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Nota di contenuto	Frontmatter -- About the Author -- Annotation -- Introduction -- Contents -- 1. Electromagnetic pulse - a parcel from the past -- 2. A contemporary view of HEMP for electrical engineers -- 3. HEMP simulators -- 4. The vulnerability of electronic equipment to HEMP -- 5. Electronic components for HEMP protection system -- 6. External protection of power systems' electronic equipment from HEMP -- 7. The issues of electronic equipment grounding at the power facilities -- 8. The issue of control cables selection for HEMP-protected electric facilities -- 9. Grounding of control-cable shields -- 10. HEMP filters -- 11. High-voltage insulation interfaces -- 12. Improvement of the resilience of industrial cabinet-installed electronic equipment to HEMP Impact -- 13. Basic principles of direct-current auxiliary-power system (DCAPS) protection -- 14. Protection of telecommunication systems in electric power facilities from HEMP -- 15. Improvement of HEMP resilience of automatic fire-suppression systems -- 16. Protection of diesel generators from HEMP -- 17. Features of HEMP resilience-test methods for power system electronics -- 18. Methods and means of

evaluation of the effectiveness of HEMP protection of the installed power-system -- 19. Features of testing digital protective relays resilience to HEMP -- 20. Establishment of inventory of electronic equipment's replacement modules as a way to improve survivability of the power system -- 21. The problem of impact of geomagnetically induced currents on power transformers and its solution -- A. Standards on HEMP -- B. EMP and its Impact on Power System (List of Reports) -- C. European Projects related to Protection against HEMP -- Index

Sommario/riassunto

How do you protect electrical systems from high energy electromagnetic pulses? This book is designed for researchers who wish to design toughened systems against EMPs from high altitude sources. It discusses numerous factors affecting the strength of EMPs as well as their impact on electronic components, devices and power electrical equipment. This book includes practical protection methods and means for evaluating their effectiveness.
