SAUC-E

- Venue and date- In 2019, SAUC-E will take place from July 14 to July 19 in La Spezia, Italy.
- Registration-
  15 March 2019 - Deadline for application Part 1
  3 May 2019 - Deadline for application Part 2
  10 May 2019 - Qualification announcement
  14 July 2019 - Competition begins
  19 July 2019 - Competition ends
- Vehicle feature form- https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxlcmxlbWVyZ2VuY3kyMDE5bGFzcGV6aWF8Z3g6MzA3OWNhYWJkYzUwOWI0Nw
- ***Selection Criteria:***

  Teams will be selected for participation based on
  - team research quality, as measured from the application documents;
  - the number of available slots for team participation in the tournament (5 double-domain teams (5 lands + 5 marines), in this case). Double domain teams will have priority over single domain teams. If you are a single domain team please fill the Team Match Form and the organization will help you match with another single domain team. In case a domain has less than three teams registered, the organization reserves the right to cancel that domain.

Scenario

An accident occurs in the harbor. A yacht is arriving into the harbor but something goes wrong and it hits a gas pipeline damaging it. The pipeline starts leaking and in a few moments, an explosion takes place. The massive explosion affects also the pipeline section on land and people that were in the docks area are disperse. There is a need for quick and effective intervention. A robotics team composed of land (UGV) and underwater robots (AUV) is ready to intervene!

The following tasks will be presented:

- The AUV needs to reach the disaster area avoiding obstacles;
- The AUV has to inspect the pipelines area to find one pipe that is on fire (a marker). The damaged pipe has to be communicated to the land robots. The land robots must localize and close the valve on the land section of the same pipe;
- The pipes have emergency sensors (an acoustic pinger) which acoustically communicate to a Smart City infrastructure their status in case of a problem.
- A pipe informs acoustically of an occurring leak. Underwater robots need to find the emitting pinger to localize the leak;
- A person (a mannequin) which was on the docks area fell into the water after the explosion. Underwater robots have to find the worker in the first 30 min.
- The explosion caused a damage in one of the two pipeline structures. The AUV is informed by the land robot which underwater instructure should be inspected. Then the underwater robot has to survey the correct pipeline structure and to report the size and location of the damage underwater (a marker);

- The land robots need to reach the disaster area avoiding rubble on its path;
- Land robots have to find an injured person covered by rubble, either outdoors or inside a building. After locating him/her, the UGVs free him/her from the rubble and deliver a first-aid kit;
- UGVs explore the area to localize a fire (a marker). They have to stop it by pouring water from a bucket;
- UGVs close the valve of the pipe based on the information from the AUV.

teams must provide the following documents (download below):

- Scenario Application Paper (describing how the team plans to tackle the TBMs).
- Letter of Intent (LOI) regarding liability and insurance.
- Photograph & Video release form signed by each of the team members.
- Payment of a non-refundable registration fee.
- A video showing the robots performing the following operations:
    - **Marine:** Autonomous navigation (in a pool or in the sea) with the vehicle completely submerged with no wiring to control it.
    - **Land:** Robot driving in an “8” shape path/line.