

Laboratory / Center profile

VSE Center (Japanese VSE Center)

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The VSE Center was established in February 2011 as an institution which promotes improved system development processes for very small entities (VSE), such as small-to-medium companies and small-scale departments or projects within large companies.

Objectives

- (1) To strengthen international competition by enhancing the stamina of IT companies
- (2) To establish processes for “*monozukuri*” at which Japan is good, thereby positioning Japan strongly in the international market

Activities

The VSE Center aims to contribute to the improvement of system development processes on the ground and has already produced some concrete results through industry-government-academia collaborations by utilizing a VSE international standard (ISO/IEC29110 series). The VSE standard sets out standards for compact development processes that can be applied even to small organizations while providing guidance on its utilization. What is more, volunteers in each country run VSE networks as international centers for dissemination, providing support such as the provision of relevant documents and tools free of charge. In addition, a VSE standard was established for systems in 2013. Based on the suggestion from Japan (SPINA3CH), autonomous improvement standards and VSE assessment/audit standards are also under discussion. In Japan, on the other hand, the Japan Information Technology Service Industry Association (JISA) published the world's first description entitled “Guidance on Introduction of VSE Standards” which was introduced through the VSE network. Introductory seminars are also being conducted for Kanagawa Information Services Industry Association members. Starting this year, a joint committee composed of JISA and the Japan Embedded Systems Technology Association (JASA) began to explore the establishment of VSE



VSE Center Portal Site:

▶ <http://www.vse.jp/>

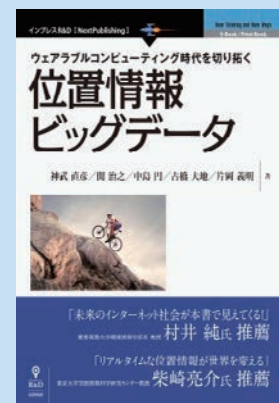
standards that incorporate security and safety in the support of the “*monozukuri* process” including embedded systems. There is thus an increasing need for compact VSE standards that allow low-cost and high-quality development. The VSE Center has also been engaged in the activities described above with our researchers serving as international and domestic committee experts.



Location Information Big Data

While space positioning systems such as GPS satellites and quasi-zenith satellites are evolving, ground networks such as mobile phones are expanding exponentially. Increasingly we can acquire data on the status of individuals and things, as well as their locations in conjunction with various sensors. We can also capture and analyze what is happening where and how it is working more swiftly than before. Such change in the environment can potentially innovate or reestablish various services that have been developed based on the presumption that only limited kinds and amount of data would be utilized. This book was written as an introductory reader for business persons who want to create new services using big data such as massive amounts of location information. The first chapter illustrates the relationship between location information big data and business. The second chapter describes the

size of the market. The third chapter provides a technical description of location information systems for those who are thinking of moving onto the field of location information service. The fourth chapter introduces new, emerging services, such as those that use GPS receivers (which have become a commodity nowadays). The fifth chapter explains the issue of privacy which is important when dealing with location information big data. The sixth chapter talks about future prospects of the sector, such as O2O and indoor location information services. The book also provides a description of the situation concerning open data, which is also attracting attention, and data licensing. This book not only features matters concerning location information and big data businesses, but it also provides an overview of the changes in terms of how a city and society are set up by including a number of interviews with specialists working at the



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frontline of each sector – from policy makers at the center and local government, to business managers and entrepreneurs. We hope that this book will inspire readers to provide a path for future society.



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