

## Dr. S. Renganathan

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## Education

Degree	Institution	Major Subject	Year
B.Tech	ANNAMALAI UNIVERSITY	CHEMICAL ENGINEERING	1988 - 1992
M.Tech	ANNAMALAI UNIVERSITY	CHEMICAL ENGINEERING	1992 - 1994
Ph.D	ANNA UNIVERSITY	CHEMICAL ENGINEERING	2001 - 2006)

## Experience

Period	Designation and Address	Nature of
Aug 2014 - Till date	Professor, Department of Biotechnology, A.C.Tech Campus, Anna University, Chennai-600 025	Teaching and Research
Dec 2012 – Aug 2014	Associate Professor, Department of Chemical Engineering, A.C.Tech Campus, Anna University, Chennai-600 025	Teaching and Research
Dec 2009 – Dec 2012	Assistant Professor, Department of Chemical Engineering, A.C.Tech Campus, Anna University, Chennai-600 025	Teaching and Research
Aug 2008 – Dec 2009	Senior Lecturer, Department of Chemical Engineering A.C.Tech Campus, Anna University, Chennai-600 025	Teaching and Research

Period	Designation and Address	Nature of
Aug 2004 - July 2008	Lecturer, Department of Chemical Engineering A.C.Tech Campus, Anna University, Chennai-600 025	Teaching and Research
Jan 2001 - July 2004	Teaching Research Associate, Department of Chemical Engineering A.C.Tech Campus, Anna University, Chennai-600 025	Teaching and Research
Jan 1999 - Dec 2000	Lecturer, Arunai Engineering College	Teaching and Research
May 1996 - Jan 1999	Engineer, South India Viscose India Limited, Coimbatore, Tamilnadu	Engineer
April 1995 - April 1996	Trainee Engineer, NEPA Limited, Madhya Pradesh, India	Trainee

#### Awards

- Secured FIRST Rank in ME- Chemical Engineering
- Received "Thiru T.M. Narayana Pillai Chemical Engineering Prize" from The Governor of Tamil Nadu Dr. N Chenna Reddy (1995).
- Received "Best NSS Programme Officer Award" from ANNA UNIVERSITY CHENNAI, INDIA (2007).
- Received "Best NSS Unit Award" from ANNA UNIVERSITY, CHENNAI, INDIA (2011).
- Received "Bright Student Award" from GOVERNMENT OF TAMILNADU, INDIA (1986).
- Received "Young Scientist Award" from DST, SCIENCE AND ENGINEERING RESEARCH BOARD, NEW DELHI on 09.02.2012.
- Received "The Best Faculty Award" from SCIENCE & TECHNOLOGY AWARDS-15 organized by EET Research wing for Excellence in Professional Education & Industry, Bangalore on 14.06.2015.
- Received "Active Researcher Award" from CENTRE FOR TECHNOLOGY AND DEVELOPMENT TRANSFER, Anna University Chennai for his valuable contribution through the research to the field of biofuels, September 2015.
- Received "Outstanding Scientist Award" from CENTRE FOR ADVANCED RESEARCH AND DESIGN, VIF, CHENNAI, TAMILNADU, INDIA for his valuable contribution and achievement in the field of Bio-Chemical Engineering, on 19.12. 2015.

#### Publications

##### List of papers published in International Journals

- Shiyamala devi Sureshan, Priya Paskaran and Renganathan Sahadevan, "Pyrrolo [1,2-A] Pyrazine-1,4-dione, hexahydro-3-(2-methylpropyl)- and phenol, 2,4-Bis (1,1-dimethy ethyl)novel antibacterial metabolites from a marine Kocuria sp. SRS88: Optimization and its application in medical cotton gauze cloth against bacterial wound pathogens", International Journal Of Pharmaceutical Research And Development, Vol 6(02): April 2014, (044-055). 2014.

- Suganya Tamilarasan and Renganathan Sahadevan, "Ultrasonic assisted acid base transesterification of algal oil from marine macroalgae *Caulerpa peltata*: Optimization and characterization studies", *Fuel*, Vol. 128, Pages 347–355. 2014.
- Pandian Sivakumar, Padmanaban Sivakumar Kamalakannan Anbarasu, Ramasamy Mathiarasi and Sahadevan Renganathan, "An Eco-Friendly Catalyst Derived from Waste Shell Of *Scylla tranquebarica* For Biodiesel Production", *International Journal of Green Energy*, Vol.11, 886–897, 2014.
- Nambirajan Subramanian, Dharmendra Kumar Mahendradas, Ramachandran Kasirajan, Renganathan Sahadevan, "Bio-oil separation from potential non-edible urban waste *Putranjiva roxburghii*", *Separation Science and Technology*, Vol. 50, Issue 3, April 2014, 2066-2074, 2015.
- 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.
- 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.
- 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.
- 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.
- V. Subha, Preethi ramadoss, and S. Renganathan, "Incorporation of biotransformed silver nanoparticles in plant polysaccharides in and their effect on sustained drug release", *Polymer Science Series B*, Vol. 58, No.1, 61-72, 2016.
- Mohammad Khan Faisal, Parthasarathy Saranya, Lingesan Prameela and Sahadevan Renganathan, "Studies on adsorption potential of oil-extracted marine macro algae *Padina gymnospora* for the removal of methylene blue", *International Journal of Environment and Sustainable Development*, Vol.15, No.3, 272-285, 2016.
- V.A. Niraimathee, V. Subha, R. S. Ernest Ravindran and S. Renganathan, "Green synthesis of iron oxide nanoparticles from *Mimosa pudica* root extract", *International Journal of Environment and Sustainable Development*, Vol.15, No.3, 227-240, 2016.
- 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.
- J. Sarojini, A. Sirajunnisa, S. Pavithra, R. Geethalakshmi, J.Priyanga, S. Keerthana Sivanesan and S. Renganathan, "Antioxidant activity of iron isolated from petals of *Hibiscus rosa sinensis*". *EC Microbiology*, Vol.7.1, 14 -20, 2017.
- 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.
- 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.
- 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.
- 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.
- 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)
- D. Vignesh priya, N. Krishnaveni, S. Renganathan, "Marine brown macroalga *Sargassum wightii* as a novel biosorbent for removal of brilliant green dye from aqueous solution: kinetics, equilibrium isotherm modeling and phytotoxicity of treated and untreated dye" *Desalination and Water Treatment*. Vol.78, 300-312, 2017.
- S. Keerthana, J. Priyanga, A. Sirajunnisa, S. Pavithra, R. Geethalakshmi, S. Renganathan, "Biofabrication of manganese nanoparticles using *Aegle marmelos* fruit extract and assessment of its biological activities". *Nanomedicine Research Journal*. Vol.2, No.3, 171-178, 2017.
- 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.
- G. Bhargavi, R. Geethalakshmi, S. Renganathan, "Biosorption of basic textile dye from aqueous solution using *Pongamia pinnata* as Adsorbent". *Applied Mechanics and Materials*. Vol.877, 13-19, 2017.
- R. Navnit Kumar, S. Jason Charles, T. R. Sambavi, S. Kabilan, S. Renganathan, "Heterologous Expression of Exoglucanase from *Trichoderma resei* in *E. Coli*". *International Journal of Modern Science and Technology*. Vol.3 (3) , 65-71, 2018.
- V. Nadanakumar, A. A. Arivalagar, N. Alagumurthi, G. Bhargavi, S. Kirubanandan, S. Renganathan, "Methyl Ester of Silkworm Oil: Preparation/ Transesterification, Properties and Analysis". *International Journal of Chemical and Molecular Engineering*. Vol.3 (2) , 6-13, 2018.
- G. Bhargavi, P. Nageswara Rao , S. Renganathan, "Review on the extraction methods of crude oil from all generation biofuel in last few decades". *Iop Conference Series Material Sciences and Engineering* Vol.330, doi:10.1088/1757-899X/330/1/012024 2018.

- G. Bhargavi, V.Venu , S. Renganathan, “Microbial fuel cells: recent developments in design and materials”. Iop Conference Series Material Sciences and Engineering Vol.330, doi:10.1088/1757-899X/330/1/012034, 2018.
- 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.
- G. Bhargavi, P. Nageswara Rao , S. Renganathan, “Decolorisation of Basic Textile Dye from Aqueous Solutions using a Biosorbent derived from Thespesia populnea used Biomass”. Iop Conference Series Material Sciences and Engineering Vol.330, doi:10.1088/1757-899X/330/1/012036, 2018.
- V. Theresa, K. Ramachandran, G. Baskar & S.Renganathan, “A Novel approach for extraction of algal oil from marine macroalgae *Ulva fasciata* ” Renewable Energy Vol.127, 64-73, 2018.
- V. Subha, S. Kriubanandan, M. Arulmozhi & S. Renganathan, “ Green Synthesis of Copper Nanoparticles using Odina woider gum extract and their Effect on Photocatalytic Dye Degradation” Journal of American Institute of Chemists, Vol.91 (1), 9-19, 2018.
- V. Subha, S. Kriubanandan & S. Renganathan, “Folate targeted galactomannan coated iron oxide nanoparticles as a nanocarrier for targeted drug delivery of capecitabine” International journal of medical nano research, Vol. 5 (1), 1-11, 2018.
- D.Vigneshpriya, N.Krishnaveni and S. Renganathan, “ Untreated and sargassum, wightii – treated brilliant green dye toxicity impact on microflora and *Allium cepa* L., Applied water science, Vol. 9 (16),1-8,2019
- Navnit kumar Ramamoorthy, Sambavi TR & Renganathan Sahadevan, 2018, 'Production of bio-ethanol from an innovative mixture of surgical waste cotton and waste card board after ammonia pre-treatment', Energy sources, Part A: Recovery, Utilization and Environment Effects. Vol. 40, No. 20, pp.2451-2457.
- Navnit kumar Ramamoorthy, Sambavi TR & Renganathan Sahadevan, 2018, 'Production of bio-ethanol by an innovative biological pre-treatment of a novel mixture of surgical waste cotton and waste card board', Energy sources, Part A: Recovery, Utilization and Environment Effects.
- Navnit kumar Ramamoorthy, Sambavi TR & Renganathan Sahadevan, 2019, 'A study on cellulase production from mixture of lignocellulosic wastes', Process Biochemistry. Vol.83, pp. 148-158.

#### List of papers published in National Journals

- Subha V, Ernest Ravindran R S, Sruthi P, Renganathan S, “An Eco-Friendly approach for synthesis of silver nanoparticles using ipomoea pes-caprae root extract and their antimicrobial properties”, Asian J Pharm Clin Res, Vol. 4(5), June 2015, 0974-2441
- Subha V, Ernest Ravindran R S, Hariram J, Renganathan S “Bioreduction of silver nanoparticles from aqueous extract of catharanthus roseus and bactericidal effects”, Asian J Pharm Clin Res, Vol. 8 (5), June 2015, 0974-2441.
- P. Kalainila, R. S. Ernest Ravindran, R. Rohit, S. Renganathan “Anti-Bacterial Effect of Biosynthesized Silver Nanoparticles Using *Kigelia Africana*”, Journal of Nano Science and Nano Engineering, Vol. 1(4), 2015, 225-232.
- S. Kirubanandan, S.Renganathan, “Evaluation of antimicrobial potential of aqueous and alcoholic extract of *Triphala* against wound pathogens”, Journal of Medicinal Plants Studies, Vol. 3 (6), 2015, 56-59.
- S. Kirubanandan, S.Renganathan, “Wound repair and regeneration potential of the fruits of *Terminalia bellarica*”, The Journal of Phytopharmacology, Vol. 4 (5), 2015, 253-258.
- S. Kirubanandan, Bharathi ravi, S.Renganathan, “Histological and biochemical evaluation of wound regeneration potential of *terminalia chebula* fruits”, Vol. 9 (1), 2016, 228-233.
- S. Kirubanandan, S.Renganathan, “An Evaluation of Wound Repair and Regeneration Potential of the fruits of *Phyllanthus Emblica* (Amla)”, Vol. 02 (2), 2016, 71-81.
- E. Yuvanashree, P. Sivakumar, S.Renganathan, K.V.Selvakumar and N.S. Badrinarayana, “Conversion of slaughter house waste into biodiesel catalyzed by bone ash”, Vol.4, 2014, 22-25.
- D.Vigneshpriya, N.Krishnaveni, G.Bhargavi, R.Sri Sakthi Priyadarshini and S. Renganathan, “Effect of Textile effluent on growth and germination of cow pea *Vigna unguiculata* L., Vol.37, No.2, 2017, 163-168.
- P. Tharunya, V. Subha, S. Kirubanandan, S. Sandhaya and S. Renganathan, “Green Synthesis Of Superparamagnetic Iron Oxide Nanoparticle From *Ficus Carica* Fruit Extract, Characterization Studies And Its Application On Dye Degradation Studies”, Asian journal of pharmaceutical and clinical research, Vol.10, No.3, 2017, 125-128.
- V. Subha, S. Kirubanandan and S. Renganathan, “Synthesis Of Iron Nanoparticles using *Murraya koenigii* Fruit Bulb Aqueous Extract”, International Journal of pharmaceutical and Chemical Sciences, Vol.6, No.2, 2017,18-25.
- Samar Fatima, P. Kalainila, R.S. Ernest Ravindran and S. Renganathan, “Green Synthesis Of Copper Nanoparticle From *Passiflora Foetida* Leaf Extract And Its Antibacterial Activity”, Asian journal of pharmaceutical and clinical research, Vol.10, No.4, 2017, 79-83.
- Sri Arthi Thangadurai M.\*, Renganathan S., Shyamasundari M., Rajeswari G. and Priyanka M, “Ultrasonic Pre-treatment and Optimization of Shaker Assisted Hexane Extraction kinetics and activation energy on Second Generation Biofuel Sources”, Research journal of biotechnology, Vol. (Special Issue II), August (2017), 180-187.
- L. A. Catherine Flora, T. Suganya, V. Theresa, S. Sangeetha, G. Baskar and S. Renganathan, “ Optimization and kinetics of Anthocyanin extraction from *Musa paradisiacal* bracts” International Journal of Industrial Engineering, Vol 1, No.2, 265-273.
- R. Navnit Kumar, T. R. Saambavi, S. Jason Charles and S. Renganathan, “A Novel Spectrometric Method for Fungal Growth Estimation” International Journal of Industrial Engineering, Vol 1, No.9, 282-289.

- Bandana Sahoo, Rupa kumari, Anitha J, Habeeb Ahmed, V. Subha, S. Renganathan and Sangeetha Subramanian, "Development of co-cultured bacterial system for the removal of endocrine disruptor: Bisphenol-A from synthetic wastewater" International Journal of Environment and Protection, Vol. 38, No. 1, 5-15.
- M. Karthikeyan, G. Baskar and S. Renganathan, "Evaluation of Cantharanthus roseus Biodiesel as an alternative fuel to study the performance and emission characteristics via 4-Stroke Internal combustion engine, International journal of industrial engineering, Vol. 2 (7), 160-166, 2018.
- Priyanga jayakrishnan, Sirajunnisa abdul razack, Keerthana sivesan, Pavithra sellaperumal, Geethalakshmi ramakrishnan, Sangeetha Subramanian and Renganathan Sahadevan, "A facile approach towards copper oxide nanoparticles synthesis using Spirulina platensis and assessment of its biological activities, Brazillian journal of biological sciences, Vol. 5 (10), 433-442, 2018.
- Sambavi TR, Navnit kumar Ramamoorthy, Jason Charles & Sahadevan Renganathan 2018, 'Production of cellulase using Trichoderma atroviride ATCC 284043 by solid state fermentation from a novel mixture of coir, vegetable and fruit peels' International Journal of Industrial Engineering, Vol 2, No.5, 119-125.
- Sambavi TR, Navnit kumar Ramamoorthy, Jason Charles & Sahadevan Renganathan 2018, 'Production of cellulase from potato, sapodilla, kiwi peels and coir using Trichoderma atroviride ATCC 284043 by submerged fermentation' International Journal of Industrial Engineering, Vol 2, No.5, 119-125.
- Navnit kumar Ramamoorthy, sambavi TR & Renganathan Sahadevan 2018, 'Consolidated bioprocessing in solid state fermentation for the production of bioethanol from a novel mixture of surgical waste cotton and waste cardboard', International journal of Modern science and Technology, Vol.3 No. 8, pp. 173-180.
- Jason Charles, Navnit kumar, R sambavi TR & Renganathan Sahadevan 2018, 'Yeast co-culture with Trichoderma harzianum ATCC 20846 in submerged fermentation enhances cellulase production from a novel mixture of surgical waste cotton and waste card board, International journal of modern science and Technology, vol.3, No. 5, pp. 117-125.
- Sambavi TR, Navnit kumar Ramamoorthy & Sahadevan Renganathan 2019, 'Mixture of potato, sapodilla, kiwi peels and coir as a substrate for the production of cellulases using Trichoderma atroviride ATCC @ 28043TM by solid state cyclic feed batch strategy and evaluation of its saccharification'. International Journal of Science, Engineering and Management, Vol 4, No.6, 130-133.
- Sambavi TR, Navnit kumar Ramamoorthy, Jason Charles & Sahadevan Renganathan 2018, 'Production of cellulase from potato, sapodilla, kiwi peels and coir using Trichoderma atroviride ATCC 28043 by submerged fermentation'. International Journal of Industrial Engineering, Vol 2, No.8, 173-180.
- Navnit kumar Ramamoorthy, Sambavi TR & Renganathan Sahadevan 2019, 'A novel strain development through protoplast fusion for consolidated Bioprocessing of lignocellulosic waste mixture', International journal of Modern science and Technology, Vol.4 No. 5, pp. 128-137.

Papers presented in national and international conferences:

- Theresa Veeranan, Ernest Ravindran Sachidanandan Ramaswami, Gobinath Rajendran, Renganathan Sahadevan, "Extraction and Characterization of Oil From Non-Edible Seed Prosopis Juliflora", presented in a National level conference on contemporary trends in Bioenergy and Green Technology Challenges and Opportunities" organised by Kamaraj College of Engineering and Technology, Virudhu nagar Tamilnadu, India from 25-25, Feb, 2016.
- Theresa Veeranan, Ernest Ravindran Sachidanandan Ramaswami, Ajith Kumar, Pandian Kannaiyan, Renganathan Sahadevan, "A novel approach to produce oil extraction from non-edible seed Indigofera colutea", presented in a National level conference on contemporary trends in Bioenergy and Green Technology Challenges and Opportunities" organised by Kamaraj College of Engineering and Technology, Virudhunagar Tamilnadu, India from 25-25, Feb, 2016.
- Theresa Veeranan, Ernest Ravindran Sachidanandan Ramaswami, Gokul Sankaran, Renganathan Sahadevan, "A critical evaluation of oil extraction from non-edible seed Guazuma ulmifolia and their characterization" presented in a National level conference on contemporary trends in Bioenergy and Green Technology Challenges and Opportunities" organised by Kamaraj College of Engineering and Technology, Virudhu nagar Tamilnadu, India from 25-25, Feb, 2016.
- Renganathan Sahadevan, Navnit kumar Ramamoorthy, Sambavi TR, Jayakumar C 2017 'Production of Bio-ethanol from the Ligno-biomass rice straw', Proceedings of the 70th Annual session of Indian Institute of Chemical Engineers "Chemcon 2017" at Haldia Institute of Technology, Haldia during the period from December 27-30, 2017.
- T. R. Sambavi, R. Navnit Kumar and S. Renganathan, "Mixture of potato, sapodilla, kiwi peels and coir as a substrate for the production of cellulases using Trichoderma atroviride ATCC 28043 by a solid state cyclic fed batch strategy and evaluation of its saccharification efficiency" presented in International conference on recent trends in multi disciplinary research organised by IFRP, Thoothukudi on 20-21 December 2018.