Chapter Mapping between 4th Edition and 5th Edition of

Computer Organization and Design – The Hardware/Software Interface

Chapters in 4th Edition	Chapters in 5th Edition
1. Computer Abstractions and Technology	1. Computer Abstractions and Technology
2. Instructions: Language of the Computer	2. Instructions: Language of the Computer
3. Arithmetic for Computers	3. Arithmetic for Computers
4. The Processor	4. The Processor
5. Exploiting Memory Hierarchy	5. Exploiting Memory Hierarchy
6. Storage and Other I/O Topics	6. Parallel Processors from Client to Cloud
7. Multicores, Multiprocessors, and Clusters	

The major goals for the fifth edition of *Computer Organization and Design* are: demonstrate the importance of understanding hardware with a running example; highlight major themes across the topics using margin icons that are introduced early; update examples to reflect changeover from PC era to PostPC era; spread the material on I/O throughout the book rather than isolating it into a single chapter; update the technical content to reflect changes in the industry since the publication of the fourth edition in 2009; and put appendices and optional sections online instead of including a CD to lower costs and to make this edition visible as an electronic book.

About the Asian Edition

With the consent of the authors, the Asian Edition of this book is developed to better reflect local teaching practice of computer course in Asian classrooms and the development of computer technology in this region. The major adjustments of content include:

- An introduction to the "TH-2 High Performance Computing System" (as a demonstration of cluster computing system) to replace Appendix B on digital logic, and a new section on "Networks-on-Chip" as Appendix F. Both reflect the latest progress in computer technology and can serve as good reference for readers.

- Abridgment of some sections of Chapter 2 to better suit the current curriculums applied in Asian classrooms.

With these adjustments listed above, the Asian Edition is enhanced with local features while keeping the main structure and knowledge framework of the original version.

** Adopted from the preface of *Computer Organization and Design – The Hardware/Software Interface, 5th Edition* **