# PROFILE

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### **EDUCATION**

Doctor of Philosophy (Ph.D.) in Department of Chemical Engineering (CEESAT),NIT,Trichy Thesis Title: '*Studies on Performance Analysis of Self Circulating Biogas Plant*' National Institute of Technology ,Trichy.(Completedon12<sup>th</sup>March2009) Advisor Prof.H.J.Prabhu Master of Technology (M.Tech.) in Energy Engineering, REC(NIT),Trichy. (2001-2003). I class with Distinction, 87.3% (8.73CGPA)

Bachelor of Technology (B.Tech.) in Chemical Engineering, Bharathidasan University,

Trichy. (1995-1999). I class,74.03%

### AWARDSANDHONOURS

- Received and Awarded Certificate of Appreciation for producing 100% results in Process Equipment Design I, Design II and NGE, Process Economics, ECM, PUP subjects in the year 2020-2021.
- Received and Awarded Certificate of Appreciation for producing 100% results in CFD & PUPsubjects in the year 2018-2019.
- Received FIRST PRIZE IN BEST PRESENTATION AND PARTICIPATIO Ninthe AICTEFDP Conducted by PSG College of Technology, Dec2017, Coimbatore.
- Received **BEST PAPER** Award in the international conference conducted by Pondicherry Engineering Engineering college (Jan 2007), Pondicherry.
- Received BestTeacherAward 2008.
- Received Two times CashawardRs.5000 for produced100% result in the semester exam conducted by the DOTE 2007-2008.

### **TEACHING EXPERIENCES**

 As an Assistant Professor in Anna University Tiruchirappalli from 2<sup>nd</sup> Sep 2009 toTill date Subjects Teaching for PG : Advanced Heat Transfer, Optimum Utilization of Heat and Power, Power plant Technology, Nuclear Hydel and other power plants, Renewable Energy System, Cogeneration and waste heat recovery, Fans Blowers and Compressors, Design of refrigeration systems, for M.E.(Thermal)/M.Tech (Energy).

Heat Transfer, Fluid Mechanics for B.E(PT)students.

UG: Equipment Design and Drawing II, Design of pressure vessels and piping, Combustion and Furnace Design, Natural Gas Engineering, Petroleum Unit Processes, Process Economics, Energy Conservation and Management Lab: Energy Audit Equipment Lab, ASPEN & HYSIS, Pro simulation lab, Petroleum Product Testing, Process Equipment Design and Drawing II

### **RESEARCH EXPERIENCES**

Research Associate, Centre for Energy & Environmental Science and Technology (CEESAT), National Institute of Technology, Trichy from Jan 2003 to May 2006.

#### MEMBERSHIP

- Life member in Indian society for Technical Education from 2016
- Life member in Indian Indian Science Congress from 2008
- Member in society of Petroleum Engineers SPE
- Life member in Institution of Engineers India (IEI )from 2010

#### PUBLICATIONS PAPER PUBLISHED

#### INTERNATIONAL JOURNAL PUBLICATIONS

- Sathish, T., Ağbulut, Ü., Kumar, P. S., Mageswari, S. D. U., Stalin, N., Pandian, R., et al. (2024). Impacts of novel Calotropis gigantea seed biodiesel usage as a fuel substitute along with various metal-oxide nanoparticles on the DICI engine characteristics. *Case Studies in Thermal Engineering*, 63, 105249. <u>https://doi.org/10.1016/j.csite.2024.105249</u>.
- Sathish, T., Kumar, P. S., Mageswari, S. D. U., Stalin, N., Pandian, R., et al. (2024). Carbonization and gasification of cow-dung and Fe3O4 nanoparticles at different operating conditions for hydrogen production. *ChemistrySelect*, 9(35), e202402515. <u>https://doi.org/10.1002/slct.202402515</u>.
- Sathish, T., Kathirvel, S., Dwivedi, Y. D., Stalin, N., Giri, J., Saravanan, R., & Makki, E. (2024). Performance enhancement by tungsten trioxide and silicon dioxide mixed nanofluids in solar collector of evacuated tube type. *Case Studies in Thermal Engineering*, 55, 104098. <u>https://doi.org/10.1016/j.csite.2024.104098</u>.
- Muniyandi, S., Narayanasamy, S., & Stalin, N. (2024). Experimental analysis on the performance of photovoltaic module with Al2O3 deionized water nanofluid. *Thermal Science*, 28(1 Part A), 357-364. <u>https://doi.org/10.2298/TSCI200312039M</u>.
- Vivekanadan.R, Dr.Stalin N," Optimization Of Design Parameters In Shell And Tube Heat Exchanger Using Aspen HYSYS" International journal of advanced research in science, communication and technology (IJARSCT), IF=7.30, DOI:10.48175/IJARSCT-10982AvailableonlineVolume3, Issue16, May2023.
- 6. Mingming Zhang,Moslem Paidar,Stalin Narayanasamy,Azlan MohdZain "Impact of multiple FSP passes on structure, mechanical, tribological and corrosion behavior of AAA6061/316 stainless-steel reinforced AI matrix composites" International journal of Surface and Coatings, Elsevier, SCI, IF = 4.865, Available online 18 August 2022, 128801. <u>https://doi.org/10.1016/j.surfcoat.2022.128801</u>
- Sundeep.Siddulaa , N. Stalin , C R Mahesha "Triangular and Single Slope Solar Stills: Performance and Yield Studies with Different Water Mass" International journal of Energy Reports,(2022),SCI,IF = 5.13. © 2022 The Authors. Published by Elsevier Ltd.
- 8. MohamadRedaA.Refaai,StalinNarayanasamy,V.ChittaranjanDas,D.V.S.S.S.V.Prasad,

 N. Nalini, Subash Thanappan, "Mechanical Properties of Ramie/Hemp Hybrid CompositesInfluencedbyStackingArrangementandNaOHTreatment", *AdvancesinPolymerTechnology*, vol. 2022, Article ID 8737669, 9 pages, 2022. <u>https://doi.org/10.1155/2022/8737669</u>

- Lei Zhang, N. Stalin, Ngo Tran, Sadok Mehrez, "Development of high-efficient double-layer microwave absorbers based on 3D cabbage-like CoFe2O4 and cauliflower-like polypyrrole" International journal of ceramics, Volume 48, Issue 11,1 June 2022, Pages 16374-16385. SCI,IF = 4.527. <u>https://doi.org/10.1016/j.ceramint.2022.02.188</u>
- Stalin, N., Shobhanadevi, N. Studies on thermal, structural, and compositional properties of agrowaste jute fiber composite reinforced with cardanol resin. *Biomass Conv. Bioref.* (2021).https://doi.org/10.1007/s13399-021-01958-0 SCIE, IF = 4.987. https://rdcu.be/cUiRJ.
- 11. Chitrakala, G, Stalin. N & Mohan, V, "Normally Bypassed Cascaded Sources Multilevel Inverter with RGA Optimization for Reduced Output Distortion and Formulaic Passive Filter Design", Journal of Circuits, Systems, and Computers (JCSC), vol. 29, no. 2, 2020. Accepted. IF = 2.333 (SCIE and Scopus Indexed)<u>https://doi.org/10.1142/S021812662050019X</u>
- R. Murali, N. Stalin & P. Ravikumar (2019)Performance studies and emission analysis of azolla and corn husk biogas powered dual fuel mode compression ignition engine, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects,41:22,2808-2820,DOI: <u>10.1080/15567036.2019.1576076</u>, SCI, Scopus Indexed, IF = 2.902.

13. Chitrakala, G, **Stalin, N** & Mohan, V, "A Segmented Ladder Structured Multilevel Inverter for Switch Count Remission and Dual-Mode Savvy", Journal of Circuits, Systems, and Computers (JCSC), vol.27,no.14,pp.1850223 (1-14),Dec.2018.(SCIEandScopusIndexed),IF =2.333. https://doi.org/10.1142/S0218126618502237

- P.Sudharson, N.Stalin 2018 "DesignAndPerformanceEvaluationOfShellAndTubeHeatExchanger In Automotive Engine Using O<sub>3</sub> Filter, Journal of Web Engineering, Vol. 17, No.6 (2018) 2568-2578 July 2018 SCIE, Scopus Indexed, IF = 1.59
- S.Jayanthi, N.Stalin, and S.Sutha 2018, "Internet Of Things (IoT) Based Generous Transformational Optimization Algorithm (GTOA) For Hybrid Renewable Energy System Synchronization And Status Monitoring", International Journal of Wireless Personal Communications, https://doi.org/10.1007/s11277-018-5279-3, 13 Feb 2018 SCIE, Scopus Indexed, IF = 1.671
- AL. Mayilvahanan, N. Stalin, and S. Sutha 2017 "Improving Solar Power Generation And Defects Detection Using A Smart IoT System For Sophisticated Distribution Control (SDC) And Independent Component Analysis (ICA) Techniques", International Journal of Wireless Personal Communications J.Comput.Theor.Nanosci.2017,Vol.14,No.115215-5225,2017.doi:10.1166/jctn.2017.6871.
  SCIE, Scopus Indexed, IF=1.671
- S. Jayanthi , N. Stalin, and S. Sutha 2017, "Augmented Blossom Fertilization Algorithm Based Optimization for Isolated Power Systems" International Journal of Computational and Theoretical Nanoscience Vol. 14, 5963-5971, 2017. SCIE, Scopus Indexed, IF = 1.42

- AL. Mayilvahanan, N. Stalin, and S. Sutha, 2017, "Performance Enhancement of Photovoltaic Systems Using Dynamic Rule Soft Switching Controller Based Maximum Power Point Tracker" International Journal of Computational and Theoretical Nano science Vol. 14, 5215-5225, 2017. SCIE, Scopus Indexed, IF = 1.42.
- G. Chitrakala, N.Stalin and V. Mohan, 2017, "A Novel Programmed Low Frequency PWM Method for Performance Enhancement of Single-Phase to Single-Phase Cyclo converter" CIIT International Journal Of Digital Image Processing Volume 9, No 2, February 2017pp. 39-46. IF 0.652.
- V. Mohan, G. Chitrakala, N. Stalin, 2017, "A Low Frequency PWM Based Multilevel DC-Link Inverter with Cascaded Sources " International Journal of Asian Journal of Research in Social Sciences and Humanities Vol. 7, No. 1, January 2017, pp. 686-697.
  SJIF=5.161.
- N. Shobanadevi, V. Krishnamurty and N. Stalin, 2016 "Voltage Stress Analysis of cascaded Quasi Impedance Source Network Based DC/DC Converter Using SB Control" I J C T A, 9(25), 2016, pp. 633-646. Scopus Indexed, IF = 8.40.
- ShobanadeviNagarajan,KrishnamurtyVenkatachalapathy,StalinNarayanasamy2016,"A Simple Boost Shoot through Control for Single phase Quasi ZSI DC-DC Converters Based on Voltage Doubler Rectifier "International Journal of Przegląd Elektrotechniczny, ISSN 0033-2097, R. 91 Nr/2015. Scopus Indexed, IF =0.38.
- 23. Saravanan KK, Stalin N, Sree Renga Raja T 2016, "Design and Investigation of Grid Connected Current Source Inverter for Photovoltaic System", International Journal of Advanced Engineering Technology(Anna University recommended Journal: Updated List of Journals 2016),ISSN0976-3945 vol. 7 no.2 pp.280-284. Scopus Indexed, IF = 3.43.
- N. Shobanadevi, V. Krishnamurty and N. Stalin, 2016 "PISB Control of Single Phase Cascaded Quasi ZSI DC-DC Converter" Middle-East Journal of Scientific Research 24(5): 1700-1707, 2016ISSN 1990-9233. Scopus indexed, IF=0.36
- 25. Saravanan KK, Stalin N, Sree Renga Raja T 2016, "Design of Single-Phase Seven Level Grid-Connected Inverter Using SolarSystem ", Asian Journal ofResearch in Social Sciences and Humanities.(Anna University recommended Journal: Updated List of Journals 2016,Accepted for publication in November 2016 Issue). Scopus Indexed, IF = 0.676.
- Saravanan KK, StalinN, Sree Renga Raja T2016, "Simulation of NewMulti-Input Three Level DC-DC Converter", Transylvanian Review. (Anna University recommended Journal: Annexure-I, Accepted for publication). Scopus Indexed, IF = 0.08.
- 27. Saravanan KK, Stalin N, Sree Renga Raja T 2016," Performance Analysis on Photo Voltaic System Stability for Grid Connected Load", Brazilian Archives of Biology and Technology -BABT.(Anna University recommended Journal: Annexure-I, Scopus Indexed, IF = 0.546.
- Gajendran Tand Stalin N, "Purification and flux decline of protein solution using series model through modified cellulose acetate ultra-filtration membrane" Research Journal of Chemistry and Environment, Vol. 19 (6) June (2015) Res. J. Chem. Environ Scopus Indexed, IF = 0.38.

- Mohan, V, Stalin, N & Jeevananthan, S, "Adouble random pulse width modulation based on discrete carrier frequencies and random pulse position for induction motor drives", International Journal of Applied Engineering Research, vol. 10, no. 51, pp. 479-484, 2015. Scopus Indexed, IF=1.8233.
- V.Mohan, N.Stalin and S.Jeevananthan, "A Tactical Chaos based PWM Technique for Distortion Restraint and Power Spectrum Shaping in Induction Motor Drives", Intl. Journal of Power Electronics and Drive System, Vol.5, No.3, pp: 383 - 392, Feb 2015. Scopus Indexed, IF=1.08.
- Saravanan KK , Stalin N 2015," Design of three Phase Fifteen level Cascaded Multilevel Inverter using Embedded Controller", International Journal of Applied Engineering Research (Anna University recommended Journal: Annexure-II, Version 2014.2), ISSN 0973-4562 vol.10 no.72 pp.437-443.
  Scopus Indexed, IF= 0.15.
- Saravanan KK, Stalin N, Satthiyaraj S 2015, "Analysis of Fault-Current Limiting Scheme for the Micro grid", International Journal of Applied Engineering Research, ISSN 0973-4562 Vol.10 No.72 (2015), pp.269-274. Scopus Indexed, IF= 0.15.
- Saravanan KK, Stalin N, Annandharaj R 2015, "Design and Analysis of Bidirectional Isolated LLC Resonant Converter", International Journal of Applied Engineering Research, ISSN 0973-4562 vol. 10 no.51, pp.330-335. Scopus Indexed, IF= 0.15.
- ElankurisiISA, SaravananKK, StalinN, MahendraPerumanP2015, "InvestigationonFullBridgeand Coupled Inductor ZVS DC-DC Converter Fed PMDC Motor", International Journal of Applied EngineeringResearchISSN0973-4562volume10, number9, pp.24407-24422. ScopusIndexed, IF=0.15.
- 35. Saravanan KK, Stalin N, Jayasuthahar ST 2013, "Review of Renewable Energy Resources in Clean Green Environment", International Journal of Emerging Trends in Electrical and Electronics (IJETEE) vol. 1, issue. 1, pp.54-58. Scopus Indexed, IF= 3.84.
- V.Mohan, N.Stalin, S.Jeevananthan, "ATactical Chaosbased PWMTechnique for Distortion Restraint and Power Spectrum Shaping in Induction Motor Drives" International Journal of Power Electronics and Drive System (IJPEDS) Vol. 5, No. 3, February 2015, pp. 383~392. Scopus Indexed, IF= 1.062
- Gajendran T and Stalin N "Performance studies of polyether sulfone ultra filtration membrane for fruit juice concentration and purification" Research Journal of Biotechnology Vol. 9(12) December (2014) Res. J. Biotech, pp 7-13. Scopus Indexed, IF= 0.29.
- M.Kodeeswararamanathan and N.Stalin "Mathematical modeling approach for solutions in power consumption issues of Tamil Nadu" Journal of Chemical and Pharmaceutical Sciences JCHPS Special Issue 4: December 2014, pp44-47. Scopus Indexed, IF=1.421
- M.Kodeeswararamanathan and N.Stalin "To provide suitable technological menu to avert outages of electric power ridden sectors for improving the economic developments of Tamil Nadu" Journal of Chemical and Pharmaceutical Sciences JCHPS Special Issue 4: December 2014 pp62-64. . Scopus Indexed, IF=1.421
- 40. **Dr.N.Stalin**. Energy Management and Integration of PEM Fuel Cell with UAV for Pharmaceutical Application, International journal Nanobio Pharmaceutical Technology, Elsevier 2014 volume 1, page

52-61. Scopus Indexed, Elsevier Book chapter.

- Dr.N.Stalin. Energy Conservation Opportunities in Paper Plant using Combined Heat and Power for Pharmaceutical Application, International journal Nano bio Pharmaceutical Technology, Elsevier 2014 volume 1, page 61-73. Elsevier Book chapter.
- 42. M.Kodeeswararamanathan, Dr.N.Stalin. "Grid connected load mismatching situation between power supply and power demand review of the problematic effects and analysis for unique needs inparticular reference to Tamilnadu". Applied Mechanics and Materials Vols. 592-594 (2014) pp 2365- 2373 © (2014) Trans Tech Publications, Switzerland. Scopus Indexed, IF= 0.26.
- N.Shobanadevi, Dr.V.Krishnamurthi, Dr.N. Stalin "Quasi Impedance Source Single Phase Inverter Based FB DC-DC Converter with Zero Voltage Switching" Australian Journal of Basic and Applied Sciences, June 2013, Scopus Indexed, IF= 0.786
- 44. Arunkumar, N. LakshmiPraba, Dr.N.Stalin "A Novel Technique to Detect Macular Edema Based on Motion Patterns" International Journal of Advanced Research in Computer Science Engineering and Information Technology Volume-1 : Issue-1 Jan 2013, IF= 0.426
- 45. Arun Nadh, N. Lakshmi Praba, Dr. N. Stalin "Communication system with sensors for monitoring of Induction motors in Domestic and Industrial Environments. International Journal of Advanced Research in Computer Networking, Wireless and Mobile Communications Volume-1: Issue-3 July 2013.pp.1-7.
- R.Vnaja, N.Lakshmi Prabha, Dr. N. Stalin, (2013). Efficient Architecture for SPIHT Algorithm in Image Compression, International Journal of Advanced Research in VLSI Volume-1:Issue-1 JAN 2013, pp. 1-7.
- S. Anju, N. LakshmiPrabha, Dr.N.Stalin, (2013). SmartBuilding Automation through Wireless Sensor Networks Using Zigbee, International Journal of Engineering Research & Technology (IJERT), Vol. 2 Issue 7, July –2013.pp.196-200.
- Dr.N.Stalin, Saravanan.K. "Review of Renewable Energy Resources in Clean Green Environment" International Journal of Emerging Trends in Electrical and Electronics (IJETEE), Vol. 1, Issue. 1, March-2013.pp.54-58.
- Stalin, N.; Prabhu. HJ. Effect of Microbial growth on Self circulating biogas plant using carrier materials International ARPN Journal of Engineering and Applied Sciences, Volume 2, September 2007,pp.8-11. Scopus Indexed, IF= 0.46.
- Stalin, N.; Prabhu. HJ. Performance test of IC engine using Karanja bio-diesel blending with diesel, InternationalARPNJournalofEngineeringandAppliedSciences,Volume2,September 2007,pp.32-34.
  Scopus Indexed, IF= 0.46.
- 51. Stalin, N.; Prabhu.H.J. "Performance Evaluation of a Partial Mixing Anaerobic Digester" ARPN International Journal of Engineering and Applied Sciences Volume 2, June, 2007, pp.1-6. Scopus Indexed, IF= 0.46.
- 52. **Stalin,N**.;Sridevi.P(2007).DesignofanEvaluationModelformid-sizecarsegmentusingaDSS Framework,InternationalJournalofAppliedManagementandTechnology,volume,issue2,May2007, pp.32-

37. IF= 0.16.

- 53. **Stalin**,N.;Prabhu.HJ."PerformanceEvaluationsofSelfCirculatingBiogasPlant, Applied Management and Technology, Volume 5, Issue 1, May 2007, pp.64-75. **IF= 0.16.**
- Stalin, N.; Prabhu. H.J. "Performance Evaluations of partial mixing Digester, International journal of energy research, Volume 5, Issue 1, May 2007, pp.64-75. Scopus Indexed, IF= 2.598.

#### (ii)National Journals:

- N. Shobanadevi1, V. Krishnamurty and N. Stalin, 2016, "PISB Control of Single Phase Quasi Impedance Source DC-DC Converter" Indian Journal of Science and Technology, Vol 8(13), 55446, July 2015. ISSN (Online) : 0974-5645. Scopus, IF= 0.97.
- Stalin, N. Prabhu. HJ. Design of community bio gas plant for biogas generation Journal of Research&Development,Vol4, 2006,pp.29 –33.

#### INTERNATIONALCONFERENCE

- Dr. N. Stalin, March 12-13, 2021G." Design and Performance Evaluation of Shell and Tube Heat Exchanger in Automotive Engine Waste Heat Recovery System" International Conference on Recent Technologies and Advanced Materials for Green Energy and Sustainable Environment (RTAMGESE-Online), NIT, Trichy. March 12-13, 2021G.
- Ms. Jerlin Deno J S,Dr. N. Stalin, March 12-13, 2021G." Performance evaluation of bio dispersants in crude oil adsorption" International Conference on Recent Technologies and Advanced Materials for Green Energy and Sustainable Environment (RTAMGESE-Online), NIT, Trichy. March 12-13, 2021G.
- Ms. Jerlin Deno J S, Dr. N. Stalin, CHEMCON 2020 Presented a paper on "Coir pith as Adsorbent" 28/12/2020 the Bhubaneswar Regional Centre of IIChE and CSIR –Institute of Minerals and Materials Technology, Bhubaneswar in association with Institute of Chemical Technology.
- Dr. N. Stalin, 2019." Design and Performance Evaluation Automotive Engine Attached with CHP System and O<sub>3</sub> Filter in Engine Exhaust" XIII International Conference on Applied Research in Engineering and Management Sciences, 17<sup>th</sup> August 2019, Ben coolen, Singapore.
- Dr.N.Stalin " A Novel Programmed Low frequency PWM Method for Performance Enhancement of Single Phase to Sigle Phase Cycloconverter" 24/02/2017, TEQIP II sponsored International Conference ICCPEAT 2017 conducted by PEC, Pondicherry.
- KK.Sravanan, DR.N.Stalin. "Modelling and Analysis on Photo Voltaic System Stability for Grid Connected Load". 4th International Conference on Engineering Technology and Science, Namakkal, 2017.
- KK.Sravanan, DR.N.Stalin. "Modelling and Simulation Analysis of Power Cables For Matrix Converter Fed Induction Motor Drive (MCIMD)". Modelling and Simulation Analysis of Power Cables For Matrix Converter Fed Induction Motor Drive (MCIMD), 2016.
- KK.Sravanan, DR.N.Stalin. "Simulation of New Multi-Input Three Level DC-DC Converter". International Conference on Innovative Research in Electrical Sciences Nagapattinam, 2016.
- KK.Sravanan, DR.N.Stalin. "Design & Analysis of Bidirectional isolated LLC resonant Converter". International Conference on Innovative Research in Electronics Engineering Sciences 2015

Nagapattinam, 2015.

- 10. **DR.N.Stalin**. "Energy Conservation Using CHP in Power Systems". International Conference on Green Technology for Environment Pollution Prevention and Control, NIT, Trichy 2014.
- T.Gajendran, DR.N.Stalin. "Studies of flux decline for cellulose acetate/Low cyclic dimer poly sulfone polymer ultra filtration membrane using resistance in series model". International Conference on Green Technology for Environment Pollution Prevention and Control, NIT, Trichy 2014.
- DR.N.Stalin. "Energy Management and Integration of PEM Fuel Cell with UAV for Pharmaceutical Application". Innovations andfutureresearchDimensionsonNanobioPharmaceuticalTechnology7-8 October 2014, Trichy.
- DR.N.Stalin. "Energy Conservation Opportunities in Paper Plant using Combined Heat and Power for Pharmaceutical Application". Innovations and future research Dimensions on Nano bio Pharmaceutical Technology 7-8 October 2014.
- 14. M.Kodeeswararamanathan, N.stalin. "Grid connected load mismatching situation between power supply and power demand review of the problematic effects and analysis for unique needs in particular reference to Tamilnadu". International Conferences NIT Trichy ICGTEPC 2014 volume 1 page 312.
- N.Stalin. "Performance evaluations of thermal power generation". International Conferences NIT Trichy ICGTEPC 2014 volume 1 page 313.
- Reshma Mohan, N. Lakshmi Praba, Dr. N. Stalin "Reduced Power Flip Flop Design For Clock Distribution Networks" March 2013.
- Sudha, N. Lakshmi Praba, Dr. N. Stalin "A Build-In-Self-Test Approach for Error Detection And Data Recovery Architecture In H.264/AVC" April 2013.
- S.Anju, N. Lakshmi Praba, Dr. N. Stalin "Building Lighting Automation Trough Wireless Sensor Network using zigbee" April 2013.
- Arun Nadh, N. Lakshmi Praba, Dr. N. Stalin "Zigbee based wireless sensor Network for the monitoring of Induction Motor Parameters" Feb 2013.
- Reshma Mohan A S, N. Lakshmi Praba, Dr. N. Stalin "Reduced Power Flip Flop Design For Clock Distribution Networks" March 2013.
- Reshma Mohan A S, N. Lakshmi Praba, Dr. N. Stalin "Reduced Power Flip Flop Design For LC Resonant Clock Distribution Networks" Feb 2013.
- S. Arun kumar, N. Lakshmi Praba, Dr. N. Stalin "Automatic System for Macular Edema Detection" Feb 2013.
- 23. Arun Nadh, N. Lakshmi Praba, Dr. N. Stalin "Zigbee based wireless sensor Network for themonitoring of Induction Motor Parameters" Feb 2013.
- 24. S.Anju, N. Lakshmi Praba, Dr. N. Stalin "Building Lighting Automation Trough Wireless Sensor Network using zigbee" March 2013.
- **25.** R.Vanaja, N. Lakshmi Praba, **Dr. N. Stalin** "FPGA Implementation of pipe lined Architecture forSPIHT Algorithm" March 2013.
  - 26. K.K.Saravanan, Ms.S.Rajalakshmi, Dr. N.Stalin, Dr.S.Titus, "NEW ZERO CURRENT

TRANSITION PWM DC/DC CONVERTER WITHOUT CURRENT STRESS", IEEE - International Conference On Advances In Engineering, Science And Management (ICAESM -2012) March 30-31, 2012Pp.566-570.

- K.K. Saravanan, Dr.N.Stalin, Ms.S.Rajalakshmi and G. Giftson Samuel," Recent trends in renewable energy resources-HYDROGEN FUEL CELL,"IEEE - International Conference On Advances In Engineering, Science And Management (ICAESM -2012) March 30- 31, 2012, pp.586-589.
- K.K.Saravanan, Dr.N.Stalin, S.Rajalakshmi, G.Giftson Samuel, POWER ELECTRONICS GENESIS, TRENDS AND IMPROVEMENT,"IEEE - International Conference On Advances In Engineering, Science And Management (ICAESM -2012) March 30, 31, 2012, pp.595-599.
- 29. Saravanan, K.K; **Stalin.N, Sreerengaraja.T**,; Power Quality and EMC in smart Grid" IEEE international conference on Advances in Engineering and Technology(ICAET-2011),May 27-28,2011.
- Saravanan, K.K; Stalin.N, Sreerengaraja.T,; Moon a future Renewable Energy Sources" IEEE international conference on Advances in Engineering and Technology(ICAET-2011), May 27-28, 2011.
- K.K. Saravanan, Dr.T.SreeRanga Raja, Dr.N. Stalin and R. Anandaraj, "Moon A Future Renewable Energy Source", ISBN 978-1-4507-6433-9 © 2011 Published by the Coimbatore Institute of Information Technology, May 27-28, 2011
- 32. K.K. Saravanan, Dr.N. Stalin, Dr.T.Sree Ranga Raja and G. Giftson Samuel," Power Quality and EMC in Smart Grid", ISBN 978-1-4507-6433-9 © 2011 Published by the Coimbatore Institute of Information Technology, May 27-28, 2011
- 33. **Stalin, N**.; Prabhu. HJ. Emission and Economics of Biogas, International conference organized by Kongu Engineering College, Perundurai, Erode.
- 34. **Stalin, N.;** Subramanian .P. Combined light and HeatAICTE-ISTE sponsored short- term training programme on "Emerging Energy Technologies" conducted by CEESAT, NIT, and Trichy
- 35. **Stalin,N.;** Combined Heat and Power in NITT hostel" in AICTE- ISTE sponsored short term training Programme on "Emerging trends in Energy Management and Non Conventional Energy" conducted by CEESAT, NIT, and Trichy.
- 36. **Stalin,N.;**Biogasgenerationfromwasteresources"inRajivGandhiRenewableenergyday celebration conducted by DRDA, Thanjavur.
- 37. **Stalin, N**.; "Co- Generation & Energy management in industry" in AICTE-ISTE sponsored Induction training Programme on "Hybrid Energy Systems" conducted at PMCTW, Vallam, Thanjavur.
- 38. **Stalin,N**.;Prabhu.HJ."StudiesonPerformanceEvaluationofSelfCirculatingBiogasPlant, International conference conducted by Pondicherry Engineering College, 2007.
- Stalin, N.; Prabhu. HJ.Energy conservation and management", International conference Organized by AIM, Thanjavur.2007
- 40. Stalin, N.; Prabhu. HJ. COPYRIGHTS, International conferenceOrganized by AIM, Thanjavur. 2007
- 41. **Stalin, N**.; Prabhu. HJ. Bio-gas yield Analysis on Solid Wastes from Potato Processing by Anaerobic Treatment, International Conference organized by SIT, Madurai.

### NATIONALCONFERENCE:

- 1. Stalin, N.; Prabhu. HJ. "SugarcaneLeaf–BagasseGassifiersforIndustrialheatingApplications", National Conference conducted by PCET, Coimbatore.
- 2. Stalin, N.; Prabhu. HJ. Energy conservation using combined Heat and Powera CHP potential in Indian Industries", National Conference organized by SREC, Coimbatore.
- 3. Stalin, N.; Prabhu. HJ. Operating Parameters on Biogas production from dairy farmwastewater", National Conference Conducted by SRM University, Chennai.
- 4. Stalin, N.; Prabhu. HJ. "A system approach to biogas Technology", National conference Conducted by SIT, Madurai.
- 5. Stalin, N.; Prabhu. HJ. "Production of L-Asparaginase from cornflour MTCC 1752–Statistical analysis of parameter", National Conference Conducted by KEC, Perundurai.
- 6. Arun Nadh, N. Lakshmi Praba, Dr. N. Stalin "Embedded System with Wireless Sensor Network for the speed and torque Monitoring in Induction Motor" March 2013.
- Arunkumar, N. Lakshmi Praba, Dr. N. Stalin "Motion Pattern Based Detection of Diabetic Macular Edema" March 2013.
- 8. Arun kumar, N. Lakshmi Praba, Dr. N. Stalin "A Novel Technique to Detect Macular Edema Based on Motion Patterns" March 2013.
- Reshma MohanAS,N. Lakshmi Praba, Dr.N.Stalin "Reduced Power Flip Flop Design For Clock Distribution Networks" March 2013.
- 10. S.Anju, N.Lakshmi Praba, Dr.N.Stalin "Building Lighting Automation Trough Wireless Sensor Network using zigbee" Feb 2013.
- 11. R.Vanaja, N. LakshmiPraba, Dr. N. Stalin "FPGA Implementation of pipelined Architecture for SPIHT Algorithm" Feb 2013.
- 12. Sudha, N. Lakshmi Praba, Dr. N. Stalin "A Build-In-Self-Test Approach for Error Detection And Data Recovery Architecture In H.264/AVC" March 2013.
- 13. Sudha, N. Lakshmi Praba, Dr. N. Stalin "A Build-In-Self-Test Approach for Error Detection And Data Recovery Architecture In H.264/AVC" April 2013.
- 14. ArunNadh, N.LakshmiPraba, Dr.N.Stalin "Automatic speed and torque monitoring in Induction motors Using ZigBee and SMS" March 2013.
- 15. Muthu Kumar, K.;Stalin,N.; Pv Cell based Parallel Connected Diode-Clamped Multi-Level Spwm inverterforindustrialLoad,MNRESponsoredNationalConference,OEC,Trichy.16-17July2010.
- MuthuKumar,K.;Stalin,N.;PvCellbasedPWMinverterforIndustrialDrives.MNRESponsored National Conference, OEC, Trichy.16-17 July 2010.

### PROJECTS;

SI.No	TOPIC	PROJECTID	SPONSORED	AMOUNT
			AUTHORITY	
1	Integrated capture and	IDEATN007638	MSME	15lakhs
	Conversion of CO <sub>2</sub> to		Govt. of India	
	Methane			

2	POWER GENERATION BY	NMNT 761	GOVT OF TN	1.1 LAKHS
	USING HIGHWAY WIND			
	MILL AND SOLAR PANEL			

SI.No	Торіс	ProjectID	Sponsoring	Amount and year
			Authority	
1	Reclamation of used engine oil	CHE- 197	TNSCST	7500&SPS 2022
	By Lab Scale Method			
2	Pilot model study for combined	EME-1054	TNSCST	7500&SPS 2022
	Heat and power application in			
	sugar plant			

### PATENT DETAILS: Total Numbers:3

### 1. Australian Patent– Granted

Invention Title	Inventiveoptimizationtacticstodiminishharmonicdistortionincomponent count waned normally bypassed cascaded sources multilevel inverter		
Patent Application type	Innovation		
Patent Number	2021101990		
Application Filing Date	2021-04-16		
Inventors & Applicants			
G.Chitrakala	Professor, Department of Electrical and Electronics Engineering, E.G.S. Pillay Engineering College, Nagapattinam, Tamilnadu-611002, India.		
V.Mohan	Professor, Department of Electrical and Electronics Engineering, E.G.S. Pillay Engineering College, Nagapattinam, Tamilnadu-611002, India.		
N.Stalin	Assistant Professor, Department of Petrochemical Technology, UCE-BIT Campus, Anna University, Tiruchirappalli, Tamilnadu-620024, India.		
S.Jeevananthan	Professor, Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Puducherry, India.		
2. Indian Patent–Published			

Invention Title	Design of component count reduced dual-mode segmented ladder-structured multilevel inverter
Publication Number	42/2020
Publication Date	16/10/2020

Publication Type	INA
Patent Number	202041043814
Application Filing Date	08/10/2020
Inventors & Applicants	
G.Chitrakala	AssociateProfessor,DepartmentofElectricalandElectronicsEngineering, E.G.S.PillayEngineeringCollege,Nagapattinam,Tamilnadu-611002,India
V.Mohan	Professor, Department of Electrical and Electronis Engineering, E.G.S. Pillay Engineering College, Nagapattinam, Tamilnadu-611002, India.
N.Stalin	Assistant Professor, Department of Petrochemical Technology, UCE-BIT
	Campus, Anna University, Tiruchirappalli, Tamilnadu-620024, India.

# 3. Australianpatent-Granded

SL.NO	PATENTTYPE& Title of Invention		Name of patentees	Year of published
	Patent number			
3	AustralianPatent &	A Bat source string succored	Chitrakala.G	28/07/2021
	2021104665	Serrated H - Bridge Symmetrical	Mohan.V	
		MLI for solar PV Grid Integration	Stalin.N	
			Jeevanantham.S	

# PhD Completed Under My Guidance:

Sl.No Name of the Scholar Registration Topics		Topics	Year of	
		Number		Completion
1	G.Chitrakala	16243597182	Distortion reduction, components count	Dec2020
			waning and conduction path curbing	
			Options in multilevel inversion.	
2	R.Murali 1214279744 Preparation of Bio composite f		Preparation of Bio composite from	Oct2020
			cashew nut shell and operational	
			emission characteristics of Azolla-Corn	
			Husk biogas powered diesel engine.	
3	N.Lakshmiprabha	20113012007	Investigations and performance	May2019
			enhancement of transformer less photo-	
			Voltaic inverter	
4	S.Jayanthi	2010S3012003	Novel optimization techniques and design	Dec2018
			of high performance isolated power	
			systems for smart grid	
			applications.	
5	A.L.Mayilvahanan 2010S3012004 Development of novel maximum power		Development of novel maximum power	Sep 2018
			point tracking techniques for solar	
			Power applications	
6	K.K.Saravanan	20113012003	Design and Investigation of grid	Feb 2018
			connected converter for solar	
			photovoltaic power generation.	
7	N.Sobanadevi	20093062006	Cascaded quasi impedance source	Feb 2018
			network based DC-DC converter and	
			Voltage stress analysis using SB control	
8	M.Kodeeswara	20096032003	Contingency planning to continuous	
	Ramanathan		supply in constrained power resources	Dec2015
			In particular reference to Tamilnadu.	
9	T.Gajendran	2010S6012003	Performance Studies of polymer	Nov2015
			Membrane materials using modifiers for	
			Fruit juice concentration and protein	
10		20002012012	purification.	0.40017
10	V.Mohan	20093012012	Perform Enhancement of AC-DC-AC	Oct2015
			Converter systems.	

### PHDSCHOLARS DOING UNDER MY GUIDANCE:

SI.No	Name of the Scholar	Registration Number	Guide/Co guide
-------	---------------------	---------------------	----------------

1	Mrs.R.Srilasri	18232591333	Guide
2	Mr.R.Vivekanandan	21145597141	Guide

### **Details of past Experience**

Name and address of the Institution/		Period of service	
Organization	Post held	From	То
ANNAUNIVERSITY-BIT, TIRUCHIRAPPALLI	ASSISTANT PROFESSOR	02-09-2009	Till Date
SONACOLLEGEOFTECHNOLOGY,SALEM	ASSISTANT PROFESSOR	21-03-2009	31-08-2009
KONGUENGINEERINGCOLLEGE, ERODE	LECTURER	27-06-2007	20-03-2009
PERIYARMANIAMMAICOLLEGEOFTECHNOLOGY FORWOMEN	SENIORLECTURER	01-06-2006	26-06-2007
NIT,TRICHY	RESEARCH ASSOCIATE	02-01-2003	31-05-2006
PSBPOLYTECHNIC,CHENNAI	LECTURER	01-06-1999	21-06-2001

### BOOKAUTHORED

SI.No	Title of the Book	Authors	Publishers	Year and Month of
				Publications
1	ASPENHYSISSTEADYSTATE	Dr N Stalin & Dr M	Petrochemical	July2016
	TRAINING MANUAL	Rengasamy	Technology	
2	Energy and Environmental	Dr N Stalin	Petrochemical	ISBN:9788192112862
	Engineering	Dr.M.Arulmozhi,	Technology	Nov 2014
		Dr.M.Rengasamy,		
3	Energy and Environmental	Dr.P.Subramanian	REC Trichy	Jan2006
	Engineering Text Book	Mr.N.Stalin	CEESAT	

#### BookChaptersAuthored:2Nos

SI.No	Book Title	Paper Title	Authors	Book	Publishers	Month	and
			of the	Chapter		year	of
			Chapter	Authored		Publicat	ions

1	NANOBIO	Energy Conservation	Dr .N.	Dr.P.	ELSEVIER	July2014
	PHARMACEUTICA	Opportunities in Paper	Stalin	Selvamani		
	L TECHNOLOGY	Plant using Combined				
		Heat and Power for				
		Pharmaceutical				
		Application				
2	NANOBIO	Energy Management	Dr.N.	Dr.P.	ELSEVIER	July2014
	PHARMACEUTICA	and Integration of PEM	Stalin	Selvamani		
	L TECHNOLOGY	Fuel Cell with UAVPA				

## M.Tech PROJECTS GUIDED

S.NO	REGISTER	NAME		YEAR	
3.NU	NO.	NAME	NAMEOFPROJECTTITLE	ILAR	
01	01109548006		ENERGYMANAGEMENTANDINTEGRATION	Apr-11	
OF		GOVINDARAJB	OFPEMFUELCELLWITHUAV	Арі-тт	
02	01109548002	ANNRUFUS A	ENERGYAUDITOFELECTRICALUTILITIES	Apr-11	
02	01103040002		ININDIACEMENTSLTD		
03	01110548020	THANGAPANDIANM	STUDYANDPERFORMANCEANALYSISOF	Oct-11	
			FANSANDBLOWERS		
04	01110548011	RAJKUMAR G	ENERGY SUBSTITUTION USING	Oct-11	
0.			RENEWABLEENERGYSOURCES		
			STUDYANDPERFORMANCEANALYSISOF		
05	01110548012	RAMARAJIVR	WATERHEATRECOVERYSYSTEMUSING	Oct-11	
			RECUPERATOR AND REGENERATOR		
06	01110548010	RAJIVV	STUDY OF EMERGING ENERGY	Oct-11	
			TECHNOLOGY		
07	01110548010	RAJIVV	ENERGY AUDITING NATIONAL	Jul-12	
			COOPERATIVESUGARMILLSLIMITED		
08	01110548011	RAJKUMAR G	ENERGY AUDITIMG IN PERFORMANCE	Jul-12	
			CHEMICALSANDLUBRICANTPLANT		
09	01110548012	RAMARAJIVR	PERFORMANCEANALYSISOFTHERMAL	Jul-12	
			UTILITIESINNCTPS		
10	810011527002	ANANTHAKUMARS	EFFECTOFFEEDHEATINGSYSTEMON	Dec-12	
-			POWERPLANTEFFICIENCY		
11	810011527010	GOWTHAMD	STUDY AND DESIGN OF IKW SOLAR	Dec-12	
			POWER PLANT		
12	810011527017	VIJAYABHASKARJ	STUDYANDDESIGNOF2KWSOLARAND	Dec-12	
			WINDHYBRIDPOWERSYSTEM		

			STUDYONREDUCTIONINAUXILLARYPOWER	
13	810011527015	PAVENTHAN M	CONSUMPTION BY USING	Dec-12
			VARIABLEFREQUENCYDRIVES(VFD)	
14	810011527010	GOWTHAMD	ELECTRICAL ENERGY AUDIT IN	Jul-13
14	810011527010	GOWTHAMD	ADIPARASAKTHIALLOYSTEELS(P)LTD	Jui-13
			ELECTRICAL AND THERMAL AUDIT IN	
15	810011527017	VIJAYABHASKARJ	DOSHIBAJSWTURBINEANDGERATOR(P)	Jul-13
			LTD	
			UTILISATIONOFRENEWABLEENERGYBY	
16	810011527015	PAVENTHAN M	USINGSOLARPUMBINGSYSTEMINTPS-I	Jul-13
			EXPANSION	
17	810011527002		ENERGYEXERGYANALYSISOF210MW	Jul-13
17	810011527002	810011527002 ANANTHAKUMARS	BOILERINTHOODUKUDIPOWERSTATION	Jui-13

# CONFERENCES/WORKSHOPS/SEMINAR/SHORTTERMREFRESHERCOURSEATTENDED

S.NO	NAMEOFTHEPROGRAMME	TYPE OF	DATE	VENUE
	PROGRAMM			
1.	Two Weeks Professional Training On	Industrial Training,	03/07/2023 to	Institute Of
	Chemical Process Engineering-ASPEN	Coimbatore	17/07/2023	ChemE Design
	HYSYS at Institute Of ChemE Design And			And Development,
	Development, Coimbatore.			Coimbatore.
2.	4-Week Faculty Induction/Orientation	PMMMNMTT	23/04/2023 to	Online
	Programme For "Faculty In		22/05/2023	
	University/College/Institute Of Higher			
	Education" at Teaching Learning Centre,			
	Ramanujan College, University of Delhi.			
3.	1-Week Faculty Development Programme	PMMMNMTT	27/03/2023 to	Online
	on "ACADEMIC RESEARCH WRITING"		02/04/2023	
	At Teaching Learning Centre, Ramanujan			
	College, University of Delhi.			
4.	2-WeeksRefresherCourseOn"Managing	PMMMNMTT	11/03/2023 to	Online
	Online Classes And Cocreating MOOCS		25/03/2023	
	24.0"atTeachingLearningCentre,			
	Ramanujan College, University of Delhi.			
5.	Curriculum Development Processes	NITTTR,	25/04/2022 to	Online
	Conducted by Curriculum Development	Chandigarh	29/04/2022	

[]		[		
	CentreDepartmentfrom25/04/2022to			
	29/04/2022(One Week)at NITTTR,			
	Chandigarh			
6.	Participated in the Online Training	NITTR Chennai	21.03.2022 to	Online
	Programme on "Heating, Ventilation and		25.03.2022	
	Air Conditioning" Conducted by this			
	Institutefrom21.03.2022to25.03.2022			
	(One Week)			
7.	Five day online FDP AICTE FDP on"	AICTE sponsored	3/01/2022 to	AICTE online
	Inculcating Universal Human Values in		07/01/2022	
	Technical Education"			
8.	Two Weeks - Industrial Training	CIPET Madurai	10-22 June	CIPET Madurai
	Programme on plastics processing and	sponsored	2021	Online Mode
	Testing			
9.	AICTE Training And Learning(ATAL)	AICTE	15/03/2021 to	School of Energy
	Academy Online FDP on "Green		19/03/2021	& Environmental
	Technology & Sustainability Engineering			Management.
10	AICTE Training And Learning (ATAL)	AICTE	22/02/2021 to	Malaviya National
	Academy Online FDP on "Energy		26/02/2021	Institute of
	Storage"		20,02,2021	Technology
				Jaipur.
11	AICTE Training And Learning(ATAL)	AICTE	08/12/2020 to	University College
	Academy Online FDP on "Alternate Fuels	AIGTE	12/12/2020	of Engineering,
	Academy Online I DF ON Alternate I dels		12/12/2020	
10	Three Weeks Industrial Training on	BSNL Trichy	08/06/2020 to	Anna University.
12	Ŭ	,		BSNL, Trichy
	Mechanical Engineering Applications in	sponsored	26/06/2020	
10	Telecom Industry			
13	12 weeks equal to 2 weeks NPTEL online	IIT Madras	Jan-Apl2020	IIT Madras
	course on Non Conventional Energy			
	Resources			
14	14daysFacultyDevelopmentProgramon	EDII Ahmadabad,	25/11/2019 to	EGS Pillay Engg
	Innovations & Entrepreneurship	DST, NSTEDB, GOI	07/12/2019	College, Nagapatti
				nam
15	Industrial Visit The Travancore Cochin-	Industrial Visit	15/09/2019 to	The Travancore
	chemicals Ltd, Kerala		17/09/2019	Cochin-chemicals
				Ltd, Kerala
16	Waste to Energy Conversion	IIT Roorkee,	Feb-April2019	Nptel online
17	Two weeks faculty development	MHRD	26/11/2018 to	NIT, Trichy
	Programme on " Application of Nano		08/12/2018	
	Technology in Solar Systems"			
18	AICTE Sponsored FDP for students	AICTE	27/08/2018 to	PEC, Chennai
		l		y = =

	Induction Programme		29/08/2018	
19	ME-6502HeatandMassTransfer	CFR Chennai	18–24June	UCE Villupuram
		sponsored	2018	
20	IC-6501-ControlSystems	CFR Chennai	15–21May	UCE – BIT
		sponsored	2018	campus, Trichy
21	Potential and challenges for integrating	AICTE Sponsored	3-16Dec 2017	PSG College of
	renewable energy for smart city	FDP		Technology,
	implementation			Coimbatore
22	Implications of Chemical and Biological	TEQIPII Sponsored	22 <sup>nd</sup> Juneto5 <sup>th</sup>	BIT, Trichy
	Sciences in Biotechnology(ICBSB-16)	FDP	July2016	
23	Advanced technologies for societal	TEQIPII Sponsored	6 <sup>th</sup> to19 <sup>th</sup> June	BIT, Trichy
	applications(ATSA'16)	FDP	2016	
24	Process Instrumentation Dynamics and	FDP	14 <sup>th</sup> to20 <sup>th</sup> Dec	Anna University,
	Control		2015	Chennai
25	Thermal Engineering Applications for	FDP	15 <sup>th</sup> to 28 <sup>th</sup>	BIT, Trichy
	Sustainable Improvement		June 2015	
26	Nanotechnology Applications in	TEQIPII Sponsored	6 <sup>th</sup> to19 <sup>th</sup> May	BIT, Trichy
	Engineering and Technology	FDP	2015	
27	Comprehensive Approach of	TEQIPII Sponsored	16 <sup>th</sup> to2 <sup>9th</sup> April	BIT, Trichy
	Biotechnological Application	FDP	2015	
28	Quality Initiatives in Technical and Higher	National Workshop	22 <sup>nd</sup> to 24 <sup>th</sup> Oct	Engineering Staff
	Educational Institution		2013	College of India,
				Hydrabad
29	Numerical Method and Optimization	TEQIPII Sponsored	19 <sup>th</sup> to26 <sup>th</sup> Aug	BIT, Trichy
	Techniques in Mechanical Engineering	FDP	2013	
30	ME2251-HeatandMassTransfer	FDP	17 <sup>th</sup> to24 <sup>th</sup> Dec	BIT, Trichy
			2012	
31	Energy Conservation and Management	TEQIP Sponsored	4 <sup>th</sup> to	NIT, Trichy
		Orientation	17 <sup>th</sup> June	
		Programme	2012	
32	ISTE FDP on Heat Transfer	ISTE Sponsored	29 <sup>th</sup> Novto10 <sup>th</sup>	IIT, Mumbai
		FDP	Dec2011	
33	National Seminar on Swarm Intelligence	AICTE Sponsored	19 <sup>th</sup> to20 <sup>th</sup> Dec	Kongu
		National Seminar	2007	Engineering
				College,
34	Energy Conservation Measures for	Short Term Course	10 <sup>th</sup> to14 <sup>th</sup> Dec	NIT, Trichy
	Measuring and Processing Industries		2007	
35	Multiphase Flow and Process Industries	Workshop	24 <sup>th</sup> March2007	NIT, Trichy
36	Recent Advancement in Logistics and	Short Term Course	12 <sup>th</sup> to 16 <sup>th</sup>	NIT, Trichy
	Supply Chain Management		March2007	
37	Fuzzy Systems	Workshop	24 <sup>th</sup> to25 <sup>th</sup> Feb	NIT, Trichy

			2007	
38	Recent Advancements in Environmental Engineering	Short Term Course	19 <sup>th</sup> to23 <sup>rd</sup> Feb 2007	NIT, Trichy
39	Recent Advances in Environment Safety And Energy Management	Training Programme	5 <sup>th</sup> to9 <sup>th</sup> Feb 2007	NIT, Trichy
40	What Every Engineer should know about Telecommunication and Networking	Workshop	3 <sup>rd</sup> Feb2007	NIT, Trichy
41	Finite Element Method for Engineers	Workshop	1 <sup>st</sup> and2 <sup>nd</sup> Feb 2007	NIT, Trichy
42	Laser Materials Processing	Workshop	9 <sup>th</sup> and10 <sup>th</sup> Jan 2007	NIT, Trichy
43	94 <sup>th</sup> IndianScienceCongress	Training Programme	3 <sup>rd</sup> to7 <sup>th</sup> 2007	Indian Science Congress Kolkata
44	Recent Advances and Challenges of Biotechnology Processes	Workshop	15 <sup>th</sup> and 16 <sup>th</sup> Dec2006	NIT, Trichy
45	Instrumental Methods of Thermal Analysis And Data Interpretation	Training Programme	25 <sup>th</sup> Nov 2006	NIT Trichy
46	Global Business and Policy Modeling	International Conference	21 <sup>st</sup> and22 <sup>nd</sup> Sep2006	AMIM, Thanjore
47	Safety Hazard and Risk Assessment in Process Industries	Workshop	15 <sup>th</sup> July2006	NIT, Trichy
48	Molecules of Living Things	AICTE Sponsored Staff Development Programme	19 <sup>th</sup> June to 3 <sup>rd</sup> July 2006	PMCTW, Thanjavur
49	Hybrid Energy Systems	AICTE Sponsored Induction Training Programme	29 <sup>th</sup> Mayto11 <sup>th</sup> June 2006	PMCTW, Thanjavur
50	Renewable Energy-Energy of the Future	Workshop	20 <sup>th</sup> Aug2005	NIT, Trichy
51	Small Hydro Power Projects	Workshop	22 <sup>nd</sup> and23 <sup>rd</sup> April2005	NIT, Trichy
52	Environment Awareness and Pollution Impact	AICTE National Conference	27 <sup>th</sup> Nov 2004	NIT, Trichy
53	Emerging Energy Technologies	Training Programme	17 <sup>th</sup> to28 <sup>th</sup> May 2004	NIT, Trichy
54	National Seminar on Copy Rights	National Seminar	23 <sup>rd</sup> April 2004	Annamalai University.

### 15. CONFERENCES/WORKSHOPS/SEMINARORGANISED

- Conducted2weeksINDUCTIONPROGRAMME-SCHEDULEFORIYEARUG(FROM 08.11.2021TO20.11.2021),UCE-BIT Campus, Trichy.
- 2. Organized Two day National level webinar entitled on "Dynamic Simulation Applications in Chemical Processing Industries" on 14 & 15 th September 2021 at 11.00AM to 12.00 PM.
- 3. Conducted 2 weeks induction Training programme for first year from 11/11/2020 to 22/11/2020.UCE-BIT Campus, Trichy.
- 4. Organized one day National level webinar entitled on "Overview of Pressure Equipements in Oil and Gas Industries" on 10/07/2020 at 3.00PM to 4.00 PM.
- 5. organized a national level symposium titled "PECONOVA2018" on 15<sup>th</sup> October 2018 by the Association of Petrochemical Technologists and IIChE students" chapter.
- 6. Conducted 2 weeks induction Training programme for first year from 3/09/2018 to 09/09/20018.UCE-BIT Campus, Trichy.
- Organised TEQIP II Sponsored Equipment Design Software Training for Engineers (EDSTE 2017)at Department of Petrochemical Technology ,Anna University, Trichy from 25/07/2017 to 31/07/2017.
- Organised TEQIP II Sponsored International Conference on Trends and Innovations in Chemical & Pharmaceutical Technologies at Anna University-BIT Campus, Trichy from02-02-2017 to 04-02-2017.
- Organised TEQIP II Sponsored Equipment Design Software Training for Engineers (EDSTE 2016)at Department of Petrochemical Technology, Anna University, Trichy from 22/02/2016to 29/02/2016.
- 10. Organised TEQIP II Sponsored International Conference Energy and Environmental Engineering, Department of Petrochemical Technology, Anna University -BIT Campus, Trichy from 06/11/2014 to 07/11/2014.
- 11. Organized TEQIPIISponsoredworkshoponPECONOVA2014, Departmen of Petrochemical Technology, Anna University -BIT Campus, Trichy on 21/03/2014.
- Organized TEQIP II Sponsored Recent Trends in Renewable and Non Renewable Energy Sources (RANRES-2013), Department of Petrochemical Technology, Anna University -BIT Campus, Trichy from 26/08/2014 to 01/09/2013.
- Organised MNRE,CSIR SPONSORED National Conference on Recent Trends in Renewable Energy Sources for Sustainable Development, Department of Petrochemical Technology, Anna University -BIT Campus, Trichy from 22/02/2011 to 23/02/2011.
- Organised workshop on Role of Renewable Energy in Energy Conservation (REEC-2010), Development, Department of Petrochemical Technology, Anna University-BIT Campus, Trichy from 14/12/2010 to 15/12/2010.
- 15. Participated and organized one day National conference on "Environment Awareness and Pollution Impacts" conducted by CEESAT, NIT, Trichy.
- 16. Participated one day workshop on "**Instrumentation for Thermal Analysis**" conducted at CEESAT, NIT, and Trichy.
- 17. Organized one day exhibition on "**Solar home appliances**" for the ladies Clubs of Trichy conducted at CEESAT, NIT, and Trichy.

18. Organized one day Workshop on "Renewable Energy Gadgets "in the Rajiv Gandhi Renewable Energy Day on 20-08-2006 Conducted at Periyar Maniammai College of Technology for Women, Vallam, Thanjavur.OrganizedthetwoweeksAICTE-ISTEsponsoredshorttermtrainingProgrammeon "Emerging Energy Technologies" conducted by CEESAT, NIT, Trichy.

### PROJECTASSOCIATED TO M.Tech Students

- Developmentof200kwWoodenlogThermalmodeGasifier
- Developmentof500kwRicehuskFluidizedbedGasifier.
- Developmentof300kwCharcoalGasifierandtheirperformanceevaluation.
- Studies and performance evaluation of Thermal equipments.
- Steam injection in all combustion reaction.
- Development of Solar Water Heater.
- DevelopmentofSolarairDryerandSolarChimney,Solarstill,theirperformance
- Performance evaluation of PV panels and solar concentrating collectors
- Design and construction of solar passive architecture.
- Solar Electric power generation, Solar Cooker, Solar Funnel,
- Smokeless Rocket Stove.

#### EXPERIENCEINPRODUCTDEVELOPMENT:

#### **Developed products**

- 1. GroundnutRoaster-50% offuels aving was achieved
- 2. BoilerInsulation-10%ofefficiencywasimproved.
- 3. Steaminjection-10% of efficiency was improved.
- 4. Gasifier
  - a. WoodenLog-200kWthermalwasdeveloped.
  - b. Ricehusk-150kWthermal
  - c. CharCoal, Poultry, -200kwthermal
- SolarandWindrelatedprojects-solardryer,SolarCookers,Solarcollectors,solarovens, solar chimneys.
- 6. Extraction of energy from pongam oil.
- 7. Bio energy projects-Design and development of self circulating bio gas plant.

### **EXPERIENCEDINMAINTENANCEACTIVITIES**

### Maintenance Work for all the Gadgets are given below is taken responsibility for PRETI

1.	Wind energy actuated pumps(300W)	-	4 Nos.
2.	Solar water heating system(500LPD)	-	2 Nos.
3.	Solar water heating system(1000 LPD)	-	2 Nos.
4.	Solar water pumping system(900W)	-	3 Nos.
5.	Solar Streetlights	-	4Nos.
6.	Solar lanterns(12W)	-	50Nos.
7.	Solar-still	-	1 No.
8.	Improved Chullahs	-	2 Nos.
9.	A20kWThermalGasifier(cooking)	-	1 No.

10. 11.	A100kWElectric Gasifier Briquetting Machine	-	1 No. 350-550 kg/hour
12.	Solar Air-Heating	-	50M <sup>2</sup>
13.	Solar Power Plant	-	4.05kV
14.	Solar Powered TV with VCR	-	1 No.
15.	Solar Powered Refrigerator(Under installation)		
16.	Wood Sizing Equipment for Gasifier	-	1 No.
17.	BiomassGasifier100kW	-	1 No
18.	BiomassGasifier200kW	-	1 No
19.	Biogas Plant25m <sup>3</sup> CowDungbased	-	1 No
20.	BiogasPlant25m <sup>3</sup> NightSoilbased	-	1 No
21.	Biogas Plant15m <sup>3</sup> CowDungbased	-	1 No
22.	BiogasPlant2m <sup>3</sup> CanteenWaste	-	1 No

#### INTERACTIONWITHOUTSIDEWORLD/ChiefGuestAddressed&GuestLectureGiven:

- Chief guest addressed in AICTE Sponsored Two Days National Conference on "ELECTRIC VEHICLES CHARGING INFRASTRUCTURE". Chaitanya Bharathi Institute of Technology (CBIT), Proddatur. Andrapredesh, 09 & 10 May 2022.
- Presented a topic "Energy Efficient Biomass Conversion Technology for Power Generation" in the AICTE FDP on 20/12/2021 Monday 9.30am to 11.00 am at Department of Electrical and Electronics Engineering, Anna University, UCE-BIT Trichy.
- Presented a topic on Effective solid waste conversion and disposal method using energy efficient Reactors on 20/12/2021 from 2.00 pm to 4.00 pm conducted by Kongunadu College of Engineering, Thottiam, Namakkal.
- Presented a topic on"7 points of successive People" in the Induction Programme conducted by Mahindra Engineering College Namakkal on 15/12/2021 10 am to 11.am through online.
- Presented a topic on "Energy Conservation: Opportunities & Challenges in Oil and Gas Industries", 11.3.2021, IEI Technical Webinar by Tiruchirappalli Local Centre, under CHDB.
- 6. Presented a topic on "Research Methodology" in the AICTE ATAL FDP through online Saithanya Bharathi Institute of Technology Andhra Pradesh on 30/12/2020 10 am to 12 noon.
- Presented a topic on "Energy Conservation Opportunities in Industries and Home Appliances", 27/12/2020, IEI Technical Webinar by Thanjavur Local Centre, on celebration of Energy Conservation day.
- Presented a topic on "Research Methodology" in the AICTE ATAL FDP through online Saithanya Bharathi Institute of Technology Andhra Pradesh on 16/12/2020 10 am to 12 noon.
- 9. Presented a topic on "Research Methodology" in the AICTE ATAL FDP through online Saithanya Bharathi Institute of Technology Andhra Pradesh on 02/12/2020 10 am to 12 noon.
- Presented a paper in the AICTE FDP "Efficient Conversion Of Organic Waste System Approach To Bio Gas Generation From Waste Resources" 14/10/2020 Wednesday 9.30am to 11.00 am at Department of Petrochemical Technology, UCE-BIT Trichy.
- 11. Chief guest Addressed and Presented a lecturer on "Energy Conservation and their Importance in life "Rararajan CBSE school, Karaikudi on 10/10/2020.

- presented an invite lecturer on "Energy Efficient Biomass Energy Conversion Technology in AICTE Sponsored Short Term training Program on Prospectus and Challenges in Bio fuels and Bio Energy (STTP-PCBB 2019) presented on 15.11.2019.
- 13. Presented a lecturer on "Energy Conservation Opportunities in Industries and House Hold Application" The Institution of Engineers (India), thanjavur on 25/06/2019.
- Cheif guest Addressed and Acted as Panel Expert in the national Conference on Emerging Trends in Engineering and Technology on 30/08/2018 conducted by Parisutham Institute of Technology and Science, Thanjavur.
- 15. Chief Guest Addressed and presented a topic on Energy Conservation Opportunities in Industriesand Household in The Institution of Engineers (India), BHEL, Trichy on Tuesday 23<sup>rd</sup> May 2017.
- 16. Guest Speaker and presented a talk on Renewable Energy Resources for sustainable Environment in the TEQIP II sponsored Workshop on Future Perspectives on Clean Energy and Clean Water conducted by Department of Chemical Engineering, NIT, Trichy, 2017.
- 17. Guest Lecturer in Chemical Engineering, Energy Conservation and Energy Optimization, AAMEC Koyilvenni, Thanjavur 2017.
- 18. Presented a lecturer on "Energy Conservation Oppertunities in Industries and House Hold Application" The Institution of Engineers (India), Tiruchirappalli on 25/06/2019.
- Guest Speaker and presented a talk on Solar Panel efficiency improvement and evaluations 21/04/2017atEGSPillayEnggCollegelElsponsored Workshop on Challenges and opportunities in Power Electronics Research.
- 20. Guest Speaker and presented a talk on Energy Conservation using CHP TEQIP II Sponsored FDP COMSES 2016 in Anna University-BIT, EEE, Trichy in 2016.
- 21. Chaired the Technical Session, TEQIP II National Conference NCGET 2016, Department of Petrochemical Technology, Anna University-BIT, Trichy.
- Guest Speaker and presented a talk on Energy Conservation Using Renewable Energy Sources, FDP on RENEWABLE ENERGY for SUSTAINABLE FUTURE, AVC College of Engineering, Mayiladudurai in 2015.
- 23. Guest Speaker and presented a talk Energy Optimization in Materials Manufacturing TEQIP II Sponsored Two Weeks FDP on ARMETA2015, Department of Physics, BIT, Trichy.
- 24. Guest Speaker and presented a talk on Importance of RES in MNRE Sponsored One Day Seminaron Renewable Energy Sources, OEC, Trichy 2011.
- 25. Resource Person for Ministry of Environment and Forest Sponsored Two Day Workshop on Climate change, Disaster Management and Awareness on Water Pollution, OEC, Trichy.
- 26. Presented a paper on "**Combined light and Heat**" in AICTE-ISTE sponsored short- term training programme on "Emerging Energy Technologies" conducted by CEESAT, NIT, and Trichy.
- 27. Presented a paper on "**Combined Heat and Power in NITT hostel**" in AICTE- ISTE sponsored short term training programme on "Emerging trends in Energy Management and Non Conventional Energy" conducted by CEESAT, NIT, and Trichy.
- 28. Presented a paper on "Biogas **generation from waste resources**" in Rajiv Gandhi Renewable energy day celebration conducted by DRDA, Thanjavur.

29. Presented a paper on "**Co- Generation & Energy management in industry**" in AICTE-ISTE sponsored Induction training Programme on "**Hybrid Energy Systems**" conducted at PMCTW, Vallam, Thanjavur.

# B.Tech Project under the guidance of Dr.N.Stalin, Assistant Professor, Department of PetrochemicalTechnology,AnnaUniversity-BITCampus,Tiruchirappalli–620024. <u>Academic</u> <u>Year : 2016-2017</u>

S. NO.	Register No.	Name of the Student	Title of the Project	Company Name
1	810013239016	JEEVITHA MEEGA SELVI M	Manufacture of caustic soda by membrane Cell process	DCW limited, Chennai
2	810013239018	KAMATCHIRAJAK	Coprocessing of Non-edible oil(Jatropha oil)with high speed diesel to increase Cetane number	Chennai Petroleum corporation limited
3	810013239038	SANGEETHKUMARR	Manufacture of ethyl acetate by Esterification process	In-House Project
4	810013239043	SYED SHAHID THILAVARA	Production of cumene	Hindustan Organic Chemicals Limited, Kerala
5	810013239304	KIRUBAKARANS	Recovery of propylene from propylene mixture	Hindustan Organic Chemical Limited, Kerala
6	6 810013239306 PRAKASH V		Production of Acetone from cumene	Hindustan Organic Chemicals Limited, Kerala

### AcademicYear:2015-2016

S. NO.	Register No.	Name of the Student	Title of the Project	Company Name
1	810012239007	ELAMURUGAND	Recovery of valuable products from Reduced crude oil	Chennai Petroleum Corporation limited
2	810012239016	MAHESWARIK	A study on manufacture of hydrocinnamaldehyde	In-House Project
3	810012239025	MURALIDHARANA	A study of Terephthalic acid	In-House Project
4	810012239034	SABESANS	Production of Acetone from Cumene	Hindustan Organic Chemicals Limited ,Kerala
5	810012239043	SRIDHAR G	Manufactue of Hydrochloric Acid by Membrane cell Process	The Traven core Cochin Chemicals Ltd., Kerala

6	810012239052	VINOTHKUMARS	Manufacture of Teritiary amyl methyl ether	In-House Project
7	810012239308	TAMILMOZHYU	A study of Manufacure of ethyl acetate by Eserification and design of distillation column and condenser	In-House Project

### AcademicYear:2014-2015

S.No	Register No.	Name of the Student	Title of the Project	Company Name
1	810011239007	Deenadayalan.S	Desulphurization of Naphtha	Mangalore Refinery and Petrochemicals Limited
2	810011239015	Gokul.S	A study on manufacture of Ethanolamines	In-House Project
3	810011239023	kishorekumarA	Manufacture of Liquid chlorine by Liquefaction process	The Travencore-Cochin Chemicals Ltd.,
4	810011239031	NithinrajaR	Manufacture of Crude terephthalic acid by Modified Amoco process	In-House Project
5	810011239039	Sakthi.C	Manufacture of ammonia synthesis gas from LNG	TheFertilizersandChemicalsTravancorelimited
6	810011239047	Subramani.R	A study on manufacture of hydrocinnamaldehyde	Cetex Petrochemicals Ltd.,
7	810011239055	Vilvijayan.A	A study on manufacture of ethyl ether From ethyl alcohol by dehydrogenation	In-House Project

### AcademicYear:2013-2014

S.No	Register No.	Name of the Student	Title of the Project	Company Name
1	01110153015	Jayaseeli S	A Study on Recovery of LPG from VDU	Chennai Petroleum
			Gas	Corporation Ltd

### AcademicYear:2012-2013

S.No	Register No.	Name of the Student	Title of the Project	Company Name
1	01109153006	Arun Kumar G	Manufacture of Ammonia from Steam Reforming of Naphtha	Madras Fertilizers Ltd
2	01109153021	Gugan P	Recovery of Ammonium Sulphate by Purge Incineration	The Fertilizer sand Chemicals Travancore Ltd

#### AcademicYear:2011-2012

S.No	Register No.	Name of the Student	Title of the Project	Company Name
1 0110815	01108153035	8153035 Sakthi Maneeshaa R	A Study on Petroleum Refinery Sour Water	Chennai Petroleum
	01100155055		Stripping	Corporation Ltd

#### AcademicYear:2010-2011

S.No	Register No.	Name of the Student	Title of the Project	Company Name
1	01107153003	Abdul Sathar M	Manufacture of Caustic Soda By Membrane Process	DCW Ltd.
2	01107153027	Karthikraja A	Study on Manufacture of Ethyl Benzene	In-House Project
3	01107153019	Hareesh N	Manufacture of Isopropyl Alcohol By Direct Hydration	In-House Project
4	01107153504	Kamalakannan P	StudyonManufactureofNylon6,6	In-House Project
5	01107153053	Suriyakala M	Manufacture of Acetone by Catalytic Dehydrogenation of Isopropanol	In-House Project
6	01107153011	Balaji R	A Study of Hydrogenation Section of Anone Plant in FACT-Petrochemical Division	The Fertilizers and Chemicals Travancore Ltd

### **Extracurricular Activities**

- Coordinator MSME, Coordinator Cooperative Society, Coordinator SPE, Association of Petrochemical Technology.
- ▶ Event Coordinator Silver Tongue and TamilSpeechFIESTA2009-2020.
- Exam cell Co-coordinator2013,TANCETExamcoordinator(2010–2014)
- > Worked as a Deputy Director Library Development–Anna University, Trichy.
- Coordinator M.Tech EnergyEngineering2010 to2013-AnnaUniversity Trichy.
- > TEQIP Department Coordinator, Cultural coordinator, Sports coordinator–AUT.
- ➢ Worked as Warden Men's hostel,
- Manam Club (service to the poor students) coordinator.
- > External Examiner for CECRI,NITT, IIT Hyderabad, NIT Calicut(Mechanical Engg).