



**Bournemouth  
University**

## **PROFESSOR WILLIAM PENNY**

Pro-Chancellor,

Professor William Penny is an internationally acclaimed engineer and entrepreneur in the field of measurement and control. He is best known for his leading role in developing the 'black box' flight recorder, which has contributed immensely to the safety of air travel. He is co-founder of Penny and Giles, an aerospace and industrial technology company based in Christchurch, UK.

In 1943 William Penny started as a junior at the Aircraft and Armament Experimental Establishment at Boscombe Down, working in a team developing instruments for the performance testing of aircraft, measuring air turbulence, humidity, frost point and icing. Meanwhile he was also studying part-time for professional qualifications in aeronautical and mechanical engineering. He left Boscombe Down to broaden his experience, first in process control instrumentation and then again in aerospace, notably at Kelvin Hughes which developed and manufactured aircraft instruments. Here, as Assistant Chief Engineer, he met Jim Giles, who was an instrument maker, and this partnership led to the foundation of Penny and Giles in 1956.

At this time the aviation industry increasingly needed reliable, high-precision instruments for use in aircraft flight-testing, and Penny and Giles quickly made a mark in this specialised field. Their most notable early success was in the recording of flight data for use in accident investigation. Until 1957 it was possible only to record the pilot's voice, but William Penny had developed transducers which could measure air speed, altitude, acceleration and control surface positions, all of which were then available to be recorded magnetically in the 'high survival potential' device popularly known as the 'black box' data recorder which revolutionised air accident investigation and has made an enormous contribution to airline safety.

In the decades following, Penny and Giles built an international reputation for technological innovation, creative design and manufacturing excellence, serving many industries and markets. Some of its developments, including motor controllers for powered wheelchairs, paperless chart recorders, and trackerballs for computer interfacing, led to the development of separate, autonomous business units, so that by 1975 P&G had become a diversified group of advanced technology companies. Former apprentices and employees have also set up businesses in areas divested by P&G. At its peak the company employed 1,200 people, mainly in the Christchurch area, where it has made a large contribution to the local economy, and also in Blackwood, South Wales.

The main part of the original Penny and Giles group of companies is now owned by the US-based Curtiss-Wright Corporation. It is still a key supplier to the aerospace industry, with instruments such as cockpit voice and flight data recorders, and ice and snow detection systems; but P&G also provides a great variety of devices such as joystick controllers for the computing world and studio faders for broadcast media. Other markets range through the automotive and petrochemical industries to forestry.

As Chairman of P&G until 1995 William Penny led 'by expertise and example', with much emphasis on teamwork and collective achievement. In retirement he is a highly valued consultant and mentor across the P&G Group, where his colleagues affectionately call him 'the Prof' and explain that he can still 'run rings around any of our engineers'. He has consistently promoted links between academia and industry, most significantly in the Engineering Faculty at City University, where his leadership was recognised by appointment to a personal chair. He served on the Advisory Committee of Bournemouth Municipal College during the 1960s and was a member of the Board at this University in the early 1990s. Design students have benefitted greatly from our links with Penny and Giles, through placements and inspirations for final-year projects.

The pursuit of excellence has characterised William Penny's entire career, and his outstanding achievements have brought him public honours and academic distinctions. In 1989 he was appointed a Commander of the British Empire for services to industry. He is a Chartered Engineer, and a Fellow of the Royal Aeronautical Society, the Institute of Mechanical Engineers, the Institute of Measurement and Control, and a Companion of the Institute of Chartered Managers. All this in addition to his two doctorates from City University, the second of which was awarded on the basis of peer review. Today Bournemouth University is proud to add its name to this remarkable record.

Pro-Chancellor, I have the honour to present Professor William Penny, and I ask you to confer upon him the degree of Doctor of Technology, *honoris causa*.