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Editors

Solutions on Embedded Systems

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Preface

Today electronic computation is performed mainly not in personal computers, but in electronic systems integrated in devices that we use every day, like cars, mobile phones, household appliances and credit cards. Embedded computing gives a substantial added value to products. Innovation in many fields such as automotive, industrial automation, telecommunications, consumer electronics, entertainment and health equipment is mainly due to embedded computing.

Electronic systems give new features to the device, such as: energy management and power reduction, safety and security, comfort and ease to use.

The use of embedded systems in many different fields may help us to find a solution to problems that are strategic for the future of the world, such as:

- Energy production, management and delivery;
- Control and monitoring of the environment;
- Food production;
- Efficient and sustainable manufacturing;
- Traffic and mobility control and monitoring;
- Security and critical infrastructure protection;
- Home and building automation;
- Healthcare systems;
- Systems for integration of ageing and disabled people.

The book “Solutions on Embedded Systems” presents an overview on several fields of applied research, like sensor networks, network on chip and multicore systems, automotive applications, software design, system architectures, design of low power embedded systems. Each area is covered by a separate part of the book.

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