



UNISON-Egypt

Further steps towards space technology

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UNISON Egypt –SSTLab

- Space Systems Technology Laboratory (SSTLab) is a student based organization at Aerospace Engineering Department, Cairo University, which was established in August 2011.
- SSTLab has become the main contact point of UNISON Egypt.
- UNISON Egypt includes laboratories from different universities: Cairo and Alexandria.



Cairo University



UNISON Egypt Activities 2019

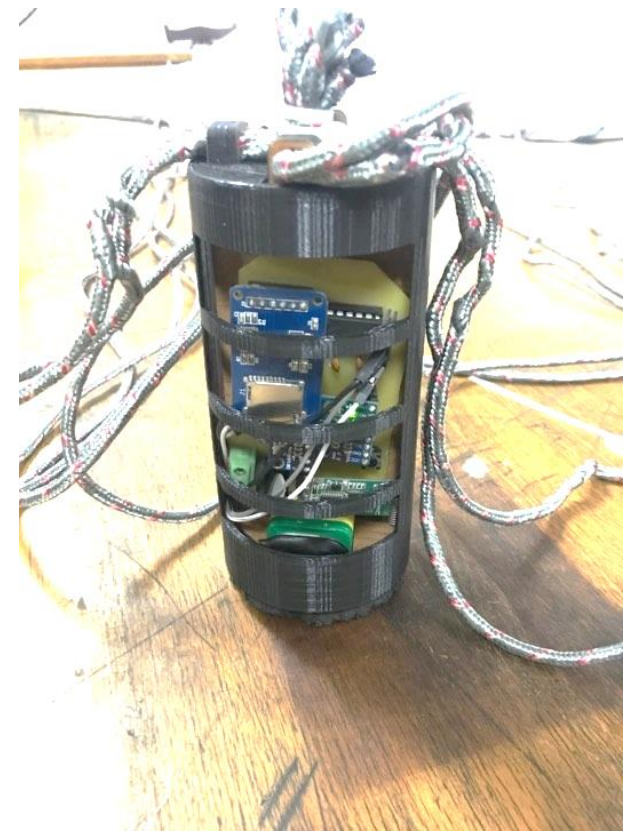
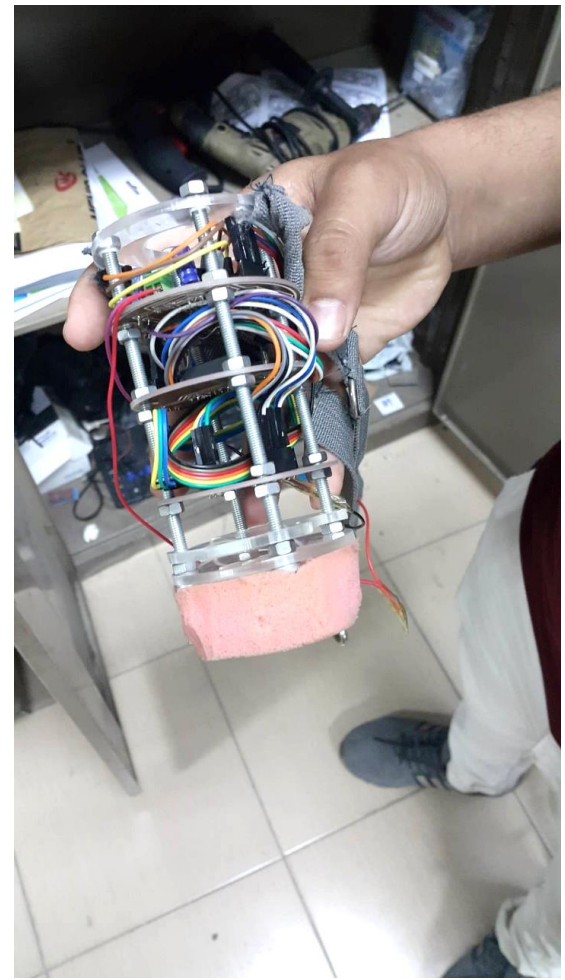
- CanSat Training Program (CTP9&10)
- Rover Back.
- Cube Satellite Systems
- Mars Rover
- Satellite Attitude Control Testbed CUSACT-1

CanSat Training Program (CTP)

- This year the laboratory succeeded to hold two trainings of the CanSat Training Program, (CTP9) and (CTP10).



CanSat Training Program (CTP)



CanSat Training Program (CTP)

- The trainings were organized to **50** students from different universities, including Cairo, Helwan, Benha and Beni-Suif universities.



ARLISS Competition

- This year we have successfully participated in the Arliss Rover international competition held in the period from 11 to 16 September after a two year break.
- The team members gained a lot of experiences and knowledge from their participation and where immediately ready to share it with their fellow members



Mars Rover

- Our Mars Rover team have worked through the academic year of 2018/2019 on Modelling, Design and Fabrication of the first iteration of the Space Rover for Autonomous Exploration. This project is fully funded by Boeing.



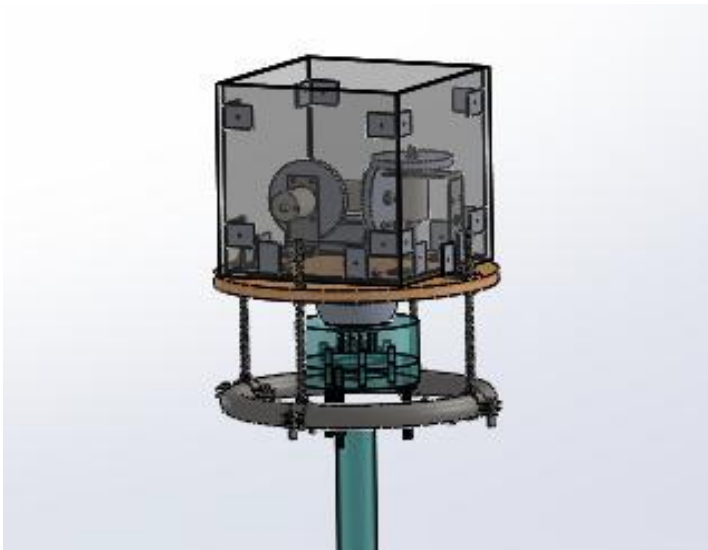
Cube Satellite

- This year our lab devote all its efforts to design, fabricate and test of 1 U CubeSat for Remote Sensing Applications. And this year is considered to be the fifth development iteration after the first early one in 2008, the second one in 2013 and the third one in 2014 and the fourth one in 2016. This project is funded by Boeing.



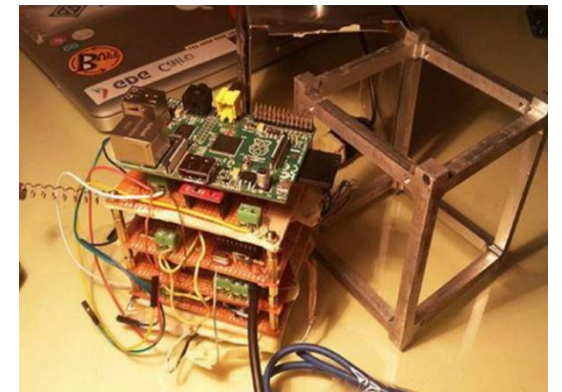
Satellite Attitude Control Testbed CUSACT-1

- The purpose of this thesis is to design, simulate, develop and test Cairo University Satellite Attitude Control Testbed (CUSACT-1) which is 3-axis stabilized, air bearing-based testbed capable of simulating the space environment.



Future of UNISON– Egypt

- Enhancing UNISON – Egypt to include more Egyptian universities.
- participation in international competitions like: Arliss2020, MIC7.
- Increasing the number of the CanSat training program.
- Finishing our fifth iteration on CU-CUBESAT.
- Starting the mission analysis phase for a 3U CubeSat.





Thanks

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