

# In Memoriam: Amares Chatt

Professor Amares Chatt (known to all simply as Chatt or Dr. Chatt) passed away suddenly on October 20, 2024.

Chatt was a faculty member in the Department of Chemistry at Dalhousie from his appointment as an assistant professor in 1974, through his promotion to associate professor in 1980, and to full professor in 1985. He was Killam Professor of Chemistry from 2001 to 2006. After his official retirement in 2008, he held a position as an adjunct professor and continued to travel and lecture until his untimely death.

Chatt was born in 1942 in South India. He earned a B.Sc. (U. Calcutta, 1965) and M.Sc. (U. Roorkee, 1967, Analytical Chemistry, Gold Medalist) before he immigrated to Canada in 1968 for further studies. He received a M.Sc. (Waterloo U., 1970, Nuclear Chemistry with Professor H. D. Sharma) and a Ph.D. (U. Toronto, 1974, Nuclear Analytical & Environmental Chemistry with Professor R. E. Jervis).

Following his doctorate, Chatt was appointed as an Assistant Professor in the Department. At this time, spearheaded by the late Professor Douglas Ryan, the Department had a vision of developing a major Canadian centre for analytical chemistry, resulting in the establishment of the Trace Analysis Research Centre (TARC). Also at that time, neutron activation showed great promise as a trace analytical method in the simultaneous analysis of multiple elements. This was readily done using a Canadian development, the Slowpoke nuclear reactor. One of these was acquired by Dalhousie and hence Chatt's appointment became a crucial part of the Slowpoke reactor program. In 1987, he assumed the role of Director of the SLOWPOKE-2 Facility.

Since 1974 Chatt was engaged in a vigorous trace analysis research and teaching program and supervised many undergraduate and graduate students, plus postdoctoral fellows, visiting scientists and other trainees. He presented over 430 invited seminars and conference papers. He also spent several extended periods abroad: in 1981 he was Visiting Professor, Centre for Analytical Research and Development, University of Colombo, Sri Lanka; in 1982, Visiting Scientist, European Communities' Joint Research Centre, Ispra, Italy. Further, he has been a visiting expert in a number of developing and developed countries including Jamaica, Ghana, Nigeria, Slovenia, Bangladesh, Chile, South Africa, Thailand, Russia and Japan. He was the North American Regional Editor (1993-96) and then Editor (starting in 2007) of the Journal of Radioanalytical and Nuclear Chemistry. His professional activities included international contributions (primarily with the International Atomic Energy Agency [IAEA] of the United Nations; Organisation for Economic Cooperation and Development/Nuclear Energy Agency [OECD/NEA]; Inter-American Development Bank [IDB], Third World Academy of Sciences [TWAS], and American Nuclear Society [ANS]), and national activities (e.g. with the Chemical Institute of Canada, Spectroscopy Society of Canada, and provincial governments).

From his vigorous research activities he produced more than 180 peer-reviewed publications, one monograph and chapters in several others. He was honored, initially with a number of student awards: a Gold Medal for Outstanding Student, University of Roorkee; also, prizes for best papers at American Nuclear Society (ANS) student conferences at McMaster University, Oregon State and Penn State. He received the 1993 F. W. Karasek Award for achievements in environmental science (Canada) and the ANS Radiation Science and Technology Award (1996).

In 1999, he was honored through the ANS William D. Ehmann Award in Radiochemistry. Also, in

recognition of his scholarly achievements and leadership in nuclear analytical chemistry, he was elected Fellow of the Chemical Institute of Canada (1985), Fellow of the American Nuclear Society (1993; one of the very few Canadians ever so honoured), and was elected President, International Committee for Activation Analysis in 1999. Other awards include the Hevesy Medal Award from the Journal of Radioanalytical and Nuclear Chemistry and the International Committee on Activation Analysis (2001, “for his outstanding and innovative contributions in the field of radioanalytical and nuclear chemistry, in particular for his work on various forms of instrumental, preconcentration and radiochemical activation analysis, and their applications in a wide variety of different medical, environmental and biological research studies”) and the Ioannes Marcus Marci Medal (2006) from the Ioannes Marcus Marci Spectroscopic Society formerly the Czechoslovak Spectroscopic Society of the Czechoslovak Academy of Sciences, Prague, Czech Republic, “for outstanding achievements in nuclear analytical methods and gamma-spectroscopy”. The American Nuclear Society organized a Special Session entitled “Investigations of Biological Trace Elements by Activation Analysis – Session Honoring A. Chatt” at the 2013 ANS Winter Meeting in Washington DC sponsored by its Biology and Medicine Division (BMD) and co-sponsored by the Isotopes and Radiation Division (IRD).

Professor Chatt taught undergraduate courses in General Chemistry, Introductory Analytical Chemistry, Solution Equilibria and Analytical Spectroscopy, Methods of Instrumental Analysis, and Radiochemistry at the first, second, third and fourth year levels, respectively. He also offered basic and specialized graduate courses on Nuclear Analytical Chemistry, Radiochemistry and Analytical Spectroscopy. He supervised 38 graduate students' theses (21 PhD including one with Distinction and 17 MSc), 20 B.Sc. Honours students' theses, 21 NSERC summer research students, and 27 undergraduate research assistants. He also supervised 69 postdoctoral fellows, research associates, and visiting professors and scientists. Many of them came from laboratories (often countries) where no nuclear analytical chemistry was either taught or practiced. Most of them went back to their countries of origin and started research and training in nuclear analytical, environmental, and radiochemistry.

Chatt was widowed early in his career, leaving him as a single parent to raise his two daughters.

Professor Chatt will be fondly remembered as an extremely helpful mentor and enthusiastic colleague who was always upbeat and forward-looking in his interactions and associations. He continued with his international collaborations in nuclear science until his death, as he passed away having just completed a lecture tour to several locations in China. His positive and helpful personality will be sorely missed.

[\*Read the full obituary.\*](#)