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Nota di contenuto	1. Introductory Chapter: The "DNA Model" of Neurosciences and Computer Systems -- 2. Near-Infrared Optical Technologies in Brain-Computer Interface Systems -- 3. Speech Enhancement Using an Iterative Posterior NMF -- 4. A Self-Paced Two-State Mental Task-Based Brain-Computer Interface with Few EEG Channels -- 5. Neural Signaling and Communication -- 6. Integration of Spiking Neural Networks for Understanding Interval Timing -- 7. Introducing a Novel Approach to Study the Construction and Function of Memory in Human Beings: The Meshk Theory.
Sommario/riassunto	Brain-Computer Interface (BCI) sounds comparable to plugging a USB cable into a human brain with a laptop and accessing brain information. However, it is not as simple as it sounds. BCI is a multidisciplinary discipline with an exponential progress parallel to and with Artificial Intelligence for the past decades. Initially started with the Electroencephalography (EEG) analysis, BCI offers practical applications for cortical physiology today. Although BCI outcomes are more perceptible in medicine such as cognitive assessment, neurofeedback, and neuroprosthetic implants, it opens up amazing avenues for the business community through machine learning and robotics. Thought-to-text is one example of a hot topic in BCI. So, it is quite predictable to see BCI for individual usage given the current affordability of platforms for less technologically savvy users as well as BCI integrated within office automation productivity tools. The current trend is towards vulgarization for businesses benefits, by extension to the

society at large. Thus, the interest in preparing a book on BCI. This book aims to compile and disseminate the latest research findings and best practices on how BCI is expanding the frontiers of knowledge in clinical practices, on the brain itself, and the underlying technologies.

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