Electronics for Radiation Detection (Devices, Circuits, and Systems)

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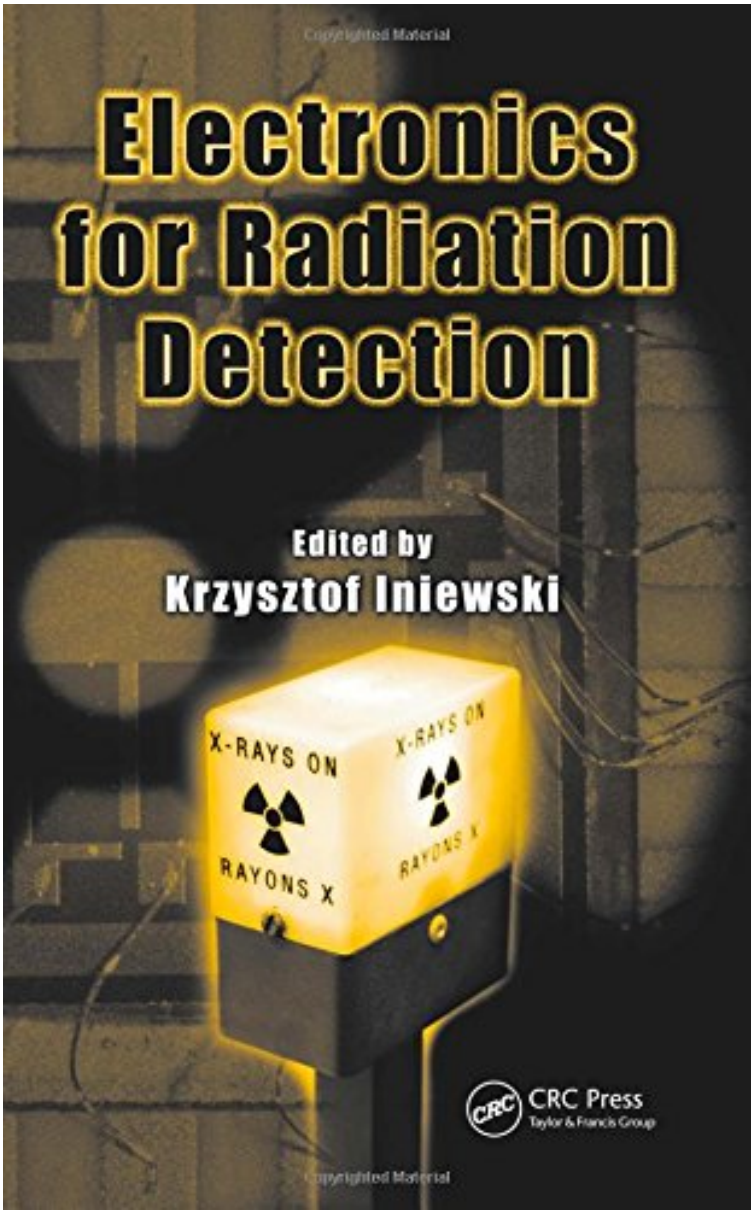

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From CRC Press : Electronics for Radiation Detection (Devices, Circuits, and Systems) before purchasing it in order to gage whether or not it would be worth my time, and all praised Electronics for Radiation Detection (Devices, Circuits, and Systems):

There is a growing need to understand and combat potential radiation damage problems in semiconductor devices and circuits. Assessing the billion-dollar market for detection equipment in the context of medical imaging using ionizing radiation, Electronics for Radiation Detection presents valuable information that will help integrated circuit (IC) designers and other electronics professionals take full advantage of the tremendous developments and opportunities associated with this burgeoning field. Assembling contributions from industrial and academic experts, this book Addresses the state of the art in the design of semiconductor detectors, integrated circuits, and other electronics used in radiation detection Analyzes the main effects of radiation in semiconductor devices and circuits, paying special attention to degradation observed in MOS devices and circuits when they are irradiated Explains how circuits are built to deal with radiation, focusing on practical information about how they are being used, rather than mathematical details Radiation detection is critical in space applications, nuclear physics, semiconductor processing, and medical imaging, as well as security, drug development, and modern silicon processing techniques. The authors discuss new opportunities in these fields and address emerging detector technologies, circuit design techniques, new materials, and innovative system approaches. Aimed at postgraduate researchers and practicing engineers, this book is a must for those serious about improving their understanding of electronics used in radiation detection. The information presented here can help you make optimal use of electronic detection equipment and stimulate further interest in its development, use, and benefits.

About the AuthorDr. Krzysztof (Kris) Iniewski manages RD at Redlen Technologies, Inc., a startup company in British Columbia, Canada. He is also an executive director of CMOS Emerging Technologies, Inc. (www.cmoset.com). His research interests are in hardware design for biomedical and networking applications. From 2004 to 2006, he was an associate professor at the Electrical Engineering and Computer Engineering Department of University of Alberta, where he conducted research on low power wireless circuits and systems. During his tenure in Edmonton, he put together a book for CRC Press titled Wireless Technologies: Circuits, Systems and Devices. From 1995 to 2003, he was with PMC-Sierra and held various technical and management positions. During that time, he led development of number of VLSI chips used in optical networks. Prior to joining PMC-Sierra, from 1990 to 1994, he was an assistant professor at the University of Torontos Department of Electrical Engineering and Computer Engineering. Dr. Iniewski has published more than 100 research papers in international journals and conferences. He holds 18 international patents granted in the USA, Canada, France, Germany, and Japan. He received his Ph.D in electronics (honors) from the Warsaw University of Technology, Poland in 1988.