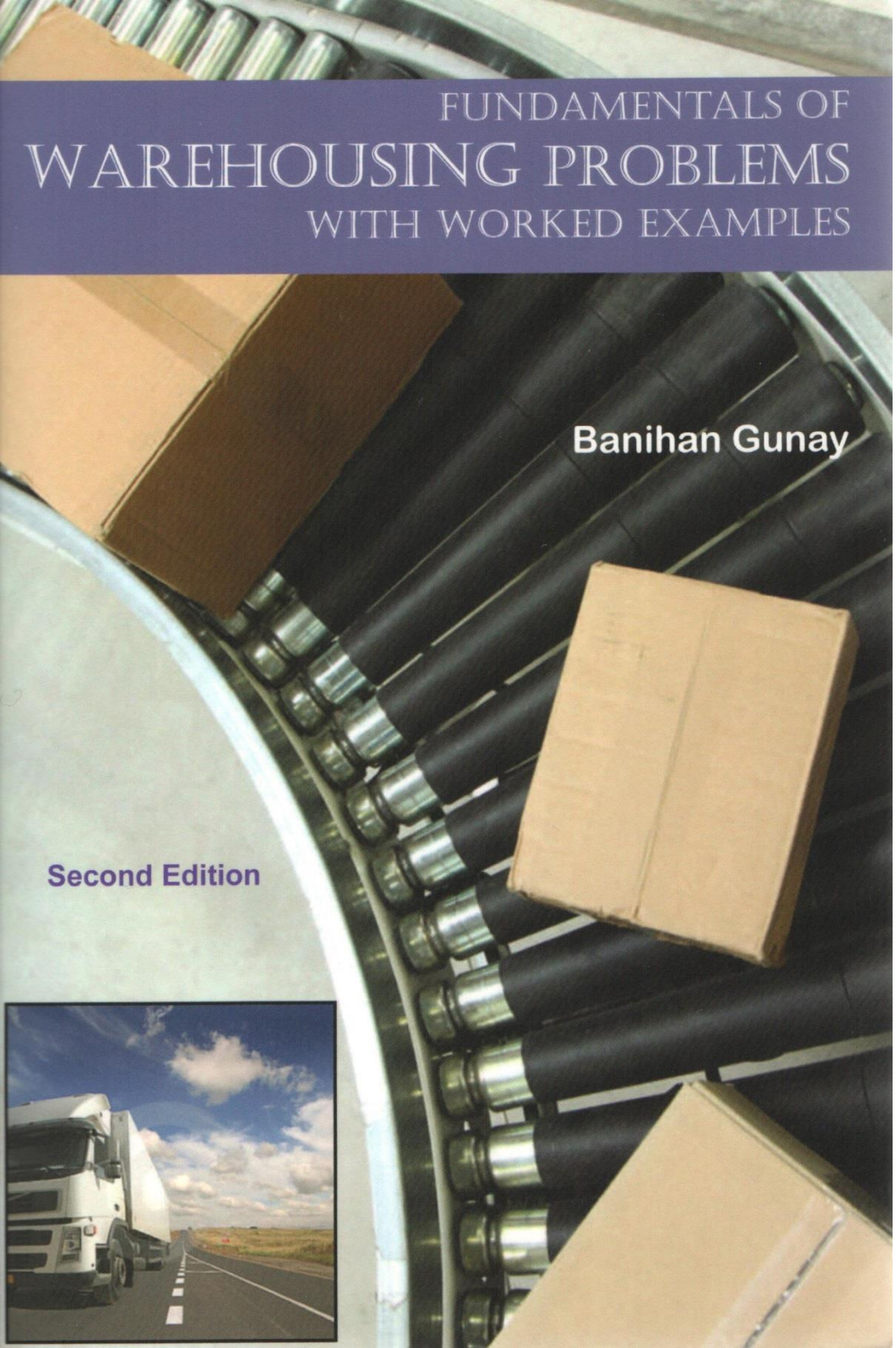

Fundamentals of Warehousing Problems

With Worked Examples

Second Edition

Banihan Gunay
BSc, MSc, PhD, MCILT, MIHT

University of Ulster

A Bright Pen Book

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Preface

Warehousing is taught at university level in various departments, such as transport studies, logistics, operations management, and business management. An interdisciplinary approach for better student understanding is, however, lacking in the literature in the field. A number of books already cover Operations Management, Supply Chain and even Inventory Management. This textbook is unique in that it acknowledges the difficulties faced by students studying transport, logistics, or management with very little mathematical or engineering knowledge and makes the various disciplines talk to one another. Having been classroom tested over ten years, the materials used in the book meet all the needs of students in terms of basic statistics, mechanical principles, and fundamentals of inventory management and warehousing. Even engineering students would benefit from Chapters 3 to 7.

The text is made up of well-defined sections for convenient reference. Chapter 1 provides background information on basic physics, statistics and microeconomics. Chapter 2 looks at inventory management. Chapters 3 and 4 treat the physical design and operations of a warehouse. The last three chapters discuss distribution aspects including depot positions and operations research techniques for minimum distribution costs. The book includes over 70 worked examples, exercises with answers, and student-centred-learning assignments. The software supplements of the book are available online at: www.banihangunay.webs.com/apps/webstore

This book has taken a great deal of time to put together, but it is gratifying to know how well the earlier versions of the book have been received. The demand for a new edition offers the welcome opportunity to include the latest developments in the field.

I would like to take this opportunity to recognise the support of the University of Ulster, who gave me the time and space to complete this book. Finally I would like to thank my family for their continuous encouragement.

Banihan Gunay
September 2009
Co. Antrim, UK.

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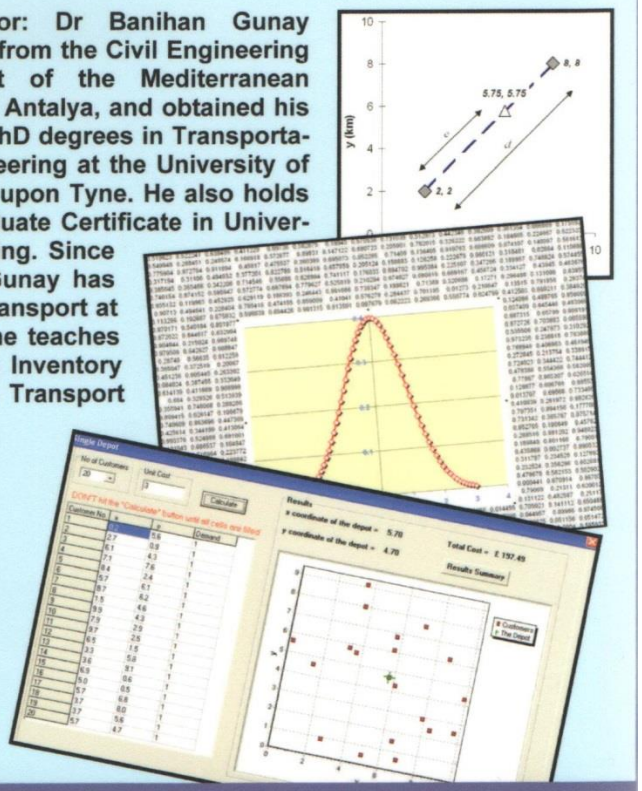

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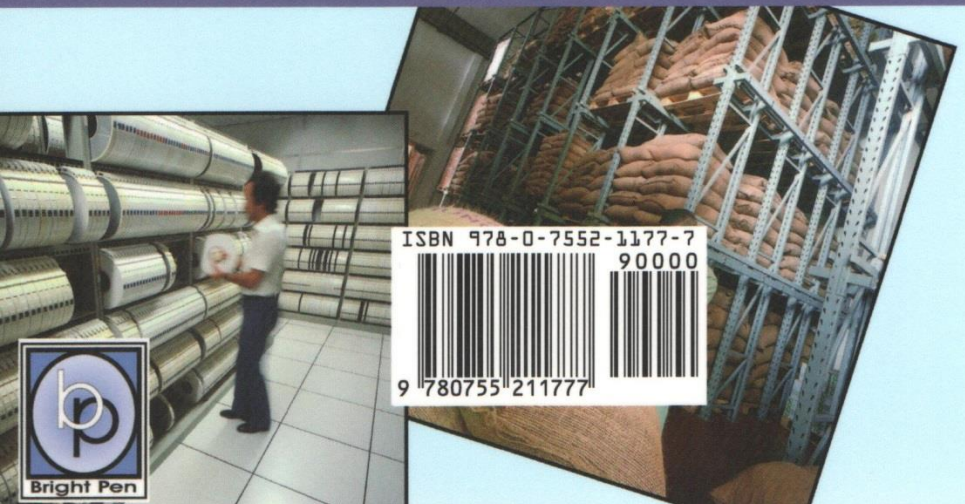

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