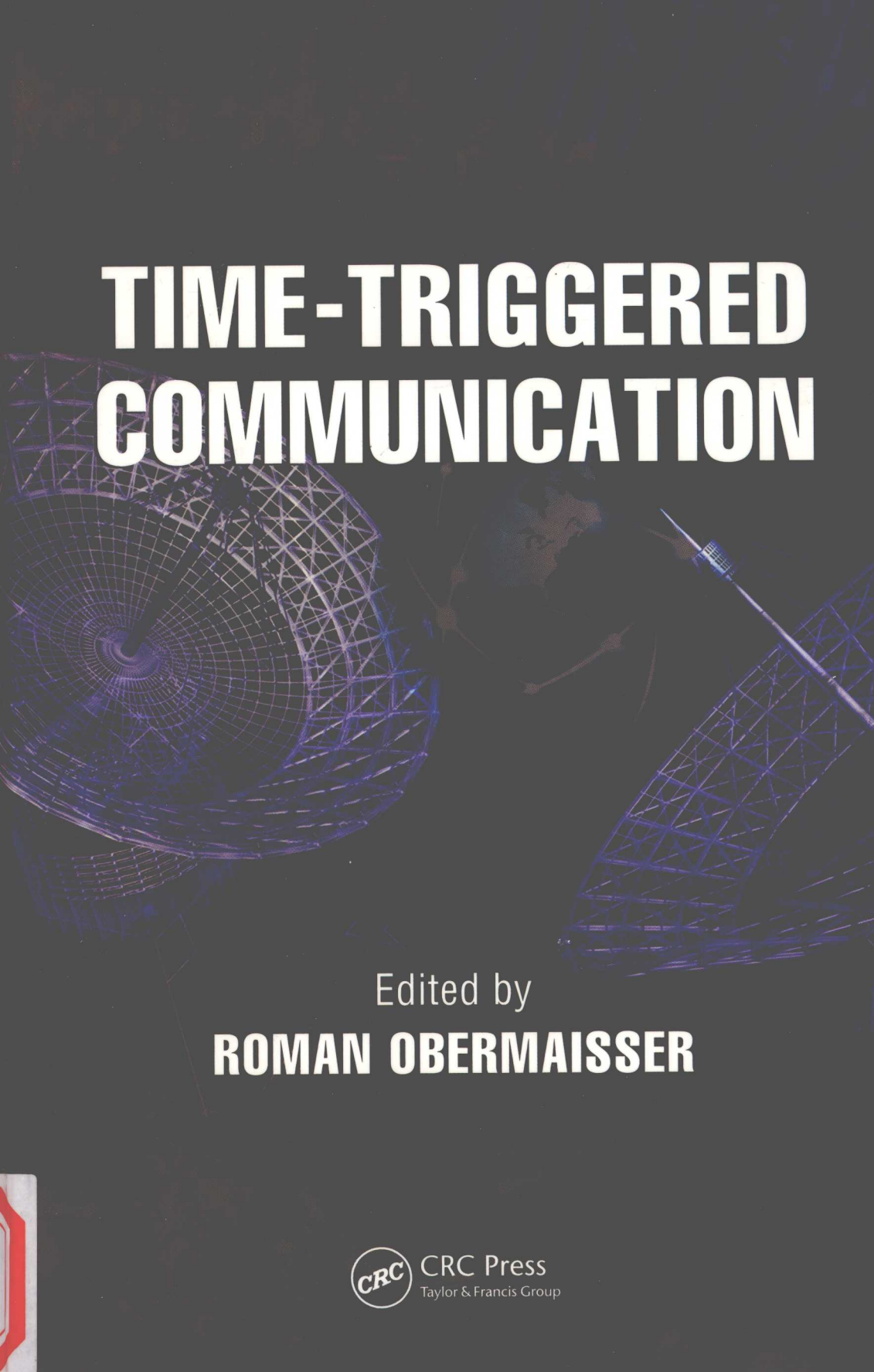


The background of the cover features a large, glowing blue wireframe satellite dish on the left and a network diagram with nodes and connecting lines in the center. Another wireframe dish is partially visible on the right side.

TIME-TRIGGERED COMMUNICATION

Edited by
ROMAN OBERMAISSER



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TIME-TRIGGERED COMMUNICATION

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Embedded Systems

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Editor

Roman Obermaisser is a full professor for embedded systems at the Department of Electrical Engineering and Computer Science of the University of Siegen in Germany. He studied computer sciences at Vienna University of Technology and received his master's degree in 2001. In February 2004, Professor Obermaisser finished his doctoral studies in computer science at Vienna University of Technology with Professor Hermann Kopetz as research advisor. In July 2009, he received the habilitation ("Venia docendi") certificate for Technical Computer Science. He is the author of numerous journal papers, books and conference publications.

Professor Obermaisser has participated in European research projects (e.g., universAAL, DECOS, NextTTA, INDEXYS) and was the technical coordinator of the FP7 research projects GENESYS (GENeric Embedded SYStem Platform) and ACROSS (Artemis Cross-Domain Architecture). He was also a member of the working groups "reference designs/architectures" and "middleware/seamless connectivity" in the European technology platform ARTEMIS, where a roadmap for European research in the area of embedded systems was defined. His leading role in the scientific community is shown through his chairing of and participation in many program committees (e.g., chair of the program committee of the IEEE Symposiums for Object and Component-Oriented Real-Time Distributed Computing, chair of the IEEE Workshop on Architectures and Applications for Mixed-Criticality Systems, chair of the IFIP Workshops on Software Technologies for Future Embedded and Ubiquitous Systems).

Professor Obermaisser's research focuses on system architectures, which provide the scientific and engineering foundation for the construction of embedded systems. The goals of his research are to discover design principles and to develop platform services that enable a component-based development of embedded systems in such a way that the ensuing systems can be built cost-effectively and exhibit key non-functional properties (e.g., dependability, timeliness, composability, maintainability). His investigations have resulted in contributions ranging from conceptual models of component-based system architectures to model-based development solutions and distributed algorithms for fault-tolerance and embedded operating system technologies for safety-relevant applications.

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