2003 Koiter Medal

Presented to

DAVID R. J. OWEN

In recognition of

his contributions to the field of theoretical and computational solid mechanics and finite element applications to the solutions of Cosserat Continua.

Presented at the Koiter Lecture Session

The 2003 International Mechanical Engineering Congress in
Washington, DC
November 17, 2003
Presiding: Pol D. Spanos
ASME/AMD Chair 2003-2004

ASME International

DAVID ROGER JONES OWEN, P.E., D.Sc.

University of Wales Swansea, Singleton Park, U.K.
Chairman, Rockfield Software Ltd., Swansea, U.K

Dr. Owen is an international authority on finite element and discrete element techniques. He is currently a professor in the Civil and Computational Engineering Research Centre at the University of Wales Swansea (Singleton Park, U.K.), where his involvement in academic research since 1967 has led to the supervision of over 60 Ph.D. students.

His research, in the field of solid and structural mechanics, has centered on the development of solution procedures for non-linear problems encountered in engineering practice. Owen has contributed prominently to the development of computational strategies for plastic deformation problems and to the introduction of parallel processing concepts to finite element analysis. Over the last decade or so, his work has focused on the development of discrete element methods for particulate modeling and the simulation of multi-fracturing phenomena in materials. Areas of application have included the simulation of industrial forming processes for metals, plastics and

glass, defense problems, rock blasting simulations, deep level mining operations and structural failure predictions for impact, seismic and blast loading.

Owen's research interests have led to extensive industrial involvement. In 1985, he co-founded Rockfield Software Ltd., for which he is chairman, to provide a computational technology service to industry. The company, which has grown into one of the foremost U.K. computational research and development companies, with offices in Australia and the U.S., has an established worldwide reputation for leading-edge engineering activities and, in 2002, received the Queen's Award for Enterprise.

Due to his industrial involvement, Owen has served for over ten years as an elected council member of NAFEMS, an international organization aimed at establishing standards and quality assurance procedures for the safe use of finite element methods. He is also a member of the executive council of the International Association for Computational Mechanics (IACM) and past chairman of the U.K. Association for Computational Mechanics in Engineering.

He is the author of seven textbooks and over 300 scientific publications. In addition to being the editor of 30 monographs and conference proceedings, Owen is the editor of the *International Journal for Engineering Computations* and he is a member of several editorial boards.

Owen is a Fellow of the Institution of Civil Engineers and the Royal Academy of Engineering, U.K.; and a Fellow of IACM, which honored him with the Computational Mechanics Award in 2002.

Owen received his B.Sc. (1st Class) and M.Sc. at the University of Wales Swansea in 1963 and 1964, respectively. He earned his Ph.D. at Northwestern University (Evanston, Ill.) in 1967 and his D.Sc. at the University of Wales in 1982. In 1998, he was awarded an honorary D.Sc. by the University of Porto, Portugal. He is a registered professional engineer in the U.K.

Koiter Medal

Past Honorees

1997	Warner T. Koiter
1998	Viggo Tvergaard
1999	Charles R. Steele
2000	Giulio Maier
2001	Wolfgang G. Knauss
2002	James K. Knowles

THE WARNER T. KOITER MEDAL was established in 1996 to recognize distinguished contributions to the field of solid mechanics with emphasis on the effective blending of theoretical and applied elements, and on a high degree of leadership in the international solid mechanics community.

The medal honors the late Dr. Warner T. Koiter (1914-1997), world-renowned authority in the field of solid mechanics, and it commemorates his vast contributions as a research engineer and teacher.

Warner T. Koiter Medal Committee

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