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Non-destructive Diagnostic of High Voltage Electrical Systems

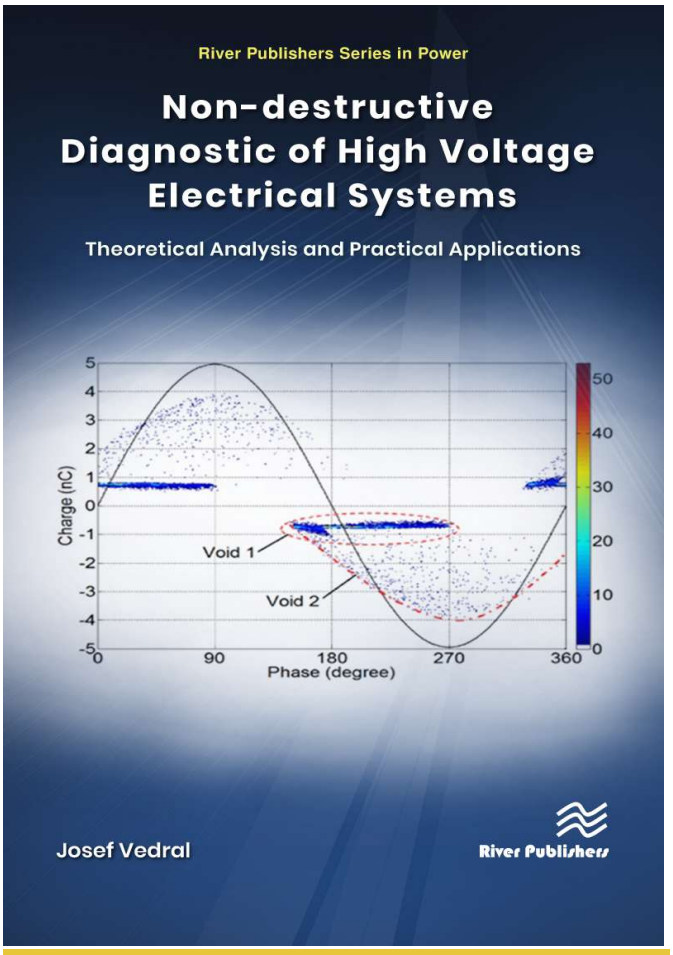
Theoretical Analysis and Practical Applications

Author: Josef Vedral, Czech Technical University in Prague, CZ

This book describes the methods of signal processing used in the non-destructive diagnostics of mechanical and electrical properties of high-voltage electrical machines. Traditional and less traditional methods are given, which allow measuring the mechanical and electrical properties of these machines in order to determine their technical condition, including a description of their measurement methods. Separate chapters are devoted to the causes and methods of measuring and evaluating partial discharges arising in the insulation systems of high-voltage electrical machines. The following chapters provide an overview of the test methods used in the non-disassembly diagnostics of high-voltage transformers, rotary machines, high-voltage cables, insulators, surge arresters and circuit breakers.

The book is intended for students of technical universities and experts in the field of non- destructive diagnostics of high-voltage electrical machines.

The book was reviewed by Ing. Ji?í Brázdil, Ph.D. MBA, Head of the HV laboratory of ORGREZ in the Czech Republic.



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