

CURRICULUM VITAE OF Dr. V. SIVAKUMAR

Name : Dr. V. Sivakumar
Position : Associate Professor
Year of Experience : 16 years
Education : **Ph.D** (Chemical Engg), Anna University, INDIA
M.Tech (Plant Design), Regional Engineering College, Tiruchirappalli. (Presently National Institute of Technology, Tiruchirappalli, INDIA)
B.E. (Chem. Engg), Annamalai University, INDIA



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Employment Record:

Period	Designation and Address	Nature of Job
5.12.2014 - Till date	Associate Professor Department of Chemical Engineering A C Tech Camps, Anna University Chennai – 600 025.	Teaching and Research
1.06.2011 - 4.12.2014	Professor & HOD, Department of Food Technology Kongu Engineering College Perundurai, Erode 638052.	Teaching, Research and Administration
1.08.2010 - 31.05.2011	Associate Professor & HOD, Department of Food Technology Kongu Engineering College Perundurai, Erode 638052.	Teaching, Research and Administration
1.10.2005 - 31.07.2010	Assistant Professor, Department of Food Technology Kongu Engineering College Perundurai, Erode 638052.	Teaching and Research
1.10. 2003 - 30.09. 2005	Senior Lecturer, Department of Chemical Engineering Kongu Engineering College Perundurai, Erode 638052.	Teaching and Research

Research Record:

Period	Designation and Address	Nature of Work
1.10.1999 - 30.09.2003	Senior Research Fellow (Funded by Council of Scientific and Industrial Research INDIA) Department of Chemical Engineering A C Tech Camps, Anna University Chennai – 600 025.	Research
30.07.1998 – 29.09.1999	Senior Research Fellow (Funded by Ministry of Environmental and Forest, INDIA) Department of Chemical Engineering A C Tech Camps, Anna University Chennai – 600 025.	Research

Abroad Assignment:

Period	Country Visited	Purpose of visit
June 17, 2018 to July 3, 2018.	Yokohama National University Japan	Foreign Technical Training Program

Area of Expertise:

- Biodegradable food packaging films
- Extraction of bioactive compounds and phytochemicals
- Value addition of agro products
- Effluent treatment
- Alternative fuels and chemicals such as ethanol, hydrogen from biomass.

Membership of professional bodies:

- Life member of Indian Institute of Chemical Engineers (IIChE) (LM:32000)
- Life member of Indian Society of Technical Education (ISTE) (LM:51668)
- Life Member of Institute of Engineers (IE) (M-137685-8)
- Life Member of Association of Food Scientist and Technologist (AFST/LM/5-2018/CHEN/1965)

Awards/Honors:

S. No	Name of the prize / Award	Prize / Award Given by	Purpose of sanctioned the prize / award
1	Senior Research Fellow (SRF)	Council of Scientific and Industrial Research (CSIR)	Fellowship for doing doctoral research
2	Chemical Engineering Department Best Staff (2006 -07)	Kongu Engineering College	Best Performance in Department level
3	Overall Best faculty Award -2010	Cognizant (CTS)- Kongu Engineering College	Outstanding Performance in Institute level
4	Best Researcher Award - 2013	Kongu Engineering College	Best Research activities in college level

Research Projects:

- Project Title: *Process Integration for Production of Biogas and Zero Discharge Effluents from Paper And Pulp Industries*. Funding Agency Name: **University Grants Commission (UGC)**. Major Research Project Scheme, **Total Budget: Rs. 9,58,800/- (Duration: 1.02.2011 - 31.01.2014)** ([F.No39-853/2010 (SR)] date 13.01.2011)
- Project Title: *Enhancing the Shelf life of Sapota (MANIKARA ZAPOTA) by Value Addition*. Funding Agency Name: **MOFPI/DST SERC Scheme**, **Total Budget: Rs. 10.44 lakhs (Duration: 1.10.2012 - 30.10.2014)** (SERB/MOFPI/0021/2012 dated 5.9.2012)
- Project Title: *Development of Starch Blended Guar Gum Biodegradable Films Reinforced with Cellulose Nano Crystals*. Funding Agency Name: **Board of Research in Nuclear Sciences (BRNS)**, **Total Budget: Rs. 30,71,400/- (Duration: 1.10.2018 - 31.03.2021)** (37(1)/14/27/2018-BRNS/37195 dated 03.08.2018)

SEMINARS / WORKSHOPS / CONFERENCES ORGANIZED:

Organized:

- Organizing Secretary, **ICMR sponsored national seminar** on *"Phytochemicals: Their Role in Disease Prevention and Health Promotion"* held at Kongu Engineering College on 17.09.2010 (7/123/10-Admn-II (seminar) dated 5.7.2010)
- *"Hygiene slaughtering and slaughter house management to butchers"* training program was organized to butchers on 4.12.2010 **sponsored by NMPPB, IICPT, MOFPI and KEC.**
- Convener, **DST SERC sponsored national workshop** on *"Integrated techniques for treatment of textile effluents"* held at Kongu Engineering College on 21 & 22.04.2011. (SR/SS/1205/10-11 Dated 28.02.2011),
- Organizing Secretary, **CSIR sponsored national workshop** on *"Application of Modeling & Simulation Techniques in food & bioprocess Engineering"* held at Kongu Engineering College on 8 & 9.12.2011. (SYM/6618/11-HRD Dated 7.10.2011).
- Organizing Secretary, National Workshop on *"How to Plan, Write and Publish your research Project"* held at Kongu Engineering College on 05.10.2013.
- Organizing Secretary, **DBT sponsored national seminar** on *"Nutriproteomics: Technologies and Applications in Personalized health Care and Medicine"* held at Kongu Engineering College on 22.1.2014. (DBT/CTEP/01/201301)
- Organizing Secretary, National One Day Workshop on *"Research - Planning, Writing and Publishing"* held at Kongu Engineering College on 31.01.2014.
- Organizing Secretary, **MoES sponsored national seminar** on *"Frontiers in Green Chemistry: Meeting the Grand Challenges for Sustainable Earth (FGCMS-2014)"* held at Kongu Engineering College on 12.02.2014.
- Organizing Secretary, **National Conference** on *"Advance in Food, Chemical and Biotechnology AFGB-2K14"* held at Kongu Engineering College on 12.09.2014.
- Organizing Secretary, **DBT sponsored national seminar** on *"Nano proteomics: Current status, Promise and Challenges (NPCPC-2014)"* held at Kongu Engineering College on 25.10.2014. DBT/CTEP/01/201400339)
- Co-ordinator, **AICTE Anna University sponsored national seminar** on *"CH6701 – Chemical Reaction Engineering II"* held at A C Tech, Anna University during 27.05.2019 – 31.05.2019.

DOCTORAL / M.TECH GUIDANCE:

Ph.D : Completed :16, Thesis Submitted : 01, Ongoing : 07

S. NO	Name of the Research Scholar	Research Title	Year of completion /Status
1	P. Murthi	Development of ternary blended concrete	2009
2	K. Nirmal kumar	Studies on suitability of industrial effluents for construction purposes	2009
3	K. Senthilkumar	Hydrodynamic studies in three-phase fluidized bed	2011
4	V. Chitra Devi	Studies on biodecolorization of cibacron reactive dyes	2011
5	K. Kannan	Hydrodynamic studies on three – phase external loop air lift fluidized bed	2011
6	P. Akilamudhan	Hydrodynamic studies on three phase internal loop and combined loop air lift reactor fluidized beds	2012
7	P. Shanmugam	Studies on production of bioethanol and its characterization blending with additives for effective use in diesel engine as diesel -bioethanol blends	2012
8	R. Sridhar	Studies on electro coagulation techniques for treatment of industrial effluents	2013
9	R. Senthilraja	Experimental Investigation of Performance, Emission and Combustion Characteristics of a Dual Fuel Engine with Diesel-Ethanol-Vegetable Oil and its ester Blended with Compressed Natural Gas (CNG)	2014
10	M. Shanmuga Prakash	Studies on Removal of Chromium (VI) and Zinc (II) Ions from Aqueous solution using Biosorption	2015
11	J. Prakashmaran	Studies on Development and Characterization of Starch Based Biodegradable Edible Films	2015
12	K.Thirugnana sambandham	Recovery of water from effluents using integrated process techniques	2015
13	V.Sangeetha	Studies on treatment and recovery of biogas from Sago and Dairy industries effluent	2016
14	A.Sangamithra	Foam Mat Drying of Muskmelon (Cucumis Melo) Pulp	2016
15	D. Tiroutchelvame	Studies on osmotic Dehydration of Fruit and Vegetables	2017
16	A.Sudha	Studies on Production of Bioethanol from Cassava Pulp and Stem	2017
17	K.Kannan	Osmo convective drying of sapota	Thesis submitted

S. NO	Name of the Research Scholar	Research Title	Year of completion /Status
18	K.Anbarasi	Extraction of valuable components from fruit wastes	Ongoing
19	Jony Blessing Manoj	Extraction of bioactive compounds from plants	Ongoing
20	L Antony Catherine Flora	Development of Fiber Reinforced starch-based packaging Films	Ongoing
21	Anupama.J.R	Extraction of bioactive compounds from natural resources	Ongoing
22	J.R. Baby Salini	Studies on development of bio-composite	Ongoing
23	P. Prabhu	Development of biodegradable films from natural resources	Ongoing
24	Jeeva S	Green process technique for extraction of oil from agro products	Ongoing

MS/M.Tech: Completed: 25

S. NO	Name of the Student	Title of the Project	Year of completion
1	C. Kathirvel	Hydrodynamic studies in spouted bed	2005
2	K. Anbarasi	Studies on biological treatment of textile effluent	2006
3	C. Venkatesh	Production of ethanol from biomass	2007
4	S.Jeeva	Extraction of Polyphenols from Fruit Waste	2016
5	M.Gowri Sankar	A study of Foaming and Drying of Vegetables	2016
6	P.Prabhu	Starch based Biodegradable packaging films with natural fiber composite as reinforcement	2016
7	S.P.Santhosh kumar	Microwave assisted extraction of valuable components from Adhatoda Leaves	2016
8	J.R.Baby Salini	Studies on the production of Foam-Mat dried custard apple powder	2016
9	R.Kanimozhi	Isolation, Characterization of fiber and its reinforcement in film formation	2016
10	Anupama J.R.	Recovery of Biogas from synthetic sago effluent using two stage anaerobic treatment	2016
11	C. Ravi Shankar	Studies on production of Foam mat dried fruit powders	2017
12	K.S.Sowmya	Osmo convective drying of fruits and vegetables	2017
13	P.Sujitha	Studies on treatment of petrochemical industries effluent	2017
14	K.Kiruthika	Extraction of color pigment from <i>Brassicca Olerace</i> and <i>Nusa Acuminata</i>	2017

15	S.Jayasathya	Extraction for recovery of valuable compounds from fruit waste	2017
16	S.V.Abirami	Studies on Parboiling of Rice using microwave heating	2017
17	G. Neela Gayathri	Ultrasound extraction of oil from Neem seeds	2018
18	K.Bhawani	Extraction of oil from Bitter gourd seeds	2018
19	N.Pradeepa	Production of fuel from Biomass	2018
20	V.Mayuri	Synthesis and preparation of biodegradable films	2018
21	R.Sneha	Biofuel production from lignocellulosic biomass	2019
22	S.Aravindhan	Preparation and properties of bio-fuel from vegetable oils	2019
23	K.Prasanna	Development of chitosan-based film with anti-microbial property	2019
24	C.Manisha	Evaluation of carboxylated starch Nano-particles as potential fillers for food packaging application	2019
25	R.Bhaghirathi	Development of natural fiber reinforced resin matrix composite	2019

PUBLICATIONS

<i>No of papers published in International journal</i>	: 107
<i>No of papers published in National journal</i>	: 18
<i>No of Book/Book Chapter written</i>	: 01
International Conferences	: 36
<i>National Conference</i>	: 24

List of papers published

International Peer-reviewed Journals

1. **Sivakumar V.**, Nirmala G.S and Murugesan T. "*Gas phase hold up in gas-liquid cocurrent upflow packed bed reactor at low Reynold's number*" **Bio Process Engg**, Vol. 21, pp. 41-43, (1999).
2. Murugesan T. and **Sivakumar V.** "*Pressure drop and flow regimes in cocurrent gas-liquid upflow through packed beds*" **Chem. Eng. J.**, Vol. 88 pp. 233-243, (2002).
3. Murugesan T. and **Sivakumar V.** "*Reply for the comments on Pressure drop and flow regimes in cocurrent gas-liquid upflow through packed beds*" **Chem. Eng. J.**, Vol. 88 pp. 247, (2002).
4. Murugesan T. and **Sivakumar V.** "*Liquid holdup and interfacial area in cocurrent gas-liquid upflow through packed beds*" **J. of Chem. Eng. Japan**, Vol. 38 pp. 229-242, (2005).

5. **Sivakumar V.** and Chitradevi. V. "*Decolorization of Cibacron yellow S-3R using Coriolus Versicolor (MTCC 138)*" **Modern Applied Science** Vol.2 No.5 pp.3-8 (2008).
6. Senthilkumar K,**Sivakumar V.** and Kannadasan T. "*Experimental investigation on relationship between sedimentation rate constants of solid materials*" **Modern applied Science** Vol.2 No.5 pp.80-85 (2008).
7. Murthi P. and **Sivakumar V.**, "*Studies on acid resistance of ternary blended concrete*" **Asian Journal of civil Engineering (Building and Housing)** Vol. 9, No.5 pp 473-486 (2008).
8. Murthi P. and **Sivakumar V.**, "*Studies on the variations of carbonation depth of fly ash and silica fume based Ternary blended concrete*" **Int. J. of Engg, Res.& Indu Appls.** Vol.1 No.1V pp 129-141 (2008).
9. Senthilkumar K. **Sivakumar V.** and Akilamudhan P. "*Experimental studies on disposal of various industrial solid wastes*" **Modern Applied Science** Vol. 2 No.6 pp. 128 -132 (2008).
10. Nirmalkumar K. and **Sivakumar V.** "*Corrosion studies on concrete using treated and untreated Textile Effluent and impact of corrosion inhibitor*". **J. of Sustainable Development** Vol. 1 No.3 pp. 68 -74 (2008).
11. **Sivakumar V.** Senthilkumar K. Akilamudhan P. "*Prediction of liquid holdup and solid holdup in three-phase fluidized bed: Air/Newtonian and non Newtonian liquid systems*" **Journal of Chemical and Biochemical Engineering Q. Journal.** Vol. 22 No. 4 pp. 401–410 (2008).
12. Nirmalkumar K. and **Sivakumar V.** "*Acid resistance behavior of concrete made using untreated and treated Tannery Effluent*" **Modern applied Science** Vol.3 No. 1 pp 139 -143 (2009).
13. Shanmugam P. **Sivakumar V.** Sridhar R. and Venkatesh S. "*Production of Bio-ethanol from sugar molasses using saccharomyces cerevisiae*" **Modern applied Science.** Vol.3 No. 8 pp 32 -37 (2009).
14. **Sivakumar V.** Kannan K and Akilamudhan P "*Prediction of Riser Gas Holdup in Three-Phase External Loop Air Lift Fluidized bed Reactor*" **Modern applied Science** Vol.4 No. 8 pp 75 -87 (2010).
15. **Sivakumar V.** Akilamudhan P and Kannan K. "*Prediction of Gas Holdup in a Three-Phase Internal Loop Airlift Fluidized Bed Reactor Using Newtonian and non-Newtonian Liquid*" **Modern applied Science** Vol.4 No. 9 pp 110 -123 (2010).
16. **Sivakumar V.** Sridhar R and Prince Immanuel "*Prediction of minimum spouting in spouted bed*" **Asia-Pacific Journal of Chemical Engineering** Vol. 5 No 5 pp. 811 – 814 (2010).
17. **Sivakumar V.** and Senthilkumar K "*Prediction of minimum fluidization velocity in two-phase and three-phase fluidized beds: Air/Newtonian and non Newtonian liquids*" **International Journal of Chem. Reactor Engg.** Vol .8 A91. pp. 1-16. (2010).
18. **Sivakumar V.** Kannan K and Senthilkumar K. "*Correlation for Prediction of Minimum Fluidization Velocity and Riser Liquid Holdup in Three-Phase External Loop Air Lift Fluidized bed Reactor*" **International Journal of Chem. Reactor Engg.** Vol .8 A123. pp. 1-17. (2010).

19. **Sivakumar V.**, Senthilkumar K, and Kannadasan T “*Prediction of gas holdup in three-phase fluidized bed: Air/Newtonian and non Newtonian liquid systems*” **Polish J. of Chem. Engg** Vol.12, No 4, pp. 65- 72, (2010).
20. Sridhar R, **Sivakumar V**, Prince Immanuel V, Prakash Maran J. “*Treatment of Pulp and Paper Industry Bleaching Effluents by Electrocoagulant Process*” **Journal of Hazardous Materials** Vol .186 . pp. 1495-1502. (2011).
21. Shanmugam P, **Sivakumar V**, Murugesan A, Ilangkumaran M, “*Performance and Exhaust Emissions of a Diesel Engine Using Hybrid Fuel with an Artificial Neural Network*” **Energy Sources, Part A : Recovery, Utilization and Environmental Effects** Vol. 33, No. 15, pp.1440-1450, (2011).
22. Shanmugam P, **Sivakumar V**, Murugesan A, Umarani C “*Experimental study on diesel engine using hybrid fuel blends*” **International Journal of Green Energy** Vol. 08, No. 6, pp.655-668, (2011).
23. **Sivakumar V**, Akilamudhan P, Senthilkumar K and Kannan K , “*Prediction of Gas Holdup in a Combined loop Air Lift Fluidized Bed Reactor using Newtonian and Non-Newtonian Liquids*”, **Chemical Inds. & Chemical Engineering Quarterly** Vol. 17, No. 3, pp.375-383, (2011).
24. Kannadasan T, **Sivakumar V**, Basha C.A, Arun V. Parwate, Senthilkumar K and Kannan K. “*COD reduction studies of paper mill effluent using a batch recirculation electrochemical method*” **Polish J. of Chem. Engg.** Vol. 13, No. 3, pp.37-41, (2011).
25. **Sivakumar V.** Akilamudhan P and Kannan K. “*Hydrodynamic Studies on Three-Phase Combined (Internal & External) Loop Airlift Fluidized Bed Reactor Using Newtonian and Non-Newtonian Liquids: Minimum Fluidization Velocity and Liquid Holdup*” **International Journal of Chem. Reactor Engg.** Vol. 9 No. 1 A79 pp. online published (2011).
26. Sridhar R, **Sivakumar V**, Prince Immanuel V, Prakash Maran J. “*Development of Model for Treatment of Pulp and Paper Industry Bleaching Effluent using Response Surface Methodology*” **Environmental Progress & Sustainable Energy** Vol. 31, pp 558-565, (2012).
27. Senthilraja R, and **Sivakumar V**, “*Performance and Emission characteristics of a CI Engine Fueled with of Diesel-bioethanol-straight Pongamia Oil Blends*” **European Journal of Scientific Research** Vol. 93, No. 1 pp 26-33, (2012).
28. Senthilraja R, and **Sivakumar V** “*Emissions Characteristics of Dual Fuel Engine Operating on Diesel- Ethanol-Pongamia oil Methyl Ester Fuel Blends with Compressed Natural Gas*” **Pollution Research** Vol. 32, No. 2 pp 437-442 (2013).
29. Prakash Maran J., **Sivakumar V.**, Thirugananasambandham K., Sridhar R. “*Response surface modeling and analysis of barrier and optical properties of maize starch edible films*” **International Journal of Biological Macromolecules.** Vol. 60, pp. 412-421, (2013).
30. Prakash Maran J., **Sivakumar V.**, Sridhar R., Prince Immanuel V. “*Development of model for mechanical properties of tapioca starch based edible films*” **Industrial Crops and Products**, Vol. 42, pp. 159 – 168, (2013).

31. Prakash Maran J., **Sivakumar V.**, Thiruganasambandham K., Sridhar R. “ *Artificial neural network and response surface methodology modeling in mass transfer parameters predictions during osmotic dehydration of Carcia papaya L*”. **Alexandria Engineering Journal**, Vol. 52, pp. 507-516, (2013).
32. Prakash Maran J., **Sivakumar V.**, Thiruganasambandham K., Sridhar R. “*Optimization of microwave assisted extraction of pectin from orange peel*” **Carbohydrate polymers**, Vol. 97, pp. 703-709, (2013).
33. Thiruganasambandham K., **Sivakumar V.**, Prakash Maran J. “*Application of chitosan as an adsorbent to treat rice mill wastewater - Mechanism, Modeling and Optimization*” **Carbohydrate Polymers**, Vol. 97, pp. 451-457, (2013).
34. Prakash Maran J., **Sivakumar V.**, Sridhar R., Thiruganasambandham K. “*Development of model for barrier and optical properties of tapioca starch based Edible films*” **Carbohydrate Polymers**, Vol. 92, pp. 1335-1347, (2013).
35. Prakash Maran J., **Sivakumar V.**, Thiruganasambandham K., Sridhar R. “*Modeling and analysis of film composition on mechanical properties of maize starch based edible films*” **International Journal of Biological Macromolecules** vol.62 pp565-573, (2013).
36. Thiruganasambandham K., **Sivakumar V.**, Prakash Maran J., S.Kandasamy. “*Treatment of rice mill wastewater using continuous electrocoagulation technique: Optimization and modeling*” **Journal of the Korean Chemical Society** Vol.57 No.6 pp 761-768 (2013).
37. Shanmugaprakash, M., and **Sivakumar V.** “*Development of experimental design approach and ANN-based models for determination of Cr (VI) ions uptake rate from aqueous solution onto the solid biodiesel waste residue*”. **Bioresource Technology** pp.550-559 (2013).
38. Shanmugaprakash Muthusamy & **Sivakumar Venkatachalam** & Prasana Manikanda Kartick Jeevamani & Nandusha Rajarathinam. “*Biosorption of Cr(VI) and Zn(II) ions from aqueous solution onto the solid biodiesel waste residue: mechanistic, kinetic and thermodynamic studies*”. **Environmental Science and Pollution Research**. Vol. 21 No. 1 pp. 593 -608 (2014).
39. Prakash Maran J., **Sivakumar V.**, Thiruganasambandham K., Sridhar R. “*Microwave assisted extraction of pectin from waste Citrullus lanatus fruit rinds*” **Carbohydrate Polymers** pp786-791. (2014).
40. Prakash Maran J., **Sivakumar V.**, Thiruganasambandham K., Sridhar R. “*Degradation behavior of biocomposites based on cassava starch buried under indoor soil conditions*” **Carbohydrate Polymers**. Vol. 101, pp. 20 -28. (2014).
41. Thiruganasambandham K., **Sivakumar V.**, Prakash Maran J. Kandasamy S “*Chitosan based grey wastewater treatment – A statistical design approach*” **Carbohydrate Polymers**. Volume 99, Issue 2, 12 Pages 593-600. (2014).
42. Thiruganasambandham K., **Sivakumar V.**, Prakash Maran J. “*Optimization of electrocoagulation process to treat biologically pretreated bagasse effluent*” **Journal of the Serbian Chemical Society**. Vol. 78 No. 5 pp. 613-626 (2014).

43. Prakash Maran J., **Sivakumar V.**, Thirugananasambandham K., Sridhar R. "Extraction Multi-response analysis and optimization of biologically active phenolic compounds from the pulp of Indian jamun fruit" **Food Science and Biotechnology** Vol 23 No 1. pp. 9 - 14 (2014).
44. Shanmugaprakash, M., **Sivakumar, V.**, Manimaran, M., & Aravind, J. "Batch and dynamics modeling of the biosorption of Cr (VI) from aqueous solutions by solid biomass waste from the biodiesel production". **Environmental Progress & Sustainable Energy**. Vol. 33 No. 2 pp. 342 - 352 (2014).
45. Thirugananasambandham K., **Sivakumar V.**, Prakash Maran J. "Treatment of egg processing industry effluent using chitosan as an adsorbent" **Journal of the Serbian Chemical Society**. Vol. 79 No. 6 pp. 743-757 (2014).
46. Sridhar R., **Sivakumar V.**, Prakash Maran J., Thirugananasambandham K. "Influence of operating parameters on treatment of egg processing effluent by electrocoagulation process" **International Journal of Environmental Science and Technology**. Volume 11, No. 6, pp 1619-1630 (2013).
47. Prakash Maran J., **Sivakumar V.**, Sridhar R., Thirugananasambandham K. "Model development and Process optimization for solvent extraction of polyphenols from red grapes using Box-Behnken design". **Preparative Biochemistry and Biotechnology**. Vol.No 44(1), pp 56-67 (2014).
48. Thirugananasambandham K., **Sivakumar V.**, Prakash Maran J. "Optimization of electrocoagulation process to treat grey wastewater in batch mode using response surface methodology" **Journal of Environmental Health Sciences & Engineering**. Vol.No12. pp. 29-37 (2014).
49. Thirugananasambandham K., **Sivakumar V.**, Prakash Maran J. "Bagasse wastewater treatment using biopolymer - a novel approach" **Journal of the Serbian Chemical Society**. Vol. 79 No. 7 pp. 897-909 (2014).
50. Senthilraja, R, **Sivakumar,V** & Prakash Maran, J "Studies on Dual Fuel Engine Performance and Exhaust emission analysis by Response Surface Methodology", **Journal of Renewable and Sustainable Energy**, vol.6 No. 1 013103 (2014).
51. Thirugananasambandham K., **Sivakumar V.**, Prakash Maran J. "Efficiency of electrocoagulation method to treat chicken processing industry wastewater – modeling and optimization" **Journal of the Taiwan Institute of Chemical Engineers**. Vol. 45, No. 5, pp. 2427–2435 (2014).
52. Thirugananasambandham K., **Sivakumar V.**, Prakash Maran J. "Process optimization and analysis of microwave assisted extraction of pectin from dragon fruit peel". **Carbohydrate polymers** Volume 112, No. 4, Pages 622–626. (2014).
53. Thirugananasambandham K., **Sivakumar V.**, Prakash Maran J., "Analysis of Efficiency of *Bacillus subtilis* to treat Bagasse Based Paper and Pulp Industry Wastewater – A Novel Approach". **Journal of the Korean Chemical Society** Vol 58 No 2. pp.198-204 (2014).
54. Thirugananasambandham K., **Sivakumar V.**, Prakash Maran J. "Investigation on biogas production process from chicken processing industry wastewater using statistical analysis: modeling and optimization". **Journal of Renewable and Sustainable Energy**. Vol. 6 No. 4, 043117 (2014)

55. Thirugananasambandham K., **Sivakumar V.**, Prakash Maran J. "Modelling and investigation of submerged fermentation process to produce extracellular polysaccharide using *lactobacillus confusus*". **Carbohydrate polymers** Volume 114, Pages 43 -47. (2014).
56. V.Sangeetha, **V.Sivakumar**, A Sudha, K S Devi. "Optimization of process parameters for COD removal by coagulation Treatment using Box- Belnken design". **International journal of Engineering & Technology** Vol. 6, No. 2, pp.0975-4024, (2014).
57. M.Shanmugaprakash, **V.Sivakumar**, K Babukannan, S. Biswarup "Development of a New Cr(VI)-biosorbent from Agricultural Waste: Adsorption Characteristics and the Kinetics" **Journal of Chemical Chinese Society** Vol 61 No 7. pp. 797-802 (2014).
58. Thirugananasambandham K., **Sivakumar V.** "Investigation on fluidized bed bioreactor treating ice cream wastewater using response surface methodology and artificial neural network" **International Journal of Chemical Reactor Engineering** Vol 12 No. 1. Pp. 563-573 (2014)
59. Thirugananasambandham, K., **Sivakumar, V.**, Prakash Maran, J. "Modeling and optimization of biogas production from rice mill effluent using up flow anaerobic sludge blanket reactor" **Journal of Renewable and Sustainable Energy** Vol 6(2),023129 (2014)
60. Akilamudhan, P., **Sivakumar, V.**, Mohanraj, R., Senthilkumar, K. "Prediction of solid holdup in an internal loop airlift fluidized bed reactor" **International Journal of ChemTech Research** Vol 6(9), pp. 4460-4467 (2014)
61. Sangamithra, A., Sivakumar, V., John, S.G., Kannan, K. "Influence of process parameters on the kinetics of the osmotic dehydration of muskmelon (*cucumis melo*) using box behnken design" **International Journal of ChemTech Research** Vol 6(10), pp. 4520-4524 (2014)
62. Thirugananasambandham K. and **Sivakumar V.** "Enzymatic catalysis treatment method of meat industry wastewater using lacasse" **Journal of Environmental Health Science and Engineering**. Vol.13 No. 1 pp 86 (2015).
63. Shanmugaprakash M. and **Sivakumar V.** "Batch and fixed-bed column studies for biosorption of Zn (II) ions onto pongamia oil cake (*Pongamiapinnata*) from biodiesel oil extraction" **Journal of Environmental Management**. Vol.164 pp 161-170 (2015).
64. **Venkatachalam S.** John S G. and Kuppuswamy K. "Foam Mat Drying of Food Materials: A Review" **Journal Of Food Processing And Preservation**. Vol.39 No. 6 pp 3165-3174 (2015).
65. Thirugananasambandham K. **Sivakumar V.** and Prakash Maran J. "Optimization of process parameters in electrocoagulation treating chicken industry wastewater to recover hydrogen gas with pollutant reduction" **Renewable Energy**. Vol.80 pp 101-108 (2015).
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16. Sangeetha V, **Sivakumar V**, Sudha A and Chitradevi V, '*A Study of suitable bioreactor for treatment of dairy and sago effluents*', National Conference on Biological Wastewater Treatment towards Green Environment, Jan 28-29 2011. pp. 30
17. Chitradevi V, **Sivakumar V**, Sangeetha V and Sudha A '*Bio decolorization of synthetic & real effluents containing cibacron reactive dyes using suspended & immobilized cells of white rot fungus*', National Conference on Biological Wastewater Treatment towards Green Environment, Jan 28-29 2011. pp. 39
18. Chitradevi V, **Sivakumar V**, Sangeetha V and Sudha A '*Studies on biodecolorization kinetics of cibacron reactive dyes using bacteria*', National Conference on Biological Wastewater Treatment towards Green Environment, Jan 28-29 2011, pp 65
19. Thirugnanasambhandham K., **Sivakumar V** and Prakash Maran J. "*Treatment of bagasse effluent using chemical coagulation – Response surface methodology analysis*" Proceedings of CAMET-2013, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, July 11-12, 2013.
20. S.Jeeva , V.Sivakumar, "*Effect of solvent assisted extraction on DPPH activity of papaya seed oil*", NCEA- 2018 at Valliammai Engineering College, Kattankulathur, on 3rd February 2018.
21. S.Jeeva, V.Sivakumar, "*Ultrasound assisted extraction of polyphenols from Coccinia grandis L & optimization using response surface methodology*", CONCEPT- 2018 at Kongu Engineering College, Erode on 9th February 2018.
22. Jeeva S, Sivakumar V, "*Utilization of Coriander Seeds for Vegetable Oil Extraction and Analysis of Fatty Acid Composition*", CEEE-2018 at SSN Engineering College, Chennai on 31st August 2018.
23. Jeeva S, Sivakumar V, "*Production of Biodiesel from papaya (Carica papaya .L) waste seed oil and Evaluation of fuel properties*", RACE-2018 at Annamalai University, Chidambaram on 28 & 29th October 2018.
24. Jeeva S, Anupama JR, Sivakumar V, "*Effect of ultrasonic variables on DPPH radical scavenging activity of Carica papaya L. seed oil recovery process*", RAC-2019 at Anna University, Chennai on 4 & 5th January 2019.

FACULTY DEVELOPMENT PROGRAMME ATTENDED

- Attended workshop on "*Computational Fluid Dynamics*" at Vellore Engineering college, Vellore. (23 - 28, April 2001)
- Attended Short term course on "*Computations of Internal flow*" at IIT Chennai. (11 – 16, June 2001)
- Attended Faculty development Program on "*Principles of Environmental Science and Engineering*" at Kongu Engineering College, Perundurai. (10 -15 November 2003)
- Attended a Faculty development program on "*Enhancement of Engineering Education Through e-Learning*" at Kongu Engineering College, Perundurai. (22 -31 July 2007)

- Attended Workshop on *“Review of Community Radio Series: Science for Women: Health & Nutrition & Exploratory Workshop for Radio Series “Planet Earth”* organized by RVPSP & CEMCA at Newdelhi on 14 –16 Feb 2008.
- Attended a Summer school program *“Tomography and Velocity Imaging in Multiphase Reactors”* at Department of Chemical Engineering, IIT, Delhi (21 - 25 July 2008).
- Attended seminar on *International Summit on Food Processing & Agribusiness: Emerging opportunities and strategic thrust areas for the Industry* on 28 - 29 July, 2009 at Hotel Oberoi, New Delhi organized by ASSOCHAM New Delhi
- Attended Regional summits on *“Quality in Education”* organized by CII –Coimbatore & CII Institute of Quality, Bangalore on 21 –22 January 2011 at Coimbatore.
- Attended Seminar on *Texture Analyzer* on 30 July 2011 at New Delhi organized by Scientific and Digital Systems, New Delhi.
- Attended *3rd International Summit cum Exhibition on Food Processing, Agribusiness & Dairy* on 14 September 2011 at Hotel Le-Meridien, New Delhi organized by ASSOCHAM New Delhi.
- Attended seminar on 9nd Edition of Foodpro 2011: *Conference on Emerging Technologies in Food Processing Sector* on 22nd of October 2011 at the Chennai Convention Centre, Chennai organized by Tamil Nadu Technology Development & Promotion Center of CII, Chennai.
- Attended Workshop on Food Safety & Standards Rules & Regulations, 2011 on 22.05.12 at Hotel Le Meridien, Chennai organized by Tamil Nadu Technology Development & Promotion Center of CII, Chennai.
- Attended Meat Tech 2012 *“Conference on Meat Processing Technologies* on 8.06.12 at ITC Park Sheraton, Chennai organized by Tamil Nadu Technology Development & Promotion Center of CII, Chennai.
- Attended Training Programme on *“Drying of Food Products: Principles and Industrial Applications* at CFTRI, Mysore during 03.10.12 to 05.10.12.
- Attended 43rd ISTE National Annual Convention on *“Empowering Technical Education to Address Sustainability and Global Competitiveness”* held at Tatyasaheb Kore Institute of Engineering and Technology, Warananagar during 19th to 21st December 2013.
- Attended Faculty Development Training Programme on *“Chemical Process Calculation”* at AC Tech, Anna University during 18.1.16 to 25.1.16
- Attended National Seminar on *“Advances in Biofuels and Bioenergy”* at AC Tech, Anna University during 24.10.16 & 25.10.16
- Attended National Seminar on *“Industrial Safety, Health and Environment”* on 19.04.2017 organized by IChE-CRC.
- Attend Faculty Development Program on *“Student Induction Programme – Level 0* at Anna University, Chennai during 13.05.2019 to 15.05.2019
- Attend Faculty Development Program on *“Student Induction Programme – Level 1* at PSG Institute of Tech. and Applied Research, Coimbatore during 17.06.2019 to 23.06.2019

INVITED TALKS

- Invited talk entitled “Bio-refinery: Green Process Technology for Sustainable Environment” given during the ISTE- SRM University sponsored Short term training programme on “Green Engineering Concepts for process Design and Synthesis of Green products” held at Erode Sengunthar Engineering College, Thudupathi Erode on 18.04.2013.
- Invited talk entitled “Biorefinery: Strategy for minimization of CO₂ Emissions” given during the two-day national level seminar on “Innovative Green Technologies for Carbon Dioxide Sequestration and to protect atmosphere” sponsored by AICTE, New Delhi held at Erode Sengunthar Engineering College, Thudupathi Erode on 7.01.2014.
- Invited talk entitled “Ligno-Cellulosic Biofuels” given during the two day national level seminar on “Advances in Bio-fuel Technologies for a sustainable solution to Energy Crises” sponsored by DBT held at Kongu Engineering College, Erode on 26.02.2016.
- Invited talk entitled “Integrated Techniques for Treatment of Industrial Effluents” given during the TEQIP-II sponsored Short-term course on “Recent Developments in Wastewater Treatment Technologies” held at Department of Chemical Engineering, National Institute of Technology, Trichy on 7.05.2016.
- Invited talk entitled “Integrated Waste Water Treatment Techniques” given during the TEQIP sponsored Short term course on “Recent Trends in Industrial Effluent Treatment” held at Department of Chemical Engineering, Pondicherry Engineering College, Puducherry, on 24.06.2016.
- Invited talk entitled “Green Process Technologies for minimization and Sequestration of Green House Gases” given during the Science and Engineering Research Board (SERB), DST, New Delhi sponsored National seminar on “Geologic Sequestration of Greenhouse Gases (CO₂) and Innovative Green Technologies to Protect Atmosphere for the Sustainable Development” held at Erode Sengunthar Engineering College, Thudupathi Erode on 7.02.2017.
- Invited talk entitled “Extraction strategies of bioactive compounds from food waste” given during the DST, New Delhi sponsored National conference on “Current & Future trends in Food waste Management and its valorization” held at Department of Biotechnology, Anna University Chennai on 24.01.2018.
- Invited talk entitled “Bioproducts: Recent trends opportunities and challenges” given during the AICTE, New Delhi sponsored Quality improved program on “Recent Trends in Clean Technology for Sustainable Environment” held at Coimbatore Institute of Technology, Coimbatore on 19.04.2018.
- Invited talk entitled “Opportunities and Challenges for Chemical Engineers” given at Paavai Engineering College, Pachal, Namakkal on 14.09.2018.
- Invited talk entitled “Integrated Approach for Waste water treatment” given during the AICTE, ISTE sponsored Short term training program on “Recent Advances in Industrial Pollution Control” held at SRM Institute of Science and Technology, Kattankulathur, Chennai on 13.11.2018.
- Invited talk entitled “Bio nanocomposite” given during the Pidilite sponsored National seminar on “Novel Materials Synthesis and Characterization Techniques” held at Kongu Engineering College, Erode on 15.03.2019.