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5.3.3 Fundamental Performance Limit on Network Lifetime5.3.4 Computing the Limiting Performance with Polynomial Complexity in Network Size; 5.4 Distributed Asymptotically Optimal Transmission Scheduling; 5.4.1 Dynamic Protocol for Lifetime Maximization; 5.4.2 Dynamic Nature of DPLM; 5.4.3 Asymptotic Optimality of DPLM; 5.4.4 Distributed Implementation; 5.4.5 Simulation Studies; 5.5 A Brief Overview of Network Lifetime Analysis; 5.6 Conclusion; Bibliography; Part II Signal Processing for Sensor Networks; 6 Detection in Sensor Networks; 6.1 Centralized Detection
6.2 The Classical Decentralized Detection Framework

Sommario/riassunto

A wireless sensor network (WSN) uses a number of autonomous devices to cooperatively monitor physical or environmental conditions via a wireless network. Since its military beginnings as a means of battlefield surveillance, practical use of this technology has extended to a range of civilian applications including environmental monitoring, natural disaster prediction and relief, health monitoring and fire detection. Technological advancements, coupled with lowering costs, suggest that wireless sensor networks will have a significant impact on 21st century life. The design of wireless sens