



Professor Dr. Hardev Singh VIRK

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www.researchgate.net/profile/Hardev_Virk/publications

www.academia.edu/4310021/Research_Papers_Professor_H.S._Virk

Biography

Prof. Virk received his Bachelor degree in Science (B.Sc.) with Distinction from Punjab University, Chandigarh (1961) and Masters in Physics (M. Sc.) with specialisation in Elementary Particles from Aligarh Muslim University, Aligarh (1963). He started his teaching career in an Engineering College in 1963. In 1970, he won the Scholarship of French Government for pursuing his research leading to Doctorate (Ph.D.) in High Energy Nuclear Physics from Marie & Pierre Curie University, Paris (France) in 1972 with highest citation of 'Tres Honorable'. He has 50 years of Teaching & Research Experience and served in Punjabi University, Patiala (1965-79) and Guru Nanak Dev University, Amritsar (1979-2002). Professor Virk has published 425 research papers in national & international journals; 45 books and 150 articles on Science Education & Science Policy in India. His research papers are listed on Web of Science (290), Researchgate (850), Academia.edu, Mendeley, ORCID, Vidwan, and Google Scholar with h-index of 26 and i-10 index of 95.

He has travelled through 50 countries for his academic pursuits: participating in international conferences, delivering Seminar lectures and as a Visiting Professor in about a dozen foreign universities, including University of North Texas, Denton, USA and Technical University of Innsbruck, Innsbruck, Austria. He enjoyed the status of a Senior Associate of International Centre for Theoretical Physics (ICTP), Trieste, Italy during 1988-93. His research interests are manifold: Elementary Particle Physics; Nuclear & Radiation Physics; Geochronology; Seismology (Radon and Helium Precursory Studies of Earthquakes & Environment); Ion Tracks & Nanotechnology; History & Philosophy of Science. He guided 18 Ph. Ds. and 16 M. Phil students and has completed 16 major research projects mostly in areas of Earth Sciences (Geochronology, Earthquake Prediction Studies), Radiation Effects in Minerals, Polymers, etc. His research highlights include:

- (a) Fission track dating of tektites, pegmatites, ore formations and volcanic eruptions.

- (b) Calibration of glass dosimeters for neutron fluence determination.
- (c) Uranium estimation and its biogeochemical exploration in the Himalayas.
- (d) Earthquake prediction studies using Radon/Helium as a precursor.
- (e) "Single Activation Energy Model" for annealing of radiation damage in insulators.
- (f) Development of Ion Track Micro/Nanotechnology and its applications .

Professor Virk taught Radiation Physics & Nuclear Reactor Engineering to M.Sc. students for almost 20 years. His research publications cover a vast range of fields; starting from Elementary Particles, Geochronology, Radiation Damage in Solids, Earthquake Prediction Studies using Radon & Helium as Precursors, Heavy Ion Irradiation Effects in Polymers, Nanotechnology and History & Philosophy of Science. He served as Principal Investigator for 25 years in Projects sanctioned by Government of India. Professor Virk served as Guest Editor of Trans Tech Publications, Switzerland to prepare 12 Special Volumes of Solid State Phenomena Series Journal for 5 years (2010-15). Presently, he is editor of STM journal OMNISCIENCE and Research & Reviews Journal of Space Science & Technology (RRJoSST).

Professor H.S. Virk retired from Guru Nanak Dev University, Amritsar in June 2002 after serving as Director Research and Dean Academic Affairs. He was re-employed as Director Research, DAV Institute of Engineering & Technology, Jalandhar (2008-2011); Adjunct Professor, Akal University, Baru Sahib (2010-till date); Visiting Professor, SGGS World University, Fatehgarh Sahib (2013-17); Professor of Eminence, Punjabi University, Patiala (2017-19) and Professor of Eminence (2020- till date), SGGS World University, Fatehgarh Sahib, Punjab (India). He has been a Life Member of various National and International academic forums:

- (a) Life Member, Indian Association for Radiation Protection (IARP).
- (b) Life Member, Indian Association of Physics Teachers (IAPT).
- (c) Life Member, Indian Nuclear Track Society (INTS).
- (d) Life Member, International Nuclear Track Society (INTS).
- (e) Life Member, Indian Science Congress Association (ISCA).
- (f) Life Member, Indian Society for Radiation Physics (ISRP).
- (g) Life Member New York Academy of Sciences (NYAS).