

Hybrid Wireless Vehicular Communications and Information Technologies for Vehicle Safety and Driver Assistance

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This presentation follows the main challenges and research directions in the area of hybrid wireless vehicular communications and the progress made in our research group in developing wireless communication systems for vehicle-to-vehicle and infrastructure-to-vehicle communications, as well as information technologies for vehicle safety and driver assistance. In the context of energy crises and the large number of car accidents, energy efficiency



and traffic safety became the main research focus for automotive industry and public transportation administration. The use of wireless communications and information technologies for vehicular applications has a significant potential to address these global challenges. For example, a new safety standard proposal to mandate vehicle-to-vehicle communications for new cars was announced by USA Department of Transportation with the scope of stimulating automotive industry to develop communication and information technologies with applications in improving vehicle safety and energy efficiency.