International Conference on Space Weather and Satellite Application (ICeSSAT 2018)

Journal of Physics: Conference Series Volume 1152

Shah Alam, Malaysia 7 – 8 August 2018

ISBN: 978-1-5108-8274-4

ISSN: 1742-6588

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution 3.0 International Licence. Licence details: http://creativecommons.org/licenses/by/3.0/.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed by Curran Associates, Inc. (2019)

For permission requests, please contact the Institute of Physics at the address below.

Institute of Physics Dirac House, Temple Back Bristol BS1 6BE UK

Phone: 44 1 17 929 7481 Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA Phone: 845-758-0400

Fax: 845-758-2633

Email: curran@proceedings.com Web: www.proceedings.com

Table of contents

Volume 1152

International Conference on Space Weather and Satellite Application (ICeSSAT 2018)

7-8 August 2018, Shah Alam, Selangor, Malaysia

Accepted papers received: 30 November 2018

Published online: 4 March 2019

Preface

<u>International Conference on Space Weather and Satellite Application (ICeSSAT 2018)</u>

Peer review statement

Papers

Online Solar Observatory For Solar Learning Program Among Orang Asli's Community.....1

Lau Chen Chen and Zahira Mohd Radzi

Development of Space-based IOT terminal for Nanosatellite UiTMSAT-1.....7

S. N. Mohamad Rahim, N. A. Azahari, S.A. Enche Ab Rahim and M. H. Jusoh

<u>A Dual-Port Circular Polarized S-Band Antenna for Nanosatellite Communication</u> <u>System.....19</u>

Touhidul Alam, Mohammad Tariqul Islam and Mengu Cho

Investigation of angular distribution of solar energetic particles.....23

V. E. Timofeev

Solar radio burst in National Space Agency of Malaysia (ANGKASA).....29

Asnor Nadirah Ishak, Nur Zulaikha Mohd Afandi, Roslan Umar, Nor Hazmin Sabri, Zahira Mohd Radzi, Asnor Juraiza Ishak and Radial Anwar

<u>Thermal Validation Testing of an Automatic Identification System (AIS) Receiver for</u> Low Earth Orbit (LEO) CubeSat.....35

Emir Husni and Nazmi Febrian

<u>Design</u>, Analysis and Testing of Monopole Antenna Deployment Mechanism for BIRDS-2 CubeSat Applications.....39

S B M Zaki, M H Azami, BIRDS-2 Project Members, T. Yamauchi, S Kim, H Masui and M Cho

BIRDS-2: A Constellation of Joint Global Multi-Nation 1U CubeSats.....45

M H Azami, BIRDS Partners, BIRDS-2 Project Members, G. Maeda, P. Faure, T. Yamauchi, S. Kim, H. Masui and Mengu Cho

Northeast Monsoon Effect on Ultra High Frequency (UHF) Signal Attenuation at Kusza Observatory.....52

Nor Hazmin Sabri, Sharifah Nurul Aisyah Syed Zafar, Roslan Umar and Roshidah Mat

The First Solar Flare Effect Observation at UiTM-SID Station during Solar Cycle 23-24.....60

N A Zakaria, N N Anuar, S A E Abdul Rahim, W Z A Wan Mokhtar and M H Jusoh

Comparison subpolar mesopause OH(6-2) temperature over Yakutia with the calculated data of NRLMSISE-00 model for 1999-2015.....65

A.M. Ammosova, G.A. Gavrilyeva, P.P. Ammosov, I.I. Koltovskoi and V.I. Sivtseva

Internal gravity and tidal waves in the mesopause region in Yakutia.....69

V I Sivtseva, P P Ammosov, G A Gavrilyeva, I I Koltovskoi and A M Ammosova

Seasonal Variations of Equatorial Anomaly Crest using GPS Ionospheric Tomography.....73

Siti Syukriah Khamdan, Tajul Ariffin Musa and Suhaila M Buhari

Comparison of equatorial plasma bubble zonal drifts and neutral winds velocity over Southeast Asia.....77

Idahwati Sarudin, Nurul Shazana Abdul Hamid, Mardina Abdullah and Suhaila M Buhari

SEAIONO: A Windows software tool to extract ionogram dataset from South East Asia Low-Latitude Ionospheric Observation Network.....82

S A Bello, M Abdullah, N S A Hamid and T Yokoyama

Near real time ionospheric monitoring system over Malaysia using GPS Data: My-Iono Service.....88

Nyanasegari Bhoo Pathy, Tajul Ariffin Musa, Mhd Fairos Asillam, Wan Anom Wan Aris and Siti Syukriah Khamdan

<u>Cross-calibration of ground-based measurement of rotational temperature of OH(3-1) at altitude ~87 km in Maimaga (63° N, $\gamma = 129.5^{\circ}$ E) and SABER/TIMED satellite data.....95</u>

P P Ammosov, G A Gavrilyeva, I I Koltovskoi, A M Ammosova and V I Sivtseva

Statistical Analysis of Solar Radio Burst Type III and Type IV with Relation to Solar Activities.....99

Z.S. Hamidi, N. Ramli and N.N.M. Shariff

The Relationship between Solar Radio Burst Type III and Geomagnetic Storm on the Earth that Occurred on 4th October 2017.....107

N A M Norsham and Z S Hamidi

Observation of Ionosphere Scintillation and Total Electron Content (TEC) Characteristic at Equatorial Region.....111

Norsuzila Ya'acob, Noraisyah Tajudin, Mohd Shahrul Azree Remly, Darmawaty Mohd Ali, Suzi Seroja Sarnin and Nani Fadzlina Naim

Link Budget and Noise Calculator for Satellite Communication.....118

Norsuzila Ya'acob, Noraisyah Tajudin, Suzi Seroja Sarnin, Siti AmalinaEnche Ab Rahim and Azrif Manut

Relationship between plasma bubble and ionospheric current, equatorial electrojet, and equatorial counter electrojet.....125

T Akiyama, A Yoshikawa, A Fujimoto and T Uozumi

Determining Land Use and Land Cover Changes and Predicting the Growth of Dhaka, Bangladesh Using Remote Sensing and GIS Techniques.....131

Studying the Effects of Disturbance Torques on a 2U CubeSat in Low Earth Orbits.....137

Asma Mohammad Nusrat Aman, Roselina Arelhi and Nafizah Khan

<u>Installation of UiTM's ground station – Connecting earth and space with amateur band communication.....</u>143

S N Mohamad Rahim, M H Jusoh and A Taat

Enhanced satellite positioning methods using ultrawideband D2D-based localization for ultra-dense 5G wireless setting.....149

Akeem Adebomehin and Stuart Walker

Field-aligned currents (FACs) behaviour during the arrival of interplanetary magnetic shock.....155

Farah Adilah Mohd Kasran, Mohamad Huzaimy Jusoh, Binod Adhikari and Siti Amalina Enche Ab Rahim

Assessment of the Geomagnetically Induced Current (GIC) at Low Latitude Region based on MAGDAS Data.....160

N Mohd Anuar, F.A. Mohd. Kasran, M Abbas, M.H Jusoh, S.A Enche Ab Rahim, N. Abdul Hadi, A. Yoshikawa, Z Mohd. Radzi and MAGDAS/CPMN

<u>Characteristic of the Disturbed Days Ionospheric Current System in the 180-Degree Magnetic Meridian.....182</u>

Siti Nurbaiti Ibrahim, Mohammad Huzaimy Jusoh, Ahmad Asari Sulaiman, Akimasa Yoshikawa and Zahira Mohd. Radzi

The first solar-powered Magdas-9 installation and possible geomagnetically induced currents study at Johor, Malaysia.....192

Zatul Iffah Abd Latiff, Mohamad Huzaimy Jusoh, Farah Adilah Mohd Kasran, Siti Amalina Enche Ab Rahim, Munirah Onn, Aznilinda Zainuddin, Muhammad Asraf Hairuddin, Nurhani Kasuan, Muhammad Muzamil Mustam, Suhana Mohamed and Yoshikawa Akimasa

The Response of Geomagnetic H and Z Components During X-Class Solar Flare.....204

A Taat, M Abbas and M H Jusoh

Drift frequency of kilometric radio burst type III with solar wind speed and density.....210

W.Z.A. Wan Mokhtar, Z. S. Hamidi, Zamri Zainal Abidin and Zainol Abidin Ibrahim

On effective ULF frequency ranges for geomagnetic earthquake precursor.....216

KA Yusof, M Abdullah, NSA Hamid and S Ahadi

Solar quiet (Sq) and conductivity-depth structure of Asia sub-region using solar quiet field variation....224

M Abbas, M H Jusoh and Z Z Abidin

<u>Electromagnetic induction responses to geomagnetic disturbances at low-and-mid-latitudes</u>....236

Mio Nakahara, Akimasa Yoshikawa, Teiji Uozumi and Akiko Fujimoto