

---

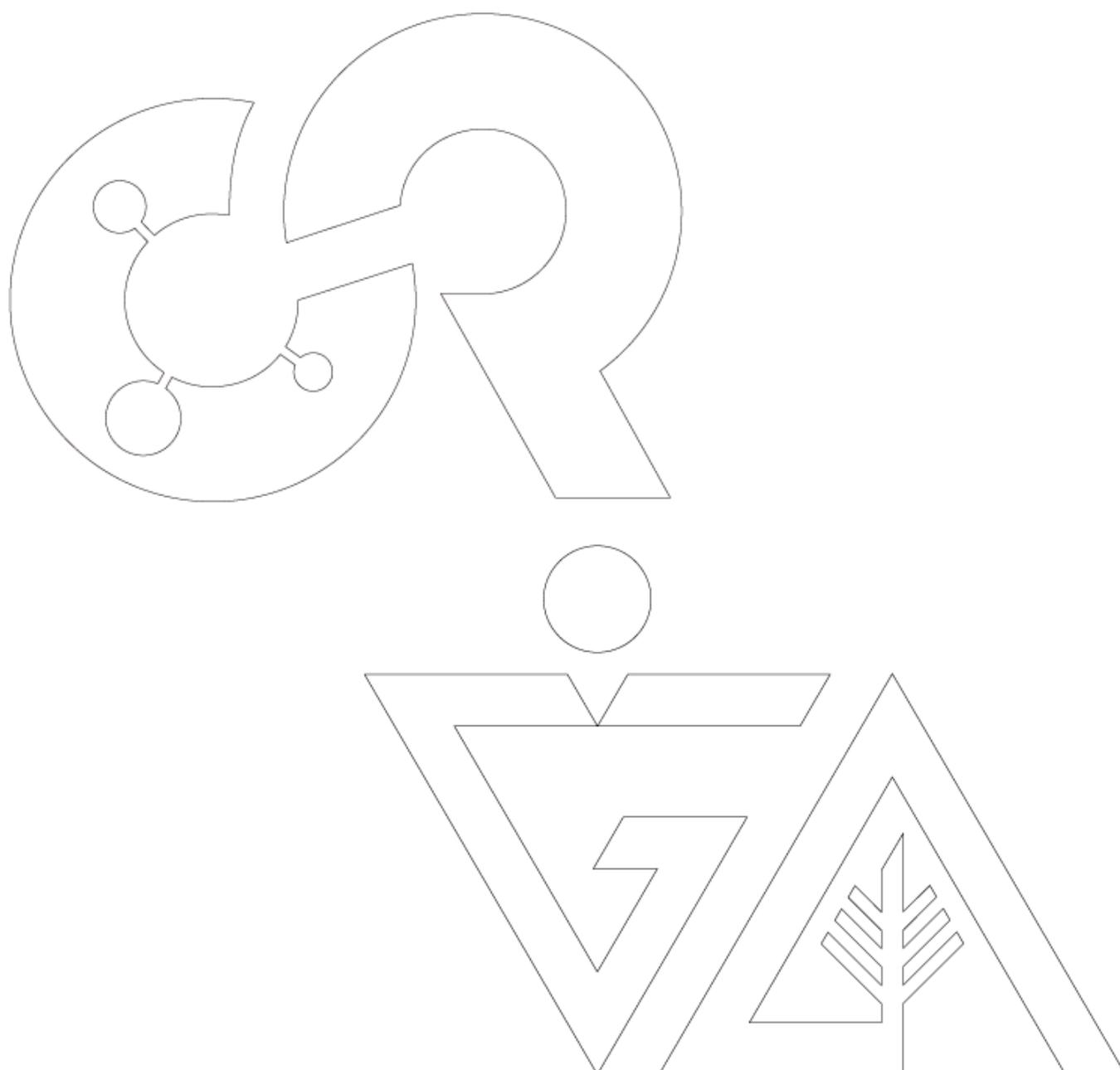
# EVERGREEN

**Volume.07**

Issue. 04 December 2020

Joint Journal of  
Novel Carbon Resource Sciences & Green Asia Strategy

---



**Editorial Board for**  
**Evergreen – Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy**

**Editor-in-Chief**

Jun Tanimoto

**Executive Editor**

Kyaw Thu

**Subject Editors**

Andrew Mark Spring, Osama Eljamal, Hiroshi Furuno, Michitaka Ohtaki, Jin Miyawaki  
Kiichi Hamamoto, Naoji Yamamoto

**Regional Editors**

Nasruddin, Agung Tri Wijayanta, Muhammad Sultan

**Secretary**

Mieko Inoue

**Honorary Advisor**

Bidyut Baran Saha

**Editorial Board**

Akira Harata, Aya Hagishima, Kazuhide Ito, Seigi Mizuno

**Evergreen – Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy**  
**Volume 7 Issue 4 (December 2020)**

Published by  
Transdisciplinary Research and Education Center for Green Technologies, Kyushu University  
6-1 Kasuga-koen, Kasuga, Fukuoka 816-8580 Japan  
Tel: +81-92-583-7823  
Fax: +81-92-583-8909  
Journal Website: [http://www.tj.kyushu-u.ac.jp/leading/en/c\\_publication/evergreen.php](http://www.tj.kyushu-u.ac.jp/leading/en/c_publication/evergreen.php)  
E-mail: [evergreen@ga.kyushu-u.ac.jp](mailto:evergreen@ga.kyushu-u.ac.jp)

Copyright: 2020 by  
Transdisciplinary Research and Education Center for Green Technologies, Kyushu University  
All rights reserved. ISSN: 2189-0420 (Print) ISSN: 2432-5953 (Online)

# Evergreen

## Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy

Volume 07, Issue 04, December 2020

---

---

### CONTENTS

Paras Bhatnagar, Shivendra Kaura, Sanjeev Rajan <b>Predictive Models and Analysis of Peak and Flatten Curve Values of CoVID-19 Cases in India</b>	..... 458
Gunawan Prayitno, Annisa Nurul Hakim, Christia Meidiana <b>Factors Influencing the Willingness to Join CBO Biogas Self-Help Group in Mulyorejo Urban village and Karangnongko Village in Malang, Indonesia</b>	..... 468
M. M. Takeyeldein, Tholudin Mat Lazim, Iskandar Shah Ishak, Nik Mohd, N.A.R, and Essam Abubakr Ali <b>Wind Lens Performance Investigation at Low Wind Speed</b>	..... 481
Dyah Arum Wulandari, Muhammad Akmal, Yohanes Gunawan, Nasruddin <b>Cooling Improvement of the IT Rack by Layout Rearrangement of the A2 Class Data Center Room: A Simulation Study</b>	..... 489
Shilpa Choudhary, Abhishek Sharma, Shradha Gupta, Hemant Purohit, Smriti Sachan <b>Use of RSM Technology for the Optimization of Received Signal Strength for LTE Signals Under the Influence of Varying Atmospheric Conditions</b>	..... 500
Shailendra Singh Chauhan, Avadhesh Kumar Khare <b>Kinematic Analysis of the ABB IRB 1520 Industrial Robot Using RoboAnalyz er Software</b>	..... 510
Akash Gupta, Harish Kumar, Leeladhar Nagdeve, Pawan Kumar Arora <b>EDM Parametric Study of Composite Materials: A Review</b>	..... 519
Sarower Kabir, Faiz Ahmad, Khurshid Malik, Norlin Nosbi, Laurent GUILLAUMAT <b>Effect of Heat Resistant Coating on the Drilled Hole Quality of Hybrid Fiber Reinforced Epoxy Composite</b>	..... 530
Muhammad Razlan Zakaria, Mohd Firdaus Omar, Hazizan Md Akil, Mohd Mustafa Al Bakri Abdullah <b>Study of Carbon Nanotubes Stability in Different Types of Solvents for Electro spray Deposition Method</b>	..... 538
A.S. Pamitran, S. Novianto, N. Mohd-Ghazali, R.A Koestoer <b>Flow Pattern of Two-phase Flow Boiling with Heat Transfer and Pressure Drop Using Natural Refrigerant (Propane) in Microchannel★</b>	..... 544

Fayza Yulia, Shavira Marsya, Yohanes Bobby, Nasruddin, and A Zulys <b>Design and Preparation of Succinic Acid-Based Metal-Organic Frameworks for CO<sub>2</sub> Adsorption Technology★</b>	..... 549
Nasruddin A. Abdullah, Rachmat Rahardian, Imansyah Ibnu Hakim, Nandy Putra, Raldi A. Koestoer <b>Non-Sweep Gas Pyrolysis with Vapor Heater using “Shorea Pinanga” as a feedstock★</b>	..... 555
Arif Rahman, Nining Betawati Prihantini, Nasruddin <b>Biomass Production and Synthesis of Biodiesel from Microalgae <i>Synechococcus</i> HS-9 (Cyanobacteria) Cultivated Using Bubble Column Photobioreactors★</b>	..... 564
Hafidho Ilham Muhammad, Arif Rahman, Nining Betawati Prihantini, Deendarlianto, Nasruddin <b>The Application of Poly-dispersed Flow on Rectangular Airlift Photobioreactor Mixing Performance★</b>	..... 571
Yanuar, Ibadurrahman, A. S. Pamitran <sup>1</sup> , Gunawan, Sealtial Mau <b>Experimental Investigation On The Spiral Pipe Performance For Particle-Laden Liquids★</b>	..... 580
CahyoSWibowo, Fransiskus Adian, YuliantoSNugroho, Bambang Sugiarto <b>The Optimization of The Relationship between Octane Number of Gasoline-Ethanol Blend Fuels in Various Settings of The Engine Control Module★</b>	..... 587
Nining Betawati Prihantini, Nurul Rakhmayanti, Sri Handayani, Wellyzar Sjamsuridzal, Wisnu Wardhana and Nasruddin <b>Biomass Production of Indonesian Indigenous <i>Leptolyngbya</i> Strain on NPK Fertilizer Medium and its Potential as a Source of Biofuel★</b>	..... 593
Harinaldi, Muhammad Denni Kesuma, Ridho Irwansyah, James Julian, Adhika Satyadharna <b>Flow Control with Multi-DBD Plasma Actuator on a Delta Wing★</b>	..... 602
J.A. Hidayat, Bambang Sugiarto <b>Characteristic, Structure, and Morphology of Carbon Deposit From Biodiesel Blend★</b>	..... 609
Muswar Muslim, Muhammad Idrus Alhamid, Nasruddin, Budi Ismoyo <b>Analysis of the Scroll Compressor Changing into an Expander for Small Scale Power Plants Using an Organic Rankine Cycle System★</b>	..... 615
Ibnu Roihan, Kynan Tjandaputra A., Eko A. Setiawan, Raldi A. Koestoer <b>Installing and Testing the Grashof Portable Incubator Powered Using the Solar Box "Be-Care" for Remote Areas without Electricity★</b>	..... 621

★ International Meeting on Advances in Thermofluids (IMAT2019)