<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jordanova M., T. Dachev, D. Mishev, A. Atanasova, P. Kanchev, Pilot Project for Septemvri Region</td>
<td>3</td>
</tr>
<tr>
<td>Levkov Ch., Computation of Heart Rate Variability Parameters In Electrocardiographic Holter System</td>
<td>9</td>
</tr>
<tr>
<td>Iliev I., S. Tabakov, Portable Physiological Electrostimulator</td>
<td>14</td>
</tr>
<tr>
<td>Cvetanov D., I. Iliev, Bluetooth – A Standard for Wireless Communication and its Application in Medical Devices</td>
<td>19</td>
</tr>
<tr>
<td>Cvetanov D., I. Iliev, Implementation of Communicational Interfaces in Biomedical Signal Registration. Advantages and disadvantages</td>
<td>26</td>
</tr>
<tr>
<td>Jekova I., T. Stoyanov, Measurement of Electrocardiogram Parameters. Implementation in Classification Systems</td>
<td>31</td>
</tr>
<tr>
<td>Sokolović M., Pr. Petković, DSP Chain Testing in an Integrated Power-Meter</td>
<td>37</td>
</tr>
<tr>
<td>Dimitrov I., St. Apostolov, A System for Transmitting of Telemecanic Information, Voice and Data</td>
<td>43</td>
</tr>
<tr>
<td>Ovcharov St., N. Tuliev, P. Yakimov, E. Balkanska, Investigation on Electronic Instruments for Power Factor Correction</td>
<td>49</td>
</tr>
<tr>
<td>Ovcharov St., T. Alexandrov, N. Tuliev, P. Yakimov, E. Balkanska, Transducer of Electrical Quantities in Three Phase Systems with High Resolution</td>
<td>55</td>
</tr>
<tr>
<td>Kostadinov A., G. Mihov, Electrical Energy Consumption Automatic Meter Reader</td>
<td>59</td>
</tr>
<tr>
<td>Nenov N., T. Rouzhekov, G. Mihov, E. Dimitrov, Technology for Dynamic Wheel Load Measuring of Railway Carriages</td>
<td>64</td>
</tr>
<tr>
<td>Stanchev A., St. Ovcharov, VHDL Programmed Circuit for Controlling the Process of Storing and Reading Data In a Digital PC-Based Oscilloscope</td>
<td>70</td>
</tr>
<tr>
<td>Aleksiev D., N. Krantov, V. Zerbe, Evaluation Board for Digital Systems Designing</td>
<td>76</td>
</tr>
<tr>
<td>Djamiykov T., N. Krantov, G. Grozdanov, Evaluation Board to Control Sensor System</td>
<td>81</td>
</tr>
<tr>
<td>Marinov M., I. Topalov, V. Zerbe, M. Dontschewa, Application of Micromechanical Accelerometers for Machine Condition Monitoring</td>
<td>86</td>
</tr>
<tr>
<td>Kostov Pl., T. Ivanova, Sv. Sapunova, I. Dandolov, I. Ilieva, Plant Growth Measurements During the Svet Greenhouse-IIB Space</td>
<td>92</td>
</tr>
</tbody>
</table>
Experiments on the MIR OS - a Basis for Development of a Closed Plant Space Habitat

Gousheva M., Pl. Angelov, Pl. Hristov, On a Possibility to Monitor Seismic Activity by Specific Wave Plasma Complex

Mardirossian G., B. Boytchev, Some Improvements and Innovations at the Bulgarian Geomagnetic Observatory

Bochev V., K. Chukanov, Assessment of Uncertainty in Prognosis of Variation of Controlled Parameters Aviation Technique


Spasov G., Z. Velchev, G. Petrova, A Distributed System for Control of Technological Process in Canning Industry

Katrandzhiev N., R. Chalucova, G. Krivoshiev, P. Bozhilov, A. Lyungov, The Nondestructive Assessment of the Potatoes Internal Quality by Using the Method “Seeing Through Layers” (STL)

Georgieva Y., St. Tzonkov, K. Georgieva, Variable Structure Control of Fermentation Processes

Babatov I., A. Kirchev, Universal Modular Controller for Data Acquisition and Control

Kolev I., Ts Karadzhov, Analysis and Circuit Solutions of Position-Sensitive Photodetectors

Kolev I., I. Stoeva, Infrared Channels for Control of Actuators

Yordanov St., Kr. Ormandgiev, Synthesis of Neural Controller for Governing of Active Water Turbine Fed by Means of Long Pressure Pipeline

Shindov P., Direct Laser Writing of Ohm Contacts CdO by UV Laser Processing for Photosensor – CdS by Spray Deposition Technique

Shindov P., M. Budakova, Direct Laser Writing of Ohm Contacts from CdO Processing for Photosensor CdS-CdSe Prepared by Spray Deposition Technique

Craciun A., L. Perniu, M. Vulpe, S. Moraru, Nickel Based Rechargeable Battery Testing and Recondition

Mardirossian G., G. Jelev, H. Nikolov, Al. Mardirossian, Electronic and Optic- Electronic Part of the System for Tsunami Physical Modeling

Stoyanov P., M. Mihov, G. Georgiev, The System for Integration of Civil and Military Flight Data Plans

Book 2

Vankov I., CMS Uniform Low Voltage Power Supply System

Gavrovski Cv., V. Filiposki, One Solution for Eliminating the problem of Detector Saturation in Portable Instruments for Ionizing Radiation
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomov B., Pl. Dimitrov, Y. Matviichuk, Ts. Dachev, Y. Uchihori, H.</td>
<td>15</td>
</tr>
<tr>
<td>Kitamura, K. Fujitaka, Calibration Results Obtained by Liulin-4 Type</td>
<td></td>
</tr>
<tr>
<td>Spectrometers at the Nirs Himac Heavy Ion Synchrotron Facility</td>
<td></td>
</tr>
<tr>
<td>Deneva M., M. Nenchev, R. Barbe, J. Keller, All-Optical Diode Laser</td>
<td>21</td>
</tr>
<tr>
<td>Arrangement for Producing Emission Spectrally Fixed at Reference</td>
<td></td>
</tr>
<tr>
<td>Atomic Line</td>
<td></td>
</tr>
<tr>
<td>Kunov B., I. Vankov, L. Dimitrov, Low Voltage Power Supply for HCAL</td>
<td>26</td>
</tr>
<tr>
<td>Photodetectors in CMS</td>
<td></td>
</tr>
<tr>
<td>Mitev M., L. Tsankov, Ch. Lenev, A Spectral Analyzer with a</td>
<td>30</td>
</tr>
<tr>
<td>Logarithmic Energy-Code Scale - Nature, Features, Advantages and</td>
<td></td>
</tr>
<tr>
<td>Drawbacks</td>
<td></td>
</tr>
<tr>
<td>Mitev M., I. Mitroshanov, Cv. Lazarov, Provident High Voltage Power</td>
<td>36</td>
</tr>
<tr>
<td>Supply for a Scintillation Detector</td>
<td></td>
</tr>
<tr>
<td>Mitev M., P. Petrova, Amplitude-to-Digital Converter with Sliding</td>
<td>42</td>
</tr>
<tr>
<td>Scale Based on Microcontrollers</td>
<td></td>
</tr>
<tr>
<td>Mitev M., D. Stankova, Al. Yordanov, Comparison of Methods for</td>
<td>48</td>
</tr>
<tr>
<td>Measurement of Low-Level Gamma Exposure Dose</td>
<td></td>
</tr>
<tr>
<td>Boyadzhieva A., M. Deneva, M. Nenchev, Quantum Generator Using a</td>
<td>54</td>
</tr>
<tr>
<td>New Output Coupler with Controlled Transmission and Reflection</td>
<td></td>
</tr>
<tr>
<td>Grozdanova A., I. Bakalski, P. Matanska, A. Dandarov, Assessment of</td>
<td>60</td>
</tr>
<tr>
<td>the Sampling Error of Measurement of Point Spread Function in Lens</td>
<td></td>
</tr>
<tr>
<td>Testing Systems</td>
<td></td>
</tr>
<tr>
<td>Sztojanov I., S. Paşca, M. Nicolae, Multiprocessor System for Genetic</td>
<td>66</td>
</tr>
<tr>
<td>Algorithm Based Control</td>
<td></td>
</tr>
<tr>
<td>Makraduli M., DSP Based Variable Drive Motor Control System</td>
<td>72</td>
</tr>
<tr>
<td>Karakehayov Z., Low-Power Communication for Wireless AD-HOC</td>
<td>77</td>
</tr>
<tr>
<td>Networks</td>
<td></td>
</tr>
<tr>
<td>Savov R., P. Zlatanov, I. Kurtev, Hardware - Software Method for</td>
<td>83</td>
</tr>
<tr>
<td>Data Protection in Personal Computers</td>
<td></td>
</tr>
<tr>
<td>Hristov V., Performance of Early Packet Discarding with a Priority</td>
<td>87</td>
</tr>
<tr>
<td>in Homogeneous ATM Networks</td>
<td></td>
</tr>
<tr>
<td>Karakehayov Z., L. Karakehayova, Vl. Savov, Languages and Tools for</td>
<td>93</td>
</tr>
<tr>
<td>Codedesign in Embedded Systems Courses</td>
<td></td>
</tr>
<tr>
<td>Grigorov Ch., Z. Karakehayov, D. Bozduganov, An Experimental Software</td>
<td>99</td>
</tr>
<tr>
<td>Tool for Scheduling of Distributed Real-Time Embedded Systems</td>
<td></td>
</tr>
<tr>
<td>Karakehayova L., M. Mironov, A Case Study of a Temperature Controller</td>
<td>103</td>
</tr>
<tr>
<td>Kurtev I., P. Zlatanov, Universal Microprocessor Subsystem for Test</td>
<td>109</td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>Mihov G., St. Mollov, R. Ivanov, Universal Serial Bus in Industrial</td>
<td>113</td>
</tr>
<tr>
<td>Measurements and Control Applications</td>
<td></td>
</tr>
<tr>
<td>Mollov S., S. Jilov, Smart Color Mark Sensor Using E3M-V</td>
<td>119</td>
</tr>
<tr>
<td>Manoev V., G. Mitev, Usage of Flash Cards for Data Storage in Simple</td>
<td>125</td>
</tr>
<tr>
<td>Microcontroller Systems</td>
<td></td>
</tr>
</tbody>
</table>

III
Dimitrov E., K. Dilov, Real Time Operating Systems for MSP430 Family Microcontrollers

Gebov Vl., Main Principles at the Control of the Interruption for Processor with one Chip (mc68hc11)

Dzhekov T., A PWL Charge Control Model of the Power BJTs

Mashkov P., T. Pencheva, D. Popov, Vl. Mateev, Electronic Pulse Control for Low Inert Infrared Heaters

Popov E., L. Pindeva, B. Tsankovski, Controlling Frequency Influence on the Operation of Semiconductor RLC Inverters

Bobcheva M., G. Kynov, N. Hinov, Configuration of Transistor Inverter - Multifunctional Controller as a Basic Module for Education and Research In the Field of Power Electronics

Grigorova T., G. Bodurov, B. Pachedjieva, Series Resonant Converter with Secondary-Side Control of the Output Voltage

Karov R., Ts. Grigorova, Circuits Variety of Current Source Parallel Inverters for Induction Heating Application with Improved Performance

Kunov G., A. Krusteva, G. Staychev, High Frequency Converter with Series Resonance Circuit for Plasma-Chemical Surface Treatment at Atmospheric Pressure

Peev M., A. Krusteva, Analysis of the Electrical and Technological Regimes at the Pulse Reverse Electrodeposition of Abrasive Coatings

Book 3

Atghiaee A., G.C.M. Meijer, Droplet Measurement with a Capacitive Sensor

Aguilar R.N., G.C.M. Meijer, Smart Architecture for 3-D Ultrasonic Tracking System


Andrejević M., Th. Liebezeit, Modeling of the Energy System for the Mission Level Design of the DEEP PC AUV

Blendinger C., V. Mehrmann, P. Prochkov, A. Steinbrecher, Numerical Simulation of Train Traffic in Large Networks via Time-Optimal Control

Stanoeva M., A. Popov, Investigation of a Precise DAC Based on two Mismatched Capacitors

Fratu O., S. Halunga, Transient Behavior of Amplifier Gain Control Correction

Halunga S., O. Fratu, D. Paun, I. Berca, Turbocodes Bit Error Rate

IV
Performances with Different Interleaver Structures
Iliev B., G. Meijer, Electrical Characterization of Rockwool Substrates

Kosev J., Two-Step Inductorless DC/DC Power Transformers: Classical Configurations, Efficiency and Approximations

Sark Vl., V. Zerbe, Real Time Attitude System for Unmanned Air Vehicles

Jekov J., G. Mardirossian, St. Stoyanov, P. Panova, St. Velkoski, Non-Linear Receiver Reaction of Irradiation with Complex Spectral Composition

Stoeva M., Sl. Yordanova, Spatial Similarity Investigation of Image Objects

Yordanova Sl., M. Stoeva, Problems Connected with Orthogonal Transformations and Image Compression

Shoikova E., I. Pandiev, Commercial Sample/Track-and-Hold Amplifier Macromodel Development

Shoikova E., I. Pandiev, Verification and Validation of Commercial Sample/Track-And-Hold Amplifier Macromodels

Trushev I., I. Tabanov, V. Mladenov, PSpice Models of Sliding Mode Controller of DC/DC Converters

Sotirov D., G. Kokorov, E. Tsonev, E. Ganev, Evaluation of Precision and Reliability when Defining the Parameters of Normal Distribution of Random Value

Tzanov M., E. Manolov, F. Koparanov, Practical Experiments to Demonstrate the Basic Principles of Switched-Capacitor Circuity


Manolov E., F. Koparanov, M. Tzanov, Analysis of Operation of First Order Switched-Capacitor Sigma-Delta Modulator

Manoilov P., FPGA Implementation of Image Processing Filters

Saramov E., A. Popov, Buffer Memory Structure with Optimization for Speed

Petrov B., Micro Programmable RISC-oriented FPGA-based Core for Real-time Data Stream Processing

Kukenska V., I. Simeonov, Designing of a Digital Module for Management of a Seven-Segmented Indication with Programming Logics Through the Use of the Description Language VHDL

Simeonov I., V. Kukenska, Designing of a Digital Module for Management of a Seven-Segmented Indication with Programming Logics Through the Use of the Graphical Editor in WebPack Integrated System

Koparanov F., S. Arnaudov, Special Postdetermination of Logical Functions: Algorithmic Procedure Using Integer Numeric Tables

Arnaudov R., M. Hristov, I. Aldimirov, Impact of the Frequency Jitter on
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>the Statistical Results of DSP Based Tests. Algorithm of Test Function Optimizing the Measurement</td>
<td>171</td>
</tr>
<tr>
<td>Georgiev J., S. Hristov, P. Stojanova, Programmable TV Modulator for Cable Stations</td>
<td>183</td>
</tr>
<tr>
<td>Jordanova L., D. Dobrev, Parameters Optimization of the Optical Fiber Components for Cable Television</td>
<td>195</td>
</tr>
<tr>
<td>Christov C., A. Doseva, D. Kireva, Fail-Safe Qualitative Estimation of the Lineside Electronic Units in Cab Signaling System</td>
<td>201</td>
</tr>
<tr>
<td>Petkov I., Ah. Jerraya, Automatic Generation of HW-SW Interfaces for MPSOC</td>
<td>207</td>
</tr>
<tr>
<td>Vulpe M., A. Craciun, L. Perniu, A. Pelcz, Remote Controlling of Electrical Devices Using JAVA and RMI/HTTP Technology</td>
<td></td>
</tr>
</tbody>
</table>

**Book 4**

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Błąd Gr., D. Klepacki, J. Potencki, Electro–Thermal Simulation of Heat Transfer in Hybrid Microcircuits</td>
<td>3</td>
</tr>
<tr>
<td>Gheorghe G., Particular Considerations Regarding Energetic Equilibrium at Photoelectric Transducers - Part I</td>
<td>15</td>
</tr>
<tr>
<td>Gheorghe G., Particular Considerations Regarding Energetic Equilibrium at Photoelectric Transducers–Part II</td>
<td>23</td>
</tr>
<tr>
<td>Hristov M., G. Angelov, SPICE Models for MOSFETS: Towards the Nanotechnology Era</td>
<td>31</td>
</tr>
<tr>
<td>Ivanova M., S. Haese, A 5.88 GHz Mixer for Wireless LAN Applications</td>
<td>37</td>
</tr>
<tr>
<td>Dobrikov G., M. Rassovska, K. Kolentsov, I. Yordanova, Transparent Electrodes for Organic Light Emitting Devices</td>
<td>43</td>
</tr>
<tr>
<td>Videkov V., R. Radonov, B. Ianov, Web-based Test Module for SMD Technology</td>
<td>49</td>
</tr>
<tr>
<td>Veleva I., Bl. Donchev, G. Staychev, Methods for Analog Integrated Circuits Synthesis</td>
<td>55</td>
</tr>
<tr>
<td>Mihailova C., O. Antonova, D. Pukneva, E. Manolov, M. Hristov, Basic CMOS Analog Circuits for VLSI Design Education</td>
<td>61</td>
</tr>
<tr>
<td>Mihailova C., O. Antonova, D. Pukneva, E. Manolov, M. Hristov, Analog Array for Practical Investigation of DC Biasing Circuits</td>
<td>67</td>
</tr>
<tr>
<td>Antonova O., D. Pukneva, C. Mihailova, E. Manolov, M. Hristov, Analog</td>
<td>73</td>
</tr>
</tbody>
</table>
Array for Amplifier Circuits Prototyping
Pukneva D., O. Antonova, C. Mihailova, E. Manolov, M. Hristov, Determining Hand-Calculation MOS Transistor Model Parameters From BSIM Model

Spassov G., Matrix Correctons Computer Programme In Auger Electron Spectroscopy


Stoyanov I., G. Nikolov, A Virtual Laboratory for Electronic Measurements

Stoyanov I., G. Nikolov, B. Nikolova, Remote Access Methods for Virtual Instrumentation

Vasilev V., T. Vassileva, I. Furnadziev, A. Bagnasco, A.M. Scapolla, Application Tools for Configuration and Control of Instrumentation in a Remote Laboratory

Vassileva T., Action-based e-Learning in Electronics

Shoikova E., I. Pandiev, Vl. Denishev, V. Stoyanov, Creating Scorm-Compliant Content “Printed Circuit Boards Design with OrCAD Layout”

Markova M., St. Stoeva, Where is the Learning in e-learning? Pedagogical Meta-model

Markova M., St. Stoeva, Question & Test Interoperability Standards Overview in e-Learning Environment

Markova M., St. Stoeva, Algorithm for On-line Assessment Using Fuzzy Logic

Bontchev B., D. Mutafchieva, Tasks Assignment and Control in ARCADE

Mechkov C., Building Electronics Tutorial

Mechkov C., Parallel Negative Feedback Circuit Builder

Hristov V., L. Taneva, Education on Microcontrollers with 68HC908GP32EVB System

Stoyanova L., St. Stefánova, B. Basheva, Groupwork Results in Education in Electronics

Stefanova St., Ts. Tsvetkova, T. Taneva, B. Tokushev, N. Kolev, A. Tsigularov, Internet-Based Information System of Technology School “Electronic Systems” Associated with the Technical University of Sofia

Stefanova St., Time Domain Recursive Digital Filter Design with Realization Based on Neural Network Structure


Mustica M., S. Moraru, ECampus® - An E-Learning Management System as a WEB Based Application
Pelcz A., M. Vulpe, A. Moraru, L. Perniu, Unilateral/Multilateral Application Sharing


Moraru A., A. Pelcz, A. Craciun, M. Vulpe, Using JAVA Applets in ICT Products on E-Learning Environment

Rahneva O., Testing and Assessment in Distributed Electronic Cluster – DeTC