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6.1 Sensor Database Challenges; 6.2 Querying the Physical Environment; 6.3 Query Interfaces; 6.4 High-Level Database Organization; 6.5 In-Network Aggregation; 6.6 Data-Centric Storage; 6.7 Data Indices and Range Queries; 6.8 Distributed Hierarchical Aggregation; 6.9 Temporal Data; 6.10 Summary; Chapter 7. Sensor Network Platforms and Tools; 7.1 Sensor Node Hardware; 7.2 Sensor Network Programming Challenges; 7.3 Node-Level Software Platforms; 7.4 Node-Level Simulators; 7.5 Programming Beyond Individual Nodes State-Centric Programming; 7.6 Summary; Chapter 8. Applications and Future Directions  
8.1 A Summary of the Book; 8.2 Emerging Applications; 8.3 Future Research Directions; 8.4 Conclusion; Appendix A. Optimal Estimator Design; Appendix B. Particle Filter; Appendix C. Information Utility Measures; Appendix D. Sample Sensor Selection Criteria; Bibliography; Index

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Sommario/riassunto

Information processing in sensor networks is a rapidly emerging area of computer science and electrical engineering research. Because of advances in micro-sensors, wireless networking and embedded processing, ad hoc networks of sensor are becoming increasingly available for commercial, military, and homeland security applications. Examples include monitoring (e.g., traffic, habitat, security), industrial sensing and diagnostics (e.g., factory, appliances), infrastructures (i.e., power grid, water distribution, waste disposal) and battle awareness (e.g., multi-target tracking). This book introd

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