

AIAA Region VII Student Paper Conference - 2022

Schedule of Events	
Day 1 - 28 November	
<p>Location: S111 Please click this URL to start or join: https://adelaide.zoom.us/j/892266305957pwd=c01wNVVvRkNkMDJhSUJnbFZlUXZhdz09&from=addon Passcode: 485875</p>	
<p>Location: S112 Please click this URL to start or join: https://adelaide.zoom.us/j/865717895357pwd=SZVWVGZsbnN4d0JmTGJmRmRlY2RlZj09&from=addon Passcode: 168026</p>	
8:30	Registration (S111)
<p>Conference opening Please click this URL to start or join: https://adelaide.zoom.us/j/892266305957pwd=c01wNVVvRkNkMDJhSUJnbFZlUXZhdz09&from=addon Passcode: 485875</p>	
9:30	Invited Presentation Speaker : Dan Dumbacher Title: TBC Please click this URL to start or join: https://adelaide.zoom.us/j/892266305957pwd=c01wNVVvRkNkMDJhSUJnbFZlUXZhdz09&from=addon Passcode: 485875
Morning Tea	
11:00	Aeroacoustics and Near-Wake of Finite Oblique Wall-Mounted Cylinders (In person) Presenter: Jessica Eburn Affiliation: University of New South Wales Exploring how the hybridization of Laser-Microwave Hybrid Wireless Power Transfer System (LMHWPTS) has increased efficiency in comparison to the two commonly established traditional models Presenter: Shivkaveed Raina Affiliation: Scholars International Academy
11:30	Passive Control of Junction Flows and the Effect on Fluctuating Surface Pressure (In person) Presenter: Justin Malkin Affiliation: University of New South Wales Use of Fast Steering Mirrors in Improving LOS pointing accuracy in observation based CubeSats Presenter: Kaustubh Muruskar Affiliation: Birla Institute of Technology and Science
12:00	Low-Cost Hardware Solution for Image Sensing on Small Satellites (In person) Presenter: Alissa Pavlenova Affiliation: Curtin University Multi-Battery System in nanosatellites Presenter: Vikramadityanhan Venkatesan Affiliation: Birla Institute of Technology and Science
Lunch (S117 Davis Room)	
13:30	Performance Improvements in Unwrapped RDE (In person) Presenter: Connor Baker Affiliation: University of Adelaide Aeroacoustic and Aerodynamic Investigation of Bio-Inspired Leading Edge Tubercles for Swept Wings Presenter: Anura Pumpayach Affiliation: University of New South Wales
14:00	Enhancing large eddy simulation sub-grid scale closure model estimation using Convolutional Neural Networks (In person) Presenter: Kevin Liu Affiliation: Monash University Symmetry-Enforced Tomographic Background Oriented Schlieren: A Novel Method for Investigating Coherent St Presenter: Daniel Brinsh Affiliation: Monash University
14:30	Enhancing 2-Component - 2 Dimensional Particle Image Velocimetry using Physics Informed Deep Learning (In person) Presenter: Michael Pongratz Affiliation: Monash University Predicting the acoustic field of elliptic jets Presenter: Nasa Kucuk Affiliation: Monash University
Afternoon Tea	
15:00	Aerodynamic Design Analysis and Fabrication of a UAV Test Model Capable of Delivering Medical Supplies Presenter: Anika Tazewell Affiliation: Military Institute of Science & Technology Airport Energy Extraction using Wind Turbine Systems Presenter: Joseph Croato Affiliation: Emirates Aviation University
16:00	Design and Testing of a Passive Aerodynamic Stabilizer Applied to a Small Sized Rocket. Presenter: Marcos Gonzalez Affiliation: FHNW Pushing the boundaries of UAM safety and passenger comfort through a novel control philosophy Presenter: Oleksandr Knochak Affiliation: Delft University of Technology
Free Time	
17:30	Networking Night (Venue: TBC)
20:00	Networking Night close

Day 2 - 29 November	
<p>Location: S111 Please click this URL to start or join: https://adelaide.zoom.us/j/87041095857pwd=MMWdQVxLWnh5b0c2NzJjYmVhNjZlZj09&from=addon Passcode: 543124</p>	
<p>Location: S112 Please click this URL to start or join: https://adelaide.zoom.us/j/847031336537pwd=Q3M3YWhkSkUvVWpW3hENzgzUj09&from=addon Passcode: 762559</p>	
9:30	Invited Presentation Speaker : Timothy Hilton Title : TBC Please click this URL to start or join: https://adelaide.zoom.us/j/847031336537pwd=Q3M3YWhkSkUvVWpW3hENzgzUj09&from=addon Passcode: 762559
Morning Tea	
11:00	Liability for Autonomous Space Objects in Outer Space (In person) Presenter: Mustafa Agbadi Affiliation: Northumbria University Newcastle An end-to-end transfer strategy from Earth to Callisto Presenter: Fabio Spada Affiliation: Politecnico di Milano
11:30	Using automated burking drone to detect and repulse cattle (In person) Presenter: Aaron Saw Affiliation: Royal Melbourne Institute of Technology Human settlement on the Moon: a brief analysis Presenter: Ella Violino Affiliation: Politecnico di Milano
12:00	Magnetic Disturbance Analysis of Spacecraft using Electromagnetic Propulsion (In person) Presenter: Coline Jane Affiliation: Victoria University of Wellington Reinforcement learning based Linear Quadratic Regulator for the Control of a Quadcopter Presenter: Nihal Kuzup Affiliation: Queen Mary, University of London
Lunch (S117 Davis Room)	
13:30	Numerical Investigation of Rayleigh Taylor Instability in Supersonic Aviation Presenter: Urv Mehta Affiliation: Ramalrah University of Applied Sciences A Brief Outline of Space Sustainability Presenter: A Ajay Affiliation: Hindustan Institute of Technology & Science
14:00	Study on reaction kinetics mechanism of ammonia combustion assisted by non-equilibrium plasma Presenter: Jianyi Jiang Affiliation: Tsinghua University Neural Network based Model Predictive Upset Recovery Control in Real-Time Presenter: Omar Mourad Affiliation: University of Stuttgart
14:30	Numerical studies of a novel conjugate heat transfer algorithm with adaptive coupling time step controller Presenter: Fehuel Cal Affiliation: Tsinghua University NUMERICAL INVESTIGATION OF TECHNICAL CHALLENGES FOR A NANO SATELLITE ORBITAL LAUNCH VEHICLE SYSTEM. Presenter: Hannah Adakula Affiliation: Hindustan Institute of Technology & Science
Afternoon Tea	
15:00	Design of Blended Wing Body MALE UAV Through Biomimicry Presenter: Kamban Shah Affiliation: College of Engineering, Trivandrum Numerical study of shock boundary layer interaction over a step Presenter: Priyansu Singh Affiliation: Indian Institute of Technology Kanpur
16:00	Effect of pressure recovery on the lower surfaces of multiple winglets by changing the main wing airfoil of an aircraft Presenter: Erna Kobayashi Affiliation: The University of Electro-Communication Effect of coal bleeding on the flow dynamics of a single expansion ramp nozzle Presenter: Bharathwaj M Affiliation: Indian Institute of Technology Kanpur
16:30	Design Proposal for Unmanned Aerial Service (UAS) Delivery Vehicle "FastDrop" Presenter: Chris Gurjao Affiliation: Universita di Bologna Effects of hydrogen addition on dilute aviation kerosene spray flames Presenter: 魏浩 宇 Affiliation: Tsinghua University
17:00	Break
17:15	Conference Closing/ Prize presentation
17:30	Free Time
18:00	Conference Dinner (Venue: TBC)
21:00	Conference Dinner close

Day 3 - 30 November	
Location: University	
8:45	Morning Tea
9:30	Depart to South Australian Aviation Museum (SAAM)
12:30	Return to University of Adelaide

High school
Undergrad
Masters