

Preface

This book introduces the concept of context-aware computing and its applications in various areas. It is designed particularly for the beginners who would like to design and develop the smart environment with context-aware computing. The user-friendly content is offered not only for the readers from Information Communication Technology related areas but also other professional domains such as Humanity, Public Health, Social Science, etc. The foundation of context-aware computing is described in this book such as definitions, categories, characteristics, context awareness, etc. Here, the elements of context-aware applications including context acquisition, context modeling, context reasoning, context distribution, and context adaptation are also emphasized. Communication and security are introduced so that the readers understand how all components work together with the security awareness. Additionally, some existing middleware and applications are presented so that the readers get the idea for selecting the right tool for their requirements and developing their applications appropriately. More importantly, the author's perspectives accordingly to context definitions, its awareness, and future context applications are suggested in this book. The ultimate goal of this book is to expand the contribution of context-aware computing to new professional areas where the utilization of personalized and rationalized applications as smart environments are required.

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