1. Record Nr. UNINA9910254189603321 Autore Cheng Nan Titolo Opportunistic Spectrum Utilization in Vehicular Communication Networks / / by Nan Cheng, Xuemin (Sherman) Shen Pubbl/distr/stampa Cham: .: Springer International Publishing: .: Imprint: Springer. . 2016 **ISBN** 3-319-20445-9 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (82 p.) Collana SpringerBriefs in Electrical and Computer Engineering, , 2191-8112 620 Disciplina Soggetti Electrical engineering Computer communication systems Communications Engineering, Networks Computer Communication Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- Opportunistic Communication Spectra Utilization --Opportunistic Spectrum Access Through Cognitive Radio --Performance Analysis of WiFi Offloading in Vehicular Environments --Conclusions and Future Directions. Sommario/riassunto This brief examines current research on improving Vehicular Networks (VANETs), examining spectrum scarcity due to the dramatic growth of mobile data traffic and the limited bandwidth of dedicated vehicular communication bands and the use of opportunistic spectrum bands to mitigate congestion. It reviews existing literature on the use of opportunistic spectrum bands for VANETs, including licensed and unlicensed spectrum bands and a variety of related technologies, such as cognitive radio, WiFi and device-to-device communications. Focused on analyzing spectrum characteristics, designing efficient spectrum exploitation schemes, and evaluating the date delivery performance when utilizing different opportunistic spectrum bands, the results presented in this brief provide valuable insights on improving the design and deployment of future VANETs.