

AI driven Sustainability for Autonomous Driving



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Self-driving technology is poised to revolutionize transportation infrastructure globally, offering a unique opportunity to enhance the quality of life. As urban areas face challenges such as rapid growth, avoidable collisions, vehicle emissions, and congestion from single-occupant commuters, autonomous vehicles promise to transform transportation systems by delivering significant environmental, social, and economic benefits.

However, autonomous ground vehicles (AGVs) must overcome various challenges to navigate safely from origin to destination. In this lecture, we will explore these challenges across different self-driving models. We will delve into self-driving algorithms, the integration of supervised learning and reinforcement learning, fundamental driving functions, and collision avoidance using deep reinforcement learning. The talk will conclude with test results and an assessment of risk levels for self-driving technology.

Biography:

Prof. Ankush Ghosh is Senior member of IEEE, Fellow of IETE working as Vice-President at ADSRS Education and Research Foundation, India. He has received his Ph.D. (Engg.) degree from Jadavpur University, India in 2010. He was a research fellow of the Advanced Technology Cell- DRDO, Govt. of India. He was awarded National Scholarship by HRD, Govt. of India. He has outstanding research experiences and published more than 20 edited books from Springer & Elsevier; 3 National & 8 International patents and more than 150 research papers indexed in Scopus/Web of Science. He is serving as an editorial board member of several international journals including Chief Editor. He has more than 20 years of experience in teaching, research as well as industry. His UG and PG teaching assignments include Microprocessor and microcontroller, AI, IOT, Embedded and real time systems etc. He has delivered Keynote/Invited lecture in a number of international seminar/conferences, refreshers courses, and FDPs. He has guided a large number of M.Tech and Ph.D. students. Dr. Ghosh is an active member of IEEE and organized a number Seminars and workshops in association with IEEE. He is an editor & organizing committee member of the Conference series GUCON, GlobConET, GlobConPT, GlobConHT, ICACIS ICCCA, ICEEE, ICACIT. He is a Global Jury member of National Entrepreneurship Network- Mentor Group. He has received award for contributing in Innovate India programme from AICTE- DST, Govt. of India in 2019 and 2020.