



CATALOGUE

# ENGINEERING 2014

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# ENGINEERING



## BALLISTICS AND HOMING OF FLYING VEHICLES

*Sikharulidze Yu.G.*

*ISBN 978-5-9963-0531-5*

*407 pp., hardcover*

*165 x 235 mm*

*2011*

The book contains classical and new actual problems of the theory of aircrafts flight, including carrier rockets and space vehicles, descent vehicles, ballistic missiles and their heads, interplanetary devices, reusable space transport systems, aviation-rocket complexes of air start, etc. It describes communication of optimum laws of ballistics modeling problems management with real algorithms of homing in control systems of flying machines. Terminal algorithms of homing for various phases of a trajectory are considered in detail. A reader would find principles of robust homing algorithms construction, capable to adapt for actual flight conditions.

The book is intended for post-graduate students and students of corresponding specialties, experts in the field of ballistics and running of flying vehicles.



## EQUIPMENT AND SOFTWARE CONTROL SYSTEMS. INDUSTRIAL NETWORKS AND CONTROLLERS

*V. V. Kangin, V. N. Kozlov*

*ISBN 978-5-94774-908-3*

*418 pp.*

*145 x 215 mm*

*2010*

The book deals with the issues of computerized distributed technological processes' control systems organization: basic industrial networks architecture, components of human-machine interface, types of workstations and operating controllers. Comparative estimation of controllers from their economic and operational characteristics point of view is given. Much attention is given to the industrial controllers programming issues.

The book is intended for university graduate students. It will also be useful for the engineers working in the field of technological processes automation.

**Vladimir V. Kangin** Doctor of Engineering Sciences, Professor of the Arzamas Polytechnical Institute (branch of the Nizhny Novgorod State Technical University). The author of more than 250 published scientific works, 2 monographs, 20 manuals.

**Vladimir N. Kozlov** Doctor of Engineering Sciences, Professor of the St.-Petersburg State Polytechnical University, the Academician of the International Academy of Sciences of the Higher School and the Russian Academy of Natural Sciences. The author of more than 180 proceedings and 20 monographies.



### **MICROELECTRONIC INSTRUMENT TRANSFORMATORS: A TUTORIAL**

*V. B. Topilsky*

*ISBN 978-5-9963-0635-0*

*493 pp. hardcover*

*165 x 235 mm*

*2012*

The manual describes the complex of issues related to analog and analog-digital circuitry information-measuring systems (IMS) and management systems. A reader would find a detailed description of the components of such systems (microelectronic sensors, signal amplifiers, analog-digital converters and display units).

The book is intended for students, teachers of relevant disciplines, specialists involved in the development and operation of IMS for various purposes.



### **THE PROBLEMS SOLVING ON MATERIALS RESISTANCE, 3<sup>rd</sup> ED.**

*E. A. Bulanov*

*ISBN 978-5-9963-0155-3*

*215 pp.*

*145 x 215 mm, hardcover*

*2010*

The manual contains theoretical data and detailed problems solving on the basic types of materials resistance, and also problems for the independent solving with answers.

The manual is intended for students.



## **RADIATION EFFECTS IN SILICON INTEGRATED CIRCUITS FOR SPACE APPLICATION**

*K. I. Tapero, V. N. Ulimov, A. M. Chlenov*

*ISBN 978-5-9963-0633-6*

*304 pp.*

*145 x 215 mm, hardcover*

*2012*

The book analyzes the impact of ionizing radiation (IR), mainly of outer space, on micro- and nanoelectronics products' characteristics. The authors consider the basics of the IR-semiconductors interactions physics, the change of device structures electrophysical parameters due to the formation of nanoscale defects under the IR action; ionizing dose effects in the structure of Si/SiO<sub>2</sub> and their

influence on the devices and circuits characteristics, single events in the products of micro- and nanoelectronics under the influence of individual charged particles, etc.

The book is intended for technical professionals working in the field of electronics, as well as undergraduate and graduate students.

# THE BKL PUBLISHERS

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