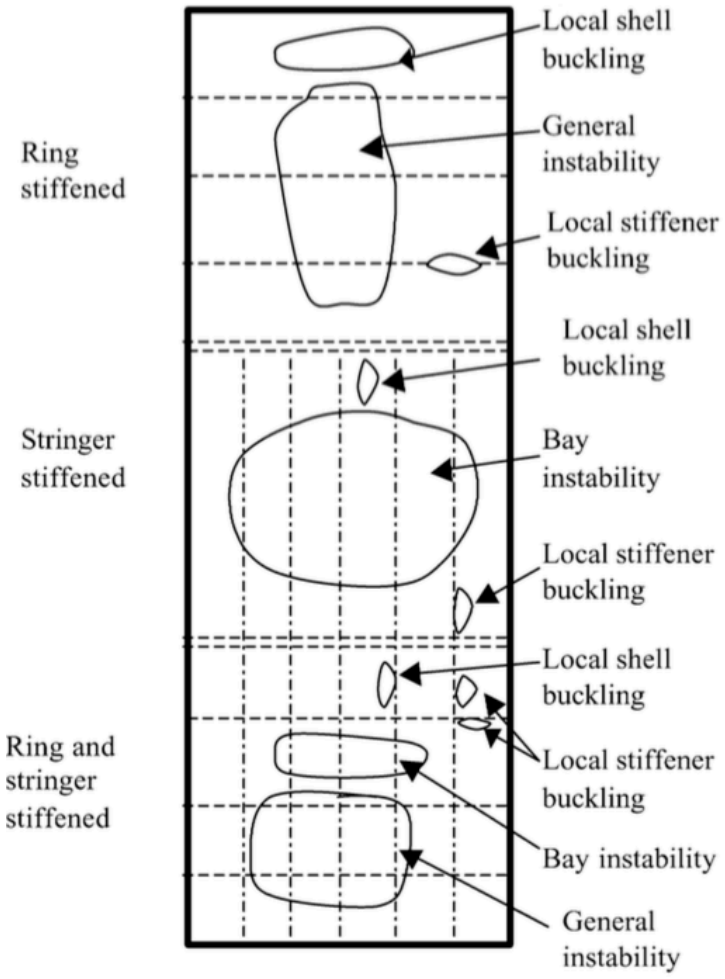

Fig. 1. Modes of failure.

The figure above is from: P.K. Das, A. Thavalingam, and Y. Bai. Buckling and ultimate strength criteria of stiffened shells under combined loading for reliability analysis. Thin-Walled Structures, 41:69–88, 2003

Professor Purnendu K. Das

Department of Naval Architecture and Marine Engineering
Universities of Glasgow and Strathclyde

Biography:

Professor Purnendu Das. BE, ME, PhD, C.Eng, C.MarEng, FRINA, FIStructE, FIMarEST has been the Director of 'ASRANet Ltd' (an ISO 9001-2008 certified spin out company of the Universities of Glasgow and Strathclyde) from its inception in February 2006. He recently retired as Professor of Marine Structures in the Department of Naval Architecture & Marine Engineering at the University of Strathclyde, UK. Past EU projects were MARSTRUCT (a network of excellence on Marine Structure) and SHIPDISMANTL (a cost effective and environmentally friendly dismantling of ship structures). Past industrial projects included work from the UK Health and Safety Executive (HSE), MoD UK, Subsea-7 UK, Shell, Woodgroup and US Navies etc. He was the principal investigator of many EPSRC projects. Before joining the University of Glasgow in 1991 he worked

with British Maritime Technology as Principal Structural Engineer (1984-91). He is the author of more than 250 publications, including contract reports and more than 60 journal papers and is a member of the editorial boards of the 'Journal of Marine Structures', 'Journal of Ship & Offshore Structures', 'Journal of Engineering under Uncertainty: Hazards, Assessment and Mitigation' and 'Journal of Ocean and Climate System' amongst others. His areas of research include limit state design and analysis & reliability analysis of ship & offshore structures. Professor Das has wide ranging industrial and academic contacts and has advised and supervised 20 PhD students, to his credit. Details of visits and collaborations include his various sabbatical study periods spent at University of California, Berkeley, USA (July – September 1996), at Lloyd's Register of Shipping (August 1997), Kockums Ltd (July 1998) and spent some time at Instituto Superior Técnico (IST), Lisbon (July 2000). He has been running various successful CPD courses which are attracting many people from different industries. These courses are on 'Fatigue & Fracture Analysis', 'Ships at Sea', 'Advanced Analysis and Design of Offshore Structures', 'Offshore Floating System Design', 'Structural Response under Fire and Blast Loading' and 'Design of Pipelines and Risers' amongst others. He was a member of ISSC (International Ship and Offshore Structure Congress) for the periods of 1991-97 and 2003-2006. He was a member of the OMAE (Offshore Mechanics and Arctic Engineering) Organising Committee on 'Safety and Reliability'. He has organised six ASRANet International Conferences in 2002 (Glasgow), 2004 (Barcelona), 2006 (Glasgow), 2008 (Athens), 2010 (Edinburgh) and 2012 (London) where a large number of participants from various countries attended. He is now the member of "Research committee" of the Institution of Structural Engineers (I.Struct.E) London.

Selected Publications:

------Book:

Analysis and Design of Marine Structures, edited by C. Guedes Soares and P. K. Das, CRC Press, a Taylor & Francis Group, London, UK 2009

-----Articles:

Frieze PA, Das PK, Faulkner D. Partial safety factors for stringer stiffened cylinders under extreme compressive loads, PRADS 83, The 2nd International Symposium on Practical Design in Ship Building, Tokyo and Seoul, 1983: 475–482.

Das, P K, Faulkner, D and Zimmer R A(1992). "Efficient Reliability Based Design of Ring and Stringer Stiffened Cylinders Under Combined Loads", Proceedings of Behavior of Offshore Structures (BOSS) '92, London.

D. Faulkner and P. K. Das, "Application of reliability theory to structural design and assessment of submarines and other externally pressurized cylindrical structures", in Integrity of offshore structures-4, edited by D. Faulkner, M. J. Cowling, and A. Incecik, 1991, Elsevier, 1994, Spon Press, 11 New Fetter Lane, London, EC4P 4EE

A.C. Morandi, P.K. Das and D. Faulkner (U. of Glasgow), "Ring Frame Design in Orthogonally Stiffened Cylindrical Structures", Offshore Technology Conference, 1-4 May 1995, Houston, Texas, Paper No. 7801

Morandi AC, Faulkner D, Das PK. Frame tripping in ring stiffened externally pressurised cylinders. Marine Structures 1996;9:585–608.

Morandi AC, Das PK, Faulkner D. Finite element analysis and reliability based design of externally pressurised ring stiffened cylinders. Transactions of the Royal Institution of Naval Architects (RINA), Part B, vol. 138, 1996

Das, P .K., Zanic, Vendran, Faulkner, Douglas, Reliability based Design Procedure for Stiffened Cylinder Using Multimedia Optimization Technique. Proceedings of 25th Annual Offshore Technology Conference, Part 3, USA, 1997.

Lennon RF, Das PK. Torsional buckling behaviour of stiffened cylinders under combined loading. Thin-Walled Structures 2000;38:229–45.

P.K. Das, A. Thavalingam, and Y. Bai, "Buckling and ultimate strength criteria of stiffened shells under combined loading for reliability analysis", Thin-Walled Structures, 41:69–88, 2003

Özgür Özgüça, Purnendu K. Das and Nigel Barltrop, "The new simple design equations for the ultimate compressive strength of imperfect stiffened plates", Ocean Engineering, Vol. 34, No. 7, May 2007, pp. 970-986