

# **CALL FOR BOOK CHAPTERS**



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**Book title:** Artificial Intelligence Techniques for Satellite Image Analysis

**Book Series Title:** Remote Sensing and Digital Image Processing

**Editor:** Dr. D. Jude Hemanth, Department of ECE, Karunya University, India

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## **Scope of the book:**

The change in the geographical structure of the earth is inevitable in today's scenario. Human life need to be adaptive in such everchanging situations. In order to assist the human society, several technologies are being used to provide vital inputs to human beings. One such technology is satellite imaging and its allied concepts. Satellite images are widely deployed in almost all the practical applications. However, the methodologies of satellite image analysis are extremely complex. The main reason is that the images are captured from a very long distance. Extracting information from such images are challenging and time consuming. Various conventional techniques are available for processing the images to get useful information. However, high efficiency for the conventional system-based satellite image processing is not always guaranteed. This shows the necessity for advanced computing methodologies for satellite image processing. Recently, Artificial Intelligence (AI) has proved to be an efficient computing methodology for practical applications. However, the application of AI techniques in satellite image processing is very limited. The main objective of this book is to provide a common platform for the application of AI techniques in the context of satellite image processing.

## **Topics of Interest:**

This book solicits contributions from the field of AI based techniques for satellite image analysis supported by case studies and practical examples. Each chapter is expected to be self-contained and cover an in- depth analysis of these approaches.

The topic of interests is given below: (but not limited to)

- (1) Land cover detection in satellite/SAR images using AI based approaches
- (2) Water body detection in satellite/SAR images using AI based approaches
- (3) Deforestation estimation using satellite/SAR images and AI based approaches
- (4) Natural resources detection using satellite/SAR images and AI based approaches
- (5) Object detection in satellite/SAR images using AI based approaches
- (6) Satellite image enhancement using AI based approaches
- (7) Satellite image compression using AI based approaches
- (8) Agriculture monitoring using satellite images and AI based approaches
- (9) Disaster management using satellite images and AI based approaches
- (10) Satellite image fusion using AI based approaches
- (11) Urban/rural area planning using satellite/SAR images and AI based approaches
- (12) Any other applications of remote sensing using AI based approaches

**Each chapter must include concepts from both the fields of ARTIFICIAL INTELLIGENCE and SATELLITE IMAGE ANALYSIS**

### **IMPORTANT DATES:**

|   |                                    |
|---|------------------------------------|
| 1-Page Abstract (with title, keywords and author details) | : 25 <sup>th</sup> June, 2018      |
| Abstract decision (acceptance/rejection) notification     | : 28 <sup>th</sup> June, 2018      |
| Submission of full chapter                                | : 15 <sup>th</sup> August, 2018    |
| First review notification                                 | : 30 <sup>th</sup> September, 2018 |
| Submission of revised chapters                            | : 20 <sup>th</sup> October, 2018   |
| Final decision notification                               | : 28 <sup>th</sup> October, 2018   |
| Camera ready submission                                   | : 5 <sup>th</sup> November, 2018   |

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