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Nota di contenuto	1. Precursors of Clinical EEG: From Animal Electricity to Brain Wave Recording -- 2. Hans Berger (1873-1941). The Search for “Mental Energy” that brought the EEG -- 3. Hans Berger (1873-1941) and The Discovery of Clinical Electroencephalography -- 4. The development of most important schools of Clinical Electroencephalography and Epileptology in North America and Europe -- 5. Understanding Brain Physiology through the EEG -- 6. Preclinical investigation to understand EEG patterns -- 7. EEG interictal spikes, ictal patterns, and accepted terminology -- 8. The Development of the Electroencephalography for Research and Clinical Purposes in Italy -- 9. Development and Clinical Applications of Video-EEG -- 10. The Role of the EEG Technicians -- 11. The Impact of EEG on the Concept of Epilepsy -- 12. The Role of the EEG in the Diagnosis of Epileptic Encephalopathies -- 13. Electroencephalography: beyond the waves -- 14. Role of Scalp and Invasive EEG in Epilepsy Surgery -- 15. EEG in emergencies -- 16. Multimodal Neurophysiological Tests as a Prognostic Indicator for Coma -- 17. EEG and sleep disorders -- 18. Polygraphic Recordings of Epileptic Motor Phenomena -- 19. EEG combined with neuroimaging and neurostimulation -- 20. New Perspectives in EEG Analysis: from Functional Connectivity to Artificial Intelligence -- 21. From Analog to Digital and Beyond: the Future of EEG.

Sommario/riassunto	Authored by leading experts, this book explores the key milestones in the 100-year history of the electroencephalogram (EEG). It provides a detailed account of its origins, global development, clinical applications, and lasting impact on neuroscience. By tracing its evolution, the book underscores the EEG's enduring relevance. What distinguishes this volume is its dynamic and forward-looking approach. Rather than a traditional historical account, it presents the story of the EEG as an evolving narrative—connecting past discoveries with future possibilities. With advancements in digital technology, machine learning, and artificial intelligence, the EEG remains central to neuroscientific research and a critical diagnostic tool in various medical fields. This book offers valuable insights into the EEG's contributions to modern neuroscience and its continued influence. It is intended for neurologists, neuroscientists, neuropsychologists, neurophysiologists, EEG technicians, and medical historians, as well as anyone interested in the development of neuroscience and brain research.