UNIVERSITY OF SOUTH FLORIDA

Defense of a Doctoral Dissertation

Omkar Dokur

Connected Vehicles (CVs) make transportation safe by communicating with vehicles and the infrastructure in their neighborhood. CVs are embedded with onboard units (OBUs) which transmit basic safety messages (BSMs) containing the location, heading, and velocity information of the vehicle using vehicular ad-hoc networks. These BSMs can be used to warn drivers using various vehicle-to-vehicle (V2V) or vehicle-to-infrastructure (V2I) applications. CV technology also supports cooperative vehicular driving applications such as platooning where a group of vehicles can negotiate and drive jointly close to each other in a cooperative manner to formio (s)4(c)-4Cn.4(r)44(uc)4(adi)2.3 ((i)2.4(nB c)-(v)-4(up)5B ()2.(t)-3..4(up)5n (as)2.3) T

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