

INSTITUTE OF  
MEASUREMENT  
AND CONTROL

PAST

PRESIDENTS

1944 TO PRESENT DAY



FOUNDED IN 1944 AS THE SOCIETY OF INSTRUMENT TECHNOLOGY

BIOGRAPHIES



Version 1.4.09.01.26

**All titles and qualifications were held at the time of Presidency.**

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# Preface



The first official meeting of the Council of the Society of Instrument Technology, the forerunner of the Institute of Measurement and Control, was held on 10 May 1944 at Imperial College. It was at this meeting that the Society became a legal entity.

The meeting was chaired by the President Sir George Paget Thomson and the Council members present were: Dr W.J. Clark, G.H. Farrington, Dr W.F. Higgins, W.B. Wright, R. E. Iggleden, F.C. Knowles, E.B. Moss, C.R. Sams, Prof F. Debenham, Prof H. Spencer Gregory, Dr Exer Griffiths, FRS, D.A. Oliver, Hon. Treasurer Dr H.B. Cronshaw and Hon. Secretary L.B. Lambert.

The purpose of the Society, as reported by Engineering and Nature, was the advancement of instrument technology by the dissemination and coordination of information relating to the design, application and maintenance of instruments.

The Institute of Measurement and Control continues with the purpose to this very day.



Sir George Thompson, FRS, President 1944 - 48, looking at his portrait which hung in the Council room in the former offices of the Institute (Gower Street | London)

Professor Sheila Smith

BSc (Hons) PhD FInstMC

President 2023 - 2024

**BIOGRAPHY**  
COMMING SOON



Mr Martin Belshaw

BSc CEng MInstMC

President 2020 - 2022

**BIOGRAPHY**  
COMMING SOON

## Professor Graham Machin

**BSc (Hons), DPhil (Oxon), DSc, CPhys, CEng, FInstP, FInstMC**

**President 2018 - 2019**

Graham Machin is an NPL Fellow and head of the NPL Temperature and Humidity Group. He has more than 30 years' experience in thermometry research, published more than 220 technical papers and given numerous invited/keynote addresses around the world. He has been an invited guest researcher at institutes in Japan and the USA, and is currently a visiting senior researcher position at the National Institute of Metrology, China.



He is visiting Professor of Thermometry in Harsh Environments (University of Strathclyde), visiting Professor of Clinical Thermal Imaging (University of South Wales), Distinguished Visiting Fellow (colaborador honorífico) (University of Valladolid, Spain) and Honorary Professor of the Chinese Academy of Sciences.

He represents the UK on the BIPM Consultative Committee of Thermometry (CCT) and IMEKO TC12, chairs the CCT working group for Noncontact thermometry and was chair of the Euramet Technical Committee for Thermometry (2014-2018).

In addition he has served on the EPSRC Physical Sciences Strategic Advisory Team (2014-2017), and is an international invited expert on the Chinese Academy of Sciences "very low temperature thermometry" project (2017-2022). He is project director of "Implementing the new kelvin" (2016-2019) and "Realising the redefined kelvin" (2019-2022) for EURAMET.

He was director for the NIHR Diabetic Foot Ulceration prevention project (2014-2017) and is one of the inaugural members of the clinically based National Body Temperature Measurement Group established to solve the on-going problems of body temperature measurement in clinical practice (2019-).

Graham was awarded the Institute of Measurement and Control (InstMC) Callendar medal in 2012 for "outstanding contributions to the art of temperature measurement". He has served on Council of the InstMC and was President of the InstMC (2018 - 2019).



## Professor Sarah Spurgeon

OBE, BSc, DPhil, FInstMC, FIET, FIMA, CEng, CMath, FEng

President 2015 - 2017

Professor Sarah Spurgeon is the Head of the Electronic and Electrical Engineering Department within the UCL Faculty of Engineering Sciences. Sarah received her B.Sc. and D.Phil. degrees from the University of York, York, U.K., in 1985 and 1988, respectively. She has held previous academic positions at the University of Loughborough, the University of Leicester and the University of Kent in the UK.



She was appointed as Professor of Engineering at the University of Leicester in 2002 and was Head of their Department of Engineering from 2006-2008. She was Professor of Control Engineering and Head of the School of Engineering and Digital Arts at the University of Kent from 2008-2016.

Sarah's research interests are in the area of systems modelling and analysis, robust control and estimation in which areas she has published over 300 research papers. She was awarded the Honeywell International Medal for 'distinguished contribution as a control and measurement technologist to developing the theory of control' in 2010 and an IEEE Millennium Medal in 2000.

Sarah Spurgeon has previously chaired the IEEE Technical Committee on Variable Structure and Sliding Mode Control and the UK Automatic Control Council, the national member organisation of the International Federation of Automatic Control (IFAC). She was an IEEE Distinguished Lecturer for the IEEE Control Systems Society for the period 2011-2014 and has also Chaired the Ingenious Panel of the Royal Academy of Engineering which, supported by BIS, prioritised funding for public engagement projects which put engineering at the heart of society.

She was a member of the HEFCE REF sub-panel 15 General Engineering for REF 2008 and is a member of sub-panel 12 Engineering as well as an Interdisciplinary Adviser for REF 2021. She was for six years an independent member of the Defence Scientific Advisory Council (DSAC) which provides independent advice to the Secretary of State for Defence on matters of concern to the Ministry of Defence in the fields of Science, Engineering, Technology and Analysis (SETA).

Within the UK she is a Board member of EngineeringUK as well as a Non-executive Member of the Dstl Board in which role she chairs their External Review College. She is currently the President of the Engineering Professors Council (EPC). Internationally, she is a member of Council of IFAC for the period 2014-2021 and is the UK representative on the General Assembly of the European Control Association.

S.K. Spurgeon 2019

## Lord OxBurgh

**KBE, FRS, Hon FREng**

**President 2012 - 2014**

Ernest Ronald Lord Oxburgh was educated at University College Oxford and took his PhD at Princeton. As a young researcher in the early days of plate tectonic theory, Ron's extensive field work in South America and the Austrian Alps led to valuable insights into the mobility of ancient geological regions.



He became Head of the Department of Earth Sciences in Cambridge and was President of the Queen's College. He was Chief Scientific Advisor to the Ministry of Defence between 1988 and 1993 and knighted in 1992.

He became Rector of Imperial College in 1993 and created the Imperial College School of Medicine through mergers with the National Heart and Lung Institute (1995), the Charing Cross and Westminster Medical School and the Royal Postgraduate Medical School (1997) and the Kennedy Institute of Rheumatology (2000).

He was made a life peer in 1999 as Lord Oxburgh of Liverpool and is active in the House of Lords on Science issues as Chairman of the Select Committee on Science.

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<https://www.imperial.ac.uk/about/introducing-imperial/our-people/our-leaders/lord-oxburgh/>

<https://royalsociety.org/people/ron-oxburgh-12031/>



Professor William Bardo

PhD FEng HonFInstMC

President 2009 - 2011

**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

## Professor Ronald Summers

**BSc MSc PhD CSci CEng FInstMC**

**President 2007 - 2008**

Ron takes service to the profession seriously, being a Vice-President of the Institute of Measurement and Control (InstMC) since 2000, with a two-year term as President in 2007-8. He is a member of the InstMC Board of Trustees and remains an occasional Chair of both it and Council. He is the current Chair of the InstMC Communications Board and is Editor of the Journal of Measurement and Control.



Ron was also a two-term Vice-President of the IEEE Engineering in Medicine and Biology Society (EMBS); and since stepping down in 2003 has held numerous roles to keep his service active. Currently he is Chair of the IEEE EMBS History Committee.

Ron chairs Technical Committee 13 (Measurement in Biology and Medicine) within IMEKO (International Measurement Confederation), and helped bring the triennial IMEKO World Congress to Belfast in 2018 and serves on its Organising Committee. His service extends into philanthropy in his role as an Assistant in the Worshipful Company of Scientific Instrument Makers (WCSIM), in which he is an active member of its Education Committee.

In his role as Fellow of the Institute of Measurement and Control, Ron is the convener of the Instrumentation Industry Liaison Group, whose membership bridges industry trade associations, academia, the National Physical Laboratory, the National Measurement Office, WCSIM and InstMC, and whose remit is to act as a champion to the sector when interfacing with Government agencies and beyond.

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<http://www.lboro.ac.uk/departments/meme/staff/ron-summers/>



Dr Beverley Stanford

**BSc; MSc: PhD, CEng, HonFInstMC**

**President 2006**

Beverley Stanford graduated from the University of Wales Institute of Science and Technology in 1976 with a BSc in Pure and Applied Chemistry and Applied Physics, and from Bradford University with an MSc and PhD in Control Engineering in 1977 and 1979, respectively. She holds a NEBOSH certificate and was awarded a Diploma in Management Consultancy by the Institute of Consulting in 2013.



From 1979 to 2011 Beverley was employed by Courtaulds Engineering Ltd, which became CEL International and latterly WSP CEL Ltd, initially as Instrumentation and Control Engineer but she quickly progressed into Project Management, subsequently becoming a senior member of the Operations Team as Head of Major Projects, with additional responsibility for the management of a regional office.

Beverley has more than 30 years of experience in managing the implementation of multidiscipline capital projects in the chemical, fibre, pharmaceutical, food, fuel cell and biomass industries in the UK, Europe and North America, often involving technology transfers from one continent to another, project teams based across continents and project values of up to £2m. Her expertise includes Project & Programme Management, Value and Risk Management, Planning, Constructability and Safety Management. Latterly, she ran her own management consultancy, specialising in Value Management, before retiring in 2017.

Beverley became Member in 1983 and has been active in Institute activities over many years, as a Member of Council in the late 1980's, as a Vice President from 2002 to 2004, President Elect in 2005 and President in 2006 as well as participating in a number of Accreditation visits and Employer Training assessments and supporting the Institute's licence review by Engineering Council.

Since 2016, Beverley has been chair of the Professional Registration Committee and a member of the Accreditation Committee.

Beverley Stanford 2019

Peter A Payne

Msc, PhD

President 2005

**BIOGRAPHY**  
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N.W.Francis

BSc

President 2004

**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

Eur Ing John Morley

CEng, FIET, FInstMC

President 2003

John Morley left school at 15 and became an Apprentice Instrument Artificer with ICI on Teesside in 1960. After three years, and attending night school, he was promoted to Student Instrument Engineer and completed an HND in Instrumentation at Constantine in 1967. He then spent a year in Leeds to successfully complete the IERE Part V Control Paper examinations to gain his CEng.



In 1969 he became the Assistant Instrument Electrical Manager at ICI Heysham.

In 1972 he joined NCCM in Kitwe Zambia as a Senior Instrument Engineer responsible for capital projects on copper mines throughout the copper belt. On returning to England in 1975 he joined John Brown as a Senior Instrument Engineer and during this period spent two years working with BNFL in Risley on the Highly Active Storage Tanks and THORP.

In 1984 he joined Wimpey as Chief Instrument Engineer and developed the section to carry out refinery re-instrumentation projects. These included the Grangemouth Refinery, Fawley Refinery and Shell Haven Refinery together with an upgrade on Forties Platform in the North Sea. At peak, John was responsible for 176 Instrument Engineers and Designers.

He returned to John Brown in 1991 as Chief Instrument Engineer and during that period he visited Kuwait to advise the Oil Minister on how to upgrade the instrumentation on refineries damaged during the war. He also became Chairman of the EIC Instrumentation Committee.

In 1995 John joined Snamprogetti in Basingstoke as Chief Instrument Engineer working on projects in Italy, France, Czech Republic, Poland, and China, during which time he became an Eur Ing awarded by FEANI.

John has been an active member of the Institute for 40 years and a member of the London Section for the whole of that time. In addition he was Chairman of the London Section in the early 1990's, a Member of Council, a Vice President from 1999 to 2002 and President in 2003. He has also helped to organise technical lectures and symposia, chaired the Institutes Accreditation panel which covers young engineers training in contracting, and has carried out many CEng interviews.

In the early 2000's John became a Consultant Engineer for Emerson and lectured to Operators and Contractors on how to improve plant efficiency by using the latest Advanced Control techniques. He also became an Expert Witness on a number of high profile cases.

John D Morley 2019

Professor Jan Maciejowski

PhD, MA, BSc, FInstMC, FIET, FIEEE

President 2002

Jan Maciejowski graduated from Sussex University in 1971 with a B.Sc degree in Automatic Control, and from Cambridge University in 1978 with a Ph.D degree in Control Engineering. From 1971 to 1974 he was a Systems Engineer with Marconi Space and Defence Systems Ltd, working mostly on attitude control of spacecraft and high-altitude balloon platforms. He is a Professor Emeritus of Control Engineering at Cambridge, now retired since November 2018.



He is also a Fellow Emeritus of Pembroke College, Cambridge, and currently (2019) a Visiting Professor at Nanyang Technological University, Singapore. He was one of the Principal Investigators in Phase 1 of the Cambridge CARES project.

From 2009 to 2014 he was the Head of the Information Engineering Division at Cambridge. From 2008 to 2018 he was President of Pembroke College, Cambridge. He was the President of the European Union Control Association from 2003 to 2005, and President of the Institute of Measurement and Control for 2002.

He is a Chartered Engineer and a Fellow of the Institution of Engineering and Technology (IET), the Institute of Electrical and Electronic Engineers (IEEE), the Institute of Measurement and Control (InstMC), and of the International Federation of Automatic Control (IFAC).

He was a Distinguished Lecturer of the IEEE Control Systems Society from 2001 to 2007. His research interests have included system identification, multivariable control, model predictive control, fault-tolerant control, machine learning for control and applications to flight control, spacecraft control, and smart energy generation and consumption.

Jan Maciejowski 2019

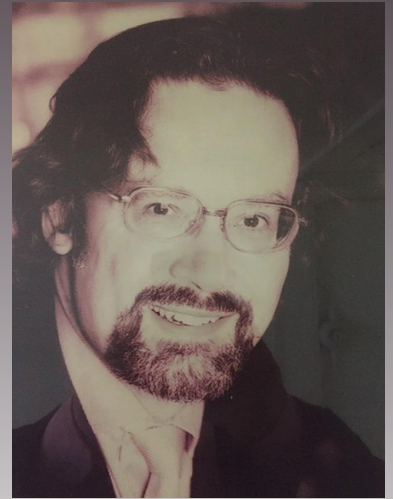


## Professor Philip Thomas

**CEng, B.Sc, D.Sc, FInstMC, FIET**

**President 2001**

Philip graduated in Cybernetics and Instrument Physics from Reading University with a BSc (First Class Honours) and University Prize. City, University of London awarded him a DSc in 2005 for his contribution to science and engineering. He gained over 20 years' experience in the chemical and nuclear industries, first at ICI plc developing control systems for large chemical plants then with the UK Atomic Energy Authority.



Here he headed up Departments concerned with: C&I product development, non-destructive testing technology and materials research, and research into remote handling and decommissioning of nuclear plant. He was Customer Project Manager for the green-field decommissioning of the 100MWth/33MWe Windscale AGR.

City, University of London appointed him Professor of Engineering Development in 2000 and he moved to the University of Bristol to take up a Chair in Risk Management in 2015. His research has received sponsorship from the UK Research Councils, Government departments, the EU and industrial companies.

In his work on risk management he has developed the J-value, a method that enables objective decisions to be taken on safety expenditure. His team recently presented the results of the NREFS project on coping with a big nuclear accident to the All-Party Parliamentary Group on Nuclear Energy. The closing papers of that study formed a Special Issue of Process Safety and Environmental Protection, generating over 30,000 downloads in 18 months. His work on risk has been covered by both written and broadcast media. The PSEP Special Issue was reported by The Times and other papers before "going viral" on internet news outlets. The research was cited extensively by the Financial Times on the 7th anniversary of the Fukushima Daiichi accident.

He has published over 120 journal and conference papers on control, instrumentation, nuclear decommissioning, risk assessment, economics and law. His book, Simulation of Industrial Processes for Control Engineers, was published in 1999. The Institute awarded him its ICI Prize in 1984, 1987 and 1997 and its Honeywell International Medal in 2004.

The Worshipful Company of Scientific Instrument Makers presented him with its Best Paper Prize, 2006, for his article introducing the J-value. The IChemE awarded him "Most Cited Author" certificates for each of the first three J-value papers in 2009, while Elsevier presented him with "Top Cited Paper" certificates for two further J-value articles. His paper on measuring risk-aversion is currently (2019) cited by IMEKO's Measurement journal as its most downloaded article.

Philip J. Thomas 2019

K T V Grattan

BSc PhD DSc

President 2000

Professor Grattan graduated in Physics from Queen's University Belfast with a BSc (First Class Honours) in 1974, followed by a PhD in Laser Physics. His doctoral research involved the use of laser-probe techniques for measurements on potential new laser systems. In 1983 he joined City University London as a "new blood" Lecturer in Physics, being appointed Professor of Measurement and Instrumentation in 1991 and Head of the Department of Electrical, Electronic and Information Engineering.



From 2001 to 2008 he was the Associate and then Deputy Dean of the School of Engineering from 2008 to 2012 the first Conjoint Dean of the School of Engineering & Mathematical Sciences and the School of Informatics. In 2013 he was appointed the Inaugural Dean of the City Graduate School. He was appointed George Daniels Professor of Scientific Instrumentation in 2013 and to a Royal Academy of Engineering Research Chair in 2014.

Professor Grattan is extensively involved with the work of the professional bodies having been Chairman of the Science, Education and Technology of the Institution of Electrical Engineers (now IET), the Applied Optics Division of the Institute of Physics and he was President of the Institute of Measurement and Control during the year 2000.

He has served on the Councils of all three of these Professional Bodies. He was awarded the Callendar Medal of the Institute of Measurement and Control in 1992, and twice the Honeywell Prize for work published in the Institute's journal as well as the Sir Harold Hartley Medal in 2012 for distinction in the field of instrumentation and control.

He was awarded the Applied Optics Divisional Prize in 2010 for his work on optical sensing and the honorary degree of Doctor of the University of the University of Oradea in 2014.

He was elected President of the International Measurement Confederation (IMEKO) in 2014, serving from 2015 to 2018. He was elected to the Royal Academy of Engineering, the UK National Academy of Engineering, in 2008.

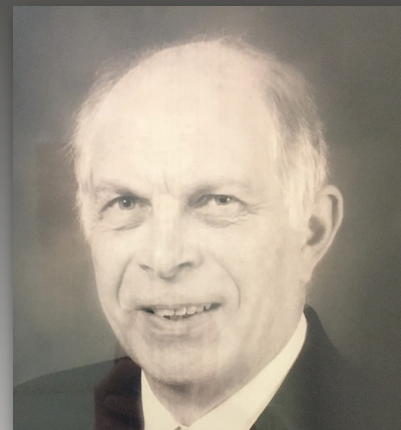
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<https://www.city.ac.uk/people/academics/kenneth-grattan-freng#profile=overview>

M G Tarratt

CEng MIET FInstMC

President 1999



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

Colin Howard

**CEng, BSc (Hons), Hon. FInstMC, MInst P.**

**President 1998**

Colin Howard graduated from Manchester University in 1966 with a BSc (Hons) degree in Physics. He worked for ICI plc for nearly 35 years in a wide range of engineering, design and management roles based on instrumentation, control and electrical technology, quality assurance, and safety management. He was the first combined Instrument/Electrical Engineer to be appointed to a major ICI petrochemical plant in 1968. In 1992, as QA Project Manager, he led ICI Engineering to successful ISO 9001 status.



Colin subsequently specialised as a consultant in hazard studies, risk and alarm systems assessments, and functional safety of instrumentation and control systems to a number of industry sectors. During this period he was an expert witness following the Buncefield explosion in 2005 and advised a number of organisations on the implementation of BS EN IEC61508 / BS EN IEC 61511 to meet the functional safety standards that were developed from the report of the Buncefield Major Incident Investigation Board.

Colin has been an active member of the Institute since the early 1970's serving in a range of roles for over 45 years, including as the Teesside Section Secretary and then Chairman in the 1970's, as a Member of Council in the 1980's, as a Vice President from 1994 to 1997 and President in 1998. Since then he has served a term as Finance Committee Chairman, a member of the Accreditation Committee for 10 years, a member of the Safety Panel, and since 2014 has been Honorary Treasurer of the Institute.

For much of this period Colin has also been an active member of the Teesside Section Committee. He has also organised, with others, a number of successful technical conferences and symposia and has written a number of technical papers related to instrumentation and control and has co-authored a Good Practice Guide on Measurement and Control.

Colin has served as an InstMC nominated volunteer to Engineering Council, including serving 4 three year terms on the Engineering Council Quality Assurance Committee the body responsible for licensing Professional Engineering Institutions. He has chaired the licence review processes for many of the major PEI's. In the middle of the terms on QAC Colin provided significant inputs to consistency and good practice reviews of the registration processes including Continuing Professional Development and Professional Review.

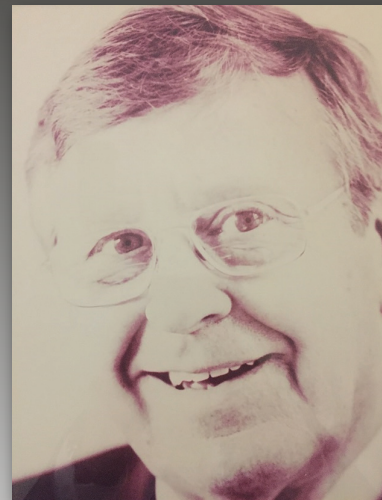
He is a Visiting Fellow at The University of Teesside.

Colin Howard 2019



Ing. L.G De Steur

**President 1997**



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

Professor Jim Anderson

BSc, CEng, Hon.FInstMC

President 1996

Jim graduated with a BSc in Natural Philosophy from St. Andrews University. A fascinating final year vacation job with the Royal Radar Establishment at Malvern attracted him to a career in advanced electronics. He joined Ferranti but the reality of designing test equipment for the military didn't live up to expectations. So, Jim joined Imperial Chemical Industries (ICI) as an instrument engineer - not knowing anything about instruments in the chemical industry!



Initially, he spent 2 weeks in the Billingham Works Instrument School to learn the basics of instrumentation and process control. The school was housed in old huts next door to the works laundry, which produced copious clouds of steam that enveloped the building, and was downwind of an old and leaky methylamines plant.

Amines smell strongly of rotting fish so Jim was not popular in his digs in the evening as he warmed up in front of the parlour fire. He did wonder if the move had been worth it. Later, with a modicum of understanding of his new specialisation in process control, Jim settled into a rewarding and enjoyable career with ICI that lasted 32 years. Apart from a break of two years when he managed several production plants, he specialised in designing control systems for chemical plants and solving operational control problems. He was later appointed to the company's Scientific Ladder as the company's senior specialist in process control.

One feature of the job was to assess the relevance of academic research for the solution of practical industrial control problems, which meant working with some of the leading academic institutions in the UK and USA. He was also a member of the Government's Science and Engineering Research Council. He was appointed Visiting Professor in Process Control to Glasgow University in 1986 and in 2000 to Newcastle University.

Jim served on InstMC committees over many years in his local Teesside Section and nationally as chairman of technical panels. In 1982 he was admitted as a Fellow and was elected President of the Institute in 1996. In 2010 he was made an Honorary Fellow in recognition of his years of service. After taking early retirement from ICI, Jim set up an independent process control consultancy that had a number of international clients and managed some European Commission technology transfer projects on behalf of Newcastle University.

J S Anderson 2019

Professor H.A Barker

TD, BSc, PhD CEng, FIET, FIMA, HonFInstMC

President 1995

Tony Barker was born in Nottingham and graduated from Nottingham University in 1952 with a BSc degree in Mathematics. He then completed two years National Service in REME, continuing his service in the TA until he retired as a Lt Colonel REME in 1984. In 1954 he joined Rolls-Royce Aero Engine Division as a graduate apprentice, subsequently working as a fuel systems project engineer where one of his responsibilities was to design controllers for the first aero engine fuel heating systems.



In 1959 he enrolled in the Cambridge University Control Engineering Diploma course but stayed on for research leading to a PhD degree in 1963. He then worked as a lecturer at Glasgow University until 1970 when he was awarded a professorship at Aston University. In 1980 he was appointed Head of the Department of Electrical and Electronic Engineering at Swansea University in which he served until his retirement in 1998. He was Vice-Principal of Swansea University from 1985 to 1988 and then Head of the School of Engineering and Dean of the Faculty of Engineering until 1992.

As a Chartered Engineer he has been active in both national and international bodies. He has been a member of the IEE (now IET) since 1969, a member of the Professional Group Committee on Control Theory from 1971 to 1976, Chairman 1974-75, and a member of the Control and Automation Divisional Board from 1972 to 1982, Chairman 1978-79. He was a member of the Learned Society Board from 1979 to 1989, Chairman 1986-89. He served on the Council as Vice-President from 1986 to 1989.

He has been a member of the Inst MC since 1965, a member of the Midland Section Committee from 1971 to 1979, Chairman 1976-77, a member of the Prizes and Awards Committee from 1981 to 1999, Chairman 1990-99, and a member of the Accreditation Committee from 1984 to 1998. He was a member of the UK Automatic Control Council from 1988 to 1999, Chairman 1992- 1996. At international level he was a member of the applications committee of the International Federation of Automatic Control from 1994 to 1998 and a member of the Council from 1996 to 1999.

His main research interests have been in system identification and representation. The former has resulted in software for the generation of multilevel pseudorandom signals which is in use worldwide while the latter has led to a reference model for open object-oriented environments which remains the industry standard.

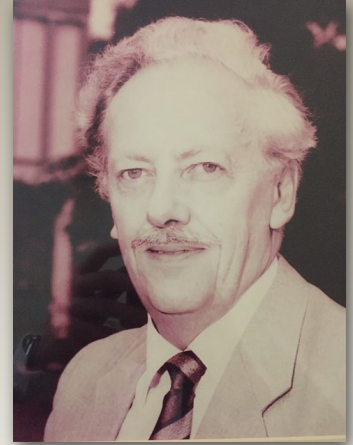
Tony Barker April 2019

Eur Ing Clive J.A. Bosworth

C Eng. FI.Mech.E. F.Inst MC

President 1994

Clive began his career in Industry as Student Apprentice in the Research Centre of Stewarts & Lloyds, a leading manufacturer of steel tube and pipe. On completion of his formal education & training he joined the Royal Air Force as a commissioned officer with Signals Command. During his time in the RAF he was mainly based at the Royal Radar Establishment carrying out duties as a technical liaison officer.



After leaving the RAF He returned to the steel industry to head a research group engaged in developing specialist instrumentation, control and non-destructive testing equipment for use in the production of steel tube & pipe.

A few years later he was appointed Chief Research Engineer with British Steel Tubes Division at Corby with responsibility for a wide range of R&D projects. In this capacity he was afforded the opportunity to visit many steel plants throughout the world and was also invited to present technical papers at international conferences.

In 1984 he became General Manager of all Research & Development activities in Tubes Division which had laboratories in Corby, West Midlands & Scotland with a combined staff of over 300. In addition to his work with British Steel he was also involved with a number of national bodies representing the steel industry and Inst MC.

His involvement with InstMC goes back many years during which time he served on various technical panels before becoming a Vice President and subsequently President in 1994. The opportunity to serve as President, whilst involving a lot of time & commitment, is always a privilege & honour; this was especially so in 1994 as it was the Institute's Golden Jubilee. It was an enjoyable and eventful year culminating in a dinner & awards ceremony held at the Science Museum which prove to be a splendid and memorable location for the occasion.

In addition to his role as head of research with Corus (formerly BSC) Tubes Division he had a number of other interests, some of which he continued after his retirement; These included being a director and Deputy Chairman of SIRA (Scientific Instrument Research Association,); in addition he was a director of Image Automation, a company specialising in inspection instrumentation for the glass industry.

He was also supportive of engineering education & training. To this end he chaired an Industry & University liaison committee and was also a governor of a large college of further education in Northamptonshire.

Clive J A Bosworth 2019



## Professor Derek Linkens

BSc, MSc, PhD, DSc(Eng), FEng, FIET, FInstMC

President 1993

Derek Linkens graduated in Electrical Engineering from Imperial College, London in 1960 and gained his initial engineering experience as a design engineer with Plessey Co., Ilford on underwater weapons. He moved to GEC Flight Automation, Rochester where he was involved in the Research and Development Laboratory on several projects including design for the flight system of the TSR2 and Concorde aircraft. Some of this work was patented.



In 1965 he took up a lecturing post at the Medway College of Technology, where he instigated post-graduate Training Schemes for the aerospace and process control industries. During this time he obtained a MSc in Systems Engineering via part-time studies at the University of Surrey.

From 1969 he has been in the Department of Automatic Control and Systems at the University of Sheffield, of which he was a founding member. He was made a Professor in 1984, and Head of Department from 1988 to 1993, when he became Dean of the Faculty of Engineering. He is now an Emeritus Professor of the University.

In 1976 he was awarded a PhD for research on gastro-intestinal electrical modelling, and a DSc(Eng) from London University for contributions to "Systems and Control in Bioengineering". His research has led to over 400 refereed published papers, 9 of which have received prizes. The research has included many aspects of adaptive and intelligent modelling and control in anaesthesia, the cardiovascular and respiratory systems. He was awarded the Sir Harold Hartley medal from the Inst MC.

At a professional level he has been extensively involved in the IEE (now IET), InstMC and currently is a FEng of the Royal Academy of Engineering. In 1993 he was President of the InstMC. He was Chairman of the European ERUDIT Network of Excellence on Uncertainty Modelling for the Human, Medical and Healthcare Sector.

He was a founding Director of IMPPETUS (Institute for Materials and Mechanical Process Engineering :The University of Sheffield).

He has supervised over 40 PhD students and 20 Research Associates and published 10 books.

Derek Linkens 2019

D W Kent

President 1992



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

Eur Ing Raymond John Smith

CEng FIMechE FInstMC

President 1991

Ray was educated at Cirencester Grammar School and the National College of Horology and Instrument Technology, since absorbed by City University, London. He served an Apprenticeship at Smiths Aircraft Instruments, Cheltenham before taking many industrial appointments starting with Negretti & Zambra, Aylesbury first as a Technical Sales Engineer and later as an Application Engineer.



This was followed by a position as Principal Engineer at Plessey Automation, Poole and then Senior Instrument Engineer, at Allied Breweries (Ind Coope), Burton. He then went to Glaxo as a Senior Instrument Engineer, then Chief Instrument Engineer Glaxo Laboratories Engineering and Development Unit, Greenford, and finally Engineering Support Manager, Glaxo Group Research. Major projects with Glaxo included the introduction of total on-line computer control of antibiotic and other chemical production, high standard building management systems, and integration of complex filling and packing facilities. He worked both in the UK and Glaxo factories in various European countries, Singapore, Australia and USA.

His final industrial positions were with British Nuclear Fuels Engineering (BNFL) as Chief Engineer Electrical and Instrument Design, Risley, later Chief Engineer Systems and Equipment and finally Divisional Resource Manager. His management responsibilities at BNFL included a large E&I design office and its subsequent amalgamation with the mechanical design office to form Systems and Equipment Engineering. Subsequently he managed the restructuring of manpower including outplacement service. After retirement from BNFL he worked freelance for a while providing outplacement and career advice services.

With both Glaxo and BNFL he managed engineering graduate recruitment and training programmes. He authored a number of papers on technical and managerial topics, some delivered to international conferences. Throughout his career he was involved with engineering societies starting with his membership in SIT in the mid 1950's. He was a Senior Member of the Instrument Society of America and also of the British Institute of Management.

He remained active with the InstMC until retirement from BNFL in 1993 and his service included as a Member, committee member and chairman of the London Section and as Member and chairman of a number of committees including Publications and Membership & Local Sections. He served two terms as Vice President before becoming President in 1991.

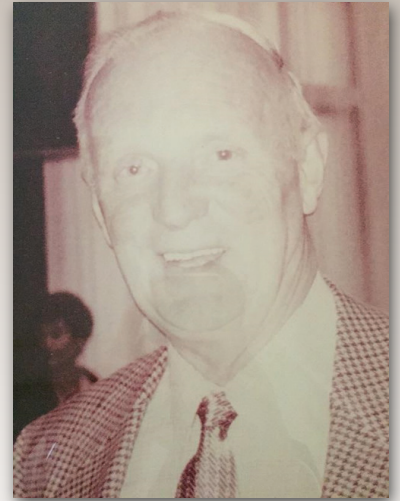
His relaxation activities include caravan touring of the UK and Europe and he is currently in his 51st year of caravan ownership.

Professor Derek. P. Atherton

BEng, PhD, DSc, CEng, FIET, FIEEE, HonFInstMC

President 1990

Derek was born in Bradford and studied at the universities of Sheffield and Manchester. He went to Manchester to study under Dr J (John) C West who shortly afterwards moved to a Chair at Queens University, Belfast. At Manchester he was appointed, as an assistant lecturer and later lecturer, giving his first course on control engineering, or to be precise Servomechanisms, in 1958. In 1962 he received his PhD from Manchester and in 1975 a DSc.



In 1952 his final year at school in Bradford he was selected for the W H Rhodes Canada Educational Trust and spent the following year, before going to Sheffield, in industry. He moved to Canada in 1962 as an assistant professor at McMaster University in Hamilton. In 1964 he moved to the University of New Brunswick (UNB) in Fredericton and remained there until 1980.

During his time at UNB he spent two sabbatical years in the UK first at Sussex and later at Sheffield. He served on several Canadian National Research Council committees including the Electrical Engineering Grants Committee and also chaired the Canadian National Member Organisation (NMO) for IFAC. He became Professor of Control Engineering at the University of Sussex in 1980 and is currently an Emeritus Professor. He has been active with many professional engineering bodies particularly the Institute of Measurement and Control, serving on and chairing several committees both before and after being President in 1990.

He was a member of, and also chaired UKACC, the IFAC NMO for the UK, and served as a member of the IFAC Council from 1990-96.

An active member with the IEEE Control Systems Society, he occupied several positions, and was President in 1995. For the IEE, now IET, he was an editor of the Proceedings on Control Theory and Applications (CTA) and Control Engineering Book Series for several years. He served EPSRC on research panels and was a member of the Electrical Engineering Panel for the Research Assessment Exercise in 1992. He has received the Sir Harold Hartley medal from the InstMC and a third millennium medal from the IEEE.

His major research interests have been in nonlinear control theory, computer aided control system design, simulation and target tracking. He has written four books, is a co-author of two others and has published more than 350 papers in Journals and Conference Proceedings. He has given invited lectures in many countries and supervised over 30 Doctoral students.

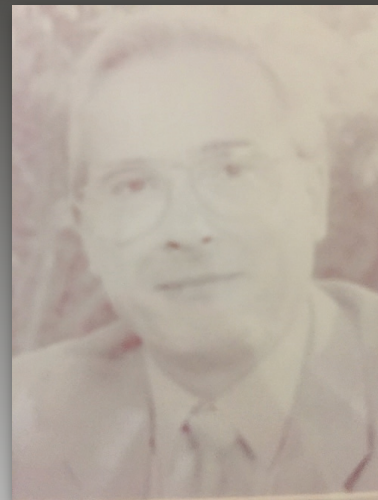
Derek P. Atherton 2019



D C Cornish

BSc PhD

President 1989



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

## Professor Sir Michael J H Sterling

BEng, PhD, DEng, CEng, FEng, FAEng(CZ), FIEE,  
FInstMC, CCMI

### President 1988

Michael Sterling began his career as an electrical engineer in 1964 joining AEI as a student apprentice with a scholarship to the University of Sheffield to read Electronic and Electrical Engineering, graduating with a First Class Honours degree, several prizes and subsequently a PhD in computer control of electrical power systems in 1971. He then joined the staff in the Control Engineering department at Sheffield as a Lecturer and was promoted to Senior Lecturer in 1978.



He moved to the University of Durham as Professor of Engineering in 1979, and was awarded a DEng for published research from the University of Sheffield in 1988, before being appointed as Vice-Chancellor & Principal of Brunel University in 1990 where he quadrupled the student number during his 11 year tenure. In 2001 he was appointed as Vice-Chancellor & Principal of the University of Birmingham, one of the UK's largest universities, a post he held until his retirement in 2009.

He served as President of the Institution of Electrical Engineers (2002/3) and of the Institute of Measurement and Control (1988), and as Chairman of numerous higher education related bodies including the founding Chairmanship of the Higher Education Statistics Agency (1992-2003). His research interest in computer control of electrical power systems led to international sales of software, the formation of a spin out company and advisory roles for the electricity industry including membership of the Electricity Supply Research Council, consultancies for ICL, GEC and Ferranti, several books and over 120 journal papers.

He was subsequently appointed to the West Midlands Regional Development Agency, 2002-2009 and the Prime Minister's Council for Science and Technology on which he served for the maximum term of 10 years (2003-13). Other involvements include Chairmanship of STEMNET (2006-2011), DECC/IET Transmission Costing Group (2011-12) and membership of the DECC Science Review Panel (2011-12), a member of the Foresight Lead Expert Group on Manufacturing (2012-14) and the MoD Science Capability review (2015).

He was recently appointed by China to be an Academic Grand Master to lead a national '111' R&D 5 year project in smart grid technology which started in 2014 and is based at Nanjing's Hohai University. He chaired the Russell Group of research intensive universities from 2003 to 2006, retiring as one of the longest serving Vice-Chancellors in 2009.

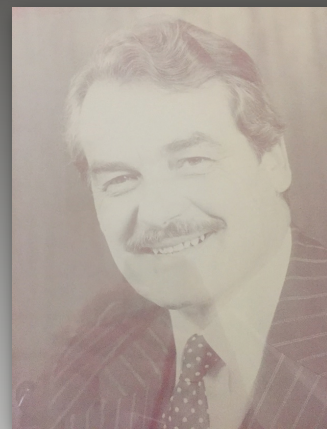
He recently finished as Chairman of the Science & Technology Facilities Council (2009- 2018) and is currently a consultant to China's Global Energy Interconnection, Development and Cooperation Organisation (GEIDCO).

Michael J H Sterling 2019

W.J Jones

BSc

President 1987



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

P.H Hammond

CEng. BSc. (Durham), FIEE., FRSA, FInstMC

President 1986

Percival Hammond (Percy) was born in Sunderland in 1924 and graduated with a 1st Class Honours degree from Durham University in 1944. He was immediately recruited to the Royal Navy Scientific Service where he was involved with developments in Radar technology.



After the war he took a position as a Deputy Chief Scientific Officer in the Royal Radar Establishment based in Malvern. It was here he engaged on projects under the heading 'Air Defence of the UK' developing missile guidance systems. It was while here in 1958 he published his first book, Feedback Theory and its Applications. This was widely translated and is still in press today.

He was then recruited by the National Physical Laboratory where he joined the Autonomics Division working with Dr A.M. Uttley. This work largely involved developments in what was then known as 5th Generation Computing Systems and AI.

From here Percy moved to the Warren Spring Laboratory as Head of the Control Engineering Division. Much of this work involved developing systems for the computer control of chemical plants.

He finished his civil service career when he was recruited as Head of the Computer Aided Design Centre in Cambridge. He oversaw the privatisation of the CAD centre and the development of the Aveva limited company. Percy has been appointed Visiting Professor of Queen Mary College, University of London and University College Swansea.

Post retirement Percy has worked for the REMAP charity developing aids for the disabled and as a volunteer with the National Trust. Most recently he has worked as the Map Curator at the Scott Polar Institute at the University of Cambridge.

Percy is widowed and has had 4 children and countless grandchildren. He served as President of the InstMC in 1986.

July 2019

Donald McLean

Ph.D., Hon. F.Inst.M.C

President 1985

Born in Paisley, Scotland in 1936, he was educated at Williamsburgh Public School and Campbell Senior Secondary School before joining British European Airways in July 1952 as a Student Apprentice. On completion of his apprenticeship in 1958 he was commissioned in the Technical Branch of the Royal Air Force from which he retired as a Squadron Leader in June 1974, having served as an instructor at the Signals School at R.A.F. Debden, a Laboratory Officer at the R.A.F.



Technical College, Henlow, and a lecturer at the R.A.F. College Cranwell, before being posted as the R.A.F. Exchange Professor at the U.S.A.F. Institute of Technology, Wright-Patterson Air Force Base, Dayton, Ohio. While serving with the R.A.F. he attended the post-graduate Advance Control Course at the Department of Engineering, Cambridge University, obtaining the Certificate of Advance Engineering in Control in 1967.

He also completed his Ph. D. at Loughborough University in 1974. On retirement from the R.A.F. he was appointed Lecturer in the Department of Transport Technology, Loughborough University. He was subsequently promoted to Senior Lecturer, then Reader, before being appointed Westland Professor of Aeronautics at Southampton University in August 1985.

In 1987 he became Director of the University's M. Eng. courses before becoming the Head of the Aeronautics and Astronautics Department in 1989. At that time he was appointed Professor of Flight Control. In 1995 he established a new M.Sc. Aviation Management course and became Director of the Aviation Management course until his retirement from the University in 2002. He was appointed Emeritus Professor in that year.

He joined the Institute as a member in 1967 and served on many committees, panels and Council before becoming President in 1985. He was the founding chairman of the Aviation Panel from 2002 until 2007, and served as the Honorary Treasurer from 2003 until 2007.

The author of more than 100 technical papers and a textbook Automatic Flight Control Systems, published in 1987, he was awarded by the Institute in 2001 the Honeywell International Medal for Distinguished Work in Control.

Donald McLean 2019



A E Parritt

MBE

President 1984 - 1985

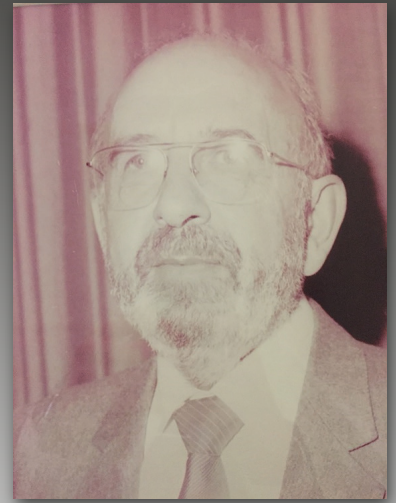


**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

E Muller

BSc (Eng)

President 1982 - 1983

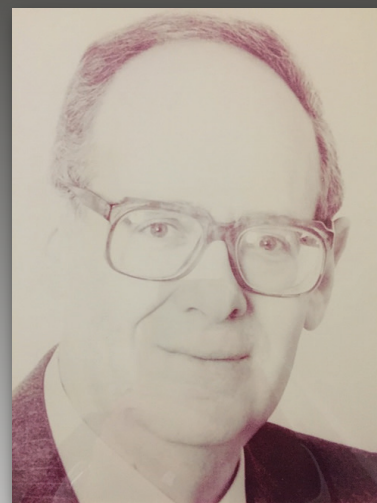


**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

L Finkelstein

MSc PhD DSc

President 1980 - 1981



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

Professor John H Westcott

B.Sc Ph.D FRS FIET FInstMC

President 1979 - 1980

John was born in Chiswick and on the advice of his father a mechanical engineer deferred taking up a scholarship to attend university and went to work as an apprentice with Thomson-Houston. Whilst there he attended evening classes at Battersea Polytechnic Institute to obtain a degree in electrical engineering.



In 1942 he was seconded from his industrial position to the Air Defence Research and Development Establishment in Malvern, where he was involved in several top-secret programmes. Inspired by this wartime work and his reading of classified reports he became interested in automatic control and successfully sought funding from the IEE to become a research student at Imperial College (ICL). On his own initiative he spent 1947-48 as a guest at MIT, interacted with Norbert Wiener, and became familiar with his work on filtering and prediction.

Shortly after completion of his PhD he was appointed in 1951 as a lecturer at ICL. In short order he established the Control Group that still exists, secured further academic appointments, created a set of teaching laboratories, founded three companies one of which, Feedback Ltd, developed and supplied equipment for the teaching of Control, and acquired over twenty research contracts; some of which were used to support students who subsequently made major contributions to the early development of control engineering. He was a founder member of IFAC in 1956, an organisation he assisted in many ways throughout his career including being Programme Chair for the 1966 Congress in London.

He became a Professor of Control Systems at ICL in 1961 and won support for, and successfully directed, large projects on adaptive control, industrial automation, compiler construction and control of the UK economy, the latter lasting an unprecedented 20 years. He forged strong industrial links not just in the UK but consulted in both Holland and the USA. This led to his recognition of the major role computers could play in the development of control engineering in both computation and real time control. His work with IBM facilitated the introduction of the first computer for ICL, an IBM 7090. He played a major role in establishing ICL's Department of Computing and served 9 years as its Head.

His Control Group at ICL was known throughout the world and attracted students and research workers from many countries. He strongly supported professional bodies making substantial contributions to the control engineering activities of both the IEE and InstMC. In his latter years he still found time to enjoy regular visits for discussions with the Control Group.

T A Lucas

BSc

President 1978 -1979



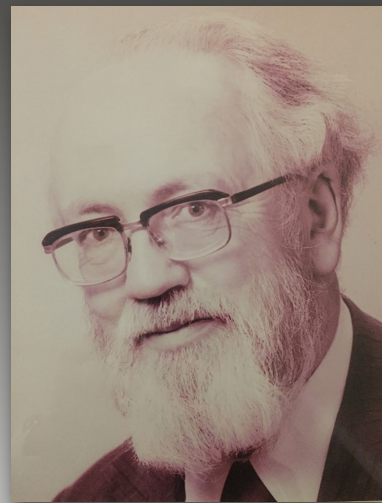
**BIO**GRAPHY  
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J D Tallantire

BA

President 1976 - 1977



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

R E Fischbacher

BSc CEng FIET HonFInstMC

President 1975 - 1976

Ron was born in Glasgow in October 1924, the eldest of seven children. His parents were business people and Ron inherited a strong work ethic.

After secondary school in Jordanhill, Ron went on to Glasgow University where he graduated with a first class BSc Hons degree in electrical engineering.



His talent was spotted early and he was “fast tracked” through the course so that he could be employed by the Admiralty to work on the use of radio and radar for the war effort.

After some time, Ron was posted to Portsmouth naval base to work and it was there that he met and ultimately married his wife, Doreen, a nurse, and his children were born. On leaving Portsmouth, Ron moved to SIRA (Scientific Instruments Research Association) where he ultimately worked his way up to become Deputy Director before moving on to GEC/Elliott in Lewisham in 1975. Retirement brought new opportunities: working as a consultant for around five years visiting countries as diverse as Malta, Albania and South Africa.

Ron was a keen member and supporter of the Institute of Measurement and Control and was President in 1976, and also was awarded an Honorary Fellowship. He was Hon Treasurer in the 1990's and made a major contribution to the development of the Institute's membership database that served the Institute well for 25 years, and to its IT systems. For several years in the eighties and early nineties EPSRC had a University Research Grants Committee covering Measurement and Control on which at various times several institute members served for a few years, including Ron. He also provided project management and authoring for a series of monographs on key elements of measurement science and technology sponsored by the Institute with the DTI and NPL.

Ron continued with Institute work until he was 88!

Ron was a quiet man, who was happy with his own company; a gentleman, who was kind and caring to others and whose wise counsel, support and advice was greatly appreciated.

Colin Howard, 2019

D M Bishop

**MA Hon.FInstMC**

**President 1974 - 1975**

David Bishop was born in Aberdeen in May 1922. After attending Aberdeen Grammar School he entered Aberdeen University where he gained a double first in Mathematics and Natural Philosophy.

From 1942 until 1948 he had a distinguished career in the army including wartime service where he reached the rank of Major.



His involvement with measurement and control started in this period when he was secretary to the 'Inter-Services Radio Measurement Committee'.

After the war David embarked on a long and successful career with Imperial Chemicals Industries (ICI) during a period of rapid development and growth in the use of instrumentation and control. He became Control Engineering Section Manager in one of the major divisions of the company.

During his time with ICI David was also deeply involved with the Institute, joining as a member in 1952 when it was the Society of Instrument Technology. He served on many Head Office committees and was Chairman of the Teesside Section from 1969 – 1972. David encouraged many of his colleagues in ICI to support the Institute both locally and on national technical panels and the Governing Council. In fact two of his colleagues, so encouraged, eventually were also elected President of the Institute in due course.

His own time as President of the Institute was particularly noteworthy as the culmination of a lengthy period of negotiation when the Institute gained its Royal Charter and metamorphosed from the Society of Instrument Technology into the Institute of Measurement & Control. He put a great deal of effort into that achievement and was President for an extended period in 1974 and 1975. This was one of his proudest professional achievements. David became a Fellow of the Institute in 1975 and made an Honorary Fellow in 2009.

After David retired from ICI in 1980 he was active in his local community in Guisborough. For several years he was an elected member of Cleveland County Council and was, inter alia, a governor of a local school & of Teesside Polytechnic and a volunteer at Guisborough Museum.

David died on 5th January 2011

J S Anderson, C R Howard 2019

C W Munday

BSc

President 1973 - 1974



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

H H Rosenbrock

### President 1972 - 1973

Howard Harry Rosenbrock (16 December 1920 – 21 October 2010) was a leading figure in control theory and control engineering. He was born in Ilford, England in 1920, graduated in 1941 from University College London with a 1st class honors degree in Electrical Engineering. He served in the Royal Air Force during World War II. He received the PhD from London University in 1955. After some time spent at Cambridge University and MIT, he was awarded a Chair at the University of Manchester Institute of Science and Technology, where he founded the Control Systems Centre. He died on 21 October 2010.



Prof Rosenbrock received many awards including the IEE Premium, the IEE Heaviside Premium, and the IEE Control Achievement Award, the first IEEE Control Systems Science and Engineering Award (1982), the Rufus Oldenburger Medal (1994) and the IChemE Moulton Medal.

He was a Fellow of the IEE, the IChemE, the Institute of Measurement and Control, the Royal Academy of Engineering and the Royal Society.

Howard Rosenbrock was a pioneer of multivariable frequency domain control design methods. ] He also made important contributions to the numerical solution of stiff differential equations and in the development of parameter optimization methods, both known as Rosenbrock methods.

The Rosenbrock function is a benchmark test for numerical optimization algorithms.



D N Truscott

OBE ScD PhD

President 1971 - 1972



**BIOGRAPHY**  
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J E Samson

BSc

President 1969 - 1971

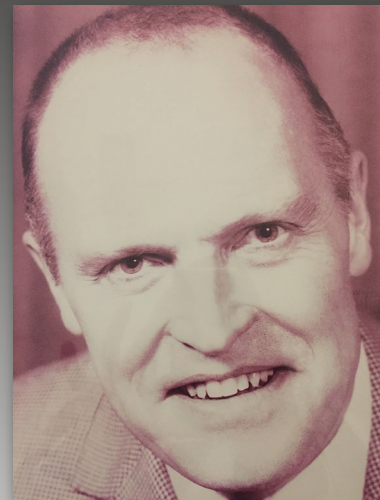


**BIOGRAPHY**  
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D C Nutting

MBE BSc

President 1967 - 1969

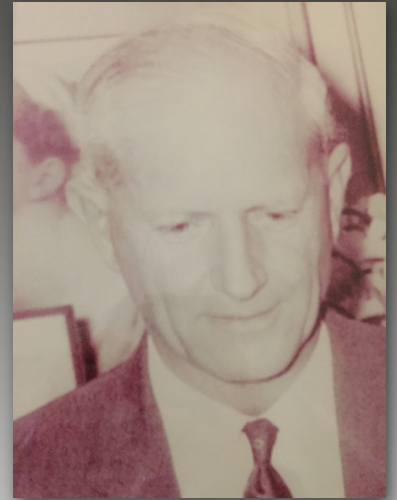


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J F M Scholes

BEngsc BE

President 1966 - 1967



**BIOGRAPHY**  
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S S Carlisle

Msc

President 1965 - 1966



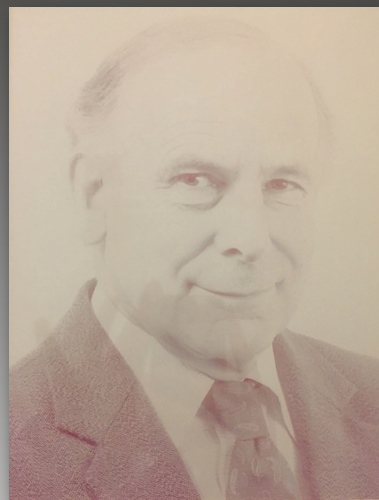
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G D S Maclellan

MA PhD

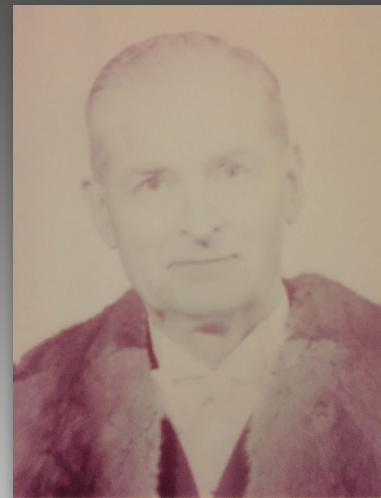
President 1964 - 1965



**BIOGRAPHY**  
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L B Lambert

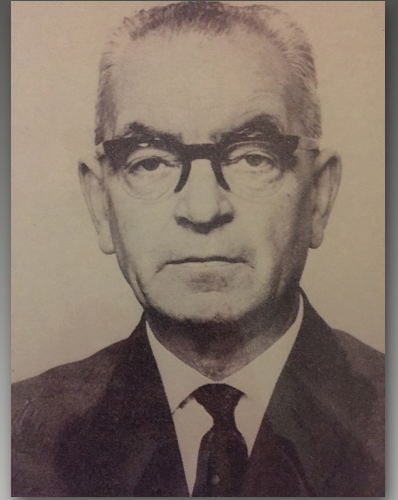
**President 1962 - 1964**



**BIOGRAPHY**  
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S W J Wallis

President 1961 - 1962



**BIOGRAPHY**  
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G C Eltenton

BA

President 1960 - 1961



**BIOGRAPHY**  
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R S Medlock

BSc

President 1959 - 1960



**BIOGRAPHY**  
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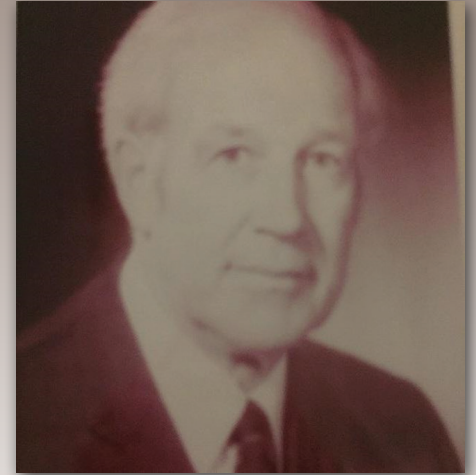


## Professor John Flavell Coales

C.B.E., F.R.S., F.R.S.E., M.A., Hon. D.Sc., C.Eng., F.I.E.E.,  
F.I.E.E.E, F.Inst.P., F.I.C.E.

**President 1958 - 1959**

John Coales was born at Harborne, Birmingham, England in 1907. He was educated at Berkhamstead School and Sydney Sussex College, Cambridge, where he read mathematics and physics, with the award of a degree in Natural Sciences in 1928. These were a prelude to a later, and very successful period at the University that continued until his death at the age of 92.



Before his return to Cambridge in 1953, however, John experienced one of the most important periods of his life, which covered the trauma of the Second World War, the rapid changes in Great Britain during the post-war years and the early growth of the computer industry.

From 1928, John worked for the Admiralty at H. M. Signal School, Portsmouth. Then, in 1935, he was put in charge of a research group within the famous Watson-Watt research team on radar at Orfordness. In 1946, he founded the Research laboratories of Elliot Brothers (London) Ltd., which made important contributions in many areas, including military radar and the emerging field of digital computers. In 1952, John was invited to form a teaching and research Group in automatic control and systems at Cambridge.

Following his promotion, first to a Readership and then to a Personal Chair, this Group was designated a 'Centre of Excellence' by the then UK Science Research Council. In 1966, John was also one of the founding Fellows of Clare Hall, Cambridge.

John Coales received many awards, accolades and public appointments during his long and distinguished life. Amongst these, he was awarded an OBE for his work during WW II; and appointed a CBE in 1976. He was elected a Fellow of the Royal Society in 1970 and received an honorary D.Sc. from the City University (London) in 1971.

He was President of the then Institution of Electrical Engineers, 1971-72 and was a member of the Fellowship of Engineering from its inception in 1976. He was the fourth President of the International Federation of Automatic Control (IFAC), and one of the founder members of the Federation. On retirement he and his wife Thea stayed in Cambridge, where he remained active both within and outside the University.

Peter Young 2019

## Sir Harold Hartley

**GCVO, CH, CBE, MC, FRS**

**President 1957 - 1958**

Brigadier General Sir Harold Brewer Hartley was a British physical chemist. He moved from academia to important positions in business and industry.



Hartley served in the First World War and was awarded the Military Cross.

He was appointed an Officer of the Order of the British Empire in the 1918 Birthday Honours. He was Bedford Lecturer in Physical Chemistry, at Balliol College, University of Oxford.

He was knighted in 1928, made KCVO in 1944, GCVO in 1957 and Companion of Honour in 1967.

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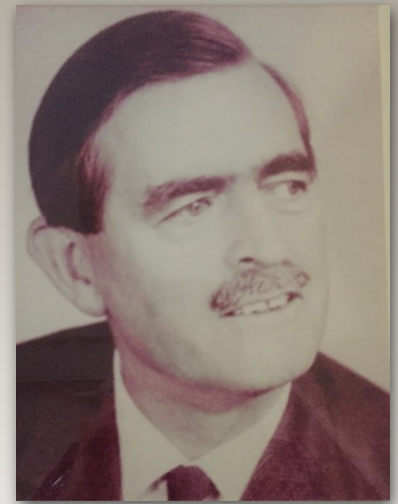
[https://en.wikipedia.org/wiki/Harold\\_B.\\_Hartley](https://en.wikipedia.org/wiki/Harold_B._Hartley)

A J Young

BA BSc FRS

President 1954

C.A.J. Young joined I.C.I. in 1940 and worked on various engineering projects during the war, including FIDO (for dispersing fog from airfields) and the Tube Alloys (Atomic Bomb) Project. Young decided to concentrate the work of the laboratory on the design of process control systems. His objective was that process, plant and control equipment should be designed as one unified system to eradicate the practice of adding the control equipment as an afterthought to a plant already designed.



In order to achieve this he directed the laboratory towards the target of predicting the dynamic behaviour of chemical processes of the design stage, and introduced the concept of the 'mathematical model' to describe any system under consideration.

By 1956 electronic computers capable of solving the complex equations generated by this line of research were a practical reality, and Young was quick to see their advantage. He persuaded I.C.I. to purchase a Ferranti Mercury in 1958, and his subsequent efforts to ensure that the Company took advantage of the most recent developments in the computing industry are well documented in the collection.

He also encouraged research into a new high level language specially designed for on-line computer applications, and a novel system of interface instrumentation, both of which were designed to reduce costs and thus improve the practical possibilities of implementing a complete on-line system. Recognition of Young's achievements in the field of process control came in 1969 with the award of the honorary degree of Doctor of Technology by Bradford University and the presentation of the first Sir Harold Hartley Medal by the Institute of Measurement and Control (formerly the Society of Instrumental Technology, of which Young was President, 1954 - 57). Fellowship of the Royal Society followed in 1972.

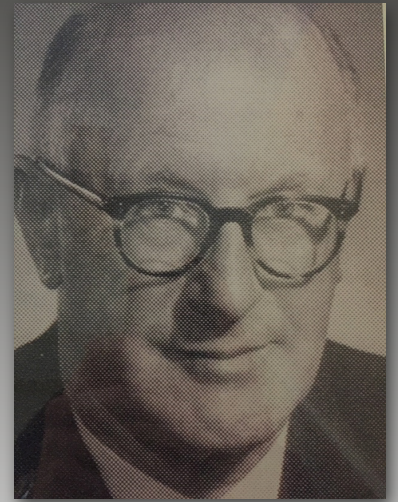
At the end of 1968 Young had to undergo a severe operation from which he never fully recovered. He continued to involve himself in the work of the laboratory when he was able, but in 1971 his health forced him to relinquish the Directorship and he accepted the advisory post of Technical Director to the I.C.I. Corporate Laboratory which was formed by merging the Central Instrument Research Laboratory at Bozodown with the I.C.I. Petrochemical and Polymer Laboratory at Runcorn in 1972. He retired from I.C.I. in 1973.

He was born Alwyne Jack, and many of his friends and colleagues called him 'A.J.', but his wife knew him as Christopher, the name by which he had first introduced himself to her, and in 1969 he changed his name by deed poll to Christopher Alwyne Jack Young.

E B Moss

BSc

President 1951 - 1954

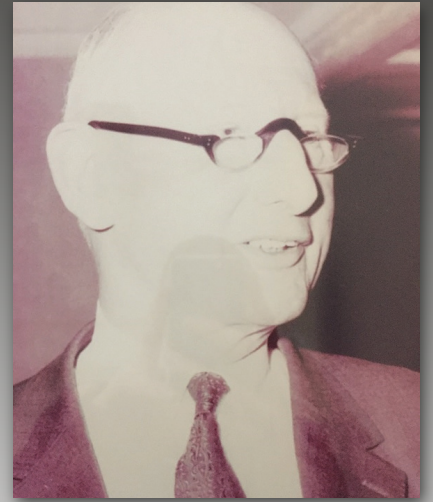


**BIOGRAPHY**  
CURRENTLY UNAVAILABLE

D A Oliver

CBE MSc

President 1948 - 1951



**BIOGRAPHY**  
CURRENTLY UNAVAILABLE



## Sir George Thomson

MA FRS

### President 1944 - 1948

Sir George Thomson was born in 1892 in Cambridge, the son of the physicist Sir J.J. Thomson. George studied in Cambridge from his primary school to university, including University of Cambridge, where he attended Trinity College and majored in mathematics and physics. Under his father's supervision in atomic structure, he also worked for a year at the Cavendish Laboratory until World War I. After the war he spent three years as Fellow and Lecturer at Corpus Christi College, Cambridge, and continued his physics research.



He was then appointed Professor of Natural Philosophy (Physics) at the University of Aberdeen, a post he held for eight years. At Aberdeen he carried out experiments on the behaviour of electrons as they passed through very thin films of metals, which showed that electrons could behave as waves in spite of being particles. For this work he later shared the Nobel Prize, with C.J. Davisson of the Bell Telephone Laboratories, who had arrived at the same conclusions by a different kind of experiment.

They shared the Nobel Prize in Physics in 1937, "for their experimental discovery of the diffraction of electrons by crystals". The process of electron diffraction, which these experiments established, has been widely used in the investigation of the surfaces of solids.

In 1930 he was appointed as a Professor at Imperial College, University of London. Soon, he became interested in nuclear physics. When the fission of uranium was discovered at the beginning of 1939, he predicted its military and other functions, and persuaded the British Air Ministry to procure a ton of uranium oxide for experiments. Later he became the Chairman of the British Committee, investigating possibilities of making atomic bombs. This committee reported in 1941 that it was possible to make a bomb, and Thomson was authorized to give this report to two American scientists: Vannevar Bush and James Conant. After the war he returned to work at Imperial College. He continued his nuclear research and published many papers.

He left atomic bomb research in 1952 and became the Master of Corpus Christi College, Cambridge, retiring from the latter in 1962. In 1924 he married Kathleen Buchanan. They had two sons and two daughters. His favourite hobby was making model ships. He died in 1975.



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[https://old.nobelprize.org/nobel\\_prizes/physics/laureates/1937/thomson-bio.html](https://old.nobelprize.org/nobel_prizes/physics/laureates/1937/thomson-bio.html)