Record Nr.	UNINA9910743336903321
Titolo	Vision based identification and force control of industrial robots / / Abdullah Aamir Hayat (and six others)
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore Pte Ltd., , [2022] ©2022
ISBN	981-16-6989-9 981-16-6990-2
Descrizione fisica	1 online resource (212 pages) : illustrations (some color)
Collana	Studies in systems, decision and control ; ; Volume 404
Disciplina	629.892637
Soggetti	Robots - Dynamics
	Robots, Industrial
	Robot vision
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction Vision System and Calibration Uncertainty and Sensitivity Analysis Identication Force Control and Assembly Integrated Assembly and Performance Evaluation Conclusion Vision and Uncertainty Analysis Robot Jacobian Code Snippets and Experimental Videos
Sommario/riassunto	This book focuses on end-to-end robotic applications using vision and control algorithms, exposing its readers to design innovative solutions towards sensors-guided robotic bin-picking and assembly in an unstructured environment. The use of sensor fusion is demonstrated through a bin-picking task of texture-less cylindrical objects. The system identification techniques are also discussed for obtaining precise kinematic and dynamic parameters of an industrial robot which facilitates the control schemes to perform pick-and-place tasks autonomously without any interference from the user.

1.