

# Contents

<b>Petri Nets in Design of Control Algorithms</b> . . . . .	1
Andrei Karatkevich	
<b>Synthesis and Implementation of Parallel Logic Controllers in All Programmable Systems-on-Chip</b> . . . . .	15
Valery Sklyarov, Iouliia Skliarova and João Silva	
<b>Circuit Implementation of Parallel Logical Control Algorithms Represented in PRALU Description</b> . . . . .	31
P.N. Bibilo, Yu.V. Pottosin, V.I. Romanov and A.D. Zakrevskij	
<b>Effective Partial Reconfiguration of Logic Controllers Implemented in FPGA Devices</b> . . . . .	45
Remigiusz Wiśniewski, Monika Wiśniewska and Marian Adamski	
<b>An Application of Logic Controller for the Aerosol Temperature Stabilization</b> . . . . .	57
Michał Doligalski, Marek Ochowiak and Anna Gościński	
<b>Symbolic Coloring of Petri Nets</b> . . . . .	67
Jacek Tkacz	
<b>Modular Synthesis of Petri Nets</b> . . . . .	77
Jacek Tkacz and Marian Adamski	
<b>Architectural Synthesis of Petri Nets</b> . . . . .	93
Arkadiusz Bukowiec	
<b>Decomposition-Based Methods for FSM Implementation</b> . . . . .	103
Mariusz Rawski, Piotr Szotkowski and Paweł Tomaszewicz	
<b>Using UML Behavior Diagrams for Graphical Specification of Programs for Logic Controllers</b> . . . . .	131
Grzegorz Bazydło and Marian Adamski	

<b>Various Interpretations of Actions of UML Activity Diagrams in Logic Controller Design . . . . .</b>	<b>143</b>
Michał Grobelny, Iwona Grobelna and Marian Adamski	
<b>Model Checking of UML Activity Diagrams Using a Rule-Based Logical Model . . . . .</b>	<b>153</b>
Iwona Grobelna, Michał Grobelny and Marian Adamski	
<b>UML Support for Statecharts-Based Digital Logic Controller Design in FPGA Technology . . . . .</b>	<b>165</b>
Grzegorz Łabiak	
<b>Index . . . . .</b>	<b>181</b>

Design of Reconfigurable Logic Controllers

Karatkevich, A.; Bukowiec, A.; Doligalski, M.; Tkacz, J.  
(Eds.)

2016, VIII, 185 p. 76 illus., 13 illus. in color., Hardcover

ISBN: 978-3-319-26723-4