

CURRICULUM VITAE

Dr.A.ARUNAGIRI, M.Tech., Ph.D.,

Associate Professor

Department of Chemical Engineering

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Educational Qualifications:

Degree	Discipline	University	Division	% of Marks	Year of Passing
Ph. D	Chemical Engineering	Anna University, Chennai - 25	A. C. College of Technology	-	2006
M. Tech	Plant Design	Bharathidasan University, Trichy	Regional Engineering College	8.3 (CGPA)	2000
B. Tech	Chemical Engineering	Bharathiar University, Coimbatore	Coimbatore Institute of Technology	82.4%	1998
HSC	Maths, Physics, Chemistry	State Board	Tamil Nadu	90.0%	1994
SSLC	Maths, Science	State Board	Tamil Nadu	91.6%	1992

Working Experience:

Organization	Designation	From	To	Basic pay	Scale of Pay
National Institute of Technology, Trichy - 15	Assistant Professor	03/05/2006	Till date	Rs. 32030/-	Rs.15600-39100 (AGP 8000)
A. C. College of Tech., Anna University, Chennai - 25	Lecturer	18/02/2005	02/05/2006	Rs.9,100/-	Rs.8,000-275-13,500
A. C. College of Tech., Anna University, Chennai - 25	S. R. F (by CSIR)	01/09/2004	17/02/2005	Rs.10,650/- (Stipend)	-
A. C. College of Tech., Anna University, Chennai - 25	Teaching Research Associate	21/01/2001	31/08/2004	Rs.9,000/- (Consolidated)	-
The Madras Aluminium Company, Mettur	Graduate Engineer Trainee	08/03/2000	15/01/2001	Rs.6,500/- (Consolidated)	-

Sponsored Research Projects

S. No	Title	Agency	Sanctioned amount & Duration	Status	Remarks
1	Investigation on removal of dyes from effluents using cloud point extraction	TNSCST	Rs.1,85,300 01/06/2010 - 31/05/2012	Completed	PI
2	Analysis of Flow and Heat transfer Characteristics of Single and Two phase flow through Plate type Heat Exchanger	CSIR	Rs.5,17,667/- 01/05/2010 - 30/04/2013	Completed	Co PI
3	Cloud Point Extraction of Organics	TNSCST	Rs.5,000/- 2009-10	Completed	Student Project Scheme
4	Estimation of Design & Thermodynamic parameters for surfactant-mediated extraction of phenol	TNSCST	Rs.6,000/- 2008-09	Completed	Student Project Scheme
5.	Thermal Performance Evaluation of Thermo Electric Generator (TEG) System	BHEL, Trichy	Rs.9,92,019/- 05/07/2016 To:04/05/2017	Completed	Consultancy
6.	Water recovery from wastewater, and room ventilation through solar chimney – A	Renewable Energy innovation	Rs 5,00,000 From 01/08/2017 – 31/01/2018 (Six Months)	On Going	Business Startup - IIT Madras and

	passive approach	Project			IWMA
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Book Chapter

1. Indulekha John, Gokul Siddarth M S, Ponnusamy Kalaichelvi, Appusamy Arunagiri. Characterization of Citrus Peels for Bioethanol Production, in: Materials. Energy and Environmental Engineering Springer, 2017: pp. 3–12.
2. Hirra Anjum, Fareeda Chemat, Nirmala Gnanasundaram, **Appusamy Arunagiri**, and Thanabalan Murugesan **Impact of Surface Modification of Activated Carbon on BTEX Removal from Aqueous Solutions: A Review**, by published in **Air, Gas, and Water Pollution Control Using Industrial and Agricultural Solid Wastes Adsorbents Edited by Tushar Kanti Sen**, October 16, 2017 by CRC Press, Reference - 320 Pages - 33 Color & 33 B/W Illustrations, ISBN 9781138196735 - CAT# K31194

Research Publications:

1. Sivaram P M, Sivasankaran Harish, Premalatha M, Arunagiri A, **“Performance analysis of solar chimney using mathematical and experimental approaches”** International Journal of Energy Research, **Accepted for Publication. (SCI)**
2. Indulekha John, Prasanthi, Y., Perumalsamy, M., Kalaichelvi, P., **Arunagiri, A.**: Statistical Optimization of Acid Catalyzed Steam Pretreatment of Citrus Peel Waste for Bioethanol Production. Resource Efficient Technologies. [3\(4\)](#), 2017, 429-433.
3. Indulekha John, Jishnu Pola, **Appusamy Arunagiri** Optimization of Ultrasonic Assisted Saccharification of Sweet Lime Peel for Bioethanol Production Using Box-Behnken Method. Waste and Biomass Valorization. DOI. 10.1007/s12649-017-0072-1.
4. Indulekha John, Karuppan Muthukumar, **Appusamy Arunagiri**. A Review on the Potential of Citrus Waste for D-Limonene, Pectin and Bioethanol Production. International Journal of Green Energy, 14 (7), 599-612, 2017. T&F, Scopus
5. M.D. Duraimurugan alias Saravanan, Thanabalan Murugesan, **Appusamy Arunagiri**, Determination of design parameters for the cloud point extraction of Remazol Turquoise Blue G-133 Dye using Triton X-114 surfactant”, Desalination and Water Treatment, 228-241, V-60, 2017 Scopus
6. D. Duraimurugan, L. Madhuri, J. Indulekha, R. Anantharaj, **A. Arunagiri**, “Performance and Evaluation of Tergitol NP-7 and Triton X -114 for the removal of Crystal violet using Cloud Point Extraction” Chem. bioChem. Engg. Q., V-30, N-2, 189-198, 2016
7. Majid Majeed Akbar, • Fareeda Chemat, • **Appusamy Arunagiri**, Thanabalan Murugesan, “Density and excess properties of N-methyldiethanolamine (MDEA) with 1-hexyl-3-methylimidazolium tris(pentafluoroethyl)trifluorophosphate [hmim][FAP]” J Therm Anal Calorim, V-123, N-1, 785-791 2016, **ISSN: 1388-6150**
8. Augusta Pachathu, Kalaichelvi Ponnusamy, Kizhakkuveetil Narayanan Sheeba, **Arunagiri Appusamy**, “Microwave Assisted Preparation of Bagasse and Rice Straw for the Removal of Emulsified Oil from Wastewater” Bioremediation Journal, V-20, N-2, 153-163 2016, *ISSN* 1088-9868, Scopus
9. R. Dhanuskodi, R. Kaliappan, S. Suresh, N. Anantharaman, **A. Arunagiri**, J. Krishnaiah, Artificial Neural Networks model for predicting wall temperature of supercritical boilers, Applied Thermal Engineering (*ISSN*: 1359-4311), V-90, 749-753, 2015, Scopus
10. R. V. G. K. Gowda, M. S. Seshasayee and **A. Arunagiri**, “A Review on Liquid to Air Membrane Energy Exchangers and Flow mal-distribution in LAMEE”, Journal of Energy, Heat and Mass Transfer, (*ISSN* \$ 0970-9991), V-37, 173-185, 2015.
11. **A.Arunagiri**, Prabisha Purushothaman P.Kalaichelvi, R.Anantharaj, "Separation of Methylene Blue Dye from Aqueous Solution Using Triton X-114 Surfactant " has been accepted for publication in Journal of Thermodynamics: an International Journal, V-24, Article ID 670186, 16 pages, <http://dx.doi.org/10.1155/2014/670186>

12. **A.Arunagiri**, Indulekha John, P.Kalaichelvi, R.Anantharaj, "Removal of Crystal Violet Dye from Aqueous Solution Using Triton X-114 Surfactant via Cloud Point Extraction" has been accepted for publication in Engineering Science and Technology: an International Journal, V-17, 137-144, 2014. (ISSN: **2215-0986**)
13. Anantharaj Ramalingam, Ramanathan Raja Subramanian and Appusamy Arunagiri, "Molecular Interaction in Binary Mixture of 1-Ethyl-3-Methylimidazolium Ethylsulphate + Aromatic Sulfur Species: Ab Initio Calculations and Experiment " has been accepted for publication in Journal of Innovative Engineering, 2(2): 6, 2014. **ISSN: 2347-7504**
14. K.Priya, D.Saravanan, P.Kalaichelvi, **A.Arunagiri**, R.Anantharaj. Extraction of Reactive Orange 107 dyes from Aqueous Stream Using Triton X-114 Surfactant: Quantum Chemical Calculations & Experiment. **Journal of Industrial and Engineering Chemistry**, V-20, 2409-2420, **2014**, **ISSN : 1226-086X** (Impact Factor: 2.063), Scopus
15. K. Muthamizhi, P. Kalaichelvi, **A. Arunagiri**, A. Rudhra, Measurement and Model Validation of Specific Heat Of Xanthan Gum Using Joules Calorimeter Method, International Journal of Research in Engineering & Technology, Vol-2, Issue 9, 232-238, 2013. **ISSN (Print): 2321-7308**
16. N. Anantharaman, R. Dhanushkodi, **A. ARUNAGIRI**, "Review of wall temperature prediction capability of available correlations for heat transfer at super critical conditions of water" **Journal of Energy, Hindawi Publishing Corporation (Accepted for Publication)**, 2013, <http://dx.doi.org/10.1155/2013/159098>
17. **A.Arunagiri**, K.Priya, D.Saravanan, P.Kalaichelvi, R.Anantharaj. Evaluation of Interaction Energies and Thermodynamic Properties in Binary mixture of Reactive Orange 107 Dye + Triton X-114 Surfactant at 303.15, 313.15 & 323.15K: Ab initio method & Experiment. **International Journal of Research in Engineering & Technology**, Vol-2, Issue 8, 442-454, 2013. **ISSN (Print): 2321-7308**
18. Dhanuskodi R, **A.Arunagiri** and N.Anantharaman (2013), Emission reduction potential of supercritical boilers planned in India. **TERI Information Digest on Energy and Environment**, Vol.12(1), **11-16**,
19. **ARUNAGIRI. A**, Kalaichelvi. P, Subbarao Chekkuri and Anuja Vijaya "Studies on removal of Reactive Blue Dye using Cloud Point Extraction", International Journal of Chemical and Environmental Engineering, Vol-3, Issue 1, 2012. (ISSN: 2078-0737)
20. **A. ARUNAGIRI**, I. Regupathi and T. Murugesan, "Interfacial Area and Mass Transfer Coefficients in Liquid_Gas Ejectors" **Theoretical Foundations of Chemical Engineering**, V- 45, N-6, 818-813, 2011. (Impact Factor: 0.25) – (ISSN: **0352-9568 – SCI-E Journal**)
21. **A. ARUNAGIRI**, I. Regupathi and T. Murugesan, "Gas holdup and energy Dissipation in Liquid – Gas Ejectors"" **Journal of Chemical Technology & Biotechnology**, V-83, 1064-1071, 2008. (Impact Factor: 1.818) (ISSN: **0268-2575, SCI Journal**)
22. P. E. Jagadeesh babu, **A. ARUNAGIRI**, I. Regupathi and T. Murugesan, "Pressure drop and Liquid holdup in Cocurrent Gas-Liquid Downflow of Air-CMC Solutions through Packed Beds" **Chem. Biochem. Eng.Q .**, V-21,N-2, 121-129, 2007. (Impact Factor: 0.483) – (ISSN: **0352-9568 SCI Journal**)
23. P. E. Jagadeesh babu, **A. ARUNAGIRI** and T. Murugesan, "Prediction of Pressure drop and Liquid holdup in Cocurrent Gas-Liquid Downflow of Air-Newtonian systems through Packed Beds" **Journal of Chemical Technology & Biotechnology**, V-81, 70-81, 2006. (Imp Factor: 1.818) (ISSN: **0268-2575, SCI-E Journal**)
24. K. V. Radha, I. Regupathi, **A. ARUNAGIRI** and T. Murugesan, "Decolorization studies of Synthetic dyes using Phanerochaete Chrysosporium and their kinetics" **Process Biochemistry**, V-40, 3337-3345, 2005. (Impact Factor: 2.648), (ISSN: **0360-1285, SCI Journal**)
25. T. Murugesan and **A. ARUNAGIRI**, "Slip Velocity and gas phase holdup in Gas-Liquid Cocurrent Upflow through Packed Bed" **Journal of Chemical Engineering of Japan**, V-38, 243- 252, 2005. (Impact Factor: 0.442) (ISSN: **0021-9592, SCI Journal**)
26. Muthukumar. K, **ARUNAGIRI. A**, Shanmugasundaram. P, Anatharaman. N, and Ahmed Basha "Treatment of Textile dye effluent by Electro Coagulation Technique" **Journal of Industrial Pollution Control**, V-19, N-2, 281-288, 2004.

27. N. Anantharaman, R. Dhanushkodi, **A. ARUNAGIRI**, “Analysis of variation in properties and its impact on Heat transfer in sub and super critical conditions of water/steam” **International Journal of Chemical Engineering and Applications** – 2, N-5, 320-325, Oct, 2011
28. C. Shaw Nawaz Khan, P. Kalaichelvi, M. Perumalsamy and **A. ARUNAGIRI**, “Computational Fluid Dynamic analysis of Two phase Jet Mixer” **Journal of the University of Chemical Technology and Metallurgy**” V-44, N-3, 262-266, 2009.
29. P. Kalaichelvi, M. Perumalsamy, **A. ARUNAGIRI** and K. Sofiya, “Synergistic Extraction of Acetic acid from its Aqueous Solution” **Journal of the University of Chemical Technology and Metallurgy**” V-42, N-2, 423-426, 2007.

Full papers in conference proceedings:

1. Indulekha John, Prasanthi Yaragarla, Arunagiri Appusamy, “Production of Bioethanol from Banana Peel using Isolated Cellulase from *Aspergillus niger* ” has been accepted for oral presentation as well as inclusion in the conference proceedings of *First International Conference on Energy and Environment: Global Challenges ICEE 2018* to be held at NIT Calicut, Kerala during March 9 & 10, 2018
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1. Indulekha John, Jishnu Pola, Murugesan Thanapalan, **Appusamy Arunagiri**, “Experimental Studies On Ultrasound Assisted Acid Hydrolysis of Sweet Lime Peel For Reducing Sugar” Accepted For Oral Presentation In **Chemcon 2016**, held in A.C. College of Tech., Anna University, Chennai.
 2. Indulekha John, Yaragarla Prasanthi, Muthaiah Perumalsamy, Ponnusamy Kalaichelvi, **Appusamy Arunagiri**, “Statistical Optimization of Acid Catalyzed Steam Pretreatment of Citrus Peel Waste for Bioethanol Production” International Conference on Separation Technologies in Chemical, Biochemical, Petroleum and Environmental Engineering (**TECHNOSCAPE 2016**), 20-21, October, 2016
 3. Indulekha John, Gokul Siddarth M S and **Appusamy Arunagiri**, “Characterization of Citrus Peels for Bioethanol Production” Accepted for Oral Presentation in International Conference on Advances in Chemical Engineering (**ICACE – 2015**), NITK Surathkal, India – Dec 20-22, 2015. In: Proceedings of International Conference on Advances in Chemical Engineering, NITK Surathkal, India – Dec 20-22, 2015 p.50.
 4. Powar, S.T., K. Muthamizhi, P. Kalaichelvi and **A. Arunagiri** “Comparative Study of Heat Transfer and Flow Friction in Plate Heat Exchangers with Carboxymethyl Cellulose and Sodium Alginate”, 4th **International Conference on Chemical and Biological Processes**, 22-24 November 2015, Dubai (UAE). Year 2014-15.
 5. Gokul Siddarth, Prabisha M, Indulekha John and **Arunagiri A** “Removal of Methylene Blue dye using cloud point extraction and ultrasound assisted Cloud Point Extraction”, for oral presentation at International Conference on Green Technology for Environmental Pollution Prevention and Control (**ICGTEPPC**), National Institute of Technology, Tiruchirappalli during September 27-29, 2014, year 2011-12.
 6. **Arunagiri. A** , Kalaichelvi. P, Subbarao Chekkuri and Anuja Vijayan “Studies on removal of Reactive blue Dye using Cloud Point Extraction”, accepted for oral presentation at International Chemical and Environmental Engineering Conference (**ICEEC – 2011**), Kuala Lumpur, Malaysia during December 21-23, 2011.
 7. Subbarao Chekkuri, **Arunagiri. A** and Kalaichelvi. P, “Studies on removal of Dye using Cloud Point Extraction”, International Conference on Recent Advances in Chemical Engineering & Technology (**RACET -2011**), March, 10-12, 2011, IICHe, Kochi Regional Centre.
 8. Mahesh Ganesapillai, **Arunagiri. A** and Iyyaswami Regupathi, Dehydration characteristics and drying quality of Plaster of Paris using microwave heating process', Proceedings of First International Conference on Nano Structured Materials and Nano Composites (**ICNM 2009**), April, 6-8, 2009. Institute of Macromolecular Sciences and Engineering, Kottayam, India, pp 221.
 9. Mahesh. G, **Arunagiri. A**, and Neelamegam, “Comparative performance study for a direct Injection Diesel Engine using bio-diesel prepared from Cottonseed Oil Stock: A High Quality renewable fuel produced from *Gossypal Spp*”, **International Conference on Applied Bio Engineering** from 5-7 Dec, 2007 held at Sathyabama University, Chennai - 119

10. M. Arivazhagan, H. Subramaniam Bharadwaj, **Arunagiri. A**, Suguna, Subhashini and B. R. Venkatraman “Adsorption of Chromium (VI) Using Artocarpus Heterophyllus Peel” accepted in **Third conference of the International Congress of Chemistry** from 18-20 Nov, 2007, Kuwait.
11. K. Sentilkumar, P. Kalaichelvi, M. Perumalsamy, **Arunagiri. A** and T. Raja “Computational Fluid Dynamic Analysis Of Mixing Characteristics Inside A Jet Mixer For Newtonian And Non Newtonian Fluids” accepted for Oral presentation in World Congress on Engineering and Computer Science 2007 (**WCECS 2007**), San Francisco, USA.
12. Anuja Vijayan, Duraimurugan alias Saravanan M.D, **Arunagiri. A**, “Comparative studies on removal of reactive blue and congo red dyes using cloud point extraction” accepted for Poster Presentation, **CHEMCON 2011**, during Dec 27th to 30th 2011. Bangalore
13. D. Vasanth, R. Arvind, Raja Subramanian Ramanathan, **Arunagiri. A** and G. Pugazhenthii, “Removal of methylene blue dye from aqueous solution using mixed clays” adsorbent accepted for Poster Presentation, **CHEMCON 2011**, during Dec 27th to 30th, 2011. Bangalore
14. M.D. Duraimurugan alias Saravanan, P.Kalaichelvi, **Arunagiri. A**, “Cloud point extraction of Phenol using TX-100 as non-ionic surfactant” Oral Presentation, **CHEMCON 2010** during Dec 27th to 30th 2010. Annamalai University, Chidambaram.
15. Kiran. P, Subbarao Cherukuri, P.Kalaichelvi, **Arunagiri. A**, “Determination of design and thermodynamic parameters for the cloud point extraction of phenol using the Tween 80” Oral Presentation, **CHEMCON 2010** during Dec 27th to 30th 2010.
16. Kiran P and **Arunagiri. A**, “Estimation of Design and Thermodynamic parameters for surfactant mediated Extraction of Phenol” Oral Presentation at Student Projects Scheme Seminar by **TNSCST**, PSG College of Technology, Coimbatore during 5-6th of August, 2010.
17. D. K. Shanmugapriya and **Arunagiri. A**, “Studies on removal of Organics using Cloud Point Extraction” Oral Presentation at Student Projects Scheme Seminar by **TNSCST**, KLN College of Engineering, Madurai during 7-8th of August, 2009.
18. Kiran, D. K Shanmugapriya, P. Kalaichelvi, **Arunagiri. A**, T. Murugesan , “Cloud Point Extraction as a Separation Technique”, Poster Presentation, **CHEMCON 2009** during Dec 27th to 30th 2009.
19. D. K. Shanmugapriya , P. Kalaichelvi, T. Murugesan and **Arunagiri. A**, “Removal of Phenol using Cloud Point Extraction”, Oral Presentation, **CHEMCON 2009** during Dec 27th to 30th 2009, Vizakhapatnam
20. P. Kalaichelvi, Majid Ma, K. Dheenadhayalan, **Arunagiri. A** and M. Perumalsamy, “Computational Fluid Dynamic Analysis of Heat and Fluid Flow inside a Plate Heat Exchanger” for Oral Presentation at **National Conference on Emerging Trends in Chemical Engineering at NIT, Surat** during May 6-7, 2008.
21. **Arunagiri. A**, P. Kalaichelvi and T. Murugesan, “Prediction of Gas Phase Holdup in a Co-Current Gas-Liquid Upflow Through Packed Beds” for Oral Presentation at **CHEMCON 2007** during Dec 27th to 30th 2007. Kolkatta
22. P. Kalaichelvi, M. Perumalsamy, **Arunagiri. A**, T. Raja, K. Sentilkumar and C. Shanawaskhan, “Modeling and Simulation of Jet Mixers for Non-Newtonian Fluid Using Computational Fluid Dynamics”, for Oral Presentation at **CHEMCON 2007** during Dec 27th to 30th 2007.
23. P. Kalaichelvi, **Arunagiri. A**, T. K. Radhakrishnan and S. Mohanraj, “Optimization of Process Parameters for Production of Propylene Glycol Mono Methyl Ether (PGMME)”, Poster Session, **CHEMCON 2006** during Dec 27th to 30th 2006. Ankleshwar

Research Guidance (Ph.D): Awarded: 2, Ongoing: 4

1. “Heat transfer studies with supercritical water in smooth vertical tube” by **R. Dhanuskodi**, Viva Voce Date: 09/01/2015
2. “Analysis of Cloud Point Extraction For Dye Removal Using Non-Ionic Surfactants” **Duraimurugan Alias Saravanan**, Viva Voce Date: 19/01/2018
3. **Indulekha John**, “Production of Bioethanol using Citrus Peel waste” (from January 2013)
4. **N. Yasvanthrajan**, “Production of Biodiesel in microchannel reactors using non-edible seeds” (From Feb 2016)

5. **P. Sivaram**, “Studies on Phase Change materials for Energy and Environmental Applications” (From Sep 2016)

M. Tech Guided: Completed: 24+1

1. “Studies on Bioethanol from Sweet lime peel” by Narendar Kumar Yadav **2017-18**.
2. “Analysis of Various methods of Design of Heat Exchanger by MATLAB and Designing of heat exchanger in Unigraphics” by Pratik R Babhulkar **2016-17**.
3. Production of Bioethanol from Sweet lime peel waste” by Jishnu P. **2016-17**
4. “A study on Single Panel Liquid to Air Membrane Energy Exchanger” by R V G K Gowda. **2015-16**.
5. “Integrated Process for Bioethanol Production with acid Assisted Ultrasonication of Banana Peel and Enzymatic hydrolysis with in vitro isolated Enzymes” by Prasanthi Yaragarla. **2015-16**
6. “Studies on Reduction of COD in Automobile wash water using Electrocoagulation” by R. Viswateja. **2014-15**.
7. “Studies on Heat transfer in Jacketed Vessel using Al₂O₃ nanoparticles” by Mangesh. **2014-15**.
8. “Heat Transfer Studies in a Jacketed Agitated Vessel using Nanoparticles” by Vivek vetturi. **2013-14**
9. “Studies on Removal of Mixture of Dyes using Cloud Point Extraction (Batch Mode)” by Madhuri lakhotia. **2013-14**
10. “Studies on Ultrasonication Assisted Cloud Point Extrraction of Reactive Orange 107 Dye using TX-114 in Batch Mode” by Komalpriya. **2012-13**
11. “Studies on Removal of Methylene Blue Dye Using ultrasonication Assisted Cloud Point Extraction” by M. Prabisha. **2012-13**.
12. “Studies on Removal of Crystal violet dye using Cloud Point Extraction (Batch & Semibatch Mode)” by Indulekha john. **2012-13**
13. “Heat transfer studies in Agitated Vessel” by Mayank Modak. **2012-13**
14. “Studies on Removal of Dyes using Cloud Point Extraction (Batch & Continuous Studies)” by Anuja Vijayan, **2011-2012**.
15. “Studies on Removal of Dyes using Cloud Point Extraction” by Subbarao Cherkuri, **2010 - 2011**.
16. “Studies on Static mixing” by Eswara Reddy .Y., **2010-11**
17. “Estimation of Design and Thermodynamic parameters for Cloud Point Extraction of Phenol Using Tween-80” by Kiran P., **2009-2010**.
18. “Studies on Removal of Organics using Cloud Point Extraction” by D. K. Shanmugapriya, **2008-2009**.
19. “Modeling and Simulation of Fixed bed Reactor and Parametric Analysis of the Platforming Process” by Narendranath Yerra, **2008-2009**.
20. “Studies on Cloud Point Extraction of Phenol” by V. Alagar, **2007-2008**.
21. “Studies on Hydrodynamics of Co-current Gas-Liquid upflow through Packed Bed” by K. V. S. Kiran, **2007-08**.
22. “Studies on Hydrodynamics of Co-current Gas-Liquid downflow through Packed Bed” by S. Senthilkumar, **2006-07**.
23. “Studies on Hydrodynamics of Co-current Gas-Liquid upflow through Packed Bed” by K. Shankar Reddy, **2006-07**.
24. “Hydrodynamic Studies on Two phase co-current down flow in Packed Beds” by M. Harris Philip Samuel, **2005-06**.
25. “Hydrodynamic Studies on co-current gas-liquid upflow through Packed Columns” by K. K. Prabhakaran, **2005-06**.

Workshops Conducted:

Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli

1. One week workshop on “Nanomaterials for Energy & Environment” under TEQIP – II Sponsored on June 13-18, 2016, at National Institute of Technology, Tiruchirappalli –15.
Course Co-ordinators: Dr. M. Arivazhagan , Dr. A. ARUNAGIRI & Dr. M. Matheswaran

2. Two days Conclave on “Strengthening Chemical Engineering curriculum for the Present and Future scenario” under TEQIP – II Sponsored on March 13-14, 2015, at National Institute of Technology, Tiruchirappalli -15. Course Co-ordinators: Dr. P. Kalaichelvi, Dr. A. ARUNAGIRI & Dr. M.Perumalsamy.
3. One day workshop on “Hybrid waste water treatment Technologies” under Self finance category on April 12, 2014 at National Institute of Technology, Tiruchirappalli -15. Course Co-ordinators: Dr. A. ARUNAGIRI & Dr. M. Arivazhagan.
4. Two day workshop on “gPROMS” under Self finance category on April 1-2, 2013 at National Institute of Technology, Tiruchirappalli -15. Course Co-ordinators: Dr. A. Seshagiri Rao & Dr. A. ARUNAGIRI.
5. Two day Seminar on “Advanced Tools for waste water Treatment” by Indo – Europe Networking project NewIndigo Government Sponsored, January 28-29, 2013. Course Co-ordinators: Dr. A. Seshagiri Rao & Dr. A. ARUNAGIRI.
6. One day TEQIP sponsored workshop on “Advanced Chemical Process Design” under TEQIP Community Services on October 20, 2008 at National Institute of Technology, Tiruchirappalli. Course Co-ordinators: Dr. A. Seshagiri Rao & Dr. A. ARUNAGIRI.
7. Two day TEQIP sponsored workshop on “Process Optimization” under TEQIP Community Services on April 24-25, 2008 at National Institute of Technology, Tiruchirappalli -15. Course Co-ordinators: Dr. A. Seshagiri Rao & Dr. A. ARUNAGIRI.
8. Three weeks UGC Sponsored Refresher Course on “Applications of Chemical Engineering Principles for Biotechnology” on November 14 – December 3, 2005 at A. C. College of Technology, Anna University, Chennai - 25. Course Co-ordinators: Dr. T. Murugesan, Dr. Lima Rose Miranda, Dr I. Regupathi and Dr A. ARUNAGIRI

Guest Lectures Delivered:

1. Delivered Guest Lecture on “**Characterization of Polymers**” for Indian Institute Chemical Engineers (IICHe-VIT) in Association with Department of Chemical Engineering at School of Civil and Chemical Engineering on 15th February, 2017.
2. Delivered Lecture on “**Properties of Fluids and Concepts of Pressure**” in Faculty Development Training Programme on “Fluid Flow Operations” conducted by Anna University, Trichy on 19/12/2016
3. Delivered Lecture on “ **Analysis of Utility Requirements using Concept of Pinch & Design of Tubular Heat Exchangers**” at Department of Chemical Engineering, NIT, Tiruchirappalli - 15 for the workshop on “ **Conceptual Mechanisms of Transport Operations in Chemical & Biochemical Processes**” on 23/08/2016.
4. Delivered Lecture on “**Introduction to Wastewater Treatment & Technologies**” at Department of Chemical Engineering, NIT, Tiruchirappalli - 15 for the workshop on “**Recent Developments in waste water treatment Technologies**” on 06/05/2016.
5. Delivered Lecture on “**Waste water treatment and Hybrid waste water treatment**” at Department of Chemical Engineering, NIT, Tiruchirappalli - 15 for the workshop on “**Hybrid waste water treatment Technologies**” on 12/04/2014.
6. Delivered Lecture on “**Documentation for NBA Accreditation**” at Anna university, Tiruchirappalli on 04/02/2014
7. Delivered Lecture on “**Cloud Point Extraction – Can be a separation tool**” at Department of Chemical Engineering, NIT, Tiruchirappalli - 15 for the workshop on “**Recent Developments for Clean and Green Environment**” from 30/11/2012 to 01/12/2012.
8. Delivered Lecture on “**Hydrodynamic studies on two phase systems in packed bed**” at Department of Chemical Engineering, NIT, Tiruchirappalli - 15 for the workshop on “**Multiphase flow and Process Industries**” under TEQIP on 24/03/2007.
9. Delivered Lecture on “**Application of Thermodynamics to Bio Separations**” at Department of Chemical Engineering, NIT, Tiruchirappalli - 15 for the workshop on “**Bio separation Techniques**” under TEQIP on 07/04/2007.
10. Delivered Lecture on “**Modeling of Packed Column**” at Department of Chemical Engineering, NIT, Tiruchirappalli - 15 in the AICTE-MHRD Sponsored Faculty Development Programme on “**Chemical Process Modeling & Simulation**” from 13th to 17th July, 2009.

TRAINING COURSES AND CONFERENCE/SEMINAR/WORKSHOP PAPERS

Not less than two Weeks duration courses:

1. A Two-week (10 working days) ISTE workshop through the DISTANCE EDUCATION mode, on "Engineering Thermodynamics" from 11th December – 21st December, 2012. This workshop is conducted under the National Mission on Education through ICT, MHRD, Govt. of India by Mechanical Engineering Department, IIT Bombay.
2. A Two-week (10 working days) ISTE workshop through the DISTANCE EDUCATION mode, on "Heat Transfer" from 29th November - 10th December, 2011. This workshop is conducted under the National Mission on Education through ICT, MHRD, Govt. of India by Mechanical Engineering Department, IIT Bombay.
3. Two Week MHRD-AICTE Sponsored Summer School on "Process Identification & Control" held at the Department of Chemical Engineering, NIT, Trichy – 15 during 16th to 28th June, 2008.
4. Three weeks UGC Sponsored Refresher Course on "Applications of Chemical Engineering Principles for Biotechnology" on November 14 – December 3, 2005 at A. C. College of Technology, Anna University, Chennai – 25.
5. Two weeks Short term Course on "Modern Teaching Competencies" on August 5-19, 2002 at Centre for University-Industry Collaboration, Anna University, Chennai – 25.
6. Two weeks Short term Course on "C, C++" on April 2-17, 2001 at Anna University, Chennai.

One-week duration courses:

Short Term Training Programmes Attended:

1. Five day AICTE sponsored short term course on "Colloids and Interfaces in Polymers and Surfactants" on March 3-7, 2014 at Department of Chemical Engineering, Indian Institute of Technology, Madras.
2. One week AICTE sponsored Quality Improvement Programme – Short term Course on "Computational Combustion" by Department of Aerospace Engineering, IIT Kanpur during 28th Feb to 3rd March, 2012.
3. One week AICTE sponsored Quality Improvement Programmer – Short term Course on "Scientific computing in Chemical Engineering" by Department of Chemical Engineering, IIT Guwahati during 6th Dec to 10th Dec, 2010.
4. One-week Staff Development Programme on "Computer Control of Processes" from 04/01/2010 to 09/01/2010 at NIT, Tiruchirappalli – 620015.
5. One-week Faculty Development Programme on "Chemical Systems Modeling and Simulation" from 13/07/2009 to 17/07/2009 at Department of Chemical Engineering, NIT, Tiruchirappalli – 620015
6. One-week Quality Improvement Programme on "Instructional Design and Delivery Systems" from 21/08/2008 to 27/08/2008 at NITTTR, Chennai.
7. Five day QIP Short Term Training Programme on "Recent Advances in Environment, Safety and Energy Management" under QIP Poly scheme on February 5-9, 2007 at National Institute of Technology, Trichy -15.

Summer/Winter Schools Attended:

1. Six day TEQIP Sponsored International Winter School and Hands on Training Programme on "Nano-biotechniques (I WiSH NanoBio:2016)" on Feb 9-14, 2016 at Department of Biotechnology and Centre of Excellence: nanotechnology, IIT Roorkee, Roorkee.
2. Six day DST-SERC School on "Optimization Techniques for Chemical Engineering Applications" on July 6-11, 2009 at Office of Dean of Research and Development, Indian Institute of Technology, Bombay.
3. Five day DST-SERC School on "Rheology of Complex fluids" on December 11-15, 2006 at Centre for Faculty Development Technical Education, Indian Institute of Technology, Kanpur.

Workshops attended:

Less than One Week courses:

1. One-day workshop on "Nurturing IPR and Technology Transfer" organized by Dept. of Chemical Engineering in association with IPR Cell NIT Trichy on 20th April, 2017

2. Two days Workshop on “Master your Moodle” organized by Computer Support Group on 22 and 23 March 2017 at NIT, Trichy- 15
3. Two days Conclave on “Academic Reforms” under TEQIP on April 28-29, 2015 at NIT, Trichy- 15.
4. Three Day Training Programme on “The right to Information act, 2005” conducted by Institute of Public Administration from 02/06/2014 to 04/06/2014 at New Delhi.
5. Two days workshop on “Perspectives on Curriculum” under TEQIP on May 9-10, 2013 at NIT, Trichy- 15.
6. Three days workshop on “Teaching Learning Methodologies” from 20/08/2012 to 22/08/2012 at Teaching Learning Centre, IIT Madras.
7. One day workshop on “Non-Linear Control Systems” under TEQIP Community Services on February 21, 2008 at National Institute of Technology, Trichy – 15.
8. Two day workshop on “Advanced Fluid Dynamics” under TEQIP Community Services on January 04-05, 2008 at National Institute of Technology, Trichy - 15.
9. Two day workshop on “Catalysts in Environmental Applications” on December 02-03, 2007 at National Institute of Technology, Trichy - 15.
10. Two day workshop on “Computational Fluid Dynamics” under TEQIP Joint Network Activity with NIT Warangal on September 17-18, 2007 at National Institute of Technology, Trichy - 15.

Short Term Training Programmes Attended:

1. Three days Short term course on “Ultra Sonics and Sonochemistry as an Emerging Technology” on March 25-27, 2008 at National Institute of Technology, Trichy -15.
2. Two days Short term course on “PEM Fuel Cells – Principles and System Level Integration” under Continuing Education Programme on March 16-17, 2007 at Indian Institute of Technology, Chennai-36.
3. Three days Short term course on Orientation Training Programme on “Re-Engineering Teaching Skills” on May 3-5, 2005 at Centre for Professional Development Education, Anna University, Chennai - 25.

Summer/Winter Schools Attended:

1. Three day DST-SERC School on “Advanced Measurement Techniques in Multiphase systems” on April 25-27, 2007 at University Institute of Chemical Technology, Mumbai.

Student related Activities:

1. Class Committee Chairman of First Year M. Tech (Chemical) - 2017-2018.
2. B. Tech (Chemical Engg) - Internship Evaluation 2016-17
3. Class Committee Chairman of third Year B. Tech (Chemical) - 2015-2016.
4. Staff advisor, Alchemy 2013
5. Faculty Advisor for Chemical Engineering Association – 2012-13
6. Skydive - Event Advisor for the PRAGYAN – 2012.
7. Department Project Evaluation Committee Member – 2011-12.
8. Class Committee Chairman of First Year M. Tech (Energy) - 2010-2011.
9. Project Allotment committee member for M. Tech (Energy) – 2010-11
10. Event staff advisor to Festember 2010.
11. Staff advisor to PRAGYAN for the Year 2010
12. Staff advisor to UNESCO/LEO Club & Association of Human Values 2009-10, 2010-11, 2011-12
13. Project Allotment committee member for M. Tech (Chemical) – 2009-10
14. Committee member and Deputed as Judge for Student technical paper presentation of
15. Chemical Engineering of AlChemY- 2009, 2010
16. Faculty advisor of the Aqua Events of PRAGYAN 2009
17. Project Committee Member for M. Tech (Plant Design) – 2008-09 and 2009-10
18. Class Committee Chairman of Second Year B. Tech (Chemical) - 2008-2009.
19. Class Committee Chairman of Final Year B. Tech (Chemical) – AY 2003-2007
20. Deputed as Judge for Student technical paper presentation of Chemical & Mechanical Engineering of PRAGYAN – 2007
21. Accompany with V semester B. Tech (Chemical Engineering) students for the Industrial visit at Hindustan

Organic Chemicals Ltd and Cochin Refineries, Cochin from 21/09/2006 to 2/09/2006

22. Faculty advisor to three students of Chemical Engineering in every Academic year

Contribution to Corporate life and Management of Department & Institution

Department:

1. Purchase Initiator for the Development of Department infrastructure facilities 2015-16, 2016-17 & 2017-18
2. Temporary Faculty Written exam evaluation committee June 2017
3. Purchase Initiator for Equipment and Furniture for the Department purpose (Library, Conference Room, Modeling and Simulation lab, Lab Tables and Stools), Modern teaching tools (LCD Projectors, Document viewer, Audio systems)
4. Purchase Initiator for 2 Nos of UV Vis Spectrophotometer worth of Rs. 14 Lakhs for Department
5. NBA UG Accreditation – Department Member in the preparation of Self Appraisal Report – 2013-14
6. NBA UG Accreditation – Department Member in Documentation 2013 & 2015
7. Convocation committee member 2017,2016,2015
8. Member of Institute Document Verification Committee for the year 2015 & 2017
9. BoS member for UG Curriculum development
10. Department Co - Coordinator of UG Curriculum Development (From July 2011)
11. Department Coordinator of UKIERI Proposals – 2011
12. Workload committee of the faculty members - From 2008-09 to till date
13. Time Table Committee Member - From 2006-07 to till date
14. Co-ordinator for M. Tech (Plant Design) at Department of Chemical Engg during NBA Committee Visit, 2008
15. Department committee member for Convocation 2010, 2011, 2012, 2013, 2014, 2015
16. Certificates Committee for the ALCHEMY 2008
17. Project Committee Member for Final Year B. Tech (Chemical) – 2007
18. Ph. D Admission Committee Member – From 2007
19. PG Admission Committee Member - 2006 and 2007

Contribution to Corporate life and Management of Department & Institution Department:

1. Purchase Initiator for the Development of Department infrastructure facilities 2015-16, 2016-17 & 2017-18
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18. Ph. D Admission Committee Member – From 2007 till date
19. PG Admission Committee Member - 2006 and 2007

Institute

1. Member Library Advisory Committee 6/01/2014 from till date
2. NBA Review and Documentation Committee for NBA 2015 & 2017
3. Institute Convocation Programme committee, 2015, 2016 and 2017
4. Institute day Organizing committee, 2013,2014,2015,2016 & 2017
5. Nodal Officer (MIS) TEQIP from Feb 2016 – August 2017
6. Member UG Admissions 2012-13, 2013-14, 2014-15, 2015-16, 2016-17
7. Associate Dean (RTI) from April 2014 – November 2015
8. Warden of Emerald & Ruby Hostel from July 2013 to November 2015
9. Implementation committee for Kakodkar Recommendations – 27/11/2013 -
10. Member of Mess Tender Process for NITT Hostels from July 2013
11. Member of Purchase of committee – NITT Hospitals - 2010
12. Member of Hospital Infrastructure Development Committee from 23/10/2009 -2010
13. Staff Advisor – Leo club – 2009-03/08/2012
14. Member of Stock verification for Architecture Department for the years 2005-08, 2008-10, 2011-12, 2014-15, CEESAT - 2013-14 and Production Department - 2015-16,
15. Member of the Transport Committee for Directors Meet-2009 held at NIT, Trichy
16. Visited NIT, Surathkal from 27/06/2006 to 28/06/2006 for Networking Activity

Membership of Professional Bodies:

1. Life member (LM 34030) of Indian Institute of Chemical Engineers
2. Member (M – 143373-8) of the Institution of Engineers (India)
3. Life member of (LM-523) of National Society of Fluid Mechanics & Fluid Power
4. Life Member of Indian Society of Technical Education

Awards/Patents/Prizes:

1. **Senior Research Fellowship** awarded by **CSIR**, Delhi.
2. **Teaching Research Associate** awarded by Anna University, Chennai -25.