

William Menelaus Memorial Lecturers

1927	Sir William H Bragg KBE FRS DSc	1995	Sir Keith Stuart MA FRSA CBIM FCIT
1928	H.C.H. Carpenter FRS MA PhD Hon DSc(Wales)	1997	Sir Robert May FRS
1929	W.H. Hatfield DSc FRS	1999	Dr. Elizabeth Haywood CIMgt FRSA
1930	H.G.A. Hickling DSc FRS	2001	Dr.(now Sir) David Grant CBE FREng
1931	F.S. Sinnatt CB DSc	2003	Sir Peter Williams CBE FREng FRS
1932	J.W. Cobb CBE BSc FIC	2004	Sir Alec (now Lord) Broers FREng FRS
1933	C.A. Edwards DSc FRS	2005	Sir David Davies FREng FRS
1934	C.H. Desch DSc FRS	2006	Sir Gareth Roberts FREng FRS
1935	W.T. David MA ScD DSc MInstCE	2007	Sir John Chisholm FREng FRS
1936	B.P. Haigh MBE DSc MInstCE	2008	Sir Richard Friend FREng FRS
1937	C.H. Lander CBE DSc MInstCE	2009	Lord Browne of Madingley FREng FRS
1938	W.M. Thornton OBE DSc DEng	2010	Prof Dame Ann Dowling FREng FRS
1940	Sir Arthur P.M. Bleming CBE DEng MSc(Tech) MIMechE MIEE	2011	Prof. Dame Julia Higgins FRS FREng
1945	Sir Lewis L. Fermor OBE DSc FRS	2012	Prof. The Lord Rees of Ludlow OM FRS FREng
1946	C.G. Morley MIEE	2013	Sir John Cadogan DSc FRSE FRSC PLSW FRS
1947	Douglas Hay MC BSc MInstCE	2014	Sir John Armit FRS FICE
1948	P.B. Moon MA PhD FRS	2015	Prof Hywel Thomas CBE FREng FRS MAE FLSW
1949	W F Cartwright DL MIMinE	2016	Sir Emyr Jones Parry GCMG FInstP PLSW
1952	W. Idris Jones CBE BSc PhD MIMinE MICHemE FRIC	2017	Prof Dame Jocelyn Bell Burnell FRS FRAS PRSE PPIoP PPRAS
1954	Sir William Halcrow MInstCE	2018	Sir John O'Reilly DSc FREng FLSW FIET FIChemE FRAeS
1957	Sir Charles F. Goodeve DSc FRS	2019	Prof Lord Robert Mair CBE FREng FRS FICE
1960	T.E. Allibone PhD DSc FRS MIEE		
1963	Sir Willis Jackson DSc MIEE FRS		
1965	Sir Humphrey Browne CBE MA MIMinE		
1967	Sir William Penney FRS MA PhD DSc		
1970	Sir Paul Chambers DB CIE		
1971	Lord Pilkington		
1973	Dr. K. Mallanby CBE DSc FIBiol		
1976	Sir Kingsley Dunham FRS		
1977	Sir Derek Ezra		
1979	Dr. Walter Marshall CBE FRS		
1981	Sir Joseph Pope DSc (Hon) LLtd FBIM CEng FIMechE		
1983	Sir Peter Gadsden MA DSc FEng		
1985	Lord Caldecott		
1987	Prof. J. Notting		
1989	Colin Kirkland		
1991	G. Adler OBE		
1993	Dr. Hugh Scott-Russell CEng FSAIMM		

The South Wales Institute of Engineers Educational Trust

Chairman:
Mr Philip E. Hourahine



The 58th William Menelaus Memorial Lecture

In Association with
The Learned Society for Wales and
Supported by **Cardiff University**

**“Wisdom, Knowledge and Innovation:
keystones for a sustainable UK economy”**

Presented by:
Sir John O'Reilly DSc
FRS FLSW PPFiet HonFIChemE FRAeS

6.00pm, Monday 19 March, 2018
In the **Large Shandon Theatre,**
Main Buildings, Cathays Park, Cardiff

The 58th William Menelaus Memorial Lecture



Sir John O'Reilly is a Chartered Engineer specialising in the field of information and communication technology. His first degree was in electrical engineering whilst his PhD and subsequent higher doctorate addressed respectively aspects of applied mathematics and applied physics. He is the author or co-author of some 400 research and technology publications, including three books on aspects of telecommunications.

He is Chairman of ERA Foundation Ltd., of NICC Ltd, (the pan-industry and government body responsible for ensuring telecommunication network and service interoperability in the UK), a visiting professor at University College London and a commissioner of the Royal Commission for the Exhibition of 1851.

He served as Director General of Knowledge and Innovation for the UK government (2013-2015) previously having been Vice-Chancellor of Cranfield University and before that Chief Executive of the Engineering and Physical Sciences Research Council.

He has held academic appointments at the universities of Essex, Bangor and UCL while appointments outside academia include periods with BT Laboratories/the Post Office Research Centre, Ultra Electronics Ltd, the Royal Radar Establishment of the then Ministry of Aviation - and in the small and medium enterprise sector as chief executive/deputy chair of IDB Ltd and chair of CAST Ltd.

Active in the engineering profession, he is an Honorary Fellow and former President and of the Institution of Engineering and Technology, a Fellow and former member of Council of the Royal Academy of Engineering, Fellow and Trustee of the Royal Aeronautical Society and an Honorary Fellow of the Institution of Chemical Engineers. He served as a founding member of the science, industry and translation committee of the Royal Society and is a Commissioner (Trustee Board member) of the Royal Commission for the Exhibition of 1851.

Internationally, he has served as President of EUREL, the Confederation of Professional Electrical Engineering Societies in Europe, Chair for Systems and Communications Engineering for the European Research Council, Chair of the Search Committee for the European Science Prize of the Koerber Foundation, Chair of the External Review Committee for the Carnegie Mellon Portugal ICT Programme, Board Member of Khalifa University of Science Technology and Research, UAE. He is Chairman of the Science and Engineering Research Council (SERC) and Board Member of the Agency for Science Technology and Research (A*STAR) in Singapore, where he is also a panel member for the Quality Assurance Framework for Universities for the Ministry of Education.

He received the J J Thompson Medal of the Institution of Electrical Engineers for distinguished contributions to electronic engineering, is an International Fellow of Académie Hassan II des Sciences et Techniques and of Academia das Ciências de Lisboa. In 2007 he received a Knighthood in recognition of his contributions to science.

The South Wales Institute of Engineers Educational Trust (SWIEET2007)

The Institute was founded in 1857 and granted a Royal Charter of Incorporation in 1881. It devotes itself **“to the encouragement and advancement of Engineering Science and Practice”**, and was **“established to facilitate the exchange of information and ideas amongst its members, and to place on record the results of experience”**. In carrying out these functions, the Institute played its part in advancing technical knowledge and, through its individual members, has made important research contributions in many fields, through to 2007.

In 2007, the Institute agreed to wind up its Learned Society functions, and to transfer all its funds into an Educational Trust, devoted to the promotion of engineering with young people. The Trust has agreed to continue with the Menelaus Lecture and Dinner as part of its activities.

The Institute now makes Bursary, merit and other awards, to both individual engineering students and educational establishments, supports activities which encourage and develop young engineers, and focuses upon “youth into engineering”, in schools, colleges and other establishments, at profession “entry” levels.

The Learned Society of Wales (LSW)

The Learned Society of Wales is Wales's first national scholarly academy. It was established and launched in May 2010. It now has more than three hundred and fifty Fellows, who are prominent figures within their respective academic disciplines. The Society's guiding ethos is *Celebrating Scholarship and Serving the Nation*: as well as to celebrate, recognise, safeguard and encourage excellence in every one of the scholarly disciplines, its purpose is also:

- to promote the advancement of learning and scholarship and the dissemination and application of the results of academic enquiry and research; and
- to act as a source of independent and expert scholarly advice and comment on matters affecting the wellbeing of Wales and its people and to advance public discussion and interaction on matters of national and international importance.

The Society's *Strategic Aim* is to be a sustainable organisation that is fit for purpose and that is acknowledged both as the recognised representative of the world of Welsh learning internationally and as a source of authoritative, scholarly and critical comment and advice to the National Assembly and other bodies on policy issues affecting Wales.

The Learned Society of Wales is keen to develop established links with organisations like SWIEET2007 that have complementary aims and is particularly pleased to be associated with this evening's 58th Menelaus Lecture.

Denys Morgan, Chief Executive, SWIEET2007, Tel: 01792 879409