



Dr. Madhukar Garg

FORMER PRESIDENT, R&D, REFINING AND PETROCHEMICALS,
RELIANCE INDUSTRIES LTD.

Dr. Madhukar Onkarnath Garg is one of India's foremost leaders in petroleum refining and process technology, with nearly five decades of experience translating advanced research into commercially successful industrial solutions. Over a distinguished career spanning academia, government, and industry, he has led the development and commercialization of breakthrough technologies across refining, petrochemicals, biofuels, sustainable aviation fuel (SAF), waste plastics recycling, solvent extraction, process integration, advanced process control, and modelling & simulation.

Having held leadership positions including President - R&D (Refining & Petrochemicals) at Reliance Industries, Director of CSIR-Indian Institute of Petroleum, Director General of CSIR, and Professor at the Indian Institute of Technology Bombay, Dr. Garg has consistently bridged fundamental research with large-scale industrial implementation. His work has resulted in the commercialisation of more than 45 technologies, 68 granted patents (43 Indian and 25 international), over 300 technical publications, and multiple first-of-their-kind innovations deployed across refineries and petrochemical complexes in India and abroad.

Internationally recognized for his expertise in petroleum refining, solvent extraction, process modelling, pinch analysis, and advanced optimization, Dr. Garg has collaborated with leading organizations including Saudi Aramco, UOP, SABIC, BP/Castrol, Petrobras, Pratt & Whitney, SINTEF, RTI, and CSIRO. His pioneering work in sustainable fuels, circular economy technologies, and energy-efficient process design has helped shape next-generation refining and petrochemical innovation.

An elected Fellow of the Indian National Academy of Engineers and recipient of numerous national honours - including the MOPNG Innovation Award, Technology Development Board Technology Day Awards, ICC Lifetime Achievement Award, and the Vasvik Award, Dr. Garg continues to mentor scientists, guide technology commercialization, and contribute to the advancement of India's energy and process industries.