

## NALINAKSH S. VYAS

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**Professor Nalinaksh S. Vyas** (web: <http://home.iitk.ac.in/~vyas/>) is a senior academic and researcher in Mechanical Engineering with over three decades of contributions to research, education, and technology development in India. During his tenure at the Indian Institute of Technology Kanpur, he served as Head of the Mechanical Engineering Department, Head of the Centre for Mechatronics, and Head of the Nuclear Engineering Program. Following his superannuation in 2024, he continues to be associated with IIT Kanpur as **Professor Emeritus**.

Professor Vyas served as the **Chairman of the Technology Mission for Indian Railways (TMIR)** from 2015 to 2022, where he contributed to programs related to smart sensors, rolling stock diagnostics, and indigenous technology development. He also served as **Vice-Chancellor of Rajasthan Technical University** during 2013–2015. His professional activities span multiple sectors, including aerospace, automotive, and railways. He currently advises organisations such as **DRDO** on digital twin development for fighter aircraft and supports **Indian Railways** in AI and machine learning initiatives. He is also associated with industry projects on data-based digital twins for automotive systems.

Professor Vyas began his work on the application of artificial intelligence and machine learning to engineering systems in the late 1990s, contributing to early adoption of data-driven methods in machine diagnostics and condition monitoring. He has authored or co-authored **nearly 200 research publications** and has undertaken collaborative projects with organisations such as **DRDO, ISRO, HAL, Indian Railways**, and the automotive industry.

He has held visiting or collaborative positions at several international institutions, including **INSA Lyon (France)**, **National Chung-Cheng University (Taiwan)**, **Virginia Tech (USA)**, **Luleå University of Technology (Sweden)**, **City University of Hong Kong**, and **Nanjing University of Aeronautics and Astronautics (China)**. His academic career reflects sustained engagement in research, institutional leadership, and mentoring in the evolving interface of mechanical engineering, artificial intelligence, and systems engineering.