1.	Record Nr.	UNISALENTO991001274259707536
	Autore	Conference on quadratic forms and hermitian K-theory <1983 ; Hamilton>
	Titolo	Quadratic and hermitian forms / [eds. Carl R. Riehm, Ian Hambleton]
	Pubbl/distr/stampa	Providence, R.I. : published by the American Mathematical Society for the Canadian Mathematical Society, c1984
	ISBN	0821860089 (pbk.)
	Descrizione fisica	xviii, 338 p. : ill., ports. ; 26 cm.
	Collana	Conference proceedings [Canadian Mathematical Society] ; 4
	Altri autori (Persone)	Hambleton, Ianauthor Riehm, Carl R.author
	Disciplina	512.944
	Soggetti	Hermitian forms - Congresses Quadratic forms - Congresses
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	"1983 Conference on Quadratic Forms and Hermitian K-Theory, held at McMaster University, Hamilton, Ontario, July 11-22, 1983 ... sponsored by the Natural Sciences and Engineering Research Council of Canada and McMaster University"--Verso of t.p. Conference/Meeting Hamilton, Ontario 1983 Includes bibliographies.

2.	Record Nr.	UNINA9910254360503321
	Autore	Jaber Alaa Abdulhady
	Titolo	Design of an Intelligent Embedded System for Condition Monitoring of an Industrial Robot / / by Alaa Abdulhady Jaber
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
	ISBN	3-319-44932-X
	Edizione	[1st ed. 2017.]
	Descrizione fisica	1 online resource (302 p.)
	Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
	Disciplina	670.4272
	Soggetti	Robotics Automation Electronic circuits Microprogramming Robotics and Automation Circuits and Systems Control Structures and Microprogramming
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references at the end of each chapters.
	Nota di contenuto	Chapter 1 Introduction -- Chapter 2 Literature Review -- Chapter 3 Signal Processing Techniques for Condition Monitoring -- Chapter 4 Puma 560 Robot and its Dynamic Characteristics -- Chapter 5 Robot Hardware, Transmission Faults and Data Acquisition -- Chapter 6 Robot Vibration Analysis and Feature Extraction -- Chapter 7 Intelligent Condition Monitoring System Design -- Chapter 8 Embedded System Design -- Chapter 9 Embedded Software Design, System Testing and Validation -- Chapter 10 Conclusions and Future Work -- References -- Appendices.
	Sommario/riassunto	This thesis introduces a successfully designed and commissioned intelligent health monitoring system, specifically for use on any industrial robot, which is able to predict the onset of faults in the joints of the geared transmissions. However the developed embedded wireless condition monitoring system leads itself very well for applications on any power transmission equipment in which the loads

and speeds are not constant, and access is restricted. As such this provides significant scope for future development. Three significant achievements are presented in this thesis. First, the development of a condition monitoring algorithm based on vibration analysis of an industrial robot for fault detection and diagnosis. The combined use of a statistical control chart with time-domain signal analysis for detecting a fault via an arm-mounted wireless processor system represents the first stage of fault detection. Second, the design and development of a sophisticated embedded microprocessor base station for online implementation of the intelligent condition monitoring algorithm, and third, the implementation of a discrete wavelet transform, using an artificial neural network, with statistical feature extraction for robot fault diagnosis in which the vibration signals are first decomposed into eight levels of wavelet coefficients.