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**AREA OF SPECIALIZATION:**

Production of Biodiesel from underutilized non edible seeds, algal species

- Production of Antimicrobial Agents from medicinal plants
- Production L- Asperginase enzyme from various microorganisms.
- Studies on treatment of Textile Dyes by Biosorption and bioaccumulation
- Green Synthesis of Nanoparticles from biological sources for various application

**PUBLICATIONS:**

1. Nambirajan Subramanian, Dharmendra Kumar Mahendradas, Ramachandran Kasirajan, **Renganathan Sahadevan**, “Bio-oil separation from potential non-edible urban waste Putranjiva roxburghii”, Sepearation Science and Technology, Vol. 50, Issue 3, April 2014, 2066-2074, 2015.
2. Ernest Ravindran Ramaswami Sachidanandan, Thomas Paramanandham, **Renganathan Sahadevan**, “A comparative study on dielectric, structure and thermal behavior of micro and nano sized CCTO in nylon 6.9 matrix, Polymer composites”, DOI 10.1002/PC.23654.
3. Ernest Ravindran Ramaswami Sachidanandan, Thomas Paramanandham, **Renganathan Sahadevan**, Studies on the structural, thermal, and dielectric properties of fabricated Nylon 6,8/CaCu<sub>3</sub>TiO<sub>4</sub>O<sub>12</sub> nanocomposites. Sci Eng Compos Mater, DOI 10.1515/secm-2014-0342.

4. T. Suganya · M. Varman · H.H. Masjuki · S. **Renganathan**, “Macroalgae and microalgae as a potential source for commercial applications along with biofuels production: A biorefinery approach”, Renewable and Sustainable Energy Reviews (Impact Factor: 5.9). Vol. 55, 909-941, 2016.
5. Lavanya Melcure Raj, Meenakshisundaram Arunachalam, **Renganathan Sahadevan**, Chinnasamy Senthil, David M Lewis, Nallasivam Jaganathan, Bhaskar Sailendra, “Hydrothermal liquefaction of freshwater and marine algal biomass: A novel approach to produce distillate fuel fractions through blending and co-processing of biocrude with petrocrude”, Bioresource Technology, Vol. 203, 228-235, 2016.
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9. V. Subha, S. Kirubanandan, and S. **Renganathan**, “ Green synthesis of Silver nanoparticles from a novel medicinal plant source roots extract of mukia maderaspatana”, Colloid and surface science, Vol.1, No.1, 14-17, 2016.
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11. J. Vaishnav, V. Subha, S. Kirubanandan, M. Arulmozhi and S. **Renganathan**, “ Green synthesis of zinc oxide nanoparticles by Celosia argentea and its characterization”, Journal of optoelectronics and Biomedical materials, Vol.9, No.1, 59-71, 2017.

12. M. Karthikeyan and S. **Renganathan**, "Optimization of non-edible oil extraction from *Cassia javanica* seeds", *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. DOI: 10.1080/15567036.2017.1299259.
13. M. Karthikeyan, S. **Renganathan** and P. Govindhan, "Production of biodiesel via two step acid base catalysed transesterification reaction of karanja oil by BaMoO<sub>4</sub> as a catalyst", *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. DOI: 10.1080/15567036.2017.1336822.
14. V. Theresa, R.S. Ernest Ravindran, R. Ajith Kumar, K. Pandian & S.**Renganathan**, "Novel approach to produce oil from non-edible seeds of *Indigofera colutea*" *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. Vol.39, No.13, 1369-1376, 2017.
15. K. Ramachandran, S. Wondwosen, S. Nambirajan & S.**Renganathan**, "*Solanum nigrum* L. as a novel energy resource for biodiesel production through transesterification process using open system, reactor" *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. (Accepted)
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18. G. Bhargavi, R. Geethalakshmi, S. **Renganathan**, "Equilibrium and isothermal studies on the removal of aqueous solutions using *Kiegelia africana* biosorbent". *Applied Mechanics and Materials*. Vol.877, 26-32, 2017.
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24. G. Bhargavi, P. Nageswara Rao , S. **Renganathan**, "Production of Biodiesel from *Thespesiapopulnea* seed oil through rapid in situ transesterification - an optimization study and assay of fuel properties". Iop Conference Series Material Sciences and Engineering Vol.330, doi:10.1088/1757-899X/330/1/012046, 2018.
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