BIBLIOGRAPHY

Theme 1: Finite Element and associated techniques in Computer Aided Design

Sub-theme (i): Equilibrium stress analysis

- "Enhancing finite element boundary stress predictions for plane and axisymmetric situations". Journal of Strain Analysis, Vol 21, No 1, 1986. (With M J Daniels).
- 2. "A semi-analytic finite element Analysis of circular plate bending problems". Journal of Strain Analysis, Vol. 15, No.2, pp 75-82, 1980. (With B Delves).
- "Application of the finite element method to the design of disc-type wheels". Proceedings, Institute of Physics Conference on Stress, Vibration and Noise Analysis in Vehicles. Eds. H.G.Gibbs and T.H.Richards, pp 91-110. Applied Science Publishers, 1975. (With C W Woo).
- 4. "Automatic interpretation of engineering drawings for 3-D surface representation in CAD". Journal of Computer Aided Design Vol.18 No.3, 1986. (With G C Onwubolu).
- "Engineering drafting, surface modelling and plate/shell finite element mesh generation". Journal of Finite Element Analysis and Design. Accepted for publication 1986.

 (With G C Onwubolu).

- 6. "Linking plate/shell finite element analysis and engineering drafting by means of meshed surface modelling". Journal of Computer Aided Design. Vol. 18, No. 5 1986 (In press) (With G C Omwubolu).
- 7. "Essentials of stress analysis and implementation in approximation techniques". Journal of Strain Analysis, Vol. 14, No.2, pp 61-66, 1979.
- 8. "Producing stress and vibration analysis data for engineering design". Proceedings, Institution of Mechanical Engineers Conference on Engineering Research and Design, pp 59-66, 1981.
- 9. "Teaching energy methods in a final year course on mechanics of materials". Strain, 1982, May pp 65-73.
- 10. "Introduction to finite element techniques in stress analysis". Methods and Practice for Stress and Strain Measurement. British Society for Strain Measurement Monograph. Ed. I M Allison. pp 128-135, 1979.
- "Stress concentration factors for some blunt notched three point bend specimens". Report to Procurement Executive of the Ministry of Defence, March 1978. (With P C Wood).
- 12. "A mixed formulation finite element analysis of plate buckling". Proceedings, Institute of Physics Conference on Stability problems in Engineering Structures and Components". Eds. T H Richards and P Stanley, pp 265-280. Applied Science Publishers, 1979. (With C M Mota Soares).

- "On using the finite element method in conjunction with subregion singular solutions in Fracture Mechanics".

 Proceedings First International Symposium on Numerical
 Methods in Fracture Mechanics". Eds. A R Luxmore and D A
 R Owen. Pinewood Press 1978.
- "The determination of single and mixed mode stress intensity factors for engineering components of practical interest". Proceedings, Institute of Physics Conference on Fracture Mechanics in Engineering Practice. Ed. P Stanley, pp 1-30, Applied Science Publishers, 1977. (With A R Robertson).
- 15. "Finite element determination of single and mixed mode stress intensity factors in axisymmetric solids".

 Proceedings, International Conference on Fracture Mechanics and Technology. Eds. G C Sih and C L Chow, Sijthoff & Noordhoff, 1977. (With I A Al-Sharqi).
- 16. "Torsion design data". Engineering Materials and Design, September 1974. pp 27-29. (With P Ng).
- 17. "Fracture analysis data for partially opened cracks".

 Proceedings 2nd International Symposium on Numerical Methods
 in Fracture Mechanics. Eds. D A R Owen, and A R Luxmore.

 Pinewood Press 1980. (With P C Wood.)

- "An accurate method in structural vibration analysis".
 Journal of Sound and Vibration, 55 (3), pp 363-376, 1977.
 (With Y T Leung).
- 19. "The response of beams to arbitrary forcing functions: an application of the finite element method". Institute of Physics Conference on Stress Analysis Today, 1971.

 (With C A Mota-Soares and J E T Penny.)
- "Introducing the Rayleigh-Ritz and finite element Methods with the aid of a /CAD//CAL package". Proceedings, 4th British Conference on Teaching Vibration and Noise. Eds. J L Wearing, G J McNulty, N C Hilyard and P B Round, pp 181-193, 1982. (With K J Butler).
- 21. "On the teaching of energy methods in vibration analysis". Proceedings, 3rd British Conference on Teaching Vibration and Noise. Eds. G J McNulty, J L Wearing, N C Hilyard, and P B Round, pp 8-19, 1979.
- 22. "Teaching approximation methods in vibration analysis".

 Proceedings, 2nd British Conference on Teaching Vibration and Noise. Eds. G. J. MCNulty, J L Wearing, N C Hilyard and P B Round, pp 1-12, 1977. (With J E Penny.)
- "A survey of mathematical modelling in dynamical systems".
 Report to the Ministry of Defence, January 1983. (With J E Penny and A A Youssefi).
- "Vibration analysis of bell-type pump mountings". Proceedings, Institution of Mechanical Engineers, Conference on Quieter Oil Hydraulics, pp 35-45, 1980. (With S A M Shebak).

- 25. "The computer as an aid to problem solving". Seminars on Getting To Know Low Cost Computing, Aston University, 1982-1984.
- 26. "Desk top brains herald revolution" Birmingham Post Economic Review October 1978, pl2, 1978.
- 27. "New dimensions in Mechanical Engineering" Graduate Careers Vol. 16, No.3, pl2, 1983.
- 28. "CAE Systems in a small company: establishing the requirements". Proceedings, 4th Polytechnics Symposium on Manufacturing Engineering, pp 394-401, 1984. (With K J Butler.)

Theme 2: Experimental stress analysis

Subtheme (i) : Direct methods

- 29. "Stress distribution in pressurised cabins: an experimental study by means of Xylonite models". Aeronautical Research Council, Current Paper No. 503, 1960.
- 30. "Mechanical testing machines". Encyclopaedic Dictionary of Physics. Permagon Press Limited, 1962.
- The Moire method applied to the flexure of plates".

 Annual Conference, Institute of Physics Stress Analysis

 Group, 1958.

- "Analogy between the slow motion of a viscous fluid and the extension and flexure of plates: a geometric demonstration by means of Moire fringes". British Journal of Applied Physics, Vol. II, June, pp 244-254, 1960.
- 33. "The reduction of results obtained when simulating physical problems by an electrical potential analyser" Conference, Institute of Physics Stress Analysis Group, 1959.
- 34. "The torsion stiffness of some orthotropic bars: a study by analogy". Conference on Composite Materials, Institute of Physics Stress Analysis and Materials Groups, 1968.
- 35. "Thermal Stresses in a thick walled tube: an experimental study by electrical analogy". International Journal of Mechanical Sciences, Vol 7, pp 103-113, 1965.
- 36. "Bending of plates built into boundaries irregular in plan: a study by analogy". Journal of the Royal Aeronautical Society, Vol 66, April, pp 241-244, 1962.

Theme 3: Integrative studies in stress and vibration analysis

- 37. "Stability problems in engineering structures and Components". Joint Editor with P Stanley. Applied Science Publishers Limited. 1979.
- 38. "Stress, vibration and noise analysis in vehicles". Joint Editor with H G Gibbs. Applied Science Publishers Limited. 1975.

- 39. "Fatigue in service and the role of testing". Editor of Proceedings, Institute of Physics Stress Analysis Group, October 1979.
- 40. "Microcomputers and processors in experimental stress and vibration analysis". Editor of Proceedings, Institute of Physics Stress Analysis Group, June 1979.
- 41. "Modelling for stress analysis in design". Editor of Proceedings, Institute of Physics Stress Analysis Group, May 1978.
- "'Strength of Materials' by A A Ilyushin and V S Lensky".

 Editor of translation. Pergamon Press Limited. 1967.

 (See declaration by S C Redshaw).
- 43. "Energy methods in stress analysis: with an introduction to the finite element method". Ellis Horwood Limited. 1977.