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Nota di contenuto	Preface -- 1. Introduction to MATLAB: 1.1. Starting MATLAB; 1.2. MATLAB programming examples; 1.3. Lab exercises -- 2. Android software development tools: 2.1. Installation steps; 2.2. Getting familiar with Android software tools -- 3. From MATLAB Coder to smartphone: 3.1. MATLAB function design; 3.2. Generating signals via MATLAB on smartphones; 3.3. Running MATLAB Coder C codes on smartphones; 3.4. References -- 4. Linear time-invariant systems and convolution: 4.1. Convolution and its numerical approximation; 4.2. Convolution properties; 4.3. Convolution experiments; 4.4. Lab exercises; 4.5. Running MATLAB Coder C codes on smartphone; 4.6. Running in real-time on smartphones; 4.7. References -- 5. Fourier series: 5.1. Fourier series numerical computation; 5.2. Fourier series and its applications; 5.3. Lab exercises; 5.4. References -- 6. Continuous-time Fourier transform: 6.1. CTFT and its properties; 6.2. Numerical approximations of CTFT; 6.3. Evaluating properties of CTFT; 6.4. Lab exercises; 6.5. References -- 7. Digital signals and their transforms: 7.1. Digital signals; 7.2. Analog-to-digital conversion, DTFT, and DFT; 7.3. Lab exercises; 7.4. References -- Authors' biographies -- Index.
Sommario/riassunto	A typical undergraduate electrical engineering curriculum incorporates a signals and systems course. The widely used approach for the

laboratory component of such courses involves the utilization of MATLAB to implement signals and systems concepts. This book presents a newly developed laboratory paradigm where MATLAB codes are made to run on smartphones, which most students already possess. This smartphone-based approach enables an anywhere-anytime platform for students to conduct signals and systems experiments. This book covers the laboratory experiments that are normally covered in signals and systems courses and discusses how to run MATLAB codes for these experiments on smartphones, thus enabling a truly mobile laboratory environment for students to learn the implementation aspects of signals and systems concepts. A zipped file of the codes discussed in the book can be acquired via the website http://sites.fastspring.com/bookcodes/product/SignalsSystemsBookcodes.