Intelligent Systems, Control and Automation:
Science and Engineering

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Satellite Formation Flying

Relative Dynamics, Formation Design, Fuel Optimal Maneuvers and Formation Maintenance

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Satellite Formation Flying: Relative Dynamics, Formation Design, Fuel Optimal Maneuvers and Formation Maintenance (Intelligent Systems, Control and Automation: Science and Engineering)

This book systematically describes the concepts and principles for multi-satellite relative motion, passive and near passive formation designs, trajectory planning and control for fuel optimal formation maneuvers, and formation flying maintenance control design. As such, it offers a sound foundation for experts and engineers in this field to develop further theories and pursue their implementations. Addressing that gap, the book offers a valuable resource for academics, researchers, postgraduate college students and practitioners in neuro-scientific satellite science and engineering. Though satellite television formation flying is widely considered to be a significant progress in space technology, there are few systematic remedies of this issue in the literature.