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Dr Andrzej Jasionowski practices forensic naval architecture and marine engineering.

He holds a PhD in damaged vessel hydrodynamics from the University of Strathclyde, UK, (2002). He has specialised since 1995 in the application of advanced numerical techniques for stability, hydrodynamics, oil film lubrication, thermodynamics of LNG mixtures, ship flooding simulations, probabilistic assessment of time to sink and capsize, holistic risk quantification, shaft alignment. He routinely applies finite element method (FEM), Lagrange collocation (LC), boundary element (BEM) and NURBS collocation methods to forensics of collision, grounding, unsafe port, elasto- thermo-hydro- dynamics in assessment of design defects and complex cryogenic cargo operations.

He advised on new building and other disputes regarding ship weight, fuel oil consumption, shaft alignment, stern tube (journal) bearing failures, cranes (slewing) bearing failures, structural integrity impairments, propulsion, stability, ship capacity, unsafe ports, LNG boil off and heat losses, supported sea trials and yard inspections.

He advised on foundering of several ships including bulk carriers, m.v. “DERBYSHIRE”, ropax, m.v. “ESTONIA”, m.v. “NAPOLEON BONAPARTE”, m.v. “SEWOL”, m.v. “HYUNDAI No.105”, m.v. “ROCKNESS”, offshore semisubmersible “DEEP WATER HORIZON”, among others.

He advised government organisations (UK, EC) on regulatory developments for risk mitigation (with presentations to the International Maritime Organisation IMO).

Andrzej has developed advanced decision support systems for effective operation and flooding crises management and supported the design development of several significant new building projects.

He is an author, co-author, co-contributor to articles published in journals, conferences and books. Andrzej has contributed as and has acted as an expert witness at arbitration hearings (UK, FRANCE, SOUTH KOREA, SOUTH AFRICA, SINGAPORE, HONG KONG, AUSTRALIA).

EDUCATION AND QUALIFICATIONS

2023	ASIArb (Associate Member of Singapore Institute of Arbitrators)
2022	MEWI (Member of Expert Witness Institute)
2021	MBEWA (Member of Baltic Expert Witness Association)
2019	SLMAA (Supporting Member of London Maritime Arbitration Association)
2003	MRINA (Member of the Royal Institute of Naval Architects)
2003	CEng (Chartered Engineer, Member of Engineering Council UK)
2002	PhD, Ship and Marine Technology, University of Strathclyde, Glasgow, UK
1997	MEng, Naval Architecture and Ocean Engineering, Technical University of Gdansk, Poland

EXPERIENCE

2019 – SophusQuorum Pte Ltd, Singapore

Director, Forensic Naval Architect

Expert witness services - air seal failures, stern tube bearings failures, crane failures, slewing bearings, unsafe port, design defects, ship sinking, foundering, groundings, site surveys, numerical modelling and simulations, FEM, LC and BEM, model testing design and analyses, statistical analyses and risk quantifications, decision support systems investigations, LNG boil off and conductive heat losses analyses, surveys and site investigations, evidence in Arbitrations.

2018 – 2019 Braemar Technical Services (Adjusting) Pte Ltd, Singapore

Director, Forensic Naval Architect

Expert witness services (arbitrations), accident investigations (grounding, foundering/sinking), design defects analyses, assist in emergency support on major casualties, casualty surveys, unsafe port modelling and analyses.

2002 – 2017 Safety At Sea Ltd, Brookes Bell LLP, UK/Singapore

Partner, Director, Maria Skłodowska-Curie post-PhD Fellow

Accident investigation and litigation support (stability, hydrodynamic simulation, quantitative ship vulnerability assessment, manoeuvring, collision, grounding), new-building design support (stability and survivability), stability conversion assessments, automated ballasting systems development, deadweight management optimisation for energy efficiency and regulatory compliance. New building disputes regarding fuel oil consumption, shaft alignment and stern tube bearing failures, structural integrity, propulsion and stability. Support of sea trials and yard inspections. Resource management, project management.

1996 – 2011 University of Strathclyde, UK

Lecturer, and Technical Manager at the Ship Stability Research Centre, Academic Visitor, Research Fellow, PhD Researcher

Resource management, project management, R&D consortia coordination, developments in area of risk quantification, decision support, stability, legislation amendments, numerical survivability and time to sink assessment, ship sinking accident investigation (MV Derbyshire, MV Estonia), arbitration support (BAE Systems), survivability simulation, evacuation, ship systems modelling, laboratory ship stability testing.

1995 – 1996 MARINTEK, NTNU, Norway, Ship Design and Research Centre (CTO) Gdansk, Poland

Researcher on ship hydrodynamics, seakeeping, resistance, motions in waves, model testing.