K. L. Chopra, born on 31 July 1933 did his B.Sc.(hons)(1952) and M.Sc. (Phy)(1954) from the University of Delhi and then PhD(1957) from the University of British Columbia He served as a defence research fellow at the Royal Military College of Canada (1957–59) and as a staff scientist at Philco-Ford Scientific Laboratory (1962–64) and Ledge Mont Laboratory of Kennecott Copper Corporation (1964–70), and joined as an adjunct professor at North-eastern University and as a visiting professor at Cornell University. Concurrently, he served as a consultant to IBM, Westinghouse and ARCO and had a short stint at Fritz Haber Institute of the Max Planck Society, Berlin (1959–62) in between, as their fellow. Returning to India, he joined as a senior Professor at the Indian Institute of Technology, Delhi in 1970 and served till 1987, holding positions such as that of the Head of Department of Physics (1970–73), Dean of the Faculty of Science (1973–74), Chair and Dean Industrial Research and Development (1975–76), Dean of the Post Graduate Studies and Research (1976–79), Head of the Centre for Energy Studies (1983–85), and Head of the Thin Film Solid State Technology Laboratory and the Dean of Industrial Research and Development (1985–87) till his superannuation in 1987. He was appointed as the Director of the Indian Institute of Technology, Kharagpur in 1987 and worked there till 1997 Institution when he was appointed as the Chair Professor of Renewable Energy at Indian Renewable Energy Development Agency (IREDA), a post he held till 2000. After retiring from active service in 2000, he continues his association with many scientific and academic institutions and chairs HDF School of Management, Bhubaneswar and Budge Budge Institute of Technology, Kolkata while holding the distinguished chair professorship of Indian Institute of Engineering Science and Technology, Shibpur. He is also an adviser to the Thin Film Laboratory of IIT, Delhi, and Jaypee University of Engineering and Technology, Madhya Pradesh. He is a founder member of the Society for Scientific Values, an organization serving as a watchdog for promoting integrity and ethics in scientific pursuit, and is its incumbent president. He has served as the vice president of the Materials Research Society of India and is a life member of the society. He is also a former member of the council of the Indian National Science Academy (1988–90) and has served as an honorary professor at King Fahd University of Petroleum and Minerals, Saudi Arabia, IIT Delhi, IIEST Shibpur and Indian Institute of Technology Bhubaneswar.

Working on thin films and Nano matter, Chopra did pioneering studies through which he established specular scattering of electrons in epitaxial metal films, discovered field induced nucleation and growth process as well as giant photo-contraction effect in amorphous chalcogenide films, developed semiconducting metallopolymer films and proposed new process protocols for low dimensional nanomaterials and high temperature superconductors. He published his findings through more than 430 research articles and ten books, which include Thin film phenomena, Thin Film Solar Cells, Thin Film Device Applications and Vacuum Science and Technology. He has also edited two books, Thin Film Technology

and Applications: International Workshop, New Delhi, Nov. 1984, Proceedings and Thin Films 7: Proceedings of the 7th International Conference on Thin Films, New Delhi, India, December 7–11, 1987. He holds six US patents and eight of his know-hows are in use with Indian industries. Besides, he has mentored 100 M. Tech and 60 PhD students in them researches and has served as a member of the editorial boards of many journals. It was during his tenure as the head of the institution, the Thin Film Laboratory of IIT Delhi and Micro Science Laboratory of IIT Kharagpur were established.

Awards and honours

During his stay in the US, Chopra received four patent awards from Kennecott Copper Corporation between 1966 and 1970. The Council of Scientific and Industrial Research awarded him Shanti Swarup Bhatnagar Prize, the highest Indian award in the science and engineering categories, in 1975. He received FICCI Award in 1983 and two more awards in 1989, Bhabha Award of the University Grants Commission and Om Prakash Bhasin Award. The Indian Vacuum Society awarded him Distinguished Vacuum Scientist Award in 1994, and the next year, he received the Distinguished Material Scientist Award of the Materials Research Society of India, the highest award of the society. The Indian National Science Academy awarded him the Prasanta Chandra Mahalanobis Medal in 1996 and the Aryabhata Medal in 2004. In between, he received two awards, the Lifetime Achievement Award of the Solar Energy Society of India and ISI Citation Laureate Award. The Government of India included him in the Republic Day honours list for the civilian honour of the Padma Shri in 2008 and he received the Distinguished Engineering Educator Award of the Indian Society of Mechanical Engineers, the same year. He is also a recipient of the Freedom of the Institute Award of the IIIT Delhi and Distinguished Academician Award of Indian Institute of Technology Patna.

The Indian National Science Academy elected Chopra as their fellow in 1978 and the Indian Academy of Sciences and the National Academy of Sciences, India followed suit in 1980 and 1988 respectively. He is also an elected fellow of the Indian National Academy of Engineering, Asian Pacific Society for Materials Research and the American Physical Society and an honorary fellow of Punjab Academy of Sciences. Uttar Pradesh Technical University conferred the degree of Doctor of Science (honoris causa) on him in 2006, followed by the Indian Institute of Technology, Kharagpur in 2010. He has delivered several award orations and keynote addresses; K. S. Krishnan Memorial Award Lecture of the Indian National Science Academy (1992), Biren Roy Memorial Lecture Award (1997), Institute Lecture on Ethical Values in Science and Technology of the Indian Institute of Technology, Kanpur (2008) and D. S. Kothari Memorial Oration Award of the Defence Laboratory, Jodhpur (2009) feature among them.