

# **Studies in Computational Intelligence**

Volume 810

## **Series editor**

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# Cognitive Internet of Things: Frameworks, Tools and Applications

 Springer

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# Preface

In recent years, Artificial Intelligence (AI) has attracted attention as a key for growth in developed countries and developing countries. The attention has been focused mainly on developing new deep learning-based Information Communication Technology (ICT) and Internet of Things (IoT) applications. Although recently developed deep learning technology certainly excels in extracting certain patterns, there are many limitations. Most of recent models are overly dependent on big data, lack a self-idea function, and are complicated. In order to overcome these limitations and to solve the real-world industrial problems, Cognitive Computing (CC) and Computational Neuroscience (CN) are driving as one of the best tools for future brain-inspired intelligence IoTs.

Rather than merely developing next-generation AI models, we are trying to provide a platform to share up-to-date scientific and industrial achievements of general-purpose intelligence cognition methods. These methods provide efficient tools to solve the issues of recent AI models, and capture remarkable human learning abilities, combining the strengths of CC/CN and deep generative neural networks.

The overall aim of this book is to collect the state-of-the-art contributions on the Computational Neuroscience, Computational Cognition and Perception, Computer Vision, Natural Language Processing, Human Action Analysis, and related applications.

We had received 206 submissions from over 10 countries in the world. After the careful review process, 50 papers were selected based on their originality, significance, technical soundness, and clarity of exposition. The papers of this book were chosen based on review scored submitted by members of the program committee and underwent further rigorous rounds of review.

It is our sincere hope that this volume provides stimulation and inspiration, and that it will be used as a foundation for works to come.

Kitakyushu, Japan  
September 2018

Huimin Lu

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