1. Record Nr. UNINA9910799237003321 Autore Li Youqi Titolo Incentive Mechanism for Mobile Crowdsensing [[electronic resource]]: A Game-theoretic Approach / / by Youqi Li, Fan Li, Song Yang, Chuan Zhang Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 981-9969-21-2 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (XI, 129 p. 1 illus.) Collana SpringerBriefs in Computer Science, , 2191-5776 Disciplina 004.167 Soggetti Mobile computing Cooperating objects (Computer systems) Data mining Computer science - Mathematics Mathematical statistics Algorithms Computer science Mobile Computing Cyber-Physical Systems Data Mining and Knowledge Discovery Probability and Statistics in Computer Science Design and Analysis of Algorithms Theory and Algorithms for Application Domains Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1: A Brief Introduction -- Chapter 2: Long-term Incentive Nota di contenuto Mechanism for Mobile Crowdsensing -- Chapter 3: Fair Incentive

Mechanism for Mobile Crowdsensing -- Chapter 2: Long-term Incentive Mechanism for Mobile Crowdsensing -- Chapter 3: Fair Incentive Mechanism for Mobile Crowdsensing -- Chapter 4: Collaborative Incentive Mechanism for Mobile Crowdsensing -- Chapter 5: Coopetition-aware Incentive Mechanism for Mobile Crowdsensing -- Chapter 6: Summary.

Sommario/riassunto

Mobile crowdsensing (MCS) is emerging as a novel sensing paradigm in the Internet of Things (IoTs) due to the proliferation of smart devices (e.g., smartphones, wearable devices) in people's daily lives. These

ubiquitous devices provide an opportunity to harness the wisdom of crowds by recruiting mobile users to collectively perform sensing tasks. which largely collect data about a wide range of human activities and the surrounding environment. However, users suffer from resource consumption such as battery, processing power, and storage, which discourages users' participation. To ensure the participation rate, it is necessary to employ an incentive mechanism to compensate users' costs such that users are willing to take part in crowdsensing. This book sheds light on the design of incentive mechanisms for MCS in the context of game theory. Particularly, this book presents several gametheoretic models for MCS in different scenarios. In Chapter 1, the authors present an overview of MCS and state the significance of incentive mechanism for MCS. Then, in Chapter 2, 3, 4, and 5, the authors propose a long-term incentive mechanism, a fair incentive mechanism, a collaborative incentive mechanism, and a coopetitionaware incentive mechanism for MCS, respectively. Finally, Chapter 6 summarizes this book and point out the future directions. This book is of particular interest to the readers and researchers in the field of IoT research, especially in the interdisciplinary field of network economics and IoT.