



Sir Samuel Curran

(1912-1998)

About Sir Samuel

Sir Samuel Crowe Curran (1912–1998) was a Scottish physicist, inventor, and academic leader whose work spanned wartime radar, the atomic bomb project, and the creation of Britain's first technological university.

Born on 23 May 1912 in Ballymena, Northern Ireland, Curran was raised in Wishaw, Lanarkshire, where his father worked in the steel industry. A gifted student, he excelled at Wishaw High School before studying mathematics and physics at the University of Glasgow, earning first-class honours and completing a PhD on beta-ray diffraction in 1937. With a Carnegie Scholarship he moved to the Cavendish Laboratory at Cambridge, where he met Joan Strothers, who would later become both his wife and a scientific collaborator.

At the Cavendish he refined Geiger counters and explored particle detection, contributing to early nuclear physics. On the outbreak of the Second World War, Curran followed his supervisor Philip Dee to the Royal Aircraft Establishment and then the Telecommunications Research Establishment (TRE) at Worth Matravers. There he joined Dee, Bernard Lovell, Alan Hodgkin, and others in the development of centimetric radar. His invention of spark-gap modulators proved crucial to operating the new cavity magnetron, enabling airborne interception radar and the H2S ground-mapping radar—a system that transformed night bombing and anti-submarine warfare.

In 1944 Curran and Joan joined the Manhattan Project at Berkeley, California. There, while contributing to isotope separation, he invented the scintillation counter, which revolutionized radiation detection and remains widely used in science and medicine.

Returning to Scotland in 1946, he worked under Philip Dee at Glasgow University, later contributing to the development of the British hydrogen bomb. He also invented the proportional counter (1948), further advancing nuclear measurement. In 1959 Curran became principal of the Royal College of Science and Technology in Glasgow. Under his leadership, the college merged with the Scottish College of Commerce to form the University of Strathclyde in 1964, with Curran as its first Principal and Vice-Chancellor. He guided the university for sixteen years, shaping it into Britain's first modern technological university.

Curran received numerous honours, including election as a Fellow of the Royal Society (1953) and a knighthood (1970). Beyond academia, he and Joan co-founded the Scottish Society for the Parents of Mentally Handicapped Children (later Enable Scotland), inspired by their daughter Sheena.

He retired in 1980 and died in Glasgow on 15 February 1998, remembered as both a brilliant wartime scientist and a transformative educational leader.