

Dr. R. Edwin Raj

List of Publication

1. M. Xavier, R. Edwin Raj, V. Narayanan, “Analytical and experimental data of liquid oxygen tank pressurisation system during stage hot test”, *Applied Thermal Engineering*, Vol. 176, 115406, 2020.
2. J. S. Binoj, R. Edwin Raj, Shukur Abu Hassan, M. Mariatti, Suchart Siengchin, M. R. Sanjay, “Characterization of discarded fruit waste as substitute for harmful synthetic fiber-reinforced polymer composites”, *Journal of Materials Science*, Vol. 55, pp. 8513-8525, 2020.
3. V. N. Anbazhagan, R. Edwin Raj, J. T. Winowlin Jappes, “Development and characterization of novel fiber-metal-laminate (FML) using aluminium sheet and ceramic mat”, *Materials Express*, Vol. 9, pp. 358-364, 2019
4. S. Garette Jebadurai, R. Edwin Raj, V.S. Sreenivasan, J.S. Binoj, “Comprehensive characterization of natural cellulosic fiber from *Coccinia grandis* stem”, *Carbohydrate Polymers*, Vol. 207, pp. 675–683, 2019
5. Y. Balto, R. Edwin Raj, J. Anne Chandra, S. C. Vettivel, “Experimental investigation of discarded additive material combination to appropriate thermal insulating properties of the composite cement mortar”, *European Journal of Environmental and Civil Engineering*, <https://doi.org/10.1080/19648189.2019.1577182>, 2019
6. Suyambulingam Indran, Robinson Dhas Edwin Raj, Brainerd Samuel Sundar Daniel, Joseph Selvi Binoj, “Comprehensive Characterization of Natural *Cissus Quadrangularis* Stem Fiber Composites as an Alternate for Conventional FRP Composites”, *Journal of Bionic Engineering*, Vol. 15, pp. 914-923, 2018
7. G. Antony Miraculas, N. Bose, R. Edwin Raj, “Process parameter optimization for biodiesel production from mixed feedstock using empirical model”, *Sustainable Energy Technologies and Assessments*, Elsevier, Vol. 28, pp. 54–59, 2018
8. A. Sagai Francis Britto, R. Edwin Raj, M. Carolin Mabel, “Prediction and optimization of mechanical strength of diffusion bonds using integrated ANN-GA approach with process variables and metallographic characteristics”, *Journal of Manufacturing Processes*, Elsevier, Vol. 32, pp.828-838, 2018
9. J. S. Binoj, R. Edwin Raj, S. Indran, “Characterization of industrial discarded fruit wastes (*Tamarindus Indica* L.) as potential alternate for man-made vitreous fiber in polymer composites”, *Process Safety and Environmental Protection*, Elsevier, Vol.116, pp. 527–534, 2018
10. Ajith J. Kings, R. Edwin Raj, L.R. Monisha Miriam, M. Adhi Visvanathan, “Growth studies on microalgae *Euglena sanguinea* in various natural eco-friendly composite media to optimize the lipid productivity”, *Bioresource Technology*, Elsevier, Vol.244, pp. 1349-1357, 2017.

11. L.R. Monisha Miriam, R. Edwin Raj, Ajith. J Kings, M. Adhi Visvanathan, "Enhanced FAME production using green catalyst with superior profile from the isolated halophilic *Aphanothece halophytica* grown in raceway ponds" *Energy Conversion and Management*, Elsevier, Vol.151, pp. 63-72, 2017.
12. A. Sagai Francis Britto, R. Edwin Raj, M. Carolin Mabel "Prediction of shear and tensile strength of the diffusion bonded AA5083 and AA7075 aluminium alloy using ANN", *Materials Science and Engineering: A*, Elsevier, Vol.692, pp. 1-8, 2017
13. L.R. Monisha Miriam, R. Edwin Raj, Ajith. J Kings, M. Adhi Visvanathan, "Identification and characterization of a novel biodiesel producing halophilic *Aphanothece halophytica* and its growth and lipid optimization in various media", *Energy Conversion and Management*, Elsevier, Vol.141, pp. 93-100, 2017.
14. Ajith J. Kings, R. Edwin Raj, L.R. Monisha Miriam, M. Adhi Visvanathan, "Cultivation, extraction and optimization of biodiesel production from potential microalgae *Euglena sanguinea* using eco-friendly natural catalyst", *Energy Conversion and Management*, Elsevier, Vol.141, pp. 224-235, 2017.
15. J. S. Binoj, R. Edwin Raj, B. S. S. Daniel, "Comprehensive characterization of industrially discarded fruit fiber, *Tamarindus indica* L. as a potential eco-friendly bio-reinforcement for polymer composite", *Journal of Cleaner Production*, Elsevier, Vol.142, pp.1321-1331, 2017
16. S. Sheeju Selva Roji, R. Edwin Raj, D. F. Melvin Jose, "Experimental evaluation of performance and emission characteristics of a diesel engine fuelled with neem methyl ester", *Transactions of Famena, Portal of Scientific Journals of Croatia*, Vol.40, pp.81-90, 2016
17. J.S. Binoj, R. Edwin Raj, V.S. Sreenivasan, G. Rexin Thusnavis, "Morphological, Physical, Mechanical, Chemical and Thermal Characterization of Sustainable Indian Areca Fruit Husk Fibers (*Areca Catechu* L.) as Potential Alternate for Hazardous Synthetic Fibers", *Journal of Bionic Engineering*, Vol.13, pp. 156-165, 2016
18. S. Sheeju Selva Roji, R. Edwin Raj, "Multi variant approach to optimize biodiesel extraction from neem oil using two stage esterification process and its quality assessment", *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, Taylor & Francis Group, Vol.38, pp.1975–1981, 2016
19. G. Antony Miraculas, N. Bose, R. Edwin Raj, "Optimization of Biofuel Blends and Compression Ratio of a Diesel Engine Fueled with *Calophyllum inophyllum* Oil Methyl Ester", *Arabian Journal for Science and Engineering*, Springer, Vol.41, pp.1723-1733, 2016
20. S. Indran, R Edwin Raj, B.S.S. Daniel, S.S. Saravanakumar, "Cellulose powder treatment on *Cissus quadrangularis* stem fiber-reinforcement in unsaturated polyester matrix composites", *Journal of Reinforced Plastics and Composites*, Sage Publications, Vol.35, pp. 212-227, 2016.
21. J. S. Binoj, R. Edwin Raj, B. S. S. Daniel, S. Saravanakumar, "Optimization of short Indian Areca fruit husk fiber (*Areca Catechu* L.) reinforced polymer composites for maximizing the mechanical

property”, International Journal of Polymer Analysis and Characterization, Taylor & Francis Group, Vol.21, pp. 112-122, 2016

22. S. Sheeju Selva Roji, R. Edwin Raj, D. F. Melvin Jose, Z. Robert Kennedy, “Effect of compression ratio with biodiesel and its blends on performance and emission characteristics of an IC engine”, Journal of Environmental Protection and Ecology, Balkan Environmental Association, Vol. 16, pp. 601-609, 2015
23. S. Indran, R. Edwin Raj, “Characterization of new natural cellulosic fiber from *Cissus quadrangularis* stem”, Carbohydrate Polymers, Elsevier Publications. Vol. 117, pp.392–399, 2015
24. K. Hari Ram, R. Edwin Raj, “Mechanical property evaluation of sisal-glass fiber reinforced epoxy polymer composites”, International Journal of Applied Engineering Research, Vol.10, pp.6951-6962, 2015
25. G. Antony Miraculas, N. Bose, R. Edwin Raj, “Optimization of process parameters for biodiesel extraction from tamanu oil using design of experiments”, Journal of Renewable and Sustainable Energy, AIP Publishing. Vol. 6, pp. 033120, 2014
26. K. Hari Ram, R. Edwin Raj, “Synthesis and Mechanical Characterization of Sisal-Epoxy and Hybrid-Epoxy Composites in Comparison with Conventional Fiber Glass-Epoxy Composite”, Advanced Materials Research, Trans Tech Publications. Vols. 984-985, pp. 285-290, 2014
27. S. Indran, R. Edwin Raj, V.S. Sreenivasan, “Characterization of cellulosic root fiber from *Cissus quadrangularis* as an alternative for synthetic fibers”, Carbohydrate Polymers, Elsevier Publications, Vol. 110, pp. 423–429, 2014
28. D.F. Melvin Jose, R. Edwin Raj, Z. Robert Kennedy, “An extraction and performance analysis of rubber seed-methyl ester on an IC engine at various compression ratios”, International Journal of Green Energy, Taylor & Francis Group, Vol. 11, pp. 1-14, 2014