1. Record Nr. UNINA9910557346503321 Autore Kalhori Hamed Titolo Inverse Dynamics Problems Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021 Descrizione fisica 1 electronic resource (218 p.) Soggetti Technology: general issues Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia The inverse dynamics problem was developed in order to provide Sommario/riassunto researchers with the state of the art in inverse problems for dynamic and vibrational systems. Contrasted with a forward problem, which solves for the system output in a straightforward manner, an inverse problem searches for the system input through a procedure contaminated with errors and uncertainties. An inverse problem, with a focus on structural dynamics, determines the changes made to the system and estimates the inputs, including forces and moments, to the system, utilizing measurements of structural vibration responses only. With its complex mathematical structure and need for more reliable input estimations, the inverse problem is still a fundamental subject of research among mathematicians and engineering scientists. This book contains 11 articles that touch upon various aspects of inverse dynamic

problems.