



# The Engineering Institute of Canada

## 2021 Award Citation

### EIC Fellow

### ***Subhash Rakheja***

**Nominated by the Canadian Society for Mechanical Engineering**

*Prof. Rakheja is widely known for his world-renowned contributions in transport systems, global and local workplace vibration exposure and control, and smart materials, and for his contribution to human vibration and automotive societies, and engineering education. He has authored over 300 articles in reputed journals and 250 in conference proceedings focusing on vehicle dynamics, vehicle ride, vehicle suspensions, human vibration, whole-body & hand-arm biodynamics, seating dynamics, and smart materials and actuators. His works on liquid cargo sloshing effects on directional control and roll stability of tank vehicles constitute one of his major contributions.*

*His method has been broadly used for evaluating overturning risks of road and railway tankers. Another significant outcome of his works is the optimal Reuleux-triangle tank geometry, which is for preserving roll stability and avoiding accidents in trucks. He has also contributed to regulations through working with International Tank Container Organization (ITCO).*

*His works on human vibration have resulted in international standards ISO10068 (1998), ISO-5982(2001) and the DIS 5982(2018). His other key contributions include the modeling and compensation of hysteresis in smart material micro-positioning devices, and of magneto-active elastomers for vibration control, which have been widely cited.*

*Ladies and gentlemen, and Mr. President, please welcome Subhash Rakheja as a Fellow of the Engineering Institute of Canada.*