige, Lauren Barthenheier, Jason Hamburger, Brennan Gray, Steven Buck, Chloe McClellan, Noor Rashid, David Stockhouse and Heather Humphreys
Mentor: Gary Yale
- 46. Construction and Operation of an Arcjet Thruster**
Hunter McCraw and John Norton
Mentor: Darrel Smith
- 47. Design and Simulation of a Miniature Hall-Effect Thruster**
John Norton, Hunter McCraw and Barik Smith
Mentor: Darrel Smith
- 48. Sounds of Gravitational Waves from Core Collapse Supernovae**
Jasmine Gill and Pedro Jesus Quiñonez
Mentor: Michele Zanolin
- 49. Julia Language Ephemeris and Physical Constants Reader for Solar System Bodies**
Julia Mihaylov and Renee Spear
Mentors: Kaela Martin and Damon Landau
- 50. The Dipole Antenna Radio Telescope (DART)**
Brittany Wright
Mentor: Andri Gretarsson
- 51. Personality Type versus Leadership Success**
Brandon Erekson and William Lester
Mentor: Lt. Col. Marella Tobolt Big Mountain
- 52. Qualities of Great Leaders**
Christian Denman and Mulangu Mundemba
Mentors: Suzie Roth and Lt. Col. Marella Tobolt Big Mountain
- 53. Selfish versus Selfless Leadership**
Walker Adema and James Denemark
Mentor: Lt. Col. Marella Tobolt Big Mountain
- 54. Overcoming the "Distraction Dilemma": The Effects of Solitude on Leadership Capacity**
Harrison James Byrd and Andrew Robert Thomas
Mentor: Lt. Col. Marella Tobolt Big Mountain