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Ruipeng Gao · Fan Ye · Guojie Luo  
Jason Cong

# Smartphone-Based Indoor Map Construction

Principles and Applications

 Springer

Ruipeng Gao  
Beijing Jiaotong University  
Beijing  
China

Guojie Luo  
Peking University  
Beijing  
China

Fan Ye  
Stony Brook University  
Stony Brook, NY  
USA

Jason Cong  
UCLA  
Los Angeles, CA  
USA

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# Preface

This book focuses on the ubiquitous indoor localization services by specifically addressing the issue of floor plans. It combines the computer vision algorithms and mobile techniques to reconstruct the complete and accurate floor plans, thus providing better location-based services for both humans and vehicles via commodity smartphones in indoor environments (e.g., a multilayer shopping mall with underground parking structures).

This book is based on Dr. Ruipeng Gao's PhD thesis co-supervised by Professors Jason Cong, Guojie Luo, and Fan Ye. The authors would like to thank the supports from NSFC 61702035 and PKU/UCLA Joint Research Institute of Science and Engineering.

Beijing, China  
January 2018

Ruipeng Gao

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