

Autonomous Maritime Vehicle Student Competition Workshop

**On-site Attendance
Porto University
11-13 April 2017**

**Online attendance
<https://www.gotomeeting.com>
<https://www.webex.com>**

10 April (evening): Icebreaker reception

11 April (morning)

1) Introductions

2) Comparison of current competitions

(Robosub, Roboat, RobotX, SAUC-E, Eurathlon, Singapore, Japan, India, China, ...)

- Goals (organizers, students, sponsors)
- Rules and Tasks
- Judging (static, in-water)
- Logistics
- Plans

11 April (afternoon)

(3) Categorize current competition tasks in terms of autonomy core competencies

(4) Identify aspects of autonomy well-addressed and not well-addressed by current competitions

(5) Define a set of benchmark tasks that could be used to normalize autonomy competitions (single vehicle, multiple vehicles).

(6) Best Task Competition (one submission from each participant)

Group Dinner (Best Task award: rare bottle of Port)

12 April (morning)

(7) Common static judging criteria (paper templates, hardware criteria, software criteria, website, video, ...)

- (8) Common in-water judging procedures (imbedding, qualifying, special awards)
- (9) Identify benchmark tasks that could serve as universal compulsory qualifying tests

12 April (afternoon)

- (10) Venues (planned and potential)
- (11) Managing growth (regionals, connections between competitions, world cup)
- (12) Component support kits (engineering primers, hardware components, software libraries, archives)
- (13) Financial support and sponsorship (government, foundations, industry)
- (14) Statement and discussion of Committee Charter, membership
- (15) Wrap-up, action Items

DRAFT
Autonomous Maritime Vehicle Student Competition
International Coordinating Committee Charter

Motivated by the global growth in autonomous maritime vehicle student competitions and their proven value in cultivating systems engineering and autonomy, the AMVSC International Coordinating Committee seeks to establish common elements of autonomy across the competitions, continuously evaluate state-of-the-art autonomous tasks for incorporation into future competitions, and sanction events as world-class qualifying.

Participants

Bill comment: We also need to consider the group dynamic a bit a mix of folks who lead competitions, those who compete, those who support and our links to the real world like the military, industry and academia. Not saying we have to have each but we should at least address these and know why we are including or excluding plus to what extent in our attempts to achieve a spectrum of goals. The students with their universities have wants and desires but so does ONR, SUT and OES as well as Kongsberg if they are indeed to be a long term sponsor. If we can even get that on paper and agreed upon we've made a great deal of progress... then we have a road map of sorts to setup the AUV challenges and remove ambiguities from competitions so we have a much better measure of how comparative any given vehicle is.

Potential Participants

David Lane

https://www.hw.ac.uk/schools/engineering-physical-sciences/staff-directory/d_lane.htm

Gianluca Antonelli

http://www.eng.docente.unicas.it/gianluca_antonelli

Asgeir Sorensen

<http://www.ntnu.edu/employees/asgeir.sorensen>

Daniel Toal

<http://www.mmrrc.ul.ie/dotnetnuke/AboutUs/People/ResearchTeam/DanielToal.aspx>

Zoran Vukic

<http://www.fer.unizg.hr/zari/labust/people/zvukic?>

Ivan Stenius

<https://www.kth.se/profile/stenius/?l=en>

Marc Carreras

http://eia.udg.es/~marcc/Marc_Carreras/home.html

Venu Pallyil

<http://ar1.nus.edu.sg/twiki6/bin/view/ARL/VenugopalanPallayil>

Gabriele Ferri

https://www.researchgate.net/profile/Gabriele_Ferri organizer of the Eurathlon with

Yvan Pettillot

https://www.hw.ac.uk/schools/engineering-physical-sciences/staff-directory/y_petillot.htm

Pere Ridao

http://eia.udg.es/~pere/Pere_Ridao_Home_Page/CIRS.html

Neil Bose

<http://www.utas.edu.au/profiles/staff/amc/neil-bose> brings Society for Underwater Technology onboard but Richard is a panel member who could represent

Richard Mills

<https://www.linkedin.com/in/richardmartinmills> Kongsberg is looking at being a permanent sponsor for AUV Workshops and competitions if we stay relevant

Giancarlo Troni

<http://www.ing.uc.cl/cuerpo-docente/troni-peralta/> Johns Hopkins PhD in Vision systems, studied under Louis Whitcomb – brilliant guy in Chile

Gerado Acosta

<http://www.fio.unicen.edu.ar/usuario/ggacosta/> Not focused yet in AUVs but does control systems has links to Brazil also for us

Japanese?

South Korea?

Russia?

Mandar ? (Just taking on becoming the JOE Editor in Chief, so any long term input might be difficult.)

Tom Curtin's list (in alphabetical order; can be prioritized if needed):

Julie Banner

julie.banner@navy.mil

Dick Blidberg

blidberg@ausi.org>

Zoz Brooks

zoz@MIT.EDU

Kelly Cooper

Kelly.cooper1@navy.mil

Janelle Curtis

curtis@auvsifoundation.org

Daryl Davidson
davidson@auvsifoundation.org

Dan Deitz
daniel.deitz@navy.mil

Vladimir Djapic
vdjapic@gmail.com

Tom Drake
tom.drake@navy.mil
Esteban Escobar
esteban@500films.com

Gabriele Ferri
Gabriele.Ferri@cmre.nato.int

Rick Nagle
nagle@g2ss.com

David Novick
dknovic@sandia.gov

Felix Pageau
felix.pageau@gmail.com

Bill Porter
william.p.porter@navy.mil

Aamir Qaiyumi
aamir.qaiyumi@robotx.org

Rob Simmons
robert.simmons@navy.mil

Jason Stack
jason.stack@navy.mil

John Stebe
John.stebe@navy.mil

Marc Steinberg
marc.steinberg@navy.mil

Andy Stewart

andy@apl.uw.edu

Tom Swean
tfswean@comcast.net

Doug Todoroff
douglas.todoroff@nrl.navy.mil

Christoph Waldmann
waldmann@marum.de