



RINA AFFAIRS

SEPTEMBER/OCTOBER 2014

The Newsletter of the Royal Institution of the Naval Architects

CHIEF EXECUTIVE'S COLUMN



October saw the start of the careers of many engineers as 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 now 60 + universities and colleges where the Institution has links through membership of staff and students will benefit over the next 2 to 4 years from the Institution's policy of encouraging their membership and active involvement as Student Members.

As Student Members, some will enjoy free membership during their time at university or college and all will receive the Institution's journals. They will also enjoy many other benefits such as the increased number of free places at RINA conferences, sponsored by both industry and the Institution. (The Institution continually seeks to increase the number of sponsored places – members who think that their companies would be willing to sponsor a place should contact the Chief Executive for further information) Some will receive the RINA scholarships, prizes and awards, including the RINA Student Awards. These Awards, which are 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 a 50% reduction in their membership fees.

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 journals each month. The Annual Fee of £32 can be charged to members.

Chief Executive

IN THIS ISSUE

2014 Fees Notice

Members will be able to opt for the digital version of journals and receive a discount on their membership fee.

RPEQ

The Royal Institution of Naval Architects is approved by the Board of Professional Engineers Queensland (BPEQ) as an Assessment Entity, ie authorised to assess applications for registration as RPEQ.

Where to stay in London

Members and their guests visiting London on business or pleasure may take advantage of the Institution's membership of Club Quarters to stay at its Trafalgar Square Hotel, situated at 8 Northumberland Avenue – less than one minute's walk from RINA Headquarters.

Letters to the Editor

Denny of Dumbarton and Robert Napier feature in Letters to the Editor.

People in the News

The success of students at Newcastle (Singapore) University is recognised by the RINA – Keppel Student Award for the best final year thesis.

Maritime Awards

Nominations for the 2014 maritime Safety Award and Maritime Innovation Award are invited.

Private Health

HMCA provide advice on how to get the best from a private health cover provider.

Code of Professional Conduct

Members are reminded of their obligations under the Institution's Code of Professional Conduct.

Post nominal

Members are urged to show their membership of the Institution.

People in the News

RINA – Keppel Student Award

The following students have been awarded the 2014 RINA – Keppel Student award for the best final year projects at Newcastle (Singapore) University:

Bachelor of Engineering with Honours in Marine Engineering

Lin Junyi

Thesis Title: *Computation of Hydrodynamic Damping and Added Mass for a Complex-Shaped Remotely-Operated Vehicle (ROV)*

Bachelor of Engineering with Honours in Offshore Engineering

Pradeepkumar Krishnamoorthy

Thesis Title: *Prototyping of Deep Sea Remote Vibration Monitoring and Visual Streaming System*

Bachelor of Engineering with Honours in Naval Architecture

Abdul Hakim Bin Johari

Thesis Title: *FPSO Rigid Arm Structural Analysis towards External Forces*

Letters to the Editor

Denny of Dumbarton

Sir: I noticed in the recent "RINA Affairs" describing our new Headquarters there was mention, in connection with the Denny Room, that Sir Archie Denny's company was William Denny & Sons whereas the correct, and somewhat unusual, title of the company was William Denny & Brothers Limited. The engine works were known as Denny & Co for many years until merged with the shipbuilding arm of the business under the latter's name; which remained the company's title until closure.

Ian Ramsay

Shipbuilder enters Hall of Fame

Sir: I am delighted to pass on the news from the James Watt dinner on Friday, that (thanks to the campaign mounted by the RINA Scottish branch), we now have a shipbuilder in the Scottish Engineering Hall of Fame. The committee agreed to induct Robert Napier (1791-1876), shipbuilder and engine designer - "The Father of Clyde Shipbuilding". RINA members can read more about this at <http://www.engineeringhalloffame.org/profile-napier.html>.

Perhaps in the next year or two a pure Naval Architect will be inducted, but most of the early/famous ones owed their career in some way to Robert Napier, so it seems fitting that he should be inducted first.

Patrick Carnie

QUOTE FOR THE MONTH

First rule of engineering: beware prototypes. Along with, avoid anything made by an engineer who doesn't have all his own fingers"

Simon R. Green

LINKEDIN

- Low accelerations lead to large amplitude!
- Transatlantic ASV hull shape
- SEEMP for fishing vessels
- Steel Crew boat maximum speed
- Offshore versus maritime as a career choice for naval architects
- IMO agree gas code rules
- Length in Freeboard and Tonnage
- Metacentric height

Just some of the topics discussed recently by the members – over 10,500 – of the RINA group on the online professional networking site LinkedIn. The group provides a forum for members of the group to seek or provide technical information, or to discuss matters of professional interest. The group has a no product, company or recruitment advertising policy.

To join the LinkedIn group, go to <http://www.linkedin.com/groups?mostPopular=&gid=3077992> or follow the link from the RINA website home page at www.rina.org.uk

2015 Annual Fee Notice

Next month the 2015 Annual Membership Fee and Registration Fee (if applicable) will be forwarded. The Annual Fee Notice will also contain details of members' current subscriptions (at a discounted rate) to journals other than The Naval Architect, Warship Technology and Offshore Marine Technology, which members receive at no cost as a part of their membership. Members opting not to receive the printed version of these journals will receive a discount on their Membership Fee. This will be shown on the Annual Fee Notice for members who have already opted to only receive the digital version, which includes access to the archives. This provides a considerable saving in print and distribution costs, as

well as the impact on the environment.

2015 Annual Fee Notices will be forwarded by email, or by post to those members for whom a valid email address is not held. Members will be able to make changes to the Fee Notice online at www.rina.org.uk/MyRINA and pay online, or print and forward the amended Annual Fee Notice with payment details.

Members will be able to access their account at MyRINA with their email address as their Username and Membership Number as their Password. In addition to making changes to their Annual Fee Notice, they will be able to change personal details, including address, and see their past journal subscriptions, conference attendance etc.

Small Craft Surveyors Forum – Seawork 2014 – Report of Seminar

The Small Craft Surveyors Forum (of professional societies representing small craft surveyors) recently organised a seminar at Seawork 2014 addressing needs of marine surveyors. Three subjects were presented and discussed:

Enclosed Space Fatalities by Adam Alan of the Mines Rescue (Marine)

The Nautical Institute has been prominent in raising awareness of the fatal hazards of enclosed spaces in ships and hence the involvement of the Mines Rescue organisation. Adam Alan drew attention to 4 key requirements that need to be in place to minimise the hazards to safety - namely: Design (manholes of sufficient size to accommodate a human with breathing apparatus); Culture (Ships require an

enclosed space management plan to reduce risk); Equipment (items such as communications must be hands-free) and Training (there is currently none required for surveyors and hence they do not do drills and weaknesses may not be exposed.)

The “Workboat Code” by Mark Towl of the MCA

The WB Code is an MCA-owned technical standard, equivalent to the Brown Code and came into effect on 10 June 2014. It applies to Tugs, Pilot boats and workboats. A Workboat is required to comply with the Code when being used for work, ie commercially. Classification can change depending on the area and use of a boat. The Code requires an annual survey. There is an industry working group of 18

including Simon Milne of the MCA and Mark Ranson, Secretary to the National Workboat Association. It was to be noted that this code does not apply to recreational craft which are covered by a BMF/RYA Recreational Code.

Small Craft Stability by David Gray of AE Marine

How much GM (meta-centric height) is enough for a vessel and at what angles of heel, was explored. Scallop dredgers in particular were identified for their stability variation when in use. GZ curves and Stability Books are needed for certain vessels, such as square riggers. A “Roll Test” could be used to indicate how GM changes. Some “horror stories” were shown from YouTube.

Where to stay in London

Members and their guests visiting London on business or pleasure may take advantage of the Institution’s membership of Club Quarters to stay at its Trafalgar Square Hotel, situated at 8 Northumberland Avenue – less than one minute’s walk from RINA Headquarters.

The Institution’s membership provides a fixed lowest rate of £159 per room which is always available to conference delegates, regardless of the varying higher rates

throughout the year for non members. An even lower rate is available only for Institution members and guests at weekends (Fri, Sat and Sun) and holidays (£69). Guests do not need to be accompanied by the member.

Other benefits include access to the Club Living Room with complimentary refreshments, WiFi and unlimited chilled, purified bottled water, and a Rewards Programme offering a “Night on the House” after just one stay.

Members may find details of the facilities offered by Club Quarters Trafalgar Square or book online at <http://clubquarters.com/royal-ins-naval-architects>, using the login “RINA” (without the quotes) on their first visit and selecting Trafalgar Square from the choice of hotels.

Members and their guests who wish to take advantage of the lower rate at weekends, which is not shown online, should contact ClubQuarters at +44 (0)20 7451 5800



Code Of Professional Conduct

The By Laws requires that “every member of the Institution shall so order his conduct as to uphold the dignity and reputation of the Institution and shall observe the provisions of the Charter and these By-Laws.” Every member is further constrained to “order his conduct as to uphold the dignity and reputation of his profession and to safeguard the public interest in matters of safety and health and otherwise.” A member is required

to “exercise his professional skill and judgement to the best of his ability and discharge his professional responsibilities with integrity.”

The Council’s rules governing professional conduct and disciplinary procedures are published in the Institution’s Code of Professional Conduct. This may be downloaded from the Members’ Only page of the RINA website at www.rina.org.uk/members

William Froude (1810 – 1879)

Hydrodynamicist and naval architect

One of the meeting rooms in the new Headquarters at 8-9 Northumberland Street is named after a man whose name is synonymous with ship design and motions.

William Froude’s work in identifying the most efficient shape for the hull of ships, as well as predicting ship stability with reference to reduced-scale models, had a significant influence on ship design.

In 1861, he wrote a paper on the design of ship stability in a seaway, published by the Institution of Naval

Architects, recognised today as a major advancement in ship design theory. Between 1863 and 1867, through a series of experiments using models to determine the physical laws governing full-scale ships, he discovered the laws by which the performance of the model could be extrapolated to the ship when both have the same geometrical shape. The Froude number, expressed as the ratio of a vessel’s velocity to the square root of the product of its waterline length and the acceleration of gravity, is still used today by naval architects to predict the behaviour of ships from scale models.

The Froude Room



REGISTERED PROFESSIONAL ENGINEER QUEENSLAND (RPEQ)

The Royal Institution of Naval Architects is approved by the Board of Professional Engineers Queensland (BPEQ) as an Assessment Entity, ie authorised to assess applications for registration as RPEQ.

Chartered Members of the Institution (MRINA CEng) who wish to apply for registration should complete the RPEQ Application form and submit a report of their continuing professional development during the previous 12 months, certifying that they are currently practising at Chartered Member level.

If the member’s qualifications and competencies satisfy the requirements as set out in Section 10 of the Professional Engineers Act 2002 (QLD), they will be sent a letter confirming that they have met the requirements. Application should then be made to the BPEQ for registration as RPEQ, submitting the letter. No charge is made for this initial assessment letter.

Members who are not Chartered must first qualify for CEng, and should contact RINA Headquarters at ProfessionalAffairs@rina.org.uk for further information

QUOTE 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

Getting the best out of Private Medical Health

HMCA offers RINA members and their families a range of medical health cover and related products. Hospital and Medical Care Association are specialists in offering voluntary benefits exclusively to members of professional and trades associations and membership groups. The plans are available exclusively to members of an Association and not available to the general public ensuring and maintaining competitive rates for RINA members and their family.

The HMCA cover is only available to members in the UK, but the following article provided by HMCA on getting the best out of private medical health may be of interest to RINA members in any country.

The majority of RINA members will be aware of private health plans, and will more often than not question if they really need it when they receive their annual renewal every year. In most cases, the answer will be no, but the knowledge that it provides you with peace of mind when faced with a medical problem will encourage you to keep it. The next question you ask yourself is can you get it cheaper, and then you start to hunt out other providers on comparison sites and

trawling through adverts, which in all probability will make you wish you had not started.

The truth is that trying to compare medical plans is nigh on impossible because of the various clauses, jargon and rules that apply to different providers and plans. Do you want in-hospital and overnight stays, or in-hospital outpatient cover and choice of hospital. You will be inundated with moratoriums, excess, and so the list goes on. You want simplicity and a full understanding of what you are buying. In order to try and simplify the process for you, the first step towards getting a plan is to make a list of what YOU want from your plan and one that best suits you, your state of health, lifestyle and cost.

If you spend a lot of time abroad or have sporting hobbies, you may want to consider a plan that covers you for travel and interests. What if you want to change from your current plan, does your potential provider offer you a free Transfer facility which has no breaks in your cover. Once you have made your list, you can start to research and compare the various providers and plans. A good tip is to balance what you need with the amount you want to pay.

One of the key factors of taking out a private medical health plan is to give you peace of mind when faced with the prospect of surgery or medical condition. We interpret peace of mind as being able to talk to your provider about any concerns you have and being treated in a personal, sympathetic and professional manner. The last thing you want is to be connected to an automated service and pushing buttons to get through to someone.

Ok, so you have done your research and now deciding who to choose. Quite simply, pick up the phone and call each provider. Speak to their Claims Department and assess their handling of your enquiry. Having to claim on your health plan is the reason for joining. You need to know how their system works, including how approachable the staff are, what is the claims procedure and how quickly will your claim be settled.

These few simple steps can help ease the stress of taking out a private medical health plan, and bring you the peace of mind that prompted you to provide it for yourself in the first case. You can call HMCA on 01423 866985 for further advice and information or visit us at www.hmca.co.uk.

Designatory Letters

Members may signify their membership of the Institution by the letters FRINA, MRINA, AMRINA or AssocRINA after their names. In doing so, they demonstrate that they have achieved or are working to achieve the high standards of professional competence demanded by the requirements for membership, and which are recognised as such by the international maritime industry. By doing so, they also demonstrate their commitment to maintaining those standards through their continuing professional development, and their acceptance of the Institution's Code of Conduct. Membership of the Institution does not come easily and is surely an achievement to be proud of.

However, when meeting members, I am surprised how many do not demonstrate their achievement by displaying the appropriate letters on their website, correspondence and business cards. This also serves to promote the Institution. May I therefore invite such members when next having stationary or business cards printed or updating their website to ensure that their membership of the Royal Institution of Naval Architects is proudly displayed.

Chief Executive

QUOTES FOR THE MONTH

"When you want to know how things really work, study them when they're coming apart."

William Gibson

The ideal engineer is a composite... He is not a scientist, he is not a mathematician, he is not a sociologist or a writer; but he may use the knowledge and techniques of any or all of these disciplines in solving engineering problems.

N W Dougherty, 1955

New Members wanted

An open letter to all members

Dear member,

As a member, you will be aware of the benefits and service which membership of the Royal Institution of Naval Architects provides. In particular, you will be aware that membership provides a professional qualification which is recognised throughout the global maritime industry as demonstrating the achievement of the highest standards of professional competence and integrity. You will also be aware that membership provides access to information on developments in all aspects of the maritime industry through the Institution's international conferences and publications which members receive free or at a reduced cost.

I am therefore writing to ask for your support in encouraging your colleagues to follow your lead in becoming a member of

the Royal Institution of Naval Architects and enjoying the benefits of membership of the world's leading professional institution for those involved in the design, construction and maintenance of marine vessels and structures at all levels. I would be grateful if you would let me know (by email to hq@rina.org.uk) the name, position and email address of any of your colleagues who you would wish to introduce as a member. Such potential members could include those at any stage in their career, whether newly graduated or more senior and experienced.

In return for your assistance I would be pleased to offer you a year's free subscription to the Institution's Transactions (the International Journal of Maritime Engineering and the International Journal of Small Craft Technology) or any of the Institution's other journals, following the application and election of anyone you might propose (excluding Student and Junior Members).

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 Royal Institution of Naval Architects – QinetiQ 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 (tbc).

Nominations are now invited for the 2014 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 **31 December 2014**
- Queries about the award should be forwarded to the Chief Executive at hq@rina.org.uk

CHANGE OF ADDRESS

Each year, the Institution sends out over 170,000 copies of the journals and RINA Affairs, a total paper weight of over 35 tons. Unfortunately, a number of those are returned "not known at this address", usually because members have forgotten to inform the Institution of their change of address. In addition to the waste of postage, the Institution is charged for those returned from other than the UK. Additional cost is then incurred when members ask for the missing copies.

Members are requested to let the Institution know of a change of address as soon as possible, preferably before they actually change their address. Changes may be sent online from the Members' Only section of the RINA website at www.rina.org.uk/members, by email to membership@rina.org.uk, by fax to +44 (0)20 7259 5912, or by letter to RINA Headquarters.

RINA AFFAIRS

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

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RINA - Lloyd's Register Maritime Safety Award

The safety of the seafarer and protection of the maritime environment begins with good design, followed by sound construction and efficient operation. Naval architects and engineers involved in the design, construction and operation of maritime vessels and structures can make a significant contribution to safety and the Royal Institution of Naval Architects, with the support of Lloyd's Register, wishes to recognise the achievement of engineers in improving safety at sea and the protection of the maritime environment. Such recognition serves to raise awareness and promote further improvements.

The Maritime Safety Award is presented annually to an individual, company or organisation that in the opinion of the Institution and Lloyd's Register, is judged to have made an outstanding contribution to the improvement of maritime safety or the protection of the maritime environment. Such contribution may have been made by a specific activity or over a period of time. Individuals may not nominate themselves. Nominations are now invited for the 2014 Maritime Safety Award.

Nominations of up to **750 words** should describe the nominee's contribution to:

- safety of life or protection of the marine environment, through novel or improved design, construction or operational procedures of ships or maritime structures
- the advancement of maritime safety through management, regulation, legislation or development of standards, codes of practice or guidance
- research, learned papers or publications in the field of maritime safety
- education, teaching or training in maritime safety issues



Lloyd's
Register



The closing date for nominations is 31 Dec 2014. The Award will be announced at the Institution's 2015 Annual Dinner.

Nominations may be made by any member of the global maritime community and should be forwarded online at www.rina.org.uk/MaritimeSafetyAward or by email to MaritimeSafetyAward@rina.org.uk

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