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	Altri autori (Persone)	WuMin <active 2022> PedryczWitold <1953-> HirotaK (Kaoru)
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	Soggetti	Human-robot interaction Robotics - Human factors Emotion recognition
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	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Introduction -- Multi-modal emotion feature extraction -- Deep sparse autoencoder network for facial emotion recognition -- AdaBoost-knn with direct optimization for dynamic emotion recognition -- Weight-adapted convolution neural network for facial expression recognition -- Two-layer fuzzy multiple random forest for speech emotion recognition -- Two-stage fuzzy fusion based-convolution neural network for dynamic emotion recognition -- Multi-support vector machine based Dempster-Shafer theory for gesture intention understanding -- Three-layer weighted fuzzy support vector regressions for emotional intention understanding -- Dynamic emotion understanding based on two-layer fuzzy fuzzy support vector regression-Takagi-Sugeno model -- Emotion-age-gender-nationality based intention understanding using two-layer fuzzy support vector regression -- Emotional human-robot interaction systems -- Experiments and applications of emotional human-robot.
	Sommario/riassunto	This book focuses on the key technologies and scientific problems involved in emotional robot systems, such as multimodal emotion recognition (i.e., facial expression/speech/gesture and their

multimodal emotion recognition) and emotion intention understanding, and presents the design and application examples of emotional HRI systems. Aiming at the development needs of emotional robots and emotional human–robot interaction (HRI) systems, this book introduces basic concepts, system architecture, and system functions of affective computing and emotional robot systems. With the professionalism of this book, it serves as a useful reference for engineers in affective computing, and graduate students interested in emotion recognition and intention understanding. This book offers the latest approaches to this active research area. It provides readers with the state-of-the-art methods of multimodal emotion recognition, intention understanding, and application examples of emotional HRI systems.