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6.5 Optimal placement of piezoelectric actuators and sensors6.6 Numerical and experimental results; 6.7 Conclusions; 7. System Identification for Spatially Distributed Systems; 7.1 Introduction; 7.2 Modeling; 7.3 Spatial sampling; 7.4 Identifying the system matrix; 7.5 Identifying the mode shapes and feed-through function; 7.6 Experimental results; 7.7 Conclusions; Appendix A Frequency domain subspace system identification; A.1 Introduction; A.2 Frequency Domain Subspace Algorithm; Bibliography; Index

Sommario/riassunto

Vibration is a natural phenomenon that occurs in a variety of engineering systems. In many circumstances, vibration greatly affects the nature of engineering design as it often dictates limiting factors in the performance of the system. The conventional treatment is to redesign the system or to use passive damping. The former could be a costly exercise, while the latter is only effective at higher frequencies. Active control techniques have emerged as viable technologies to fill this low-frequency gap. This book is concerned with the study of feedback controllers for vibration control of flexi