

2020 CISMART ONLINE WORKSHOP

ADVANCING CANADIAN MARINE TECHNOLOGY

Workshop venue:

Zoom Webinar

- Topic of Nov. 25 session:
Ship underwater radiated noise
- Topic of Nov. 26 session:
Maritime autonomous surface ships

NOV 25-26th
2020

TIME:

12:30PM – 5:00PM
Newfoundland Time Zone



For more information, please visit

www.cismart.ca

or contact

Dr. Wei Qiu | info@cismart.ca

C I S M a R T

CANADIAN NETWORK FOR INNOVATIVE SHIPBUILDING, MARINE RESEARCH AND TRAINING | RÉSEAU CANADIEN POUR L'INNOVATION DANS LA CONSTRUCTION NAVALE, LA RECHERCHE MARINE ET LA FORMATION

In Partnership with



Government
of Canada

Gouvernement
du Canada

Canadian Network for Innovative Shipbuilding, Marine Research and Training (CISMaRT)

Updates

Dr. Wei Qiu
Chair of CISMaRT Interim Board

Professor and Head
Department of Ocean and Naval Architectural Engineering
Memorial University

November 25, 2020



Mission of CISMaRT

- CISMaRT is dedicated to being a world-class network within which its members undertake innovative and collaborative R&D in marine technology and improve education and training of highly qualified personnel for Canada's current and future shipbuilding and marine industries.

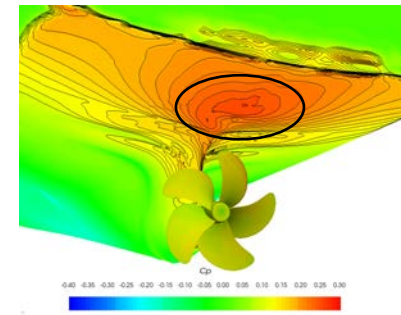
cismart.ca

Membership

- CISMART, established in 2016, is membership-based and seeks participation from industry, government and academia.
- The current membership comprises 51 organizations across Canada representing the broad marine sector, and includes members from three key stakeholder groups: industry (34 members), government (10 members) and academia (7 members).
- Visit cismart.ca/members/ for the complete list of current members. A membership application form is also provided.

Collaborative pilot projects in progress

- **Operational Capabilities of Low and Non-Ice Class Vessels in Ice**
 - Project value: \$1.16M over 4 years.
 - Partners: Vard Marine, DRDC, ABS, Memorial, NL Government and NSERC.
 - Started in September 2018.
- **Development of Best Computational Fluid Dynamics (CFD) Modeling Practice for Problems Important to the Marine Industry**
 - Project value: ~\$400K over three years (Phase 1).
 - Partners: DRDC Atlantic, Vard Marine, LR, ABS, Robert Allan Ltd., Memorial, UNB, NRC, NSERC and MITACS.
 - Project started in March 2018.



Collaborative pilot projects in progress

- **Effect of Manufacturing Tolerance on Propeller Performance**
 - Project value: ~ \$1.5M over three years
 - Partners: Dominis Engineering, Transport Canada, DRDC Atlantic, Memorial University, MITACS and NSERC
 - Project started in 2019



Next steps

- CISMART plans to continue R&D and training activities organized under the following four themes:

| SMART TECHNOLOGIES | GREEN TECHNOLOGIES | SAFE TECHNOLOGIES | IMPLEMENT DEVELOPMENTS |
|--|--|---|---|
| <ul style="list-style-type: none">• Autonomous Marine Vehicles• Communications• Cyber Security• Shipbuilding• Simulation | <ul style="list-style-type: none">• Alternative Fuels and Propulsion Systems• Efficiency Improvement• Ocean Energy• Ship Emission and Noise Reduction | <ul style="list-style-type: none">• Arctic Engineering• Harsh Environment Operations• Human Factors Engineering• Safety and Risk Engineering | <ul style="list-style-type: none">• Personnel Training and Education• Policy Advancement in the Public Interest• Technology Commercialization |

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Objectives of the workshop

- Report on the progress made on ship underwater radiated noise and maritime autonomous surface ships following the CISMART 2018 and 2019 Workshops.
- Identify follow-on projects in these subject areas to be funded by Transport Canada (TC) and National Research Council (NRC).

INNOVATIVE TECHNOLOGIES FOR SMARTER, GREENER AND SAFER SHIPS

- One-day Meeting on CISMART Projects—Recent Progress and Future Prospects
- 1.5-day Workshop on Ship Noise Mitigation Technologies for a Quieter Ocean

NOV 27-29th
2018
Four Points by Sheraton
Halifax, NS



For more information, please visit
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or contact
Dr. Wei Qiu | qiuw@mun.ca

CISMART
CANADIAN NETWORK FOR INNOVATIVE SHIPBUILDING, MARINE RESEARCH AND TRAINING
RÉSEAU CANADIEN POUR L'INNOVATION DANS LA CONSTRUCTION NAVALE, LA RECHERCHE MARINE ET LA FORMATION

Supported by

CISMART

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WORKSHOP ON

AUTONOMOUS SURFACE SHIPS

NOV 27-28th
2019
Convention Centre
Québec City, QC



In Partnership with

Workshop agenda

- Nov 25 – ship underwater radiated noise (URN)
 - Update on URN projects and Transport Canada Innovation Centre Initiatives
 - Project presentations and Q&A
 - Breakout sessions and a plenary session to summarize group discussions.
- Nov 26 – maritime autonomous surface ships (MASS)
 - Overview of National Research Council's Ocean Program and Transport Canada's MASS activities
 - Project presentations and Q&A
 - Panel discussions
 - Breakout sessions and a plenary session to summarize group discussions.

Many Thanks for the Financial Support from



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Acknowledgements



Transport
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Members of CISMaRT Interim Board

- Roger Basu Roger Basu and Associates, Inc.
- Abigail Fyfe Transport Canada
- Dan McGreer Vard Marine
- Brian McShane Innovation, Science and Economic Development Canada
- Jon Mikkelsen University of British Columbia
- Neil Pegg Defence R&D Canada Atlantic Research Centre
- Wei Qiu (Chair) Memorial University
- Fraser Winsor National Research Council