

Call for Robotics/Mechatronics Control Challenge for Undergraduate Students at the ASME Dynamic Systems and Control Conference - DSCC'15

The Robotics/Mechatronics challenge will be organized as part of DSCC'15, which is the primary event of the ASME Dynamic Systems and Control Division (DSCD). With this letter, we invite teams of undergraduate students to participate in "Robotics/Mechatronics Control Challenge". The challenge consists of designing and building a robotics/mechatronics device, either with a specific application, or as a laboratory demo. The device should have at least two degrees of freedom and some form of sensing to facilitate an autonomous operation. The cost of building the device should be within a total budget of \$300.

We invite potential participants to send a brief description of their projects to the organizers. The submitted document should include the project title, its description and necessary sketches. It should list the team members, their e-mail contact information and the name and contact of a faculty member advising the team. The team should consist of three students, while one faculty member can advise multiple teams.

Following the review of project descriptions, we will invite 5-10 teams, based on the quality of projects and available resources. Each invited team will receive up to \$300 to build their device and up to \$160 for the production of their poster. Each team member will receive the necessary amount of money to cover the DSCC student registration fee and some money (funding permitting) towards their travel costs.

The student team members are required to become student members of the ASME Dynamic Systems and Control Division before receiving any support for the project and taking part in the challenge. Also, before the DSCC'15 conference, each team should record a video of their working device and send it to the organizers. This will serve as the evidence that the teams have their device, or demo ready for the conference.

At the conference site, the students will exhibit the poster describing their project and show the working device. If the device, or demo requires a laptop computer, it needs to be provided by the team. A jury composed of DSCC'15 participants will evaluate and rank the teams based on the poster presentation, the performance of the device during the live demonstration, and the novelty of the device. Certificates along with the cash prizes of the following amounts will be awarded to the three top-ranked teams:

First-ranked team: \$900

Second-ranked team: \$600

Third-ranked team: \$300

Important dates:

- Project description by March 2, 2015 (Tentative)
- Video by October 10, 2015 (Tentative)
- Demonstration at DSCC-October 2015 (the challenge will be organized on one of the conference days)

Organizers:

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Event is sponsored by: ASME Dynamic Systems & Control Division

For additional information and updates, check the [competition webpage](#)