

Biographical background:

Denis Taylor was born in Hull in May 1910. He attended Sidmouth Street Council School before moving on to Riley Technical High School and his undergraduate studies at Hull Municipal Technical College.

His first teaching appointment in 1931 was as a Physics and Electrical Engineering Lecturer and Demonstrator at Hull Municipal Technical College. Two years later he became the first student to receive a Master's of Science at University College Hull with the degree granted by University College London for his thesis 'The Formatisation of Rectangular Short-Wave Frame Aerials'. He continued his studies at Hull, where he worked as a Research Assistant and completed his Doctorate in 1937 with a thesis entitled 'Some Properties of Loop Aerials When Used with Short Waves'.

In July 1937 he became a Lecturer in Physics and Mathematics at Croydon Polytechnic, London becoming a Senior Lecturer in Radio Engineering in 1939. In September 1939, with the outbreak of the Second World War, he joined the Air Ministry Research Establishment as a Technical Officer and worked initially at Dundee before moving to Swanage in 1940 to continue his research. He was promoted in 1941 to Senior Scientific Officer in charge of ground equipment location research, relating specifically to the chain of radar stations that were constructed to detect enemy aircraft.

He eventually moved to Malvern College, Worcestershire in 1942 to join the Telecommunication Research Establishment (T.R.E.) which was later known as the Royal Radar Research Establishment was based. While he was there he aided Sir Robert Watson-Watt during the development of radar as a Superintendent. In 1944 he went to the Far East while in charge of a radar development unit to assist the RAF and Fleet Air Arm.

After the war he re-joined the Telecommunication Research Establishment but was soon appointed as the Head of the Electronics and Instruments Division for the Atomic Energy Research Establishment (A.E.R.E.), Harwell. A position he held for twelve years. His academic focus changed from Short Wave to Atomic Research building upon his work with radar sensors, the first papers on this subject were published in 1949.

In 1957 he was appointed as a Director and General Manager of Plessey Nucleonics Ltd, Flore, Northamptonshire, as well as a Research Executive of the Aircraft and Electronics groups of Plessey Co, and became responsible for the co-ordination of the company's nuclear programme. He continued to work for the A.E.R.E. as a part-time consultant during this move. He was also Chief UNESCO advisor at the faculty of engineering at University College, Nairobi, Kenya. Returning to Britain in 1966 he was appointed to the chair of Electronic Science and Telecommunications at Strathclyde University where he remained until his death in April 1972.

During his life he published several books including: 'Principles of Radar', Superintendent, Telecommunications Research Establishment, Ministry of Supply (published in 1948); 'Brochure of Instruments & Accessories for Radio-isotope Applications' (1950); Methuen's Monographs on Physical Subjects, 'The Measurement of Radioactive Isotopes', Atomic Energy Research Establishment, Harwell (1951); 'Radiation Hazards and Protection', Co-authored with David Errington Barnes (1958); 'Neutron irradiation and activation analysis' (1964) and 'Introduction to Radar and Radar Techniques' (1966). He also wrote for a number of academic publications on a variety of subjects such as Radar, Mathematics, Physics, Electronics and Atomic Energy.

An Associate of The Physical Society from 1934, he was recognised by the government for this work on radar during the Second World War and elected as Fellow of the Institute of Physics in 1941. A member of the York Engineering Society he was an active member of the Council and chairman of the I.E.E.E.

He married Eileen Craven in May 1936 and had two children, a son Derek and a daughter Christine.

Custodial history:

Donated by Mrs D Taylor, Cottingham, November 1989

Description:

This collections includes scrapbooks, press cuttings, leaflets and other publications relating to research conducted by Professor Denis Taylor, with a focus on radar and atomic research.

Extent: 112 items

Access Conditions:

Access will be granted to any accredited reader

Hull History Centre: Papers of Professor Denis Taylor

U DX195/1	Scrapbook (lettered: 'Researches. D. Taylor'), containing photographs, periodical articles, etc. relating to the career of Professor Dennis Taylor 1 item	1930s
U DX195/2	Scrapbook (lettered: 'Researches. D. Taylor'), containing photographs, periodical articles, etc. relating to the career of Professor Dennis Taylor 1 item	1930s
U DX195/3	Scrapbook (lettered: 'Researches. D. Taylor'), containing photographs, periodical articles, etc. relating to the career of Professor Dennis Taylor 1 item	1940s
U DX195/4	Scrapbook (lettered: 'Researches. D. Taylor'), containing photographs, periodical articles, etc. relating to the career of Professor Dennis Taylor 1 item	1949-1950
U DX195/5	Scrapbook (lettered: 'Researches. D. Taylor'), containing photographs, periodical articles, etc. relating to the career of Professor Taylor 1 item	1950s
U DX195/6	Letter. E.V. Appleton to Dennis Taylor 1 item	31 Oct 1944
U DX195/7	Booklet. 'Instrumentation and the atomic energy programmes' 1 volume	1949
U DX195/8	Booklet. 'Electronic instrumentation in atomic research' 1 volume	1950
U DX195/9	Booklet. 'Nuclear particle and radiation detectors', with J. Sharpe 1 volume	1951
U DX195/10	Booklet. 'Radiation measuring instruments for x-rays to cosmic rays', with W. Abson 1 volume	1951
U DX195/11	Booklet. 'Radiac and radiac instruments' 1 volume	1953
U DX195/12	Booklet. 'Measurement and Control Section of the Institution of Electrical Engineers' 1 volume	1956

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U DX195/13	Leaflet. 'The instruments that control nuclear power plants' 1 item	1958
U DX195/14	Press cutting. 'Specialization pays handsomely' 1 file	1959
U DX195/15	Booklet. 'A plutonium monitor', with D. Aliaga-Kelly 1 volume	1960
U DX195/16	Booklet. 'Health physics instrumentation' 1 volume	1960
U DX195/17	File. Plessey Nucleonics Ltd.: The development of reactor control radiation detectors for Dounreay Submarine Prototype Reactor. Final report' 1 file	1961
U DX195/18	Booklet. 'Nucleonics and industry' 1 volume	1962
U DX195/19	Booklet. 'Radioactivity and process measurements' 1 volume	1963
U DX195/20	Booklet. 'Liquid level measurement using nuclear methods' 1 volume	1963
U DX195/21	Press cutting. 'Developments in radioactivation analysis' 1 file	1963
U DX195/22	Booklet. 'Nuclear instrumentation: a review of progress' 1 volume	1963
U DX195/23	Ts. Speech to the Lions Club, Nairobi, Kenya 1 item	7 Jan 1965
U DX195/24	Press cutting. 'Electronics in soil mechanics' 1 file	1965
U DX195/25	Volume. East African Institution of Engineers, Electronics Group. Symposium on single side band communication systems, held at University College, Nairobi, Kenya, 24 - 26 Nov 1 volume	1965

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U DX195/26	Annotated typescript. East African Institution of Engineers, Electronics Group: Chairman's address 1 item	1966
U DX195/27	Typescript. East African Annual Study Vacation, Frontiers of Science series: lecture on 'Atomic energy' 1 item	1966
U DX195/28	Leaflet. 'Measuring density with the nuclear back-scatter method', with M. Kansara 1 item	1966
U DX195/29	File. 'Soil moisture work, 1966 - 1968' 1 file	1966
U DX195/30	Booklet. 'The training of engineers for East Africa' 1 item	Apr 1967
U DX195/31	File. 'A theory of the nuclear densimeter', with M. Kansara 1 file	Jul 1967
U DX195/32	Annotated typescript. 'Engineering education in Kenya' 1 item	1967
U DX195/33	Annotated typescript. 'Atomic power' 1 item	1968
U DX195/34	Booklet. 'Automation techniques in industry' 1 item	Apr 1968
U DX195/35	Press cutting. 'Problems of measurement' 1 item	May 1968
U DX195/36	Press cutting. 'Review of counting devices' 1 item	Jun 1968
U DX195/37	Press cutting. 'Fluidic counting devices' 1 item	Sep 1968
U DX195/38	Press cutting. 'Nuclear instruments- a survey' 1 item	Sep 1968
U DX195/39	Press cutting. 'Dead time correction in nucleonic counter systems' 1 item	Oct 1968
U DX195/40	File. 'Soil Science research papers' 1 file	1968-1971

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U DX195/41	Booklet. 'Some design criteria for gamma backscatter soil density gauges', with K. Lin and E. Pirie 1 item	1969
U DX195/42	Annotated typescript. 'Liquid level measurement using nuclear techniques' 1 item	1969
U DX195/43	Press cutting. 'Integrated Circuit Systems and the electronic circuit design engineer' 1 file	1969
U DX195/44	Annotated typescript. Address to the Annual General Meeting of the Institute of Electrical Engineers 1 item	22 Apr 1969
U DX195/45	Press cutting. 'Instrumentation in the 70s' 1 file	May 1969
U DX195/46	Typescript. 'Conference on Measurement Education: Contribution to the Optical Society of America' 1 item	Jul 1969
U DX195/47	Typescript. 'Design and performance of a moving gamma-source soil density gauge', with G. Devlin and L.A. Henderson 1 item	1969
U DX195/48	Press cutting. 'Trends in instrumentation' 1 file	1969
U DX195/49	Typescript. 'Automatic compensation of dead time losses', with S.J. Bhatt and I.A. Henderson 1 item	1969
U DX195/50	Press cutting. 'Measurement education conference' 1 item	Oct 1969
U DX195/51	Annotated typescript. 'Spatial response pattern of gamma backscatter density gauges', with G. Devlin 1 item	1969
U DX195/52	Typescript. 'Some design criteria for gamma backscatter soil density gauges', with K. Lin and E. Pirie 1 item	1969
U DX195/53	Typescript. 'Trends in instrumentation' 1 item	1969

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U DX195/54	Typescript. 'Industrial applications of microwaves' 1 item	1969
U DX195/55	Press cutting. 'Nucleonic methods' 1 item	Nov 1969
U DX195/56	Typescript. 'Digital displays or numeric readouts', with D.N. Rao 1 item	1969
U DX195/57	Typescript. 'Nuclear meters for soil investigations', with G. Devlin 1 item	1969
U DX195/58	Offprint. 'Further note on moving source soil density gauge', with O. Ciftcioglu 1 item	May 1970
U DX195/59	Offprint. 'Nuclear digital function generators and multipliers', with D.N. Rao 1 item	Jun 1971
U DX195/60	Annotated typescript. 'Processing of pulse trains using rate multipliers in nuclear instrumentation' with S.J. Bhatt 1 item	1970
U DX195/61	Annotated typescript. 'Viewpoint' 1 item	1970
U DX195/62	Typescript. 'Instruments in working environments' 1 file	May 1970
U DX195/63	Typescript. 'Space communications' 1 file	May 1970
U DX195/64	Press cutting. 'Electric activators' 1 item	Jun 1970
U DX195/65	Annotated typescript. 'Electric activators- a review' 1 item	Jun-Jul 1970
U DX195/66	Typescript and autograph. 'Hydraulic, pneumatic and hybrid activators' 1 item	1970
U DX195/67	Annotated typescript. 'Hydraulic, pneumatic and hybrid activators' 1 item	1970

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U DX195/68	Annotated typescript. 'Pen recorders' 1 item	1970
U DX195/69	Typescript. 'Moving gamma-source density gauges', with O. Ciftcioglu 1 item	1970
U DX195/70	Press cutting. 'Opportunities in Engineering' 1 item	Oct 1970
U DX195/71	Typescript. 'Moving source density gauges', with O. Ciftcioglu 1 item	1970
U DX195/72	Typescript. 'Digital transducers using radioactive sources', with D.N. Rao and P.N. Potter 1 item	1970
U DX195/73	Typescript. 'Measurement of moisture content using backscatter density gauges' 1 item	1970
U DX195/74	Typescript. 'Processing of pulse trains using rate multipliers in nuclear instrumentation', with S.J. Bhatt 1 item	1970
U DX195/75	Typescript. 'Stochastic pulse processing in nuclear instrumentation', with D.N. Rao and S.J. Bhatt 1 item	1970
U DX195/76	Typescript. 'Rate dividers and applications in nuclear instrumentation', with S.J. Bhatt and D.N. Rao 1 item	1971
U DX195/77	Typescript. 'Nuclear digital function generators and multipliers', with D.N. Rao 1 item	1971
U DX195/78	Typescript. 'A gamma-backscatter density gauge with differential-mode counting', with O. Ciftcioglu 1 item	1971
U DX195/79	Typescript. 'Nuclear digital function generators and multipliers', with D.N. Rao 1 item	1971
U DX195/80	Annotated typescript. 'Process control and its future' 1 item	1971

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U DX195/82	Typescript. 'Determination of moisture content with a gamma-backscatter soil density gauge', with O. Ciftcioglu and D.A. Byatt 1 item	1971
U DX195/83	Annotated typescript. 'Digital transducers and processors using a radioactive source', with D.N. Rao 1 item	1971
U DX195/84	Typescript. 'Instrumentation displays' 1 item	1971
U DX195/85	Typescript. 'Microwave antenna research in the U.K.' 1 item	1971
U DX195/86	Typescript. 'Radio-isotope instrumentation- a review' 1 item	1971
U DX195/87	Typescript. 'Students need industrial liaison' 1 item	1971
U DX195/88	Typescript. 'Multiplicity of peak phenomena with hydrogen-containing materials with backscatter soil density gauges', with D.A. Byatt 1 item	1971
U DX195/89	Typescript. 'Nuclear meters for soil investigations: a review', with D.A. Byatt and G. Devlin 1 item	1971
U DX195/90	Typescript. 'Process control and its future' 1 item	Jul 1971
U DX195/91	Typescript. 'Superdirective aerial arrays using the principle of backfire aerials' with D.C. Patel 1 item	1971
U DX195/92	Annotated typescript. 'A Id(2) computer using a radioactive source', with D.N. Rao and O. Ciftcioglu 1 item	1971
U DX195/93	Typescript. 'A variable aperture digital transducer using a pulsed detector with applications', with D.N. Rao 1 item	1971

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U DX195/94	Annotated typescript. 'Function generators using a radioactive source and other methods', with D.N. Rao and S.J.Bhatt 1 item	1971
U DX195/95	Typescript. 'Radio - isotope instrumentation' 1 item	1971
U DX195/96	Annotated typescript. Paper for I.E.E.E. Conference on Nuclear Science, San Francisco 1 item	1971
U DX195/97	Annotated typescript. 'Anomalous behaviour of gamma backscatter density gauges' 1 item	1971
U DX195/98	Annotated typescript. 'The design of gamma-radiation backscatter density gauges', with E. Pirie 1 item	1971
U DX195/99	Typescript. 'Nuclear digital function generators and multipliers with applications' 1 item	1971
U DX195/100	Offprint. 'Moving gamma-source soil density gauges', with O. Ciftcioglu 1 item	Oct 1972
U DX195/101	Typescript. 'Digital techniques and applications' 1 item	1972
U DX195/102	Offprint. 'Determination of moisture content with a gamma backscatter density gauge', with O. Ciftcioglu and D.A. Byatt 1 item	1972
U DX195/103	Typescript. 'Developments in British marine radar systems' 1 item	1972
U DX195/104	Annotated typescript. 'Air gap mathematics for gamma backscatter gauge' 1 file	mid 20th cent.
U DX195/105	Typescript. 'Air void calculations' 1 file	mid 20th cent.
U DX195/106	Typescript. 'Developments of improved nuclear measuring instruments' 1 file	mid 20th cent.

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U DX195/107	Typescript. 'Geometry of gamma backscatter density gauges' 1 file	mid 20th cent.
U DX195/108	Annotated typescript. 'Instrumentation for the nucleonics industry' 1 file	mid 20th cent.
U DX195/109	Typescript draft. 'Liquid crystals and applications' 1 file	mid 20th cent.
U DX195/110	Typescript. 'A proposal for dead-time correction when the equation $N(1) = N \exp. (-N[1]I)$ applies' 1 file	mid 20th cent.
U DX195/111	Typescript. 'Sampling techniques' 1 file	mid 20th cent.
U DX195/112	Typescript. 'Special lecture on gamma-ray absorption and scattering' 1 file	mid 20th cent.