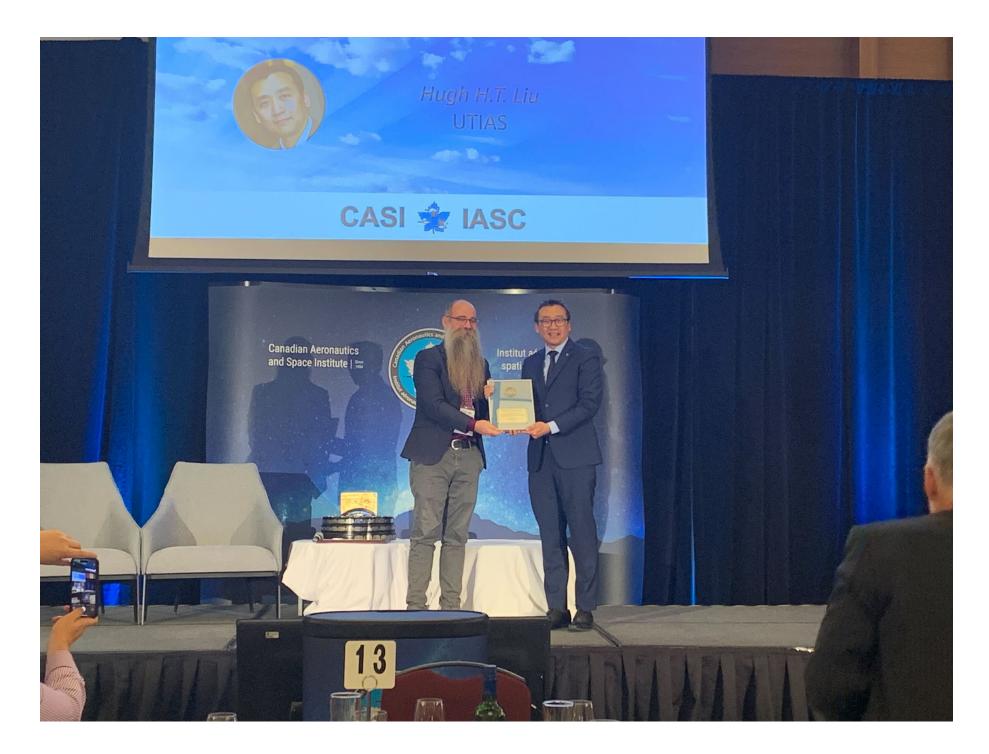


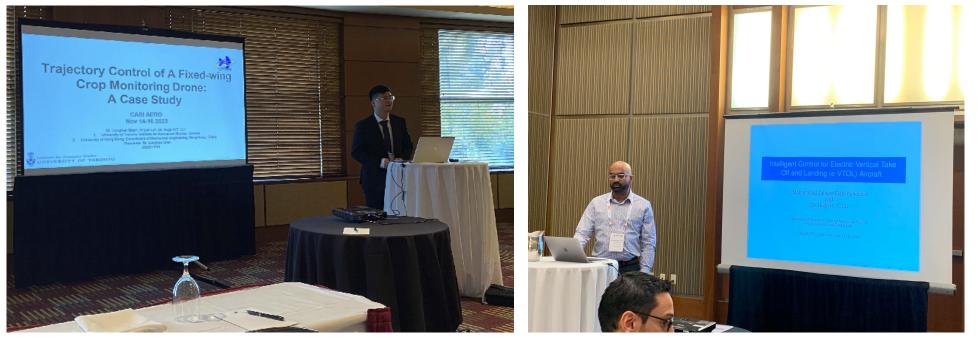
# **Professor Liu Receives an Award** at CASI AERO 2023

In November, Professor Hugh H.-T. Liu was awarded the Canadian Aeronautics and Space Institute (CASI) McCurdy Award at the CASI Aeronautics Conference in Ottawa. The CASI McCurdy Award is given for outstanding achievement in the science and creative aspects of engineering relating to aeronautics and space research. Congratulations Professor!



# **Two FSC Members Present their** Research at CASI AERO 2023

We are delighted to share the success of our lab members, Dr. Longhao Qian and Elahi Zaheed, who accompanied Professor Liu and presented their research at the CASI AERO 2023 conference in Ottawa. Dr. Qian took the stage to introduce an interesting trajectory control scheme for fixed-wing crop monitoring drones. Zaheed showcased one of our lab's featured works in the electric-vertical takeoff and landing (e-VTOL) aircraft. Their demonstration highlighted the lab's commitment to advancing cutting-edge aerial technologies.



# FSC Newsletter 2023-Fall

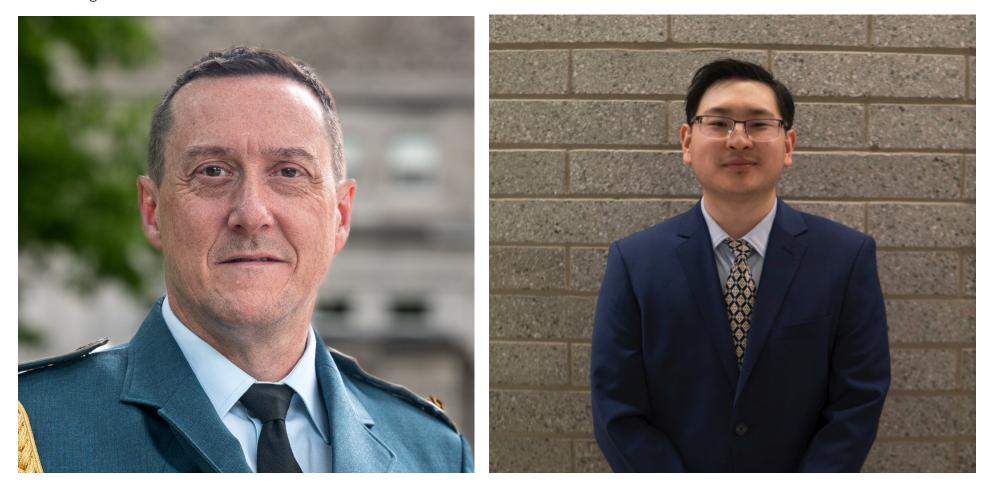
Dec. 17, 2023

University of Toronto Institute for Aerospace Studies

### **New FSC Members**

We are proud to announce two new additions to our lab this fall—David Dunwoody and Kevin Ji Tong Chen. David Dunwoody, a Ph.D. candidate, has joined us with a keen interest in the intersection of artificial intelligence (AI) and human machine interaction. Kevin Ji Tong Chen, pursuing a M.A.Sc., comes to our lab with a focus on the robust control of water-sampling drones. Welcome to the FSC family!

This semester, Cindy Feng held a remarkable Departmental M.A.Sc. Seminar (DMS) focusing on her slung-payload quadrotor control for water sampling, and received her M.A.Sc. degree. Cindi's dedication, hard work, and intellectual prowess were evident throughout her academic journey. We look forward to witnessing the continued impact of her academic pursuits in the future!



# **Birthday Celebrations for Professor Liu**

Members of the FSC lab came together on November 3rd to throw a surprise birthday party for Professor Liu. The event was filled with laughter, warm wishes, and a strong sense of unity among colleagues. The atmosphere was festive as FSC members expressed their gratitude and shared moments of joy during the celebration. The collective effort to organize the surprise party highlighted the strong bonds and mutual respect that define the FSC family.



This Fall, the lab continued with their research productivity. Dr. Longhao Qian published a conference paper on the use of 5G access points to provide acceleration feedback for quadrotor control. Chao Qin, Helson Go, and visiting scholar Qiuyu Yu received acceptance for their journal paper for perception based quadrotor control to Transactions on Mechatronics.

### **Cindi's Graduation**

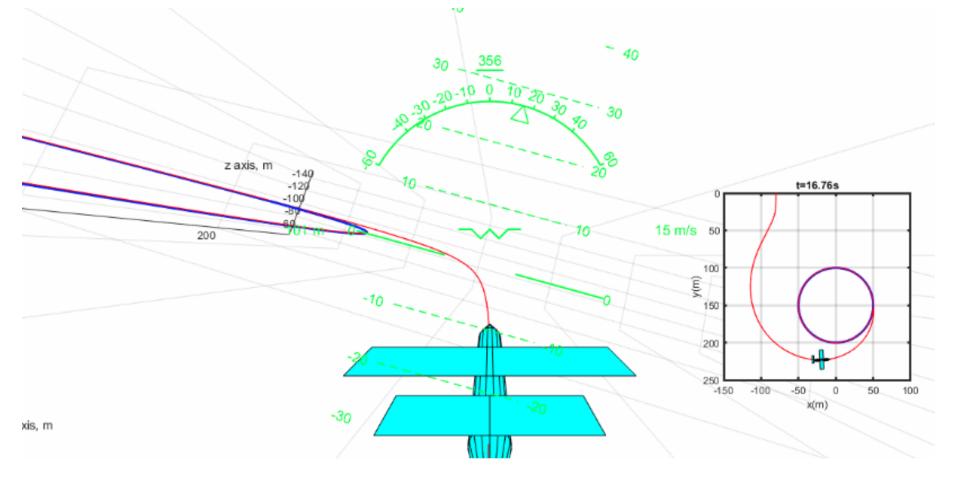


### **Publications**

| Journals & Magazines > IEEE/ASME Transactions on Mec > Volume: 28 Issue: 4 🔞 |            |           |
|--|------------|-----------|
| Perception-Aware Image-Based Visual<br>Servoing of Aggressive Quadrotor UAVs |            |           |
| Publisher: IEEE Cite This DF   |            |           |
| Chao Qin 🝺; Qiuyu Yu 🕩; H. S. Helson Go 🕩; Hugh HT. Liu 🕩 🛛 All Authors      |            |           |
| 1  | 409        |           |
| Cites in   | Full       | R < © 늘 🌲 |
| Paper  | Text Views |           |
|  |            |           |

# **Open-Sourced Toolbox Released** on Github

We are excited to announce that Dr. Longhao Qian has recently released a cutting-edge aircraft simulation package, now available on GitHub. It is a concrete and ready-to-use visualization package written in MATLAB for flight simulation with thorough coding guides. It is currently available on Longhao's Github page.



Professor Liu is visiting the Technical University of Munich (TUM) in December of 2023, under TUM's International Visiting Professor Program. His host is Professor Florian Hozapfel of Flight System Dynamics Institute. He is working with Mr. Zoe Mbikayi, a PhD candidate that he is co-supervising with Florian and research collaborator, Dr. Agnes Steinert. Agnes and Zoe are scheduled to visit FSC Lab in the spring of 2024, under TUM's Global Incentive Fund.



### **Research Visit in TUM**