Automatic Speech Recognition (ASR) is the enabling technology for hands-free dictation and voice-triggered computer menus. It is becoming increasingly prevalent in environments such as private telephone exchanges and real-time information services. Speech Recognition introduces the principles of ASR systems, including the theory and implementation issues behind multi-speaker continuous speech recognition. Focusing on the algorithms employed in commercial and laboratory systems, the treatment enables the reader to devise practical solutions for ASR system problems. It addresses in detail C++ programming techniques used to develop ASR applications, thus offering skills that will prove useful in any large C++ based software project. Possible extensions of the well-established ASR technology are highlighted, based on "Hidden Markov Models" applied to fields such as modelling and prediction of econometric series. Features include:

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* Detailed theoretical, mathematical and technical explanations of ASR

* A practical account of the functioning of ASR

A crucial source of information for researchers, developers and project managers involved with ASR systems, Speech Recognition is also structured for use by students of digital signal processing, speech recognition and C++ programming techniques.
Claudio Becchetti graduated with honors in Electronic Engineering in 1994 at the University of Rome, where he achieved the Ph.D. in Telecommunications in 1999. From 2002 to 2009, he was adjoint professor at the University "La Sapienza", faculty of Telecommunication Engineering where he held first a course on Industrial design and then a course on Signal Theory. Claudio has 7 years teaching experience working with students studying ECG. This device is well suited as a practical example for signal theory, digital signal processing, electronics and software engineering.

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