

# SRI LANKA JOURNAL OF METEOROLOGY

Special Issue Lectures on Tropical Meteorology

> Volume: II September 2017



Published By: Department of Meteorology Colombo 07, Sri Lanka

# SRI LANKA JOURNAL OF METEOROLOGY

Special Issue Lectures on Tropical Meteorology

> Volume: II September 2017

#### **EDITORIAL**

Sri Lanka Journal of Meteorology (SLJoM) is the publication in the Department of Meteorology which is dedicated to the developments in climate, weather and atmospheric sciences in Sri Lanka. The journal entertains contributions in the form of research notes, research papers, review articles, case study reports etc. in the area of climate, climatic change & weather forecasting. Aiming to promote the exchange of knowledge about meteorology from across a range of scientific sub-disciplines, the journal serves community of researchers, policy makers, managers, media and the general public.

This special issue of SLJoM is involving two technical reports based on the lecture notes on "Lectures on Tropical Meteorology", which were presented in the JICA short-term training courses "Theoretical Meteorology in the Tropics" given by Dr. Manabu Yamanaka in November 2016 and "Operational Meteorology in the Tropics" given by Mr. Atsushi Goto in January 2017. These training courses were conducted in the Department of Meteorology, Sri Lanka under the JICA Technical Cooperation Project for "Improving of Meteorological Observation, Weather forecasting and Dissemination in Sri Lanka, 2014-2017". It is greatly believed that the lecture notes provide weather forecasters, researchers and all the meteorologists in Sri Lanka with the latest theoretical and technical knowledges on the tropical meteorology.

The Journal can be accessed on-line to view and download the articles published in current volume free of charge by visiting the Department of Meteorology web site (http://meteo.gov.lk). Currently the journal is published annually.

#### **Members of Editorial Board**

Dr. M. Ishihara, Expert, Japan International Cooperation Agency (JICA)
Mr. K. H. M. S. Premalal, Director General, Department of Meteorology
Mr. D. A. Jayasinghearachchi, Director, Department of Meteorology
Mr. A. K. Karunanayake, Director, Department of Meteorology
Ms. A. R. Warnasooriya, Deputy Director, Department of Meteorology
Dr. I. M. S. P. Jayawardane, Deputy Director, Department of Meteorology

### Sri Lanka Journal of Meteorology

### Contents Volume II, September 2017

## Special Issue Lectures on Tropical Meteorology

ARTICLES	Page Nos
Theoretical Meteorology in the Tropics Manabu Yamanaka	03 - 126
Operational Application of Meteorology and Climate Monitoring in the Tropics Atsushi Goto	127 - 165

#### ACKNOWLEDGEMENT

I would like to express sincere appreciation to Dr. Yamanaka and Mr. Goto for providing to our journal with their lecture notes in the JICA training courses. A special thank is due to Japan International Cooperation Agency (JICA) for providing financial assistance.

I would also like to acknowledge with much appreciation, the hard work done by Dr. Masahito Ishihara and Ms. Gamage Thakshila for editing this issue.

Kehelella Herath M S Premalal Director General Department meteorology