





River Publishers Series in Transport Technology

Human Factors in Intelligent Vehicles

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ISBN: 9788770222044 e-ISBN: 9788770222037 Available From: October 2020

Price: € 95.00

Description:

Human Factors in Intelligent Vehicles addresses issues related to the analysis of human factors in the design and evaluation of intelligent vehicles for a wide spectrum of applications and over different dimensions. To commemorate the 8th anniversary of the IEEE ITS Workshop on Human Factors (http://hfiv.net) some recent works of authors active in the automotive human factors community have been collected in this book. Enclosed here are extended versions of papers and tutorials that were presented at the IEEE ITSS Workshop on "Human Factors in Intelligent Vehicles" and also included is additional deeper analysis along with detailed experimental and simulation results. The contributors cover autonomous vehicles as well as the frameworks for analyzing automation, modelling and methods for road users' interaction such as intelligent user interfaces, including brain-computer interfaces and simulation and analysis tools related to human factors.

Keywords: Pedestrian crossing; Interactions; Game Theory; Autonomous vehicles, Brain-computer interfaces, Electroencephalography, Brain waves, Machine learning, Intelligent vehicles, Automation design and assessment, Allocation of functions and tasks, Authority, Responsibility, Human-machine interaction, Pedestrians behavior, Field Test, Older driver, Driver behavior, Age-related limitations, Technology acceptance, Effectiveness Data fusion model, Integration patterns, Driving simulator, Human factors, Ergonomics