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5.3 Direct localization principle5.4 Indirect localization principle; 5.5 Simulation examples; 5.6 Conclusions; Appendix A; Appendix B; References; 6. Adaptive nonlinear control: passivation and small gain techniques; 6.1 Introduction; 6.2 Mathematical preliminaries; 6.3 Adaptive passivation; 6.4 Small gain-based adaptive control; 6.5 Conclusions; References; 7. Active identification for control of discrete-time uncertain nonlinear systems; 7.1 Introduction; 7.2 Problem formulation; 7.3 Active identification; 7.4 Finite duration; 7.5 Concluding remarks; Appendix; References
8. Optimal adaptive tracking for nonlinear systems8.1 Introduction; 8.2 Problem statement: adaptive tracking; 8.3 Adaptive tracking and atclf's; 8.4 Adaptive backstepping; 8.5 Inverse optimal adaptive tracking; 8.6 Inverse optimality via backstepping; 8.7 Design for strict-feedback systems; 8.8 Transient performance; 8.9 Conclusions; Appendix: A technical lemma; References; 9. Stable adaptive systems in the presence of nonlinear parametrization; 9.1 Introduction; 9.2 Statement of the problem; 9.3 Preliminaries; 9.4 Stable adaptive NP-systems; 9.5 Applications; 9.6 Conclusions
Appendix: Proof of lemmasReferences; 10. Adaptive inverse for actuator compensation; 10.1 Introduction; 10.2 Plants with actuator nonlinearities; 10.3 Parametrized inverses; 10.4 State feedback designs; 10.5 Output feedback inverse control; 10.6 Output feedback designs; 10.7 Designs for multivariable systems; 10.8 Designs for nonlinear dynamics; 10.9 Concluding remarks; References; 11. Stable multi-input multi-output adaptive fuzzy/neural control; 11.1 Introduction; 11.2 Direct adaptive control; 11.3 Indirect adaptive control; 11.4 Applications; 11.5 Conclusions; References
12. Adaptive robust control scheme with an application to PM synchronous motors

Sommario/riassunto

Adaptive control is no longer just an important theoretical field of study, but is also providing solutions to real-world problems. Adaptive techniques will transform the world of control. The leading world practitioners of adaptive control have contributed to this handbook which is the most important work yet in this field. Not only are techniques described in theory, but detailed control algorithms are given, making this a practical cookbook of adaptive control for both control professionals and practising engineers.The book presents the most advanced techniques and algorithms of ada