DESCRIPTION

A number of different system concepts have become apparent in the broader context of embedded systems over the past few years. Whilst there are some differences between these, this book argues that in fact there is much they share in common, particularly the important notions of control, heterogeneity, wireless communication, dynamics/ad hoc nature and cost.

The first part of the book covers cooperating object applications and the currently available application scenarios, such as control and automation, healthcare, and security and surveillance. The second part discusses paradigms for algorithms and interactions. The third part covers various types of vertical system functions, including data aggregation, resource management and time synchronization. The fourth part outlines system architecture and programming models, outlining all currently available architectural models and middleware approaches that can be used to abstract the complexity of cooperating object technology.

Finally, the book concludes with a discussion of the trends guiding current research and gives suggestions as to possible future developments and how various shortcomings in the technology can be overcome.

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