Dr. Avinash Balachandran is Vice President of the Human Interactive Driving (HID) division at Toyota Research Institute (TRI). The goal of the HID division is to create AI-driven capabilities and tools that enable the design, engineering, and manufacturing of intelligent vehicles where AI acts as a partner with the driver to increase safety, confidence, and enjoyment. The department blends competencies in machine learning, human-machine interaction, and robotics to create novel and innovative technologies for the intelligent vehicles of the future.

Prior to TRI, Dr. Balachandran was one of the early engineers on Uber's self-driving program and was instrumental in developing its first autonomous service in Pittsburgh, PA (2016). He also led engineering teams focused on autonomous driving development at EV startup Faraday Future. He is passionate about bringing cutting-edge research closer to commercialization. He is a noted public speaker, expert, and adviser on autonomy and human-centric research.

Dr. Balachandran delivered the keynote address at the 2024 SAE International World Congress Experience (WCX) and the FAST-zero symposium in Kanazawa, Japan. He participated in a panel discussion at the Financial Times Future of the Car Summit 2024 and presented at conferences, including the 2023 International Federation of Automatic Control (IFAC) World Congress, Workshop on Signal Processing for Autonomous Systems (SPAS) organized by IEEE Signal Processing Society and held in conjunction with International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2023 in Greece, and the MIT Mobility Forum in 2022.

Dr. Balachandran holds a B.S. in mechanical engineering and a minor in computer science from Cornell University. He also holds M.S. and Ph.D. degrees in mechanical engineering from Stanford University, focusing on autonomous technologies, performance driving, and human interaction. He is also a recipient of the prestigious Stanford Graduate Fellowship.