

**University of Toronto Archives
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Bert C. de Kat fonds

B2024-0008

Sarah Paiva, September 2024

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Biographical note

B.C. (Bert) de Kat was an employee for the University of Toronto (U of T) in bio-medical engineering during the 1960's. In 1962, U of T implemented the Institute of Bio-Medical Engineering, where de Kat played a pivotal role in this field. He acquired a diploma in electronics technology at the Provincial Institute of Technology and Art in Calgary, Alberta from 1953 to 1955.

Later, de Kat worked at the University of Saskatchewan as support staff for the electrical engineering department. Here he met Norman F. Moody, the department head of electrical engineering, who became de Kat's mentor. When U of T asked Moody to be the founding director of their new Institute of Bio-Medical Engineering, he invited de Kat to join him. De Kat agreed and worked at U of T in bio-medical research for 12 years. While working at the Institute, de Kat engaged in numerous research projects including the development of a blood flow meter and a gamma ray camera voltmeter.

By 1972, de Kat had established his own company named Bio-Tech Co. Its mandate was to produce engineering service designing instrumentation and provide a facility for constructing prototypes of the designs for his clients. His customers were in the industrial, medical, and environmental fields. In 1976, de Kat acquired a patent for his Replicator, which is a microbiology laboratory machine that replicates samples on petri dishes.

B.C. de Kat died in 2023.

Scope and content

1956 - 2004

0.4m of textual and photographs (1 box)

The records in this fonds documents B.C. de Kat's career at the University of Toronto, while at the Institute of Bio-Medical Engineering from the 1960s to the 1970s. A majority of the records (Series 1, 2, 4, and 5) focus on his bio-medical engineering research conducted with N.F. Moody while employed at the university. These records include experiment notebooks and research papers of his own and other academics. De Kat used these records for his projects with Moody, including in developing a blood flow meter and a gamma ray camera voltmeter. There is a minimal amount of correspondence in Series 3. Moody is a prominent figure in this series as they collaborated from 1956 to 2004 and had become friends. The fonds does not have records related to de Kat's company, Bio-Tech Co.

Arrangement Note: Arranged into Series as follows,

Series 1: Research and Design

Series 2: Papers

Series 3: Correspondence

Series 4: Bio-Medical Institute

Series 5: Photos

Access: Open

Appendix – File list by Series

Series 1: Research and Design

File number	File title	Date range
B2024-0008/001 (01)	Experiment Notebook - Electronics	1962-1966
B2024-0008/001 (02)	Pig Probe - Construction of a Co-Axial Probe	1963
B2024-0008/001 (03)	Experiment Notebook - Research on Blood Flows	1966-1968
B2024-0008/001 (04)	Electrocardiogram Phonogram and Cardiac Research	1968
B2024-0008/001 (05)	Perspiration Sensor	1968-1969
B2024-0008/001 (06)	Valve Actuator	1969
B2024-0008/001 (07)	Experiment Notebook - Work with Dr. E. Llewellyn Thomas and Blood Flow Research	1968-1972
B2024-0008/001 (08)	Foam Research	1971-1972
B2024-0008/001 (09)	Delamere & Williams - High Speed Tea-Bag Machine Phase Sensing Apparatus	1981
B2024-0008/001 (10)	Transducer - Quanbury bridge	1966
B2024-0008/001 (11)	Circulatory model pump	1969
B2024-0008/001 (12)	Optokinetic Stimulator	1966-1973
B2024-0008/001 (13)	Gamma-Ray Camera (part 1 of 3)	1961-1997
B2024-0008/001 (14)	Gamma-Ray Camera (part 2 of 3)	1961-1997
B2024-0008/001 (15)	Gamma-Ray Camera (part 3 of 3)	1961-1997
B2024-0008/001 (16)	Patent for Class 336 Sub. 134	1969
B2024-0008/001 (17)	Filter (Optical) - Electrical Wave Filter	1970-1971
B2024-0008/001 (18)	Displacement - transducer	1963-1970
B2024-0008/001 (19)	Project Diagrams/Models (Gas Sensor, Telephone Circuit, Portable Miniature Pump, Projector Disc, G-R Transistor Mount Modification)	1963-1971

Series 2: Papers

File number	File title	Date range
B2024-0008/001 (20)	Sphincter Transducer - "A Device for Measuring Bladder-Sphincter-Muscle-Force in Males" By B.C. de Kat	1966-1968

File number	File title	Date range
B2024-0008/001 (21)	Blood Flow Meter - "Design of a Four-Channel Pulsed-Field Electromagnetic Blood Flowmeter System" By: N.F. Moody, B.C. de Kat, D.L. Morrison, J.D. Henderson, A.M. Rappaport, and S. Lipton	1972-1976

Series 3: Correspondence

File number	File title	Date range
B2024-0008/001 (22)	N.F. Moody	1956-2004
B2024-0008/001 (23)	Biomedical Institute UofT - Work experience and correspondence	1962-1996

Series 4: Bio-Medical Institute

File number	File title	Date range
B2024-0008/001 (24)	Report No. 11 Ultrasonic Holography Prepared by John M. Smith	2 Oct. 1967
B2024-0008/001 (25)	Report No. 14 Indicator Mixing in The Cardio-Pulmonary Vascular System Prepared by Kenneth H. Norwich and Samuel Zelin	20 Jan. 1969
B2024-0008/001 (26)	Digest of the 2nd Canadian Medical and Biological Engineering Conference	1968
B2024-0008/001 (27)	Eye Movement Camera - "Movements of the Eye" by E. Llewellyn Thomas	1963-1974
B2024-0008/001 (28)	Report No. 10 Problems in Handling Arising from the Design of a Gamma Ray Camera Prepared by Cyril C. Flacks	26 Oct. 1964
B2024-0008/001 (29)	Institute of Bio-Medical Eng. University of Toronto History, Memorandums, and Newsletters	1989-1992

Series 5: Photos

File number	File title	Date range
B2024-0008/001 (30)	Unknown Medical Equipment	n.d.