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Altri autori (Persone)	FurseCynthia M MackayTom G
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Nota di contenuto	Introduction -- Five decades of research in electromagnetics -- Millimeter-wave endfire single-fed circularly polarized AFTSA-SC antenna -- High-performance hybrid smart antenna array for advanced wireless communications -- Antenna arrays for physical-layer-based directional networking technology -- Electrically small antennas -- Metamaterial-based antennas and a metasurface-based terahertz frequency splitter -- Electromagnetics research and challenges for tactical communication -- Antenna miniaturization in mobile communication systems -- Making ultra-wideband antennas unidirectional -- Radar reflectors mounted on power boats -- Radio propagation modeling in complex environments -- Radio propagation modeling: Unified view of the ray tracing image method across emerging indoor and outdoor environments -- Wireless performance in dense-transceiver scenarios to enable context-aware scenarios -- Bioelectromagnetic dosimetry: Simulating electromagnetic fields in the

human body -- The genesis of microwave imaging as medical diagnosis modality -- Real-time quantitative reconstruction methods in microwave imaging -- Electromagnetics in medical applications: The cardiopulmonary stethoscope journey -- The Ewald–Oseen extinction theorem and the extended boundary condition method -- Propagator methods in electromagnetics -- Non-Hermitian metamaterials -- Unidirectional, defect-immune and topologically protected electromagnetic surface waves -- Singleband and multiband angular filtering using twodimensional photonic crystals and one-layer gratings -- Construction of parts of the universe on tabletops -- Electromagnetics education: Past, present, and future directions -- Curriculum Vitae of Magdy Fahmy Iskander.

Sommario/riassunto

This book commemorates five decades of research by Professor Magdy F. Iskander (Life Fellow IEEE) on materials and devices for the radiation, propagation, scattering, and applications of electromagnetic waves, chiefly in the MHz-THz frequency range as well on electromagnetics education. This synopsis of electromagnetics, stemming from the life and times of just one person, is meant to inspire junior researchers and reinvigorate mid-level researchers in the electromagnetics community. The authors of this book are internationally known researchers, including 12 IEEE fellows, who highlight interesting research and new directions in theoretical, experimental, and applied electromagnetics. Provides a single-source reference to many of the most significant developments of the past 5 decades in theoretical, experimental, and applied electromagnetics; Offers readers in each sub-discipline discussed current research trends, the state of the art, the chief tools needed in that area, and the vision of a research leader for that area; Includes content of particular interest in Antennas and Propagation, as well as Microwave Theory and Techniques. .
