



NATIONAL INSTITUTE OF OCEAN TECHNOLOGY

Ministry of Earth Sciences

Velachery - Tambaram Main Road, Chennai

SAVE COMPETITION - 2015

13th November 2014

Overwhelming response is shown by the students on this initiative to attract young talented Engineers to Ocean Technological developments in India. We are entering into the second phase of selection process. Now the selected teams have to submit their Conceptual Design Report (CDR) alongwith presentation at NIOT on 13th November 2014. However, the teams are advised to send their pdf copy of report to auv@niot.res.in, latest by 10th November 2014. This CDR level is to understand their capability and also the involvement in this competition. It is important that the team selected should be supported by Educational Institution for making the working model of AUV.

As it was envisaged earlier, the role of NIOT is to sponsor the selected student team to participate in the International AUV competition in USA during 2015. However, the College should support the procurement of components and it is the responsibility of the team to make the final AUV. NIOT shall provide the technical expertise in assembly and integration and the students would be allowed to visit and interact with NIOT Scientists in evolving this AUV.

The selection of the team to the next phase would depend on the interest shown by the students and their ability to make this AUV as per the requirement of the International Competition and the commitment from their college in supporting students in making this AUV.

AUV design criteria:

CDR should address AUV design criteria listed below

1. Shape & Size
2. Weight
3. Type of Buoyancy
4. Basic vehicle frame design and material selection criteria
5. Component placement and weight distribution
6. CG and CB calculation
7. Drag calculation and coefficient of drag
8. Vehicle speed
9. Power budget and type of battery
10. Navigational system
11. Sensors
12. Endurance and range of AUV coverage
13. Type of controller
14. Control algorithms (mathematical logic)
15. Maneuverability (Thruster position design)
16. Obstacle avoidance
17. Camera based imaging with lights
18. Launch and recovery
19. Any other special features

Review

Oral Presentation:

Power point slide deck should have

- Plain white background
- Font
 - Type : Arial
 - Colour: black
- Number of slides : Maximum of 8
- Projector shall be provided and ppt should be loaded between 10.00 & 10.30 hrs on 13th November 2014
- Every team would be given 10 minutes for oral presentation, followed by 10 minutes for Q&A.
- Q&A will be based on AUV Design Criteria mentioned above.

SAVe Competition - Agenda – 13th November 2014

Time hrs	Activity / Presentation	
10.00	Registration & uploading presentation at Rajendra Chola Hall	
10.30	Video presentation- A Glance on NIOT activities	
Individual Team Presentation at Varuna Hall		
11.00	SRN00001	Indian Institute of Technology Kharagpur
11.20	SRN00003	National Institute of Technology, Rourkela
11.40	SRN00006	Indian Maritime University, Visakhapatnam
12.00	SRN00007	Indian Institute of Technology Madras
12.20	SRN00008	Indian Institute of Technology Kanpur
12.40	SRN00009	Delhi Technological University, Delhi
13.00	Lunch	
14.00	SRN00010	Hindustan University, Chennai
14.20	SRN00011	SRM University, Chennai
14.40	SRN00012	K.S.School of Engineering and Management, Bangalore
15.00	SRN00013	Ambedkar Institute of Advanced Communication Technologies and Research, Delhi
15.20	SRN00014	Sathyabama University, Chennai

Travel reimbursement:

Only two members of the outstation teams are eligible to reimburse to and fro train fare sleeper class by the shortest route. Travel reimbursement forms are attached herewith and shall be filled and handed over while registration.

Code of conduct:

During their stay at NIOT premises Students are advised to follow strict discipline and misconduct / misbehavior should be avoided.

Upon reaching campus:

- Should produce original college ID card.
- 2 students per team are permitted to stay in campus.
- Original Letter from college (in letter head) granting permission for the participation explicitly stating that NIOT shall not be held responsible for any accidents / mishaps/loss of belongings etc., of the students during travel and stay at NIOT failing which accommodation shall not be provided.
- A declaration need to be signed by student upon arrival.

- Visitors pass shall be provided and should be displayed within the campus. It should be safely surrendered before leaving NIOT campus.
- NIOT is not responsible for loss of any personal belongings.
- NIOT is not responsible for any accidents/ medical emergencies.

Preparation for presentation

- Follow the instructions given for presentation/review to keep up the timings
- Timings mentioned includes animation video, if any
- Discussion on specific issues are to be based on basic engineering criteria, calculations etc

Accommodation

NIOT provides accommodation at Students Amenity Centre within the premises of NIOT, only for two students of each outstation team called for this competition. Outstation Students shall reach the premises by their own transport.

National Institute of Ocean Technology
Velachery – Tambaram Main Road,
Pallikaranai,
Chennai 600 100
Nearest Railway Station: Velachery

HELPLINE

In case of any doubt / clarification in reaching NIOT, you may contact Mr.R.Sundar, Mobile 9444041854 (or) Mr.N.Radhakrishnan, Mobile 9444399846