## Contents

### Part I  Software Engineering

*Non-functional Property Aware Brokerage Approach for Cloud Service Discovery* ................................................................. 3  
Adrija Bhattacharya and Sankhayan Choudhury

*A DWT-based Digital Watermarking Scheme for Image Tamper Detection, Localization, and Restoration* .......................... 17  
Sukalyan Som, Sarbani Palit, Kashinath Dey, Dipabali Sarkar, Jayeeta Sarkar and Kheyali Sarkar

*Service Insurance: A New Approach in Cloud Brokerage* ............. 39  
Adrija Bhattacharya and Sankhayan Choudhury

Souvik Sengupta and Ranjan Dasgupta

*A Lightweight Implementation of Obstruction-Free Software Transactional Memory* ............................................................. 67  
Ankita Saha, Atrayee Chatterjee, Nabanita Pal, Ammlan Ghosh and Nabendu Chaki

### Part II  Cryptography

*Multiplicative Polynomial Inverse Over GF(7³): Crisis of EEA and Its Solution* .............................................................. 87  
J.K.M. Sadique Uz Zaman and Ranjan Ghosh
A Novel Biometric Template Encryption Scheme
Using Sudoku Puzzle ..................................................... 109
Arnab Kumar Maji and Rajat Kumar Pal

Part III  Computer Aided Design

An ESOP-Based Reversible Circuit Synthesis Flow
Using Simulated Annealing .................................................. 131
Kamalika Datta, Alhaad Gokhale, Indranil Sengupta and Hafizur Rahaman

An Efficient Algorithm for Reducing Wire Length in Three-Layer
Channel Routing ................................................................. 145
Swagata Saha Sau and Rajat Kumar Pal

A New Move Toward Parallel Assay Operations in a Restricted
Sized Chip in Digital Microfluidics ........................................ 157
Debasis Dhal, Arpan Chakrabarty, Piyali Datta and Rajat Kumar Pal

A 2D Guard Zone Computation Algorithm for Reassignment
of Subcircuits to Minimize the Overall Chip Area ................. 183
Ranjan Mehera, Arpan Chakrabarty, Piyali Datta and Rajat Kumar Pal

Author Index ................................................................. 211
Applied Computation and Security Systems
Volume Two
Chaki, R.; Saeed, K.; Choudhury, S.; Chaki, N. (Eds.)
2015, X, 211 p. 93 illus., Softcover