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### **Academic Profile**

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Ph.D. (2011)	Bharathidasan University, Tiruchirappalli.
M.Tech. (2004)	A.C. College of Technology, Anna University Chennai.
B.Tech. (2002)	St. Joseph's College of Engineering Chennai.

### **Professional Background**

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2017-Onwards	Associate Professor, Department of Petrochemical Technology, UCE, BIT campus, Anna University, Tiruchirappalli.
2007-2017	Assistant Professor, Department of Petrochemical Technology, Anna University of Technology, BIT, Tiruchirappalli.
2005-2007	Lecturer, Department of Petrochemical Technology, Bharathidasan University, Tiruchirappalli.
2004-2005	Lecturer, Department of Chemical Engineering, Dr. M. G. R. Engineering College, Chennai.

### **Fields of Interest**

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- Chemical Reaction Engineering
- Mechanical Operations

- Chemical Engineering Operations
- Environmental Studies
- Natural Gas Engineering

## Research Interests

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- Biofuels
- Transesterification reactions
- Heterogeneous catalysts
- Membrane fabrication
- Waste water treatment
- Renewable energy

## Publications

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1. N. Jaya, G. Arthanareeswaran, P. Thanikaivelan, D. Mohan, M. Raajenthiren "Studies on permeation, rejection and transport of aqueous polyethylene glycol solutions using ultrafiltration membranes". Separation Science and Technology, Taylor and Francis, 42, (April 2007) 963-978, IF:1.171 CI: 4, ISSN NO: 1520-5754. <https://doi.org/10.1080/01496390701206231>
2. G. Arthanareeswaran, P. Thanikaivelan, N. Jaya, D. Mohan and M. Raajenthiren. "Removal of chromium from aqueous solution by using cellulose acetate and sulfonated poly (ether ether ketone) blend ultrafiltration membranes". Journal of Hazardous Materials, 139, (January 2007), 44-49, IF: 4.529 CI: 47, ISSN NO: 0304-3894. <https://doi.org/10.1016/j.jhazmat.2006.06.006>
3. N. Jaya and K. Ethirajulu, "Kinetic studies of heterogeneously catalyzed transesterification of cottonseed oil to biodiesel". Journal of Environmental Research and Development. 5 (3A) (February 2011) 689-695, IF: 1.613 CI: 1, ISSN NO: 2319-5983.
4. N. Jaya and K. Ethirajulu, Kinetic modeling of transesterification reaction for biodiesel production using heterogeneous catalyst. International Journal of Engineering Science and Technology. 3 (4) (April 2011) 3463-3466. IC: 3.03, ISSN 0975-5462.
5. N. Jaya & B. Karpanai Selvan, Comparative Study on Kinetic Parameters for Transesterification of Pongamia and Cotton Seed Oil. International Journal of ChemTech Research. 6(10) (July 2014) 4475-4479, H Index: 17, ISSN NO: 0974-4290.
6. N. Jaya, Transesterification of triglycerides using heterogeneous catalysts: A review, Journal of Chemical and Pharmaceutical Sciences. Special Issue 4: December 2014, 193, ISSN: 0974 - 2115.
7. N. Jaya, B. Karpanai Selvan & S. John Vennison, Synthesis of biodiesel from pongamia oil using heterogeneous ion-exchange resin catalyst, Ecotoxicology

- and Environmental Safety, 121 (August 2015) 3–9. IF:2.762, ISSN NO: 1520-5754. <http://dx.doi.org/10.1016/j.ecoenv.2015.07.035>
8. Rajesh. K and Jaya. N, A Robust Planning Model of Sustainable Energy for Remote Communities, *Elixir Renewable Energy* 102 (2017) 44162-44167, ISSN NO: 2229-712X.
  9. Karpanai Selvan.B, M.Chandrasekar, N. Jaya and S.John Vennison, Production of Marine Microalgal Biomass for Biodiesel and Study the Efficiency of its Blends in Diesel Engines, *Elixir Renewable Energy* 102 (2017) 44246-44250, , ISSN NO: 2229-712X.
  10. G. Arun Kumar, N. Jaya and B. Karpanai Selvan, Application of Nano Composites in Desalination Process, *Elixir Renewable Energy* 102 (2017) 44175-44178, ISSN NO: 2229-712X.
  11. M. Rengasamy, V. Pugalenti, V. Sivasubramanian, N. Jaya, Synthesis of Biodiesel from Palm Oil & Rice Bran Oil using  $\text{Na}_2\text{SiO}_3$  as Heterogeneous Base Catalyst, *Engineering reports*, 1 (2018) 11-21. DOI: 10.26524/er1813
  12. M. Vaishnavi, Roshnara Mohanty, B. Karpanai Selvan, Soni Das and N Jaya, Review on degradation of Textile Dyes using Algae, *Scientia*, Vol. 15, No.1, Jan.-Dec., 2019, pp.48-59. ISSN: 0976-8289
  13. Vinothkumar Veeramani, Kanimozhi Rajangam and Jaya Nagendran, Performance of cobalt oxide/carbon cloth composite electrode in energy generation from dairy wastewater using microbial fuel cells, *Sustainable Environment Research* July 2020, 30:16. <https://doi.org/10.1186/s42834-020-00058-4>
  14. K Indirajith, N Jaya, M Rengasamy, N Manikandan, Exploration of High-voltage Outdoor Insulations–A Review Based on Field Study, *Solid State Technology*, 64(2) January 2021.
  15. P. Saravanan, S. Ramesh, N. Jaya & S. Anuradha Jabasingh, Prospective evaluation of xylitol production using *Dabaryomyces hansenii* var *hansenii*, *Pachysolen tannophilus*, and *Candida guilliermondii* with sustainable agricultural residues, *Biomass Conversion and Biorefinery*, Jan, 2021. <https://doi.org/10.1007/s13399-020-01221-y>
  16. E Werede, SA Jabasingh, HD Demsash, N Jaya, G Gebrehiwot, Eco-friendly cotton fabric dyeing using a green, sustainable natural dye from Gunda Gundo (*Citrus sinensis*) orange peels, *Biomass Conversion and Biorefinery*, 1-16, May, 2023. <https://doi.org/10.1007/s13399-021-01550-6>
  17. S Rajeswari, P Saravanan, K Kumaraguru, N Jaya, R Rajeshkannan, M Rajasimman, The scientometric evaluation on the research of biodiesel based on HistCite and VOSviewer (1993–2019). *Biomass Conversion and Biorefinery*, (April 2021). <https://doi.org/10.1007/s13399-021-01461-6>
  18. B. Karpanai Selvan, Soni Das, M. Chandrasekar, R. Girija, S. John Vennison, N. Jaya, P. Saravanan, M. Rajasimman, Yasser Vasseghian, N. Rajamohan, Utilization of biodiesel blended fuel in a diesel engine – Combustion engine performance and emission characteristics study", *Fuel*, March 2022, 311, 122621, ISSN 0016-2361. <https://doi.org/10.1016/j.fuel.2021.122621>
  19. B. Karpanai Selvan, K. Thiyagarajan, Soni Das, N. Jaya, S. Anuradha Jabasingh, P Saravanan, M. Rajasimman, Yasser Vasseghian, Synthesis and

- characterization of nano zerovalent iron-kaolin clay (nZVI-Kaol) composite polyethersulfone (PES) membrane for the efficacious As<sub>2</sub>O<sub>3</sub> removal from potable water samples, *Chemosphere*, 288, February 2022, 132405. <https://doi.org/10.1016/j.chemosphere.2021.132405>
20. K. Indirajith, N. Jaya & C. Naveen Kumar, Characterization and Analysis of Coalescence Nature of Sessile Droplet on Hydrophobic & Hydrophilic Insulator Surfaces, *Arabian Journal for Science and Engineering*, March, 2022, 47:14305–14313. <https://doi.org/10.1007/s13369-022-06748-y>
  21. K. Indirajith, N. Jaya, C. Naveen Kumar & R. Kanimozhi, Characterization and Analysis of Intelligent Eco-Friendly Coating for Porcelain Insulator Flash-Over Protection, *ECS Journal of Solid State Science and Technology*, 2022, 11, 113002. DOI 10.1149/2162-8777/ac9f6a
  22. Hariharan and N. Jaya, Research on Used Transformer Oil (UTO) and Nanoparticles Application, *ECS Journal of Solid State Science and Technology*, January 2023, 11, 121012. DOI 10.1149/2162-8777/acaeb7
  23. Wondwosen S Aga, Ayele N Legese, Abebe D Tolche, Negesh T Roba, S Anuradha Jabasingh, Shegaw Ahmed Mohammed, Solomon Kiros Kasaye, N Jaya, J Aravind Kumar, Rural electrification with hybrid renewable energy-based off-grid technology: a case study of Adem Tuleman, Ethiopia, *Energy, Ecology and Environment*, July 2023, 1-19.

## **Book Chapters**

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N. Jaya (2016), Biomass to Biofuels, In: M. Arulmozhi & K. Kumaraguru. *Emerging Trends in Petrochemical Technology*. Chennai: ASSVET International Publishers Co., pp. 7.1-7.8.

B. Karpanai selvan, N. Jaya, M. Chandrasekar, S. John vennison (2018), Necessity for Biodiesel Production in India, In: M. Arulmozhi & K. Kumaraguru. *Introduction to Energy Engineering*. Chennai: ASSVET International Publishers Co., pp. 3.1-3.40.

## **Membership in Professional Society**

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Life member in IChE (LAM – 30619)

Life member in ISTE (LM 90049)

Member in IE (M – 1558352)

Life member in ISCA (L30646)

## **Awards, Honors & Recognitions**

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1. NPTEL Discipline Star in Chemical Engineering, Jan-Apr 2021. <https://nptel.ac.in/nptelstars/disciplinestars>
2. NPTEL Domain Scholar in Energy and Environment (Chemical Engineering) in the period April 2021.

<https://nptel.ac.in/nptelstars/domainscholars?domain=Energy%20and%20Environment>

3. Topper & Elite certification in NPTEL one and half week Course on Chemical Reaction Engineering II, January-April 2019.
4. Elite certification achieved in ten of the NPTEL courses (2018-2021).
5. Best paper of the technical session for oral Presentation in TEQIP II sponsored International conference on "Trends and Innovations in Chemical and Pharmaceutical Technologies" TICPT 2017 during February 2-4, 2017, BIT campus, Anna University, Trichy.
6. Best Oral Presentation in "International Conference on Green Technology for Environmental Pollution Prevention and Control" on Sep 27<sup>th</sup>- 29<sup>th</sup> 2014, NIIT, Trichy.
7. Elsevier reviewer recognition award recognized reviewer Status Elsevier 2015, 2016 & 2019.
8. Wiley reviewer recognition for the Journal of Applied Polymer Science for reviewing two manuscripts in 2018.
9. Certificate of merit, Best paper of the technical session in International Conference on Cleaner Technologies and Environmental Management, January 4-6, 2007, Pondicherry engineering college.
10. Certificate of merit, First place in oral presentation, Department of chemical engineering Annamalai University, 2007.

#### **Academic Achievements (Completed Projects)**

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1. Mentor – Student Projects Scheme for the project entitled "Analysis of Various Pretreatments for the Conversion of Rice Straw into Ethanol using Fungi Trichoderma Viride F94" funded by TEQIP – II, Anna University, BIT Campus, Tiruchirappalli – Rs. 10,000. Proceeding No. BIT/DEAN/TEQIP/Project Proposal Order/ 2016 - 052 Dt. 28.03.2016
2. Mentor – Student Projects Scheme for the project entitled "Removal of oil from water using calotropis gigantea fiber as an adsorbent" funded by TEQIP – II, Anna University, BIT Campus, Tiruchirappalli – Rs. 10,000. Proceeding No. BIT/DEAN/TEQIP/Project Proposal Order/ 2016 - 058 Dt. 28.03.2016

#### **Academic Achievements (Ongoing Projects)**

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1. Mentor – Student Projects Scheme for the project entitled "Development of cross-linked PU-PS hydrophobic coatings from castor oil" has been funded by Indian Institute of Chemical Engineers (IChE), Kolkata – Rs. 10,000. Ref. No. AG/R&D/2022/351-357 dated 12.09.2022.

## International Conferences

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1. N. Jaya, S. Dhivakar & B. Karpanai Selvan, Emission and exposure of air pollutants and petroleum waste from oil industries: A review, International Conference on Sustainable Technologies In Healthcare and Environment- INCHE-2020, March 06-07, 2020, Kamaraj College of Engineering and Technology, Madurai.
2. N. Jaya, K. Indirajith, Preparation of Super Hydrophobic Coating for Electrical Insulator to Protect Against Icing Flash Over, "International Conference on Sustainable Technologies for Industrial Hazardous Waste Management and Bioenergy (STIWMB-2019)" held on August 7-9, 2019, SRM Institute of Science and Technology, Kattangulathur, Tamil Nadu, India.
3. N. Jaya, R. Kumaraguru, B. Vinithkumar, R. Vinoth raj, Optimization and stimulation of biodiesel production from pongamia pinnata oil using synthesized iron nano catalyst through aspen hysys software, International conference on Energy, Environment and Industrial Safety (ICEEIS), February 22 & 23, 2018, A. C. Tech, Anna University, Chennai.
4. N. Jaya, Catalytic Upgrading of Bio-oils – A Review, 3<sup>rd</sup> Asia-Oceania Sonochemical Society Conference (AOSS-3), 14<sup>th</sup>-16<sup>th</sup> September 2017 Organized by SRM Research Institute SRM UNIVERSITY Kattankulathur, Chennai, Tamil Nadu, India.
5. M. Rengasamy and N. Jaya, Synthesis, Optimisation and Fuel Property Studies of Biodiesel from Edible oil using Heterogeneous Base Catalyst TEQIP II sponsored International conference on "Trends and Innovations in Chemical and Pharmaceutical Technologies" TICPT 2017 during February 2-4, 2017, BIT campus, Anna University, Trichy.
6. N. Jaya and B. Karpanai Selvan, Eley–Rideal Kinetic Model Study For Transesterification of Cottonseed Oil Using Cation-Resin Catalyst, International Conference on Green Technology for Environmental Pollution Prevention and Control" on Sep 27<sup>th</sup>- 29<sup>th</sup> 2014, NIIT, Trichy.
7. K. Ethirajulu and N. Jaya, Use of Ion-exchange Resin Catalyst for the Production of Biodiesel from Pongamia Oil, International Congress on Renewable Energy (ICORE–2012) Grid Power from Renewables, 6<sup>th</sup> & 7<sup>th</sup> December, 2012, Pandit Deendayal Petroleum University, Gandhinagar, Gujarat, 32-38.
8. N. Jaya and K. Ethirajulu, Biodiesel production from cotton seed oil using styrene divinyl benzene polymeric resin catalyst, Second International Conference on Natural Polymers and Biomaterials (ICNP – 2010) September 24-26, 2010, Kottayam, Kerala, India.
9. N. Jaya, K. Ethirajulu, S. Sundar and C. Elanchelian, Kinetic Parameters of Heterogeneously Catalyzed Transesterification of Cottonseed Oil to Biodiesel, International Conference on Energy and Environment, March 19-21, 2009, 485-488, NIT, Kurukshetra, India.
10. N. Jaya, K. Ethirajulu, S. Sundar and C. Elanchelian, Transesterification of Vegetable Oils to Biodiesel using Heterogeneous Catalysts, Renewable Energy Asia-2008- An International Conference & 4<sup>th</sup> SEE Forum Meeting, December 11-13, 2008, 706-711, IIT Delhi, Delhi.
11. N. Jaya, M. Balamurugan and N. Priyadarshini, Removal of chromium ions from aqueous solution by cellulose acetate and sulphonated polyether ether ketone blend

ultrafiltration membranes, International Conference on Cleaner Technologies and Environmental Management, January 4-6, 2007, Pondicherry Engineering College, Puducherry.

## **National Conferences**

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1. K. Agilan, K. Muthu Keshav & N. Jaya, Production of Methanol from CO<sub>2</sub> by Direct Air Capture (DAC) method, National conference on Recent Trends in Chemical and Environmental Biotechnology (RTCEB-2020) in the Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalai Nagar – 608002, Tamil Nadu, India, during 14<sup>th</sup> and 15<sup>th</sup> February 2020. ISBN No:978-93-5396-327-9
2. R. Saravanan, N. Jaya & V. Suraje, Solar cells Efficiency: A Review, National conference on Green Chemistry and Engineering: Towards Future Technology (GCETFT-2020) in the Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalai Nagar – 608002, Tamil Nadu, India, during 31.01.20 & 01.02.20.
3. Hariharan. D and N. Jaya, Experimental Analysis of TiO<sub>2</sub> Nanoparticles with Waste and Refined Transformer Oil Blend in Comparison with Diesel Fuel, National conference on Green Chemistry and Engineering: Towards Future Technology (GCETFT-2020) in the Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalai Nagar – 608002, Tamil Nadu, India, during 31.01.20 & 01.02.20.
4. M. Abimanyu, S. Dhivakar & N. Jaya, Synthesis of environmental friendly anti biofouling superhydrophobic coatings, National Conference on “Emerging Trends in Chemical and Petrochemical Technology” (NETCPT '19) held on 20<sup>th</sup> September 2019 organized by Department of petrochemical technology, University College of Engineering-BIT campus, Anna University, Tiruchirappalli.
5. R. Kumaraguru, B.Vinithkumar, S. Subashree, V. Manikandan & N. Jaya, Optimization, design and operation of paraffinic crude sweetening plant through Aspen HYSYS and Aspen EDR, National Conference on “Emerging Trends in Chemical and Petrochemical Technology” (NETCPT '17) held on 25<sup>th</sup> September 2017 organised by Department of petrochemical technology, University College of Engineering- BIT campus, Anna University, Tiruchirappalli.
6. M. Rengasamy, N. Jaya, K. Diana Mary and M. Silambu Selvi, Synthesis of Biodiesel from Palm Oil & Rice Bran Oil Using Na<sub>2</sub>SiO<sub>3</sub> as Heterogeneous Base Catalyst, Indian Chemical Engineering Congress 2016, CHEMCON 2016, December 27-30, 2016 organized by Indian Institute of Chemical Engineers, Chennai Regional Centre, Anna University Chennai.
7. Karpanai Selvan B, M. Chandrasekar, N. Jaya, and S. John Vennison, Production of marine microalgal biomass for biodiesel and study the efficiency of its blends in diesel engines, TEQIP II Sponsored Two days National Conference on “Green Engineering and Technologies for Sustainable Future (NCGET '16)”, Organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli on 16<sup>th</sup> & 17<sup>th</sup> September 2016.

8. Rajesh .K & N. Jaya, A robust planning model of sustainable energy for remote communities, TEQIP II Sponsored Two days National Conference on “Green Engineering and Technologies for Sustainable Future (NCGET ’16)”, Organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli on 16<sup>th</sup> & 17<sup>th</sup> September 2016.
9. G. Arun kumar, N. Jaya, and B. Karpanai selvan, Application of nano composites in desalination process, TEQIP II Sponsored Two days National Conference on “Green Engineering and Technologies for Sustainable Future (NCGET ’16)”, Organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli on 16<sup>th</sup> & 17<sup>th</sup> September 2016.
10. N. Jaya, Transesterification of triglycerides using heterogeneous catalysts: A review, TEQIP II Sponsored Two days National Conference on “Green Engineering and Technologies for Sustainable Future (NCGET ’14)”, Organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli on 5<sup>th</sup> & 6<sup>th</sup> December 2014.
11. N. Jaya & B. Karpanai Selvan, Comparative Study on Kinetic Parameters for Transesterification of Pongamia and Cotton Seed Oil, National Conference on Recent Advances in Chemical Engineering (RACE - 2014), 12 & 13 July, 2014, Department of Chemical Engineering, In association with Indian Institute of Chemical Engineers Annamalai – Neyveli Regional Centre, Annamalai University, Tamil Nadu.
12. N. Jaya & A.D.Surendhar, Kinetic Modeling of Transesterification of Jatropha Oil by Ionic Catalyst, National Conference on Challenges in Biochemical Engineering and Biotechnology for Sustainable Environment, 2nd and 3rd April 2014, Annamalai University, India.
13. N. Jaya, K. Ethirajulu, P. Gurunathan and M. Essakkiraj, Modeling and Simulation of Reaction Kinetics for Biodiesel Production using Heterogeneous Catalyst, CHEMCON 2010, December 27-29, 2010, Annamalai University, India.
14. N. Jaya, K. Ethirajulu, S.Muthukumar and R.Balaji, Kinetics Studies on Transesterification of Pongamia Oil using Heterogeneous Catalyst, CHEMCON 2010, December 27-29, 2010, Annamalai University, India.
15. N. Jaya and K. Ethirajulu, Transesterification of Vegetable Oils to Biodiesel using Heterogeneous Catalysts, CHEMCON 2008, December 27-30, 2008, 196, Panjab University, India.
16. N. Jaya and M. Aslam Abdullah, Biodiesel production by innovative techniques, SCHEMCON 2007, September 21 and 22, 2007, Annamalai University, India.
17. N. Jaya, M. Balamurugan and N. Priyadarshini, Production of Biodiesel from vegetable oils by Transesterification, National Conference on Advances in Chemical Engineering and Bio technology, January 30, 2007, St. Joseph’s College of Engineering, Chennai, India.



## Workshop / Seminar Attended

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1. One day special lecture on "Gas and Vapours Permeation and sorption of smart membranes", 10<sup>th</sup> February 2005, A.C College of Technology, Anna university, Chennai.
2. One day Workshop on "Environment and Hygiene", 09.12.2006, Dept. Chemical Engg., NIT, Trichy – 15
3. One day International Seminar on "Development of liquid filtration and Purification Industry in Japan and India", 27th November 2006, A.C College of Technology, Anna university, Chennai.
4. One day National Seminar on "E-Resources for Scholarly communication", 28.02.2014, Department of Library, Anna University, BIT Campus, Tiruchirappalli.
5. Two days lecture workshop on "Recent advances on material chemistry" organized by department of chemistry, Anna University, BIT Campus, Tiruchirappalli on March 7<sup>th</sup> and 8<sup>th</sup> 2014.
6. Two day conference and Exposition on Emerging trends in IP Management and Commercialization, 5-6th September 2014, Hotel Hilton, Chennai.
7. MNRE and CSIR sponsored National Conference on "Recent Trends in Renewable Energy Sources for Sustainable Development", Organized by Department of Petrochemical Technology, Anna University of Technology Tiruchirappalli, Tiruchirappalli on 22nd and 23rd February 2011.
8. MNRE and TEDA sponsored National Seminar on "Role of Renewable Energy in Energy Conservation", Organized by Department of Petrochemical Technology, Anna University of Technology Tiruchirappalli, Tiruchirappalli on 14th and 15th December 2010.
9. Science Academies sponsored Two-day Lecture workshop on Recent Advances in Materials Chemistry, March 7th & 8th 2014, Department of chemistry, BIT campus, Anna University, Tiruchirappalli.
10. TEQIP-II sponsored workshop on Energy conservation and alternative options 20th May 2016, Department of Chemical Engineering NIT, Tiruchirappalli.
11. Two days programme on "Indian Digital Heritage - Marine Exploration – A case study on Poompuhar and Dwaraka" 25<sup>th</sup> & 26<sup>th</sup> August 2016 organized by AMET university and DST.
12. Two days National level Workshop on "Intelligent system Engineering" from 27th & 28th July 2017, at NIT, Trichy.
13. One day Training on "Entrepreneur Development Programme" held on 9th October 2017 jointly organized with the Women Entrepreneurs Association of Tamil Nadu (WEAT) Tiruchirappalli and Entrepreneurship Development Cell, UCE, BIT campus, Anna University, Tiruchirappalli.
14. Third national seminar on "Advanced Oxidation Processes" (AOP' 2017) held at BIT campus, Anna University, Tiruchirappalli during 17th to 19th December 2017.
15. National Workshop on Modelling and Simulation of Energy Systems, March 27<sup>th</sup> 2018, Organized by Department of Electrical and Electronics Engineering, Anna University, BIT Campus, Tiruchirappalli.

16. National Workshop on “Training of Teachers for Student Induction Programme” (Deeksharambh – Phase II) organized by University Grants Commission (UGC), South Eastern Regional Office, Hyderabad on 30<sup>th</sup> & 31<sup>st</sup> October, 2019 at Bharathiar University, Coimbatore.
17. Two days Workshop on “Intellectual Property Rights & Entrepreneurship” organized by PMO-IEDP (Programme Monitoring Office – Innovation & Entrepreneurship Development Programme) from 22<sup>nd</sup> & 23<sup>rd</sup> November 2019, at BIT Campus, Anna University, Trichy.
18. Webinar on Role of Chemical Engineering in Industrial Safety, organized by Department of Chemical Engineering, Saveetha Engineering College, Chennai.
19. Live webinar on “Fire & Gas Detection for Oil & Gas / process industrial applications” held on 27th June 2020 Organized by Department of ICE, St. Joseph's College of Engineering, Chennai.
20. Webinar on "How to Avoid Plagiarism Using-URKUND as a Plagiarism Tool”, held on 04th July 2020 organized by Mahendra Engineering college, Namakkal, Tamil Nadu in Association with e-Galactic, Maharashtra.

### **Summer / Winter Schools Attended**

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1. Fabrication of sub-100 nm patterning of biochip for next generation health care, May 3-14, 2010, Periyar Maniammai University, India.
2. Recent trends in Biomedical Engineering using MATLAB simulation, May 17-28, 2010, Dhanalakshmi Srinivasan Engineering College, Perambalur, India.
3. TEQIP II Sponsored Faculty Development program on Emerging Trends in Biotechnology, August 19-25, 2013, Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
4. TEQIP II Sponsored Faculty Development program on Recent Trends in Renewable and Non-Renewable Energy Sources (RANRES '13), August 26 – September 1, 2013, Department of Petrochemical Technology, Anna University, BIT Campus, Tiruchirappalli.
5. TEQIP II Sponsored Faculty Development program on Comprehensive Approach of Biotechnological Applications (CABA'15), April 16<sup>th</sup> -29<sup>th</sup> 2015, Department of Biotechnology, Anna University, BIT Campus, Tiruchirappalli.
6. TEQIP II Sponsored Faculty Development program on Nanotechnology Applications in Engineering and Technology (NAET '15), May 6<sup>th</sup> -19<sup>th</sup> 2015, Department of Petrochemical Technology, Anna University, BIT Campus, Tiruchirappalli.
7. TEQIP II Sponsored One week Faculty Development programme on Role of Renewable Energy in Indian Power sectors, (RREIPS'15), September 21<sup>st</sup> -27<sup>th</sup> 2015, Department of Electrical and Electronics Engineering, Anna University, BIT Campus, Tiruchirappalli.
8. TEQIP II Sponsored One Day Faculty Development programme on 1<sup>st</sup> March 2016 organized by Anna University, BIT Campus, Tiruchirappalli in association with Confederation of Indian Industry (CII).
9. TEQIP II Sponsored Two weeks Faculty Development programme on Advanced Technologies for Societal Applications (ATSA'16), 06<sup>th</sup> June – 19<sup>th</sup> June 2016,

Department of Petrochemical Technology, Anna University, BIT Campus, Tiruchirappalli.

10. TEQIP II Sponsored Two weeks Faculty Development programme on Computation, Optimization and Modelling of Sustainable Energy Systems (COMSES'16), June 20<sup>th</sup> – July 3<sup>rd</sup> 2016, Department of Electrical and Electronics Engineering, Anna University, BIT Campus, Tiruchirappalli.
11. Centre for Faculty Development, Anna University, Chennai Sponsored programme on Fluid Flow Operation (FFO'16) organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli from 19<sup>th</sup> December 2016 – 25<sup>th</sup> December 2016.
12. UGC centre for women's studies, Bharathidasan University, Tiruchirappalli has organized the Seven Days Short Term Course on "Capacity Building of Women Managers in Higher Education" during 07.05.2018 to 13.05.2018.
13. Centre for Faculty Development, Anna University, Chennai Sponsored programme on Process Calculations organized by Department of Applied Science & Technology, A.C. Tech Campus, Anna University, Chennai from 22<sup>nd</sup> to 29<sup>th</sup> May, 2018.
14. Faculty Development programme on Advanced Technologies in Chemical Industries organized by the Department of Chemical Engineering in association with IChE-SPCET Student Chapter from June 23, 2020 to June 26, 2020.
15. National Workshop on "Perspectives and Challenges in Outcome Based Research" organized by National Institute of Technology, Tiruchirappalli, under the aegis of AICTE-MARGDHARSHAN Scheme, from July 13 – 17, 2020.
16. AICTE sponsored STTP on "Fostering an Effective Research Environment and Industrial Collaborations in Engineering Education" Organized by Department of Chemical Engineering, St. Joseph's College of Engineering, Chennai. From 27<sup>th</sup> July to 1<sup>st</sup> August 2020.
17. Faculty Development programme on La Tex organized by University College of Engineering, Anna University–BIT Campus, and Tiruchirappalli with course material provided by Spoken Tutorial Project, IIT Bombay from 10<sup>th</sup> August – 14<sup>th</sup> August 2020.
18. AICTE Training And Learning (ATAL) Academy Online FDP on "Green Technology & Sustainability Engineering" from 19.10.2020 to 23.10.2020 at Dr BR Ambedkar National Institute of Technology Jalandhar.
19. AICTE Training And Learning (ATAL) Academy Online FDP on "Energy Engineering" from 23.11.2020 to 27.11.2020 at Indian Institute of Technology Roorkee.
20. AICTE Training And Learning (ATAL) Academy Online FDP on "Environmental Geotechnology" from 04.01.2021 to 08.01.21 at National Institute of Technology Karnataka Surathkal.
21. AICTE Training And Learning (ATAL) Academy Online FDP on "Novel Materials" from 08.02.2021 to 12.02.2021 at National Institute of Technology Patna.
22. DST sponsored Two weeks Faculty development Programme on "Entrepreneurship" from 15.03.2021 to 27.03.2021 at Anna University Regional campus Madurai.

23. AICTE Training and Learning (ATAL) Academy Online FDP on "Plastic Waste Management: Challenges & opportunities" from 23/08/2021 to 27/08/2021 at Central Institute of Petrochemicals Engineering & Technology, Lucknow.
24. AICTE Training and Learning (ATAL) Academy Online FDP on "Entrepreneurship Development Program (EDP) on fostering Start-up, Innovation and Entrepreneurship/Intrapreneurship" from 06/12/2021 to 10/12/2021 at Andhra University.
25. Attended Two weeks Industrial Training Programme on Plastic processing and testing organized at Central Institute of Petrochemical and Technology( CIPET : CSTS) Madurai from 10.06.2021 to 22.06.2021.
26. AICTE sponsored one week STTP on Recent advances in soft computing techniques in optimizing Industrial process (MOSCHEM II – 2021) from 27/09/2021 to 02/10/2021 organized by Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalai Nagar – 608002, Tamil Nadu, India.

### **AICTE Approved Online Courses Completed**

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1. NPTEL-AICTE one week FDP on Technical English for Engineers, August-September 2018.
2. NPTEL-AICTE one week FDP on Natural Gas Engineering, August-October 2018.
3. NPTEL one and half week Course on Chemical Reaction Engineering II, January-April 2019.
4. NPTEL-AICTE one week FDP on Waste to Energy Conversion, January-April 2019.
5. NPTEL-AICTE half week FDP on Selection of Nanomaterials for Energy Harvesting and Storage Application, July-August 2019.
6. NPTEL-AICTE one week FDP on Technologies for clean and renewable energy production, July-September 2019.
7. NPTEL-AICTE one week FDP on Non-Conventional Energy Resources, January-April 2020.
8. NPTEL-AICTE one week FDP on Environmental Quality Monitoring and Analysis, January-April 2020.
9. NPTEL-AICTE one week course on Ecology and Environment, September-November, 2020.
10. NPTEL-AICTE one and half week course on Biomass conversion and Biorefinery, January-April 2021.
11. AICTE 5-day online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education(AICTE) from 27<sup>th</sup> December, 2021 to 31<sup>st</sup> December, 2021.

### **MOOCs NITTTR Courses Completed**

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1. Two Credit course NITTTR Exclusive MOOC "Fundamentals of Outcome-Based Curriculum in Engineering Education", September – November 2020.
2. Two Credit course NITTTR Exclusive MOOC "Managing Learning Resources", July – November 2020.
3. Three Credit course NITTTR Exclusive MOOC “E-content Development”, July – September 2021.
4. Three Credit course NITTTR-AICTE FDP Exclusive MOOC “Student Assessment and Evaluation”, January – April 2022.
5. Two Credit course NITTTR-AICTE FDP on “Communication Skills, Modes & Knowledge Dissemination”, July-November 2022.

### **MOOCs PMMMNMTT Courses Completed**

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Two-Week Refresher Course on Managing Online Classes & Co- creating MOOCs 24.0 from 11 - 25 March, 2023 and obtained Grade A+ organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of MINISTRY OF EDUCATION PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING.

### **Conference/ Seminar Organized/Co-organized**

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1. Two days National Conference on “Emerging Trends in Chemical and Petrochemical Technology (NETCPT '22)”, Organized by Department of Petrochemical Technology, Anna University–UCE, BIT Campus, Tiruchirappalli on 03<sup>rd</sup> & 04<sup>th</sup> June 2022.
2. TEQIP II Sponsored Two days National Conference on “Green Engineering and Technologies for Sustainable Future (NCGET '16)”, Organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli on 16<sup>th</sup> & 17<sup>th</sup> September 2016.
3. TEQIP II Sponsored Two days National Level Workshop on "Emerging Trends In Unit Processes In Petrochemical Industries (ETUPI '16)", Department of Petrochemical Technology, Anna University – BIT Campus, Tiruchirappalli during 12<sup>th</sup> and 13<sup>th</sup> February 2016.
4. Centre for Faculty Development, Anna University, Chennai Sponsored programme on Process Instrumentation Dynamics and Control (PIDC '15) organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli from 14<sup>th</sup> December 2015 – 20<sup>th</sup> December 2015.
5. TEQIP II Sponsored Faculty Development programme on Depleting Energy Resources and Alternate Sources for Sustainable Energy Future (DAS '13)

organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli from 16<sup>th</sup> December 2013 – 22<sup>nd</sup> December 2013.

6. MNRE and CSIR sponsored National Conference on “Recent Trends in Renewable Energy Sources for Sustainable Development”, Organized by Department of Petrochemical Technology, Anna University of Technology Tiruchirappalli, Tiruchirappalli on 22<sup>nd</sup> and 23<sup>rd</sup> February 2011.
7. National Symposium on “Frontiers in Chemical Technology”, Organized by Department of Petrochemical Technology, Bharathidasan Institute of Technology, Bharathidasan University on 2<sup>nd</sup> February 2007.
8. One Day Seminar on SAKTHI – “Renewable Energy – Energy of the future”, Organized by Department of Petrochemical Technology, School of Engineering and Technology and Tamil Nadu Energy development Agency 20<sup>th</sup> August 2005.
9. FICCI-FLO & LOTUS sponsored MobilTrain on campus to Corporate Training Program conducted by MobilTrain Knowledge Services Pvt. Ltd. from 11<sup>th</sup> April 2022 to 11<sup>th</sup> May 2022 for final year under graduate girl students of UCE, BIT Campus, Anna University, Tiruchirappalli.

#### **Served as resource person**

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- Scrutiny Board Member for Theory Examinations – April /May 2023 at Dhanalakshmi Srinivasan Engineering College (Autonomous), Perambalur.
- Question paper Scrutiny member for End Semester Theory Examinations held in Nov./Dec 2022 at Paavai Engineering College, Namakkal.
- Expert lecture delivered on 5<sup>th</sup> June 2021 (World Environment Day) on Environmental Impact Assessment, Hindustan Institute of Technology and Science, Padur.
- Expert lecture delivered on 5<sup>th</sup> May 2021 on Industrial Catalytic Reactors organized by Department of Biotechnology, Karpaga Vinayaga College of Engineering and Technology, Kanchipuram.
- External reviewer for Syllabus and curriculum of M.Sc. (Petroleum Engineering) developed by Center for Ethio-Mines Development, Addis Ababa Institute of Technology, Addis Ababa University, Addis Ababa, Ethiopia, September, 2021.
- Expert lecture delivered in the AICTE ATAL FDP titled “Recent trends in Waste Management Technologies” held at Department of Petrochemical Technology, UCE, Anna University, Tiruchirappalli from 9:30 A.M. -11:00 A.M., on 15-10-2020. Title of presentation: Application of various Reactor systems for the treatment of waste water in industries.

- Webinar on Industrial Catalytic Reactors organized by Department of PCT, PE & CE, Excel college of Engineering & Technology, Komarapalayam - 637303 on 27.05.20 at 10.30 AM.
- Expert member for syllabus review at Central Institute of Plastics Engineering & Technology (CIPET), Chennai.(13.3.2020).
- Viva-voce examiner for the award of Ph.D. degree in Chemical Engineering, Annamalai University on 21.02.2020.
- Expert Member in Scientific advisory committee in National conference on Recent Trends in Chemical and Environmental Biotechnology (RTCEB-2020) in the Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalai Nagar – 608002, Tamil Nadu, India, during 14 and 15 February 2020.
- Delivered a special lecture on “Significance of Chemical Reaction Engineering in pharmacokinetics” on 19<sup>th</sup> February 2018 Organised by Department of Biotechnology, Karpaga Vinayaga College of Engineering and Technology, Kanchipuram.
- Expert Member to conduct Interview for JRF post under Newton-Bhaba project fund, Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli 620 015, INDIA on 6<sup>th</sup> May 2016.
- Delivered a special lecture on “Open loop System” on 20<sup>th</sup> December 2015 sponsored by Centre for Faculty Development, Anna University, Chennai on Process Instrumentation Dynamics and Control (PIDC '15) organized by Department of Petrochemical Technology, Anna University–BIT Campus, Tiruchirappalli from 14<sup>th</sup> December 2015 – 20<sup>th</sup> December 2015.
- Delivered a special lecture on “Chemical Reaction Engineering” on 24<sup>th</sup> December 2014 Organised by Department of Biotechnology, Karpaga Vinayaga College of Engineering and Technology, Kanchipuram.
- Delivered a special lecture on “Biodiesel Separation and Purification using Membrane Technology” on 20<sup>th</sup> July 2013 in Short term course on "Integrated Separation Process for Environmental and Biotechnology Applications" under Technical Education Quality Improvement Programme (TEQIP) on July 19<sup>th</sup> -20<sup>th</sup> 2013 Organised by Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli.
- Delivered a special lecture in Invited Lecture Series on “Biodiesel Production by Transesterification of oils” on 23<sup>rd</sup> October 2013 Organised by Department of Environmental Management, Bharathidasan University, Tiruchirappalli.
- Doctoral committee member for Mr. Om Ariara Guhan C.P, PhD Scholar, Department of Chemical Engineering, National Institute of Technology Tiruchirappalli.

## Academic activities

S. No.	Contribution to the University	Academic Year	Institution
1	Placement coordinator	2005 - 2009	Petrochemical Technology, Anna University of Technology,
2	Board of Studies – B.Tech Petrochemical Technology Syllabus Revision	Regulation 2007 & Regulation 2008	Petrochemical Technology, Anna University of Technology, 3-8 semester
3	Purchase committee member for Chemical Reaction Engineering Laboratory	2005-Till Date	Petrochemical Technology, UCE, BIT campus, Anna University.
4	Timetable coordinator	2005-2010	Petrochemical Technology, Anna University of Technology.
5	Innovation club coordinator	2010 - 2011	Petrochemical Technology, Anna University of Technology.
6	Department Exam coordinator	2013 onwards	Department of Petrochemical Technology, UCE Anna University, BIT Campus, Tiruchirappalli.
7	Department NBA file Incharge	2015-2018	Department of Petrochemical Technology, UCE Anna University, BIT Campus, Tiruchirappalli.
8	UGC-Student Induction Programme coordinator	2019-onwards	Department of Petrochemical Technology, UCE Anna University, BIT Campus, Tiruchirappalli.
9	Organizing Committee member in Seating Arrangement, Graduation Day,	2011-Till date	Department of Petrochemical Technology UCE, Anna University, BIT Campus, Tiruchirappalli.
10	FICCI-FLO Coordinator	2022	Department of Petrochemical Technology UCE, Anna University, BIT Campus, Tiruchirappalli.
11	University Nominee for Board of studies in Erode Sengunthar Engineering College, Erode	2022-2025	Department of Petrochemical Technology UCE, Anna University, BIT Campus, Tiruchirappalli.



## Contact Address

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**Researcher Id** : ACW-6510-2022