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Arduino Programming using Simulink

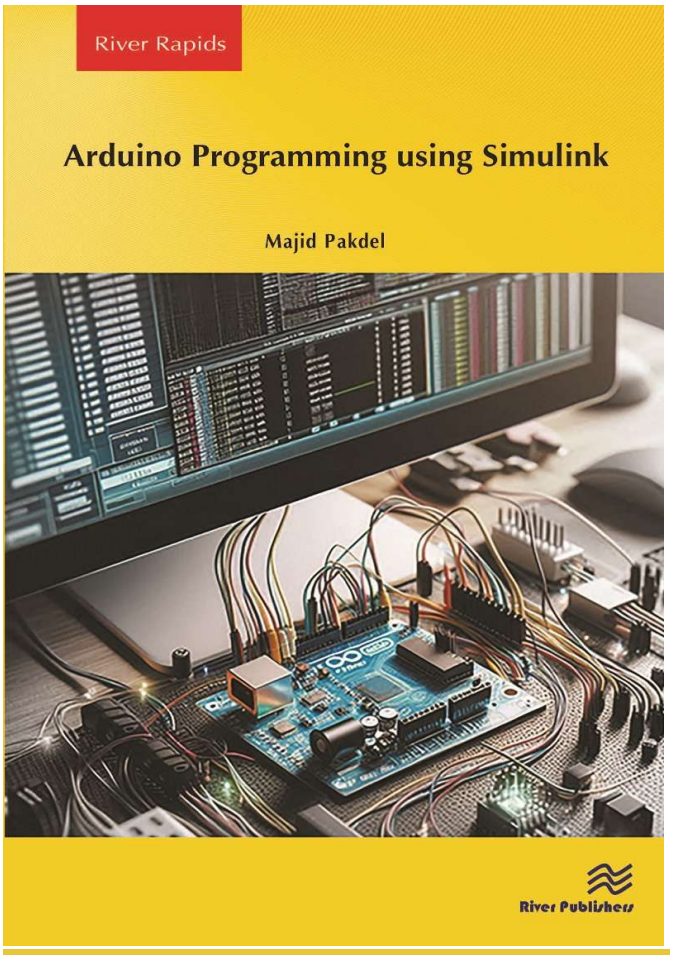
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Unlock the full potential of your Arduino projects with this comprehensive guide to integrating Simulink for advanced controller design. Whether you are a beginner or an experienced engineer, this book provides step-by-step instructions on how to design, simulate, and deploy sophisticated control systems using the powerful combination of Simulink and Arduino.
Through practical examples and clear explanations, you will learn how to:

- **Design complex controllers** using Simulink's intuitive graphical environment
- **Generate efficient C code** from Simulink models and seamlessly upload it to Arduino

Ideal for engineers, hobbyists, and students, this book bridges the gap between software and hardware, empowering you to build reliable, real-time embedded systems for a wide range of applications.
With its hands-on approach, *Arduino Programming using Simulink* makes it easier than ever to bring your ideas to life by combining the flexibility of Simulink with the versatility of Arduino.
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Arduino programming, Simulink, Static Var Compensator (SVC), thyristor-controlled reactor (TCR), controller design, reactive power theory, SVC controller simulation, discretization of SVC, code generation in Simulink, embedded systems, Arduino IDE, SVC controller implementation, dynamic voltage restorer (DVR), DVR control strategy, simulation and control design, real-time control systems, embedded control programming, Simulink to Arduino workflow, power electronics, Arduino and Simulink integration, real-time system simulation, power system control, simulation-based controller design, embedded controller implementation, control system applications

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