

Call for Participation: Student Design Competition

2020 IEEE/ASME International Conference on Advanced Intelligent Mechatronics July 6-10, 2020, Virtual Conference

The 2020 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2020) invites undergraduate students to participate in the mechatronic systems design competition in July 2020 virtually across the globe. We seek undergraduate student teams from different scientific disciplines and of various backgrounds to propose and demonstrate creative solutions to a specified real-life problem related to mechatronic systems and engineering. The purpose of the competition is to foster educational and research interest in mechatronics, create a forum for students to share their innovative ideas, and provide the mechatronics community with new perspectives on design and fabrication.

Topics: A general submission track and a special track will be organized in the competition. Separate awards will be setup for each track. However, the teams who participate in the special track are eligible for the awards in both tracks.

General Submission: We seek novel solutions that incorporate cutting edge technologies and take advantage of the considerable advances in mechatronics research. Topics of interest include but are not limited to: intelligent systems, control systems, cyber-physical systems, micro-electro-mechanical systems, human-machine interfaces, robotics, smart materials and structures, etc.

Special Track on Networked Computing Infrastructure: This track looks for innovative projects in the areas of computing, control, and communications for ground or air mobile platforms or edge applications. Teams must use Jetson TX2 embedded systems platform to develop solutions. Hardware and software technical support can be provided by the organizers if needed under the support of the Networked Airborne Computing team funded by US National Science Foundation through awards 1730675, 1730589, 1730570 and 1730325. Please see the link for more information: <http://www.uta.edu/utari/research/robotics/airborne/index.php>.

Competition Guidelines:

- **Procedure:** Teams are required to submit the project description (i.e., project title, abstract, team members, and advisor(s)). The ones accepted for the competition will be notified. The teams should design, build, and document their projects before AIM 2020 conference. During the conference, a poster/demonstration session will be held where the students present their projects. Teams are encouraged to bring the prototypes or demonstration videos of their projects.
- **Participants:** The competition is open to undergraduate students only. Each team should consist of no more than four members.
- **Registration:** At least one team member must register the AIM 2020 conference to participate in the competition.

Timeline: All submissions are through <https://ras.papercept.net/conferences/scripts/start.pl>. To be considered for the special track, please select the special track in the submission webpage.

Project Description Submission: March 1, 2020

Notice of Acceptance: March 15, 2020

Advance Registration: May 15, 2020

Organizers:

Dr. Hao Liu, Zhejiang University, China; hliu2000@zju.edu.cn

Dr. Xi Gu, Rutgers University, Piscataway, NJ, USA; xi.gu@rutgers.edu

Dr. Yan Wan, University of Texas at Arlington, Arlington, TX, USA; yan.wan@uta.edu

Sponsors:



State Key Lab of Fluid Power & Mechatronic Systems, Zhejiang University, China;
<http://sklofp.zju.edu.cn/newskl/index.php>



School of Engineering, Rutgers University, Piscataway, NJ, USA;
<https://soe.rutgers.edu>