

Tapan Chakrabarti (1949–2022)

Dr Tapan Chakrabarti, a distinguished biochemist and a mentor par excellence, passed away on 14 February 2022. He was born in Kolkata on 12 September 1949 to a renowned Professor of Biochemistry, Chittaharan Chakrabarti and Bani Chakrabarti. He leaves behind his spouse, Chandra Chakrabarti, a biochemist and former colleague, and their daughter, Tanaya Chakrabarti. His quest for knowledge was indefatigable as he pursued LLB after post-graduation and Doctoral degrees in Biochemistry from Nagpur University. He was a qualified Associate Member of the Indian Institute of Chemical Engineers in Chemical Engineering (AICHE) from Jadavpur University. His doctoral thesis was supervised by noted biochemist Hatim F. Dagainawala. He pursued some of these qualifications while working as a Scientist at CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), where he joined as a researcher in December 1973. Subsequently, he was appointed Scientist B in October 1975 and served as the Acting Director of the Institute from January 2008 to August 2010. He retired as Outstanding Scientist (Scientist H) on 31 September 2011 and continued serving as Emeritus Scientist until 2013 at CSIR-NEERI. He was the Chair Professor at Visvesvaraya National Institute of Technology (VNIT) until recently. He served CSIR-NEERI in various capacities for more than 40 years and help built the institution as one of the leaders in the field of environmental research in India.

His research involved pollutant transport, fate, toxicology and detoxification. He employed his keen understanding of biochemistry and biotechnology to environmental issues, thereby pioneering the emerging field of environmental biotechnology in India. He proposed one such research idea on using exogenous cAMP to degrade mixed substrates in the activated sludge treatment process to his first Ph.D. student, S. D. Deshpande. The research was later published in *Environmental Science & Technology*, a premier journal in the field, in 1987. S. D. Deshpande, also a very close friend and colleague, who retired before his guide, declared, 'It was Dr Chakrabarti's idea', when the authors were listening in admiration to many of his accomplishments from his senior students and colleagues in his absence at a get together in the year 2008. Such laboratory interventions in a broad span of research areas, including

treatment and disposal of hazardous dyes and chemicals, toxicogenomics of industrial chemicals and metals on the Indian population, restoration of contaminated sites, and waste management, were frequent. In addition, he had the uncanny ability to make a difference in society by taking laboratory research to the field and executing the most recalcitrant projects.



These achievements were the fruits of his child-like enthusiasm for research and his dynamic and positive energy. His vast knowledge of any subject in environmental research, from law to pollutant fate and metabolism, had even trained scientists in awe. Indeed, he was a polymath, a quick thinker, and an able administrator. He would bounce ideas at people while discussing scientific problems and keep persevering even when he met the person by chance or during a meeting. He and his team remediated harmful contaminants, including highly toxic heavy metal, Mercury, at a thermometer manufacturing unit in Southern India. He was even entrusted with a significant remediation project in the Supreme Court Monitoring Committee constituted for hazardous waste management across India. In fact, he remains one of the pioneers in India for eco-restoration and the clean-up of contaminated water resources. Of course, his contribution to environmental research was recognized through several awards and responsibilities. Foremost among them were the Pitamber Pant National Environment Fellowship Award bestowed by the Ministry of Environment, Forests, and Climate Change (MoEFCC), Government of India (GoI), and the prestigious Vasvik award, presented to him by Shri Narendra Modi (then Chief Minister of Gujarat), the Honorable Prime Minister of India. He

was a member of the Senate, Nagpur University, Chairman and member of various committees constituted by the Department of Biotechnology (DBT), Department of Science and Technology (DST), Central Pollution Control Board (CPCB), Food Safety and Standards Authority of India, Bureau of Indian Standards, MoEFCC, Ministry of Chemicals and Fertilizers (MCF), GoI, and international agencies such as World Health Organization (WHO). He helmed many projects from national funding agencies such as DBT, DST, MoEFCC, Ministry of Health, MCF, Pollution Control Boards (PCBs), and international agencies including World Bank, WHO, National Science Foundation (USA), and several industries in India. In addition, he was awarded collaborative projects with several other countries.

His expertise was regularly sought by PCBs and courts of this country. He had prepared management plans and technical reports for over 50 cases as part of his active engagement with the judiciary. His legal knowledge and scientific prowess helped the courts immensely. He was also a prolific author with more than 120 articles in international journals and 60 articles in national journals. He has five national and international patents to his credit while guiding 27 Ph.D. scholars and more than 50 post-graduate students for their degrees.

Above all, he was a kind-hearted gentleman who cared for science and society. He had a long association with Institutions and Universities in Maharashtra, and Nagpur, in particular. He had a keen interest in art, literature, music, and art house films. He generously assisted the Cine Montage Film Society, Nagpur, in organizing screenings of art house movies to encourage young artists. He liked travelling with his family and often involved his colleagues, students, and their family members. He was very friendly and caring towards students. This was his way of balancing work and personal life. Being a scientist, he also experimented in the kitchen, producing gourmet dishes. Rice dishes and soups were his forte. He was a connoisseur of music, mainly western classical; nevertheless, he enjoyed all genres of music. He was a bibliophile and a cinephile. He was rarely seen without a book (besides academic) in his hand. He was very fond of James Hadley Chase novels as well as classic Bengali literature. He enjoyed all genres of cinema and was a

good writer and actor. He was a loving and caring husband – a devoted son, brother, and doting father.

When one of his students called him a few days before his death, Chakrabarti enquired about the COVID-19 illness of the student in detail and only later energetically quipped that he was well but at the hospital bed being treated for COVID-19 and

other co-morbidities. He leaves an indelible mark as a father figure in the professional and personal lives of two generations of his students and colleagues.

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Ashok Kumar Srivastava (1960–2022)

Prof. Ashok Kumar Srivastava, a great teacher, devoted researcher and an extraordinary communicator of Indian Geology, breathed his last on 19 February 2022 morning during a prolonged treatment for brain haemorrhage at Kokilaben Hospital, Mumbai. He was born on 1 June 1960 in Gorakhpur, Uttar Pradesh. After attending his schooling at DAV Intermediate College, High School, Gorakhpur, he completed his graduation, post-graduation and Ph.D. degrees from Lucknow University, Lucknow. He worked extensively on sedimentological studies of the Triassic succession of Malla Johar area, Tethys Himalaya, under the guidance of S. Kumar. His area of interest was Antarctica, Tethys Himalaya, Gondwana, Lameta, Intertrappeans and Purna alluvial basin.

Srivastava worked as a Senior Research Scholar at Lucknow University from 1985 to 88. He was awarded SERC Visiting Fellowship in 1998 by the Department of Science and Technology, New Delhi. He joined the Department of Geology at Sant Gadge Baba Amravati University in 1991, served as a Lecturer till 1996, and retired in 2020 as a Professor. He was the pioneer in starting and establishing the P. G. Department of Geology at Sant Gadge Baba Amravati University, Amravati. He introduced various facilities in the department for students, viz. labs, a thin section preparation unit, a museum, etc. He was the Chairman of the Research Cell and a member of several committees, including the BOS (Faculty of Science), Senate, and Academic Council.

He was very popular among the students. His area of specialization was Sedimentology and Palaeontology. He began his studies on sedimentological and palaeontological

logical characteristics of Cretaceous rocks from the Malla Johar area, Tethys Himalaya.

He became a pioneer researcher on Gondwana and Lameta sediments exposed at Salbardi, Bairam, Belkher and Pandhari areas of Amravati and Betul districts of Maharashtra and Madhya Pradesh after joining the Department of Geology at SGB Amravati University.



He explored various aspects of sedimentology and palaeontology. He discovered dinosaurs' remains from Lameta sediments of these areas. He also explored Quaternary sediments of Purna alluvial deposits at various localities exposed in Amravati, Akola, and Buldhana districts of Maharashtra for various sedimentological, palaeontological, structural, hydrological and geochemical aspects. Recently he was working on Tephra beds exposed Quaternary sediments of the Purna alluvial basin.

He guided 8 Ph.D. and 3 M.Phil. students, more than 100 M.Sc. dissertations, and published more than 80 research papers in national and international journals, proceedings, and books.

He completed five major and two minor projects funded by the Central Government agencies and actively participated in national and international seminars, symposiums, and workshops.

He organized the Convention of the 34th Indian Association of Sedimentologists in 2017. He delivered several invited talks on Geology and allied subjects at various Seminars, Conferences, Colleges and Universities. He was a Fellow and Life Member of 6 Professional Organizations such as Geological Society of India, Indian Association of Sedimentologists, Aligarh; Geological Society of India, Bangalore; Palaeontological Society of India, Lucknow; Gondwana Geological Society, Nagpur; Indian Science Congress, Kolkata and Indian Geological Congress, Roorkee. He was one of the members of the 21st Indian Antarctic Expedition to Antarctica, organized by the Department of Ocean Development, Ministry of Earth Sciences, Government of India.

Srivastava is survived by his two sons – Utkarsh, a Mechanical Engineer working in Japan, and Shadwal, an Electronics and Telecommunication Engineer working in Bangalore. With the sad demise Srivastava, the Geological fraternity and the students of Geology in this part of the country have lost an excellent teacher and devoted researcher. It is a significant loss for the field of Geology.

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