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Titolo	Government smart card interoperability specification [[electronic resource]] : version 2.1 / / Teresa Schwarzhoff ... [and others]
Pubbl/distr/stampa	Gaithersburg, Md. : , : U.S. Dept. of Commerce, National Institute of Standards and Technology, , [2003]
Edizione	[2003 ed.]
Descrizione fisica	1 volume (various pagings) : digital, PDF file
Collana	NIST interagency report ; ; 6887
Altri autori (Persone)	SchwarzhoffTeresa
Soggetti	Smart cards - Specifications - United States Smart cards - Data processing - Specifications - United States Authentication
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen (viewed Aug. 20, 2008). "July 16, 2003."

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Autore	Dahiya Ravinder S
Titolo	Robotic tactile sensing : technologies and system / / Ravinder S. Dahiya, Maurizio Valle
Pubbl/distr/stampa	Dordrecht ; ; New York, : Springer, 2012, c2013
ISBN	1-283-93583-X 94-007-0579-4
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (257 p.)
Altri autori (Persone)	ValleMaurizio
Disciplina	629.892
Soggetti	Robots, Industrial Tactile sensors - Industrial applications
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 and index.
Nota di contenuto	Part I Technologies And System -- 1 Touch Sensing - Why and Where?- 2 Tactile Sensing: Definitions and Classification -- 3 Human Tactile Sensing -- 4 System Issues, Requirements and Expectations -- 5 Tactile Sensing Technologies -- Part II Integrated Tactile Sensing -- 6 Integrated Tactile Sensing on Silicon -- 7 POSFET I – The Touch Sensing Device -- 8 POSFET II - The Tactile Sensing Chip -- Appendix A Fundamentals of Piezoelectricity -- Appendix B Modeling of Piezoelectric Polymers -- Appendix C Design of Charge/Voltage Amplifiers.- Index.
Sommario/riassunto	Future robots are expected to work closely and interact safely with real-world objects and humans alike. Sense of touch is important in this context, as it helps estimate properties such as shape, texture, hardness, material type and many more; provides action related information, such as slip detection; and helps carrying out actions such as rolling an object between fingers without dropping it. This book presents an in-depth description of the solutions available for gathering tactile data, obtaining aforementioned tactile information from the data and effectively using the same in various robotic tasks. Better integration of tactile sensors on a robot’s body is prerequisite for the effective utilization of tactile data. For this reason, the hardware, software and application related issues (and resulting trade-offs) that

must be considered to make tactile sensing an effective component of robotic platforms are discussed in-depth.To this end, human touch sensing has also been explored. The design hints coming out of the investigations into human sense of touch can be useful in improving the effectiveness of tactile sensory modality in robotics and other machines. The concept of semiconductor devices based sensors or solid-state sensorss is an interesting one, as it allows compact and fast tactile sensing systems with capabilities such as human-like spatio-temporal resolution. This book presents a comprehensive description of semiconductor devices based tactile sensing. In particular, novel Piezo Oxide Semiconductor Field Effect Transistor (POSFET) based approach for high resolution tactile sensing has been discussed in detail. Finally, the extension of semiconductors devices based sensors concept to large and flexile areas has been discussed for obtaining robotic or electronic skin. With its multidisciplinary scope, this book is suitable for graduate students and researchers coming from diverse areas such robotics (bio-robots, humanoids, rehabilitation etc.), applied materials, humans touch sensing, electronics, microsystems, and instrumentation. To better explain the concepts the text is supported by large number of figures.