Preface

The book you have in your hands is the first of a series that will deal with all of the aspects related to Cooperating Objects, Internet of Things, Sensor Networks, Ubiquitous Computing, Cyber-Physical-Systems and Systems of Systems, just to name a few areas that are clearly related to each other. Although many of these topics have already been discussed in the scientific community for some time and not all of them are entirely new, there is the need to consolidate the current knowledge in these areas in order to jointly advance in our journey towards easy to use, widely deployed systems that, hopefully, make our lives easier through the use of technology.

The main purpose of the series is, therefore, to disseminate the current knowledge in these areas and address topics as diverse as algorithms, system solutions, applications, operating systems and even legal issues, as long as they are relevant to the topics at hand. The first books of the series have been mostly committed by members of CONET, the Cooperating Objects Network of Excellence, which is a European project funded by the European Commission to identify and produce seminal work on the main research topics in Cooperating Objects, thus shaping the academic and industrial research in the short, medium and long-term. To what extent this has been achieved by the project itself is left to the discretion of the reader.

The current issue tries to shed some light into the different concepts, terminology and lines of research currently being discussed in the context of Cooperating Objects. Having a clear definition of concepts is crucial to have a common base to discuss further topics, and also serves the purpose of setting up the Springer Brief Series in a well-defined frame. We have also tried to put some boundaries to research areas that, with different names, seem to concentrate on very similar things. These areas, mentioned above, have grown organically within the different communities but converge more and more with the increasing importance of communicating and cooperating entities in the last years. In the most cases, it is not easy to find these boundaries and, depending on the definition used, might fall on the one or the other side of the spectrum. Nevertheless, having a pictorial representation of the different research areas and how they relate to each

other based on the current definitions is a valuable contribution that should be revised and refined regularly.

Finally, it remains only to hope that you enjoy not only this first book but all following in the series and that you find them informative and interesting.

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