



RINA AFFAIRS

JULY/AUGUST 2020

The Newsletter of the Royal Institution of Naval Architects

CHIEF EXECUTIVE'S COLUMN



Next month will see the start of the careers of many engineers with first-year students at universities and colleges in the northern hemisphere, joining those in the southern hemisphere who have already started their naval architecture or related courses. A large number of students at the 60+ universities and colleges where the Institution has links through membership of staff and students will benefit over the next two to four years from the Institution's policy of encouraging their membership and active involvement as Student Members.

As Student Members, most will enjoy free membership during their time at university or college and all will receive the Institution's magazines and journals. They will also enjoy many other benefits such as the free places at RINA conferences, sponsored by both industry and the Institution. Some will receive the RINA prizes and awards, including the RINA Student Awards. These Awards, which are also sponsored by industry, recognise academic excellence of both undergraduates and postgraduates, and are now presented at 39 universities.

Having experienced the benefits of membership whilst at university or college, hopefully Student Members will recognise the value and importance of membership of the Institution to their professional development and future careers, and continue their membership when they start to receive annual fees notices as Associate Members. However, the Institution recognises the financial pressures on newly graduated members, and the first fee will not be due until 1 January of the year following graduation. Those who continue in full-time study as Associate Members will receive two years' free membership, followed by a 50% reduction in their membership fees for the next two years of study.

Associate Members will find that employers worldwide recognise the added value which membership of the Institution as an Associate Member provides. They will welcome the early commitment to achieving the Institution's high professional standards which membership demonstrates, and in the longer term, both industry and the profession will benefit from members' implicit acceptance of the requirement to continue their professional development throughout their working lives.

The Institution's policy with regard to the younger members of the Institution continues to represent a significant investment in the future of both the Institution and the profession. However, I am sure that none would doubt its wisdom and necessity. The Institution is grateful to members of staff at the universities and colleges for encouraging students to become Student Members, and for their support of the Institution's various awards.

And finally, may I remind all members with sons and daughters (or nephews and nieces, grandsons and granddaughters) still at school and who may be contemplating a career in ship or boat design and construction, or just have an interest in maritime matters, that they would be most welcome as Junior Members. I am sure that their interest would be maintained by receiving the Institution's magazines each month. The Annual Fee of £42 can be charged to members.

Chief Executive

IN THIS ISSUE

Chief Executive's Column

In his Column, the Chief Executive looks forward to welcoming as Student Members those first-year students at universities and colleges in the Northern hemisphere who soon will be joining those in the Southern hemisphere who have already started their naval architecture or related courses.

10 Years On

The Chief Executive looks back on the 10 years since the book *The Royal Institution of Naval Architects 1860-2010* was published.

Institution News

Members invited to join the CPD Assessment Panel.

Strategic Review

The Final Report of the Strategic Review 2050 is published, describing the structure of the Review, its outcomes and future work.

University News

The achievements of students in Singapore and the UK are acknowledged by the presentation of Student Member Awards.

YouTube

Papers presented at conferences and Section meeting, together with Q&As, are available to view on the Institution's YouTube Channel.

Letters to the Editor

Copies of Annual Reports from 1945 to 2018 are offered, and information about Container Ship Design is requested. Are you interested or can you help?

News from the Divisions and Sections

Technical meetings from Branches and Myanmar are reported.

NEWS FROM THE INSTITUTION

Board appoints new Chief Executive

The Board has appointed Chris Boyd as the next Chief Executive of the Institution.

After graduating from Glasgow University with a BEng (Hons) Naval Architecture and Ocean Engineering, Chris joined the Royal Navy. Since leaving the Royal Navy, he has had appointments with BMT, Saipem UK, Global Technical Services

and Global Maritime. He has experience of working in the UK, Dubai and Abu Dhabi. He is a Chartered Engineer and member of RINA and the IMarEST.

Chris will take up his appointments on 1 November, following the departure of Trevor Blakeley, who leaves after 23 years as the Chief Executive.

Members requested to join the CPD Assessment Panel

Members will be aware that the Institution's Code of Professional Conduct requires them to only undertake work for which they are competent. Such competence will be achieved and maintained by Continuing Professional Development (CPD). It is recognised that the activities which contribute to such CPD will vary for individual members, depending on their employment. Guidance on the types of activity which may contribute are contained in the Institution's Guidance on Continuing Professional Development.

It is a requirement that members

maintain a record of the CPD activity they have undertaken, and that such records be submitted when requested by the Institution. Selected Members will be required to forward a Report of CPD Activity, for the previous 12-month period, as advised by the Secretariat. Information on the format of such Reports will also be provided. The Reports will be assessed by the CPD Assessment Panel, which reports to the Professional Affairs Committee. Following the review of CPD Activity Reports, members will be provided with feedback from the CPD Assessment Panel. The Institution does not set minimum

hours or points, recognising that the CPD requirement and therefore activity will differ for each member. However, the feedback will comment on such factors the overall balance of CPD activity and advice on where greater focus might be appropriate.

Training and guidance on the review of Reports will be provided to members of the CPD Assessment Panel, and each member of the Panel will be asked to review and comment on six to eight Reports per year.

Members who would interested in joining the CPD Assessment Panel, or would like further information should contact the Chief Executive at hq@rina.org.uk

Engineering Council Registration Fees 2021

There will be no increase in Engineering Council registration fees in 2021.

THOUGHT FOR THE MONTH

"The behaviour of ships on stormy seas is so hard to be understood and so important to be predicted, that it is worth any amount of hard thinking, and painstaking observation, and subtle reasoning we can expend on it"

J. Scott Russell, 1863



USE OF THE RINA CREST

The Council has agreed that members may display the RINA crest on literature, website etc., under the following strict conditions:

- Members must request permission to use the crest, and state where it will be used.
- Only the version of the RINA crest provided by the Institution may be used. No variation or addition may be made to the crest.
- Members displaying the RINA crest are also required to display their membership of the Institution in text and by the use of the appropriate post-nominals.
- The RINA crest may only be displayed on a company website where the company is owned by the member or is a Corporate Partner member of the Institution.
- The RINA crest must not be used in a way as to state or imply the Institution's endorsement of a product or service provided by the member.

NEWS FROM THE DIVISIONS, SECTIONS AND BRANCHES

New South Wales Section

Levi Catton, Managing Director/SEA5000 Technical Advisor Ship Integration, Gibbs & Cox Australia, gave a presentation on 'Design and Construction of the RAN's New Hunter-class Frigates' as a webinar hosted by Engineers Australia with Phil Helmore as MC on 20 May. This was our first webinar presentation, and attracted 600+ registrations, with 400+ actually participating on the evening! This is an order of magnitude more than attendances at our face-to-face meetings, helped along by Engineers Australia advertising the presentation to their members as well.

Christelle Auguste, PhD Candidate at the Australian Maritime College, University of Tasmania, and current holder of the Laurie Prandolini Award from the IMarEST,

gave a presentation on 'Investigation of Sediment Transport Processes near Tidal Energy Devices in Tasmania' as a webinar hosted by Engineers Australia with Phil Helmore as MC on 3 June. This was our second webinar presentation, and attracted 200+ registrations, with 150+ actually participating on the evening.

Clive Evans, Maritime Systems Lead—Research Supply Icebreaker Project, Australian Antarctic Division, gave a presentation on 'RSV Nuyina: Australia's New Icebreaking Research and Supply Vessel' as a webinar hosted by Engineers Australia with Phil Helmore as MC on 1 July. This was our third webinar presentation, and attracted 250+ registrations, with 180+ actually participating on the evening.

Phil Helmore

Myanmar Branch

More the 90 participants attended a Webinar on 'Standardisation in Shipbuilding' presented by Zaw Lin Aung from Singapore DAMEN Shipyard. The Webinar was chaired by Retd Rear Admiral Han Sein (Navy) and Prof Myint Myint.

THOUGHT FOR THE MONTH

"To the optimist, the glass is half full, to the pessimist, the glass is half empty. To the engineer, the glass is twice as big as it needs to be."

Anon

10 YEARS ON - 1860 – 2020

In 2010, to celebrate the 150th anniversary of the founding of the Royal Institution of Naval Architects the Institution published the commemorative book *The Royal Institution of Naval Architects 1860 – 2010*. In the book, individuals gave their personal views on the development of the naval architecture profession and of the maritime over the past 150 years. Such views served to provide a history of the Institution as reflected in the history of the naval architecture profession and the maritime industry over that period. To celebrate the 160th anniversary in 2020, the commemorative book will be republished as an eBook.

Time has not stood still since 2010 and neither has the Institution. The last decade has also seen significant change. In 2013, the Board of Trustees was formed, assuming the responsibility for the governance of the Institution, previously held by the Council, which became responsible for the professional activities

of the Institution – much the same as the Council in 1860 – whilst the Board focused on the governance and financial management of the Institution. It was recognised that to be a successful, modern international professional institution, the Institution also required to be a successful business, and it was therefore considered that the governance of the Institution would be more effectively exercised by a Board of 12, rather than a Council of 50+.

In 2013, the Institution sold the 40-year balance of the 200-year lease on its Headquarters at 10 Upper Belgrave Street, and used part of the proceeds to purchase the freehold of its current Headquarters at 8-9 Northumberland Street. Such a move provides the Institution with the more modern facilities which it requires as an international organisation, but also provides a valuable asset which gives assurance that whatever the future of the Institution, that future lies in its own hands – at least as far as its Headquarters are concerned.

The third significant change during the past decade came in 2019 with the grouping of members' countries into six global Regions, each with appointed Vice Presidents, and with members in each Region nominating and electing their own members of Council. The composition of Council therefore now reflects the international membership of the Institution. Such change will further demonstrate the internationalism of the Institution, and enable its members in all 90+ countries to take greater ownership and achieve closer engagement with their Institution.

I am not sure what the Chief Executive will be writing about the Institution in future decades but I believe that, as I wrote in the Foreword in 2010, he or she could be confident that John Scott Russell, Edward Reed, Nathaniel Barnaby and the others who formed the Institution of Naval Architects in 1860 would be proud of their legacy.

*Trevor Blakeley
Chief Executive*

RINA-QINETIQ Maritime Innovation Award

Innovation is key to success in all sectors of the maritime industry and such innovation will stem from the development of research carried out by engineers and scientists in universities and industry, pushing forward the boundaries of design, construction and operation of marine vessels and structures

The Maritime Innovation Award seeks to encourage such innovation by recognising outstanding scientific or technological research in the areas of hydrodynamics, propulsion, structures and material which has the potential to make a significant improvement in the design, construction and operation of marine vessels and structures

The Award is made annually to either an individual or an organisation, in any country. Nominations for the Award may be made by any member of the global maritime community, and are judged by a panel of members of the Institution and QinetiQ. The award will be announced at the Institution's Annual Dinner.

Nominations are now invited for the 2020 Maritime Innovation Award. Individuals may not nominate themselves, although employees may nominate their company or organisation.



QINETIQ

Nominations may be up to 750 words and should describe the research and its potential contribution to improving the design, construction and operation of maritime vessels and structures.

Nominations may be forwarded online at www.rina.org.uk/maritimeinnovationaward

or by email to: maritimeinnovationaward@rina.org.uk

Nominations should arrive at RINA Headquarters by 31st January 2021.

Queries about the award should be forwarded to the Chief Executive at hq@rina.org.uk

RINA - Lloyd's Register Maritime Safety Award

The Institution believes that safety at sea begins with good design, followed by sound construction and efficient operation. Whilst naval architects and other engineers involved in the design, construction and operation of maritime vessels and structures do not have a patent on such issues, nonetheless their work can make a significant contribution.

The Institution also believes that it has a role to play in recognising achievement of engineers in improving safety at sea. Such recognition serves to raise awareness and promote further improvements.

The Maritime Safety Award is presented by the Institution, in association with Lloyd's Register, to an individual, company or organisation which has made a significant technological contribution to improving maritime safety. Such contribution can have been made either by a specific activity or over a period of time. Nominations may be made by any member of the global maritime community, and are judged by a panel of members of the Institution and Lloyd's Register. The Award will be announced at the Institution's Annual Dinner.

Nominations are invited for the 2020 Maritime Safety Award



L Lloyd's
Register

Nominations may be up to 750 words and should describe the technological contribution which the individual, company or organisation has made in the field of design, construction and operation of maritime vessels and structures.

Nominations may be forwarded online at: www.rina.org.uk/maritivesafetyaward

or by email to: maritivesafetyaward@rina.org.uk

Nominations should arrive at RINA Headquarters by **31 January 2021**

Queries about the Award should be forwarded to the Chief Executive at: hq@rina.org.uk

NEWS FROM THE UNIVERSITIES

RINA-KEPPEL Student Naval Architect Award

Ngee Ann Polytechnic

The RINA-KEPPEL Student Naval Architect Award for the best presentation of the Marine Ship Design Project in the Marine and Offshore Technology Diploma Course at Ngee Ann Polytechnic has been awarded to Crystal Low Min and Ng Xin Ying, for their project "Ship Design", and to Gary Kuek Rui Xiang and Tan Kuan Hong Jordan for their project "Offshore Topside Design".

RINA – BAE Systems Student Award

Newcastle University

2020 The RINA – BAE Systems Student Award for the best final-year thesis was awarded to Yanislav Yevgenovych Yurkevych for his thesis 'Investigation of the feasibility and benefit to fuel economy of using yacht style spinnakers adapted for cargo vessels'.

The following thesis were commended:

Alex Platt (MEng in Marine Technology with Honours in Small Craft Technology):

An Investigation into the Drag Characteristics of a Surfboard Utilising Microbubbles Produced from an Air Cavity Step.

Anastasia Florence Paterson (MEng in Marine Technology with Honours in Naval Architecture): *An Investigation into the Effect of Pressure Relieving Holes on Cavitation and Subsequent Induced Erosion on Marine Propellers.*

Charles Strachan Sleight (BEng in

Marine Technology with Honours in Marine Engineering): *A systematic Investigation into How Subsea Shipping Noise Affects the Southern Resident Killer Whale during Slowdown Trials in the Haro Strait.*

Ritik Raj Shyam Srivastav (BEng in Marine Technology with Honours in Marine Engineering): *An Experimental Investigation into using Ethanol-based Biofuel in Marine Diesel Engines.*

EILY KEARY AWARD

The Royal Institution of Naval Architects is committed to ensuring that all individuals, regardless of gender, faith or ethnicity, have equal opportunity to participate fully in all the Institution's activities. The Institution also seeks to encourage such equality of opportunity and involvement throughout the global maritime industry.

The annual Eily Keary Award recognises the contribution by an individual, organisation or part of an organisation to increasing equality, diversity and inclusion in their sector of the maritime industry. Such contribution may have been made by a specific activity or over a period of time. Individuals may not nominate themselves for the Award

Nominations are now invited for the 2020 Eily Keary Award.

The Award will be announced at the Institution's 2021 Annual Dinner.



Nominations may be up to 750 words and should describe the contribution which the individual, company or organisation has made.

Nominations may be forwarded online at www.rina.org.uk/EilyAward

or by email to EilyKearyAward@rina.org.uk

Nominations should arrive at RINA Headquarters by 31st Jan 2021.

Queries about the Award should be forwarded to the Chief Executive at: hq@rina.org.uk

STRATEGIC REVIEW 2050

Final Report

Introduction

In 2017, the Board initiated a Strategic Review to determine what would be the Objectives of the Institution in 2050 and the activities needed to achieve them. The Strategic Review was completed in 2020. This report informs members of the structure and outcome of Strategic Review 2050.

Strategic Review 2050

Strategic Review 2050 commenced with a Membership Survey to seek members' views on what the role and activities of the Institution in 2050 should be. The Membership Survey showed a high level of satisfaction with the role and activities of Institution, with 94% of members considering that the current Objectives were correct and would continue to be relevant for the foreseeable future.

The Board therefore accepted that the Objectives of the Institution would remain as:

- Setting of standards of professional competence and integrity.
- Encouraging membership at all levels
- Enabling the exchange of technical information.
- Contributing its collective expertise to the benefit of society

However, the Membership Survey also confirmed the need to review the activities by which these Objectives would be achieved, and identify what changes would be needed to reflect the changes in the maritime industry and the professional needs of the members.

A number of Working Groups, comprising members of Council and other members of the Institution were formed, with each Working Group tasked with identifying how the Objective is achieved today and what changes in the Institution's activities would be required to continue achieving the Objective in 2050. The Working Groups made a number of recommendations which were presented to the Board.

Recognising that many of the Recommendation made by the Working Groups were relevant to more than one Strategic Objective, the Board considered

the Recommendations as a number of Strategic Directions.

The Strategic Directions form the basis of the Strategic Plan, recording the Recommendations arising from Strategic Review 2050, and providing the historic record of Strategic Review 2050.

Strategic Plan

The following Recommendations were made by the Working Groups in each of the Strategic Directions. All Recommendations were accepted by the Board, and actions completed or in hand to implement them.

Strategic Direction A: Review the structure of the Institution – Board, Council, Divisions and Branches/Sections – to ensure it reflects the membership and best meets the professional needs of the members.

- In order to better reflect the Institution's international membership, members' countries should be grouped by global Regions - UK, Europe, Middle East & Africa, Pacific, Americas, Asia. Vice Presidents should be appointed to each Region to represent the Institution and the views of members in those Regions.
- Members of Council should be nominated and elected by members in each Region. The number of Council members elected by each Region should be in proportion to the number of members in the Region.
- The nomination and selection process for the of the President should be revised to ensure that it is fully transparent and that the composition of the Nominations Committee is representative of the membership.
- Financial provision should be made to enable greater opportunity for the President to represent the Institution and meet members.

Strategic Direction B: Improve RINA's engagement and profile with the Maritime Community through an open, welcoming and outward looking face to all possible stakeholders.

- Engagement and communication with the international maritime community

on matters of common interest should be revised and clarified where necessary.

- Divisions, Sections and Branches should seek closer engagement with their local maritime communities, and routinely report such activities to Council. Their activities should be included in the Annual Report.
- Standing Committees should seek to more closely reflect and engage with the international membership through their membership and activities.. Their Terms of Reference should be revised and progress routinely reported to Council.
- Divisions and Branches should provide annual reports to Council of their activities.
- Vice Presidents should routinely report activities in their Regions to Council. Such activities should be included in the Annual Report.

Strategic Direction C: Make RINA's activities more valuable to members' current and prospective employers in order to improve recognition and increase in support for members' fees.

- A survey of employers and senior Institution members in employing organisations should be carried to determine employers' expectations of membership of their employees of the Institution. The feasibility of meeting such expectations should be considered.
- Guidance should be provided to Divisions, Sections and Branches on availability and routes to comparable registration with other national organisations.

Strategic Direction D: Improve equality, inclusivity and diversity of the membership to reflect the future demographics.

- The Board, Council, Committees, Divisions, Sections and Branches, and the Secretariat should ensure that all members have equal opportunity to participate fully in all Institution activities. Divisions, Sections and Branches should routinely report to Council on actions taken to ensure equal and full participation in their activities.

- The Divisions, Sections, Branches, and the Secretariat should encourage increased submission of technical papers and participation in the Institution's events by all members of the Institution and maritime. Actions taken should be routinely reported to Council.
- The Institution should continue to work with other organisations (such as "Women in Science and Engineering" in the UK) to inform and encourage young people at school into the maritime sector.
- The Membership Committee and Secretariat should review the selection process for Professional Review Interview Panels to ensure compliance with the Institution's Equality Policy and absence of unconscious bias. Action should be taken to increase the pool of available panellists, and activities routinely reported to Council.
- The Membership Committee and the Secretariat should take action to encourage all eligible Members to apply for election as Fellows.
- The Professional Affairs Committee should conduct a survey of members' views regarding the Institution's activities and positioning on equality, inclusivity and diversity. Recommendations for changes arising from the Survey should be made to the Board and Council.

Strategic Direction E: Make full and effective use of current and developing IT and digital media.

- A review should be carried out of the

Institution's use of IT and digital media to communicate with members of the Institution and the global maritime community, to ensure that it is making full and effective use of current and developing technology.

- Guidance should be given to Divisions, Sections and Branches on the use of digital media to promote and conduct their activities.

Strategic Direction F: Address the future challenges for the sector with a wider range of events, improve the accessibility of conferences to members and encourage high quality of papers.

- The Publications Committee's Terms of Reference should be revised to include all forms of technical publications, and conferences. Membership of the Committee should be enhanced to ensure that it is able to undertake this increased role, and be representative of the international membership.
- The structure of the Institution's publications and conferences should be reviewed to ensure that they meet the expectation of members, the profession and industry.
- Consideration should be given to incorporating the IJSCT into the IJME
- The members should be routinely invited to comment on and contribute to the content of the Institution's technical magazines.
- Divisions, Sections and Branches should seek to make their activities more widely

advertised and available to all members, and to routinely report actions taken to the Council.

Strategic Direction G: Maintain and extend the Institution's standing as a leading maritime Professional Institution.

- Lessons learned from the previous merger proposal between the Institution and IMarE (now IMarEST) should be identified and recorded. This record, together with supporting papers, discussions and minutes of meetings should be available in the event that the Institution pro-actively or reactively considers any merger with another PEI at some future date.

The full Strategic Plan, including the results of the Membership Survey, the Reports of the Special Groups and expanded Strategic Directions will be published on the Institution's website.

Post Strategic Review

Whilst the Strategic Review provided the opportunity to comprehensively review the Strategic Objectives and Directions of the Institution, it is the Board's responsibility to keep the future strategy of the Institution under continuous review, both to update the Strategic Plan as actions are completed, or to add to it where the Board perceives that a change of Strategic Objective or Direction is required.

LETTERS TO THE EDITOR

Annual Reports

Sir: I would like to offer my late husband, Colin Mudie's copies of the (hardback) Annual Reports of the Institution. There are complete copies 1945 to 2018, and one from 1942.

Any member or their organisation who would be interested in the Annual Reports should contact me to arrange collection (from Lymington).

Rosemary Mudie
rosemary.mudie@btconnect.com

Container Ship Design

Sir: I am an amateur inventor with an idea and I was wondering whether you might possibly be able to assist me with some information, please?

I am trying to locate approximate measurements and (angles) for the foredeck/ hull and forward cargo areas of the largest container vessels. This would include the relative heights and widths to which containers are stacked and visible above a deck, plus the gaps to the bow and sides from the frontal extreme edge of the cargo hold and its corners.

If you can't assist me directly, might you possibly be able to share website details of a container ship architect or shipyard where I might be able to source the information I require?

Trevor J Brooker
trevor.brooker@gmail.com

What's on YouTube?

Videos of presentations at conferences, Section and Branch meetings may be viewed on the RINA YouTube Channel.

Recent additions include presentations from the conferences LNG/LGP and Alternative Fuels, Human Factors and Damaged Ships V, as well as presentations given at Victoria and ACT Section meeting.

THOUGHT FOR THE MONTH

"It is true that improved results in ship-building have been obtained through accumulated experience; but it unfortunately happens that many of the theories by which this experience is commonly interpreted are interwoven with fundamental fallacies, which, passing for principles, lead to mischievous results when again applied beyond the limits of actual experience",

William Froude, 1875

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The Institution is not, as a body, responsible for opinions expressed in RINA Affairs unless expressly stated that these are the Council's views.

Editor

The Chief Executive

Production Manager

Nicola Stuart

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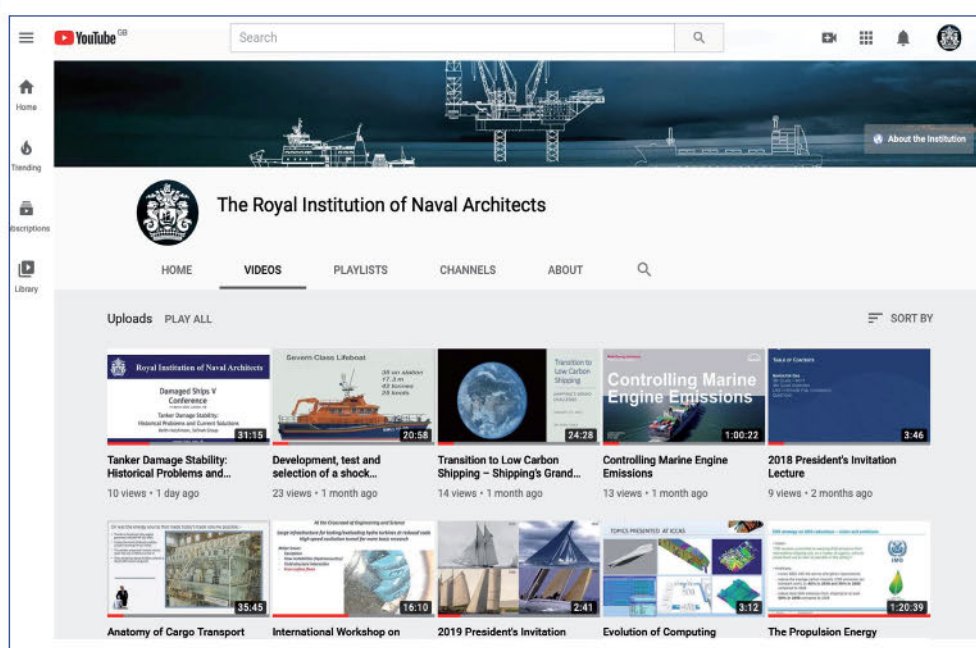
Fax: +44 (0)20 7259 5912

Email: hq@rina.org.uk

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