# Table of Contents

Preface ................................................................................................................................................ xi

## Chapter 1
Software Process Lines: A Step towards Software Industrialization ................................................... 1

*Mahmood Niazi, Keele University, UK & King Fahd University of Petroleum and Minerals, Saudi Arabia*

*Sami Zahran, Process Improvement Consultant, UK*

## Chapter 2
Requirements Engineering Process Improvement and Related Models .................................................. 18

*Badariah Solemon, Universiti Tenaga Nasional, Malaysia*

*Shamsul Sahibuddin, Universiti Teknologi Malaysia, Malaysia*

*Abdul Azim Abd Ghani, Universiti Putra Malaysia, Malaysia*

## Chapter 3
The Development of International Standards to Facilitate Process Improvements for Very Small Entities ........................................................................................................ 34

*Claude Y. Laporte, École de Technologie Supérieure, Canada*

*Edgardo Palza Vargas, École de Technologie Supérieure, Canada*

## Chapter 4
Quality, Improvement and Measurements in High Risk Software ......................................................... 62

*Edgardo Palza Vargas, University of Ottawa, Canada*

## Chapter 5
Implementing Internal Software Process Assessment: An Experience at a Mid-Size IT Company .............................................................................................................................. 78

*Shukor Sanim Mohd Fauzi, Universiti Teknologi Mara, Malaysia*

*Nuraminah Ramli, Universiti Pendidikan Sultan Idris, Malaysia*

*Mustafa Kamal Mohd Noor, University of Malaya, Malaysia*

## Chapter 6
Resistance Factors in Software Processes Improvement: A Study of the Brazilian Industry ............... 100

*Josiane Brietzke Porto, La Salle University, Brazil*
Chapter 7
Implementation of the Personal Software Process in Academic Settings and Current Support Tools ................................................................. 117
Mohd Hairul Nizam Md Nasir, University of Malaya, Malaysia
Nur Aalyaa Alias, Two Sigma Technologies, Malaysia
Shukor Sanim Mohd Fauzi, Universiti Teknologi Mara, Malaysia
Mohd Hashim Massatu, Two Sigma Technologies, Malaysia

Chapter 8
Managing Software Projects with Team Software Process (TSP) ...................................................... 149
Salmiza Saul Hamid, Two Sigma Technologies, Malaysia & University of Malaya, Malaysia
Mohd Hairul Nizam Md Nasir, University of Malaya, Malaysia
Shamsul Sahibuddin, Universiti Teknologi Malaysia, Malaysia
Mustaffa Kamal Mohd Nor, University of Malaya, Malaysia

Chapter 9
Software Process Improvement for Small and Very Small Enterprises ............................................ 183
Mohammad Zarour, King Abdulaziz City for Science and Technology, Saudi Arabia
Alain Abran, École de Technologie Supérieure, Canada
Jean-Marc Desharnais, Boğaziçi University, Turkey

Chapter 10
Towards an Integrated Personal Software Process and Team Software Process Supporting Tool ................................................................. 205
Ho-Jin Choi, Korea Advanced Institute of Science and Technology, South Korea
Sang-Hun Lee, Korea Advanced Institute of Science and Technology, South Korea
Syed Ahsan Fahmi, Korea Advanced Institute of Science and Technology, South Korea
Ahmad Ibrahim, Korea Advanced Institute of Science and Technology, South Korea
Hyun-Il Shin, Korea Advanced Institute of Science and Technology, South Korea
Young-Kyu Park, Korea Advanced Institute of Science and Technology, South Korea

Chapter 11
Benefits of CMM and CMMI-Based Software Process Improvement ............................................ 224
Maged Abdullah, University of Malaya, Malaysia
Rodina Ahmad, University of Malaya, Malaysia
Lee Sai Peck, University of Malaya, Malaysia
Zarinah Mohd Kasiran, University of Malaya, Malaysia
Fahad Alshammari, University of Malaya, Malaysia

Compilation of References ............................................................................................................. 241

About the Contributors .................................................................................................................... 261

Index .................................................................................................................................................. 266