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VISION AND MISSION OF THE INSTITUTE



Vision:

- To transform students into competent professional and responsible citizens by focusing on assimilation, analysis, synthesis and dissemination of knowledge to meet societal needs.



Mission:

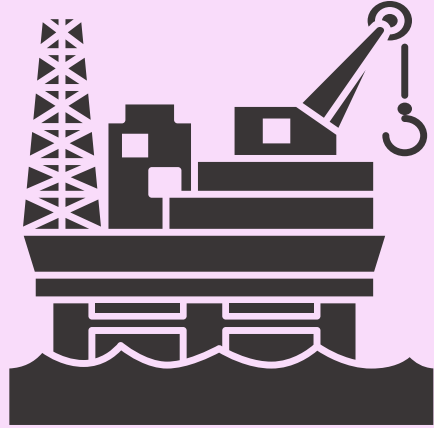
- Impart quality education to meet the needs of the profession and society.
- Attract and develop talented and committed human resources and provide an environment conducive to innovation and research.
- Facilitate effective interactions among faculty, students, premier educational institutions, R & D laboratories, industries, alumni, and other stakeholders.
- Practice and promote high standards of professional ethics, transparency, accountability and team spirit, and entrepreneurial skills.



DEPARTMENT OF PETROCHEMICAL TECHNOLOGY

Vision:

- To be a Department of Excellence in the field of Petrochemical Technology.



Mission:

- To craft the students as potential technologists endowed with pragmatic skills.
- To produce competent engineers to identify the emerging industrial, and societal needs and address the same through innovative and eco-friendly solutions.
- To fulfill the aspirations and expectations of the future generation by designing suitable academic, research, and extension programs.

Program Educational Objectives:



After 3 years of graduation, our graduates will be

- Successful in their careers in the diversified sectors of Petrochemical Technology.
- A successful entrepreneur, manager or occupies higher positions.
- Pursuing higher studies and research programs in India and abroad.



Program Outcomes:



- The graduates of petrochemical technology will be able to apply knowledge of science and engineering to analyze petrochemical technology problems.
- The graduates of petrochemical technology will be able to understand and interpret the problems in petrochemical processes.
- The graduates of petrochemical technology will be able to design and develop appropriate solutions for the petrochemical systems.
- The graduates of petrochemical technology will be able to identify, formulate and solve complex petrochemical technology problems.
- The graduates of the petrochemical technology will be able to Use the modern engineering skills and software tools to analyze petrochemical technology problems.
- The graduates of petrochemical technology will be able to understand the global and societal impact of Petrochemical engineering practice.
- The graduates of petrochemical technology will be able to understand the impact of petrochemical technology solutions in an environmental context and adopt suitable methods for sustainable development.
- The graduates of petrochemical technology will be able to meet their professional and ethical duties.
- The graduates of petrochemical technology will function effectively as an individual and in multidisciplinary teams.



- The graduates of petrochemical technology will be able to communicate effectively both in verbal and written forms.
- The graduates of petrochemical technology will be able to apply principles of management and economics for the effective functioning of Petrochemical and Allied Industries.
- The graduates of petrochemical technology will engage in lifelong learning.

Program Specific Outcomes:

Graduates of Petrochemical Technology will:

- PSO1: Strong foundation in chemical, petroleum & petrochemical processes and effectively describe various units of modern petroleum refining and petrochemical industries.
- PSO2: Effectively describe, analyze, and develop appropriate solutions for chemical, petroleum & petrochemical industrial problems using innovative research & development skills with continuous learning efforts.



Dr. S. Venkatesan

Professor & Head

Season's greetings!

I am happy to say that Department of Petrochemical Technology brings out newsletter periodically to the benefit of all stakeholders involved for the growth of Department. Department of Petrochemical Technology march towards getting Accreditation again from NBA for the benefit of the students. I thank the faculty coordinator, staffs and editorial members for their tireless efforts to bring out newsletter periodically. I would like to mention that, the students for their participation and congratulate the students who have won medals, prizes in cocurricular and extra-curricular activities.



I congratulate staffs for organizing online webinar for the benefit of the student community even during the pandemic situation. I congratulate staffs for their research as well funding received for the growth of the Department.

I congratulate our alumni, real backbone of our department in helping for placement for their juniors. Happy to note the efforts taken by seniors for arranging welcome function to juniors as well as juniors for arranging farewell to their seniors. I also congratulate students who have excelled in GATE as well as in placements.

I wish all success.

Dr. S. Venkatesan



RESEARCH PUBLICATIONS:

- **M. S. Manoj Kumar, S. Venkatesan, S. Pandiarajan, "Morphological, optical and structural properties of pure, zinc and magnesium doped TiO₂ nanoparticles for solar cell devices", Journal of Ovonic Research, Vol. 17, No. 6, November - December 2021 heading**

SPONSORED RESEARCH:

S.NO	Project Title	Funding Agency	Amount	Duration
01	DEEP DESULFURISATION OF LIQUID FUELS USING IONIC LIQUIDS	CTDT, Anna University	Rs.25,000/-	One year (2020)

ACADEMIC COUNCIL MEMBERSHIP:

- **Member of the board of studies, Technology, Anna University, Chennai**
- **Member of board of studies, Technology, Hindustan College of Engg and Tech, Coimbatore.**





Dr.M.Arulmozhi

Professor

PUBLICATION:

- **D.B.Sivakumar, M.Arulmozhi, S.Sathyanarayanan, M.Sridharan, 2021," Optimization of gasoline engine operating parameters fueled with DIPE-gasoline blend: Comparative evaluation between Response Surface Methodology and Fuzzy Logic Expert System", Process Safety and Environmental Protection, Elsevier Publications, <https://d.2021.12.015>, 10 Dec. 2021**
- **M. Jayapriya, M. Arulmozhi, 2021, "Beta vulgaris peel extract mediated synthesis of Ag/TiO₂ nanocomposite: Characterization, evaluation of antibacterial and catalytic degradation of textile dyes-an electron relay effect", Inorganic Chemistry Communications, Elsevier Publications, <https://doi.org/10.1016/j.inoche.2021.108529>, 8 March 2021**

BOOK CHAPTER:

- **Selvanathan Latha, Anandhan Hemamalini, Sundarraj Dinesh Kumar, Arulmozhi Muthukumarasamy and Dharmadurai Dhanasekaran" Ethnic probiotic foods of south India and their Health Benefits " CRC Press, Taylor, and Francis Group, 1st Edition, 2020 ebook ISBN:9780429274787 [2020]**



INTERNATIONAL CONFERENCES:

- **J.Sumathi, P.Aravind, M.Arulmozhi, T.Senthilkumar S.Sundaram," State Feedback Controller Design for Dissolved Oxygen Parameter using Paper Mill Effluent in a semi-batch fermenter", International Conference on Recent Technologies and Advanced Materials for Green Energy and Sustainable Environment", organized by Department of Chemical Engineering, National Institute of Technology Tiruchirappalli-15, March 12-13,2021.**

REVIEWER RECOGNITION:

- **Received Chartered Management Institute (CMI), the U.K Level 5 certificate on Management and Leadership, Training organized by All India Council for Technical Education (AICTE), GOI and Dudley College, United Kingdom organized during 2019-20.**

INVITED LECTURES:

- **Delivered a guest lecture on "Universal Human Values", on 17.5.2021 F.N in the one week Faculty Development Programme on " Innovation in Teaching, Research and Challenges in Accreditation Process for Higher Educational Institutions during 17-22 May 2021 in the Department of Civil Engineering, St. Peter's Engineering College, Hyderabad.**



Dr. K. Kumaraguru

Associate Professor



PUBLICATION:

- **K Kumaraguru, P Saravanan, V Saravanan A systematic analysis of hexavalent chromium adsorption and elimination from the aqueous environment using brown marine algae (Turbinaria Ornata) Biomass Conversion and Biorefinery, 1-16 2021**
- **S Rajeswari, P Saravanan, K Kumaraguru, N Jaya, R Rajeshkannan, M Rajasimman, The scientometric evaluation on the research of biodiesel based on HistCite and VOS viewer (1993-2019) Biomass Conversion and Biorefinery 1-11 2021**

BOOK CHAPTER:

- **K.Kumaraguru, Reclamation of used lube oils, Book Name: Emerging Trends in Petrochemical Technology, Publisher: ASSVET International Publishers Co., Chennai, India. Book Chapter No: 9.1-9.9, ISBN NO: 978-93-5254-503-2**
- **K.Kumaraguru, Sewage treatment Emerging Trends in Petrochemical Technology, Publisher: ASSVET International Publishers Co., Chennai, India. Book Chapter No: 13.1-13.11, ISBN NO: 978-93-5254-503-2**



JOURNAL REVIEWERS:

- **Member of Inspection Committee - Centre for affiliation of Institution, Anna University, Chennai.**
- **DC Member at VIT Deemed to be a University, Vellore**
- **Expert member - Question paper scrutiny board at Sethu Institute of Technology**
- **Adjudication Member - Ph.D. Viva Examiner, VIT Deemed to be a University, Vellore**
- **Member of Standing Committee - Malpractice inquiry, Anna University, Chennai.**
- **Member of Standing Committee - Alleged malpractice by students, Anna University, Chennai.**
- **Member of application opening Committee - EDII Trichy Hub, Govt of Tamil Nadu**
- **Member of application opening Committee - Anna Business Incubation Research Forum, EDII, Govt of Tamil Nadu**
- **Content Developer - NSEIT, Mumbai**
- **Jury for International conference - PAAVAI Engineering College, Namakkal**

FDP/STTP/TRAINING ATTENDED:

- **Attended Two weeks of Industrial Training programs on Plastic processing and testing organized at Central Institute of Petrochemical and Technology(CIPET: CSTS) Madurai from 10.06.2021 to 22.06.2021**
- **Attended Two weeks Faculty Development Programme on Entrepreneurship sponsored by the Ministry of Science and Technology, NSTEDB, Government of India, New Delhi in association with Entrepreneurship Development Institute of India (EDII), Ahmadabad from 15.03.2021 to 27.03.2021 at Anna University Regional campus Madurai.**



- **Attended One-week Faculty development program organized by AICTE Training and Learning (ATAL) Academy Online FDP on "Novel Materials" from 2021-2-8 to 2021-2-12 at the National Institute of Technology Patna.**
- **Attended One-week Faculty development program organized by AICTE Training And Learning (ATAL) Academy Online FDP on "Environmental Geotechnology" from 2021-1-4 to 2021-1-8 at the National Institute of Technology Karnataka Surathkal.**
- **Attended Three days of Faculty development programs on Perspective and challenges in outcome-based research organized by the department of chemical engineering, National Institute of Technology Tiruchirappalli from 13.07.2020 to 17.07.2020**
- **Attended Two weeks Ministry of Science and Technology, NSTEDB, Government of India, New Delhi in association with Entrepreneurship Development Institute of India (EDII), Ahmadabad Sponsored Faculty Development Programme on Entrepreneurship organized by Anna University Regional campus Madurai from 17.06.2019 to 29.06.2019.**





Dr. N. Jaya

Associate Professor

PUBLICATIONS:

- E Wereda, SA Jabasingh, HD Demasah, 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, 2021. <https://doi.org/10.1007/s13399-021-01550-6>
- Rajeswari, S., Saravanan, P., Kumaraguru, K. et al. The scientometric evaluation on the research of biodiesel based on HistCite and VOSviewer (1993–2019). *Biomass Conv. Bioref.* (2021). <https://doi.org/10.1007/s13399-021-01461-6>

MEMBERSHIP IN PROFESSIONAL SOCIETY:

- 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:

- NPTEL Discipline Star in Chemical Engineering, Jan-Apr 2021.
- NPTEL Domain Scholar in Energy and Environment (Chemical Engineering) in the period April 2021.



- **Topper in NPTEL one and half week Course on Chemical Reaction Engineering II, January-April 2019.**
- **Elite certification achieved in ten of the NPTEL courses (2018-2021).**

INTERNATIONAL CONFERENCES:

- **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.**
- **Kalasalingam conference**
- **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.**

WORKSHOP / SEMINAR ATTENDED:

- **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 30th & 31st October 2019 at Bharathiar University, Coimbatore.**
- **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.**



- **Two days Workshop on “Intellectual Property Rights & Entrepreneurship” organized by PMO-IEDP (Programme Monitoring Office - Innovation & Entrepreneurship Development Programme) from 22nd & 23rd November 2019, at BIT Campus, Anna University, Trichy. Webinar on Role of Chemical Engineering in Industrial Safety, organized by Department of Chemical Engineering, Saveetha Engineering College, Chennai.**
- **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.**

AICTE APPROVED ONLINE COURSES COMPLETED:

- **1. NPTEL-AICTE one-week FDP on Non-Conventional Energy Resources, January-April 2020.**
- **2. NPTEL-AICTE one-week FDP on Environmental Quality Monitoring and Analysis, January-April 2020.**
- **3. NPTEL-AICTE one-week course on Ecology and Environment, September-November, 2020.**
- **4. NPTEL-AICTE one and half week course on Biomass Conversion and Biorefinery, January-April 2021.**



Dr. M. Rengasamy

Assistant Professor



PUBLICATIONS :

- **V. Krishna Theja, S. Manojkumar, V. Vijayakumar, and M. Rengasamy, "Study and Selection of Adsorbent for the Removal of Petroleum product spills in Marine environment", South Asian Journal of Engineering and Technology, 2020, Vol. 1, PP. 1-4. DOI:10.26524/sajet10.1: E-ISSN : (2454-9624).**
- **S. Naveen Prasanth, G. Tamilselvan, R. Vishal and M. Rengasamy, "Green Synthesis and Properties of Bioplastic Produced from Gelatin and other Waste", Petrochemica, 2020, Vol. 1, Issue No.1, PP. 32-38.**
- **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) 2021.**

BOOK CHAPTERS:

- **M.Rengasamy and AD. Surendhar, "Low-temperature waste heat recovery", Emerging Trends in Petrochemical Technology, Chapter-10, Published by ASSVET International Publishers, Chennai, pp.10.01-10.10, ISBN 978-93-525450-3-2.**



- **Umamaheswari A., Lakshmana Prabu S., Rengasamy M, Venkatesan G. (Jan 2018), "A Safety Promotion Approach for Handling of Chemicals in the Working Environmental Management". In: Hussain C. (eds) Handbook of Environmental Materials Management. Springer, Cham. PP:1-24. Online ISBN: 978-3-319-58538-3.**

AWARDS, HONORS, AND RECOGNITIONS:

- **NPTEL Domain Scholar in "Energy and Environment (Chemical Engineering)" in the period April 2021**
- **Certificate of Appreciation, "NPTEL BELIEVERS" by NPTEL-SWAYAM, January - December 2020.**
- **International Conferences:**
- **M.Rengasamy, R.Jeevakumar, and S. Venketesen, "Simultaneous Electricity Production and Waste Water Treatment from Dairy Industries", 2nd International Conference on Innovations in Thermal, Manufacturing, Structural and Environmental Engineering, held on 23.05.2020, organized by Department of Mechanical and Civil Engineering, Kongunadu College of Engineering and Technology, Thottiam.**

INDUSTRIAL TRAINING PROGRAMME:

- **Attended Two weeks of Industrial Training programs on Plastic processing and testing organized at the Central Institute of Petrochemical and Technology(CIPET: CSTS) Madurai from 10.06.2021 to 22.06.2021.**



SEMINAR ORGANIZED / CO-ORGANIZED:

- **Coordinator for one day National Conference on “Emerging Trends in Chemical and Petrochemical Technology”, Organized by Department of Petrochemical Technology, UCE, BIT Campus, Anna University, Tiruchirappalli, 20th September 2019.**
- **Coordinator for one day live webinar on, “Overview of Pressure Equipment in Oil and Gas Industries” Organized by Department of Petrochemical Technology, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli on 10th July 2020.**

CERTIFICATE OF APPRECIATION:

- **Certificate for successful completion of E-Learning program on “Desulphurisation”, by TATA Steel on 13.05.2020.**
- **Certificate of Appreciation for successfully Completion the “Online Quiz on Awareness Of Covid-19” on 17-5-2020.Organized by Department of Pharmaceutics, Shivlingeshwar College Of Pharmacy, Almala**
- **Certificate of Appreciation for successfully Completion (Score of 100%) online “Faculty Program on NBA” on 17-05-2020, Organized by Bharati Vidyapeeth College Of Engineering, Navi Mumbai-400614.**
- **Certificate for successful completion of E-Learning program on “Desulphurization”, by TATA Steel on 13.05.2020.**
- **Certificate for successful completion of E-Learning program on “Industrial Water system”, by TATA Steel on 18.05.2020.**





Dr. E. Gomathi

Assistant Professor

PUBLICATIONS:

- **E. Gomathi *, M. Jayapriya, M. Arulmozhi." Environmental benign synthesis of tin oxide (SnO₂) nanoparticles using Actinidia deliciosa (Kiwi) peel extract with enhanced catalytic properties", Inorganic Chemistry Communications, 130 (2021) 108670. (Impact Factor 2.495).**

FDP/STTP/TRAINING ATTENDED:

- **one week STTP on Recent advances in soft computing techniques in optimizing Industrial process (MOSCHEM II) AICTE sponsored by Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalai Nagar - 608002, Tamil Nadu, India. 27 Sep - 02nd Oct 2021**
- **Two weeks Industrial Training Programme on Plastic processing and testing Central Institute of Petrochemical and Technology (CIPET: CSTS) Madurai 10 - 22 June 2021**
- **Faculty Development Programme on "Advanced Technologies in Chemical Industries Department of Chemical Engineering in association with IChE-SPCET Student Chapter 23rd - 26 June 2020.**



- **Online webinar on the topic " A Recent Insight on Intellectual Property Rights in India, USA and Europe" Department of Pharmaceutical Technology University College of Engineering, BIT Campus, Anna University, Tiruchirappalli, 06 July -2020**
- **NPTTEL - AICTE one-week Programme on "Ecology and Environment", Sep-Nov 2020.**
- **NPTTEL - AICTE one week Faculty Development Programme on "Renewable Energy Engineering: Solar, Wind and Biomass Energy Systems", Jan - Mar 2021.**
- **NPTTEL - AICTE one and half week Faculty Development Programme on "Biomass Conversion and Biorefinery" Jan - April 2021.**
- **NPTTEL - AICTE one and half week Faculty Development Programme on "Environmental Quality Monitoring & Analysis" Jan - April 2021**
- **Two Credit course NITTTR- SWAYAM Exclusive MOOC one week Faculty Development Programme on "Integrating Educational Technology into Teaching", Jan - Mar 2021.**
- **Two Credit course NITTTR- SWAYAM Exclusive MOOC one week Faculty Development Programme on " Managing Learning Resources", Jan - Mar 2021**
- **AICTE Training And Learning (ATAL) Academy Online FDP on "Waste Technology" from 12-10 -2020 to 16-10-2020 at University College of Engineering, Anna University, Tiruchirappalli.**
- **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.**
- **AICTE Training And Learning (ATAL) Academy Online FDP on "Environmental Geotechnology" from 04- 01 2021to 08-01-2021 at National Institute of Technology Karnataka Surathkal**
- **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.**



- 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.

PROGRAMS ORGANIZED:

- Spoken Tutorial Project, IIT Bombay, Organizer and successfully conducted IT Skills courses Training for the students of University College of Engineering, BIT Campus Tiruchirappalli for the academic year 2020-21
- TEQIP II Sponsored Seven days, "Student Technical Training Course" (STTC-17) 4th & 10th March 2017, Department of Petrochemical Technology, BIT Campus, Anna University, Tiruchirappalli - 24.
- TEQIP II Sponsored Two days, "Industrial Workshop" (PETRO FUSION-17) 9th & 10th January 2017, Department of Petrochemical Technology, BIT Campus, Anna University, Tiruchirappalli - 24.

AWARDS AND HONOURS:

- NPTEL Motivated Learner in Chemical Engineering, Jan-Apr 2021
- NPTEL Domain Scholar in Energy and Environment (Chemical Engineering) in the period April 2021.
- Elite + Silver certification achieved in two NPTEL courses (2019-2021).
- Elite certification achieved in six NPTEL courses (2019-2021).

PROFESSIONAL SOCIETY MEMBERSHIPS:

- The Indian Society for Technical Education Member No. LM 48369.
- The Institution of Engineers (India) Member No. M-1558344.
- Indian Institute of Chemical Engineers LM- 57666



Dr. N. Stalin

Assistant Professor



PUBLICATION:

- **Dr.N.Stalin, Shobana Devi. N "Studies on thermal, structural, and compositional properties of agro-waste jute fiber composite reinforced with cardanol resin, Biomass Conversion, and Biorefinery, (2021), 1-8. DOI 10.1007/s13399-021-01958-0.SCIE, IF = 4.987.**
- **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 = 1.333 (SCIE and Scopus Indexed) <https://doi.org/10.1142/S021812662050019X>.**
- **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, SCI, Scopus Indexed, IF = 1.187.**



INTERNATIONAL CONFERENCE:

- **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" on 28/12/2020 at the Bhubaneswar Regional Centre of IChE 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 O3 Filter in Engine Exhaust" XIII International Conference on Applied Research in Engineering and Management Sciences, 17th August 2019, Bencoolen, Singapore**

CONFERENCES/WORKSHOPS/SEMINARS ORGANISED:

- **Conducted 2 weeks INDUCTION PROGRAMME - SCHEDULE FOR 1 YEAR UG (FROM 08.11.2021 TO 20.11.2021), UCE-BIT Campus, Trichy.**
- **Organized a Two-day National level webinar entitled "Dynamic Simulation Applications in Chemical Processing Industries" on 14 & 15 September 2021 from 11.00 AM to 12.00 PM.**
- **Conducted 2 weeks induction training program for the first year from 11/11/2020 to 22/11/2020.UCE-BIT Campus, Trichy.**
- **Organized a one-day National level webinar entitled "Overview of Pressure Equipements in Oil and Gas Industries" on 10/07/2020 from 3.00 PM to 4.00 PM.**



PATENT DETAILS:**1. AUSTRALIAN PATENT - GRANTED**

SL.NO	PATENT TYPE & Patent number	Title of Invention	Name of patentees	Year of published
01	Australian Patent & 2021104665	A Bat source string succored Serrated H - Bridge Symmetrical MLI for solar PV Grid Integration	1.Chitrakala.G 2.Mohan.V 3.Stalin.N 4.Jeevanantham.S	28/07/ 2021

CONFERENCES/WORKSHOPS/SEMINAR/ SHORT TERM**REFRESHER COURSE ATTENDED:**

SL.NO	NAME OF THE PROGRAMME	TYPE OF PROGRAMME	DATE	VENUE
01	Two Weeks - Industrial Training Programme on plastics processing and Testing	CIPET Madurai sponsored	10-22 June 2021	CIPET Madurai Online Mode
02	AICTE Training And Learning (ATAL) Academy Online FDP on "Green Technology & Sustainability Engineering	AICTE	15/03/2021 to 19/03/2021	School of Energy & Environmental Management.
03	Three Weeks Industrial Training on Mechanical Engineering Applications in Telecom Industry	BSNL Trichy sponsored	08/06/2020 to 26/06/2020	BSNL, Trichy
04	14 days Faculty Development Program on Innovations & Entrepreneurship	EDII Ahmadabad, DST, NSTEDB, GOI	25/11/2019 to 07/12/2019	EGS Pillay Engg College,Nagapattinam



Dr. K. Anbarasi
Assistant Professor



PUBLICATIONS:

- Anbarasi Karunanithi, Sivakumar Venkatachalam and Jeeva Senrayan, 2021, "Influence of ultrasonic waves and conventional extraction methods on phenolic compound yield and phytochemical composition from Punica granatum L. peel", International Journal of Food Engineering, <https://doi.org/10.1515/ijfe-2020-0176>.
- Anbarasi K*, Babukrishna G, and Chellamai K, 2020, "Study on Synthesis of Bio-Surfactant from Cotton Silk Oil" PETROCHEMICAL, Volume: 01, Issue: 01, Pages from 019 to 021, No. of pages: 003.
- Anbarasi K*, Kamarasu A, Gohulraj M, Mukeshkumar G, and Prakash T 2020, "Study on biofertilizers from organic (Fruit) wastes" PETROCHEMICAL, Volume: 01, Issue: 01, Pages from 011 to 013, No. of pages: 003.
- Anbarasi Karunanithi and Sivakumar Venkatachalam, 2019, "Ultrasonic-assisted solvent extraction of phenolic compounds from Opuntia ficus-indica peel: Phytochemical identification and comparison with soxhlet extraction", Journal of Food Process Engineering, vol. 42, no. 5, pp. e13126. ISSN : 0145-8876, DOI:10.1111/jfpe.13126



- **Anbarasi Karunanithi and Sivakumar Venkatachalam, 2019, "Optimization of Ultrasound-assisted extraction of phenolic compounds from wood apple pulp: Identification of phytochemicals using GC – MS". Chemical Industry & Chemical Engineering Quarterly, vol.25, no.4, pp 361 – 368. DOI:10.2298/CICEQ180828014K**
- **Anbarasi K, 2019 "Studies on Physio – Chemical Extraction Techniques In Sustainable Biofuel Production" International Conference on Biomass, Fuels & Chemicals**
- **R. Srimathy and K. Anbarasi * 2019, "Devulcanisation of Tyre: Separation of Butadiene by Thermal Depolymerisation", American International Journal of Research in Science, Technology, Engineering & Mathematics., CONCEPT 19-PRP0101., ISSN (Print): 2328-3491.**

FDP/STTP/TRAINING ATTENDED:

- **Participated in one-week AICTE sponsored STTP on "Recent Advances in Soft Computing Techniques for Optimizing Industrial Process" (MOSCHEMA II - 2021)**
- **Participated in two weeks Industrial Training Programme on Plastic Processing and Testing at the Central Institute of Petrochemicals Engineering and Technology (CIPET)**
- **Participated in one-week AICTE Training and Learning (ATAL) sponsored in Waste Management Technologies organized by the Department of Petrochemical Technology, UCE, BIT Campus, Anna University Tiruchirappalli**

PROFESSIONAL SOCIETY MEMBERSHIPS:

- **Life Member - IIChe (LM -57665)**
- **Life Member - ISTE (LM - 90519)**
- **Member - CBEES (M - 202574)**
- **Life Member - AFSTI (LM - 72051)**



BOOKS/BOOK CHAPTER:

- Anbarasi Karunanithi, Vinothini Venkatachalam, Mohankumar Govindasamy, Selvabharathi Gopal, Dhanaraja Dhanapaland Jeeva Senrayan, 2021, "Emerging treatment techniques for removal of pollutants from pharmaceutical industry wastewater" in Bioremediation of Industrial Effluents
- Anbarasi Karunanithi, Dhanaraja Dhanapal, 2021, "Composting of fruit wastes - an efficient and alternative option for solid waste management" in Dr. G. Venkatesan, Dr.M.Rengasamy, Dr. S. Lakshmanaprabu "Sustainability Studies: Environmental and Energy Management", published by the Bentham Science, USA.
- Anbarasi. K, Dhanaraja. D, Selvabharathi. G 2016, "Bioactive Compounds Extraction from Food waste - using Conventional and Advanced Techniques" In M. Arulmozhi & K. Kumaraguru. Emerging Trends in Petrochemical Technology. Chennai: ASSVET International Publishers Co., pp. 2.1-2.8.
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SPONSORED RESEARCH:

S.NO	Project Title	Funding Agency	Amount	Duration
01	FOR RESEARCH PROJECT	TEQUIP - II	Rs.50,000/-	-

DEVELOPMENTAL ACTIVITIES:

- **Instructional Material:** Lab instructional manual for the mechanical operations lab, chemical analysis lab, and petrochemical analysis lab has been developed and issued to the students.
- **Working Model/ Charts/Monograms.**





Dr. P. Saravanan

Assistant Professor

PUBLICATIONS:

- **S. Rajeswari, P. Saravanan, K. Kumaraguru, N. Jaya, R. Rajeshkannan, M. Rajasimman, (2021), "The scientometric evaluation on the research of biodiesel based on HistCite and VOSviewer (1993-2019)", Biomass Conversion and Biorefinery, <https://doi.org/10.1007/s13399-021-01461-6>**
- **K. Kumaraguru, P. Saravanan, R. Rajesh Kannan, V. Saravanan, (2021), "A systematic analysis of hexavalent chromium adsorption and elimination from the aqueous environment using brown marine algae (*Turbinaria ornate*)" Biomass Conversion and Biorefinery <https://doi.org/10.1007/s13399-021-01795-1>**
- **Jagadeesan Aravind Kumar a, Pandurangan Prakash, Thangavelu Krithiga, Duvuru Joshua Amarnath, Jayapal Premkumar, Natarajan Rajamohan, Yasser Vasseghian, Panchamoorthy Saravanan, Manivasagan Rajasimman, (2022), "Methods of synthesis, characteristics, and environmental applications of MXene: A comprehensive review" Chemosphere, 286,131607.**
- **Panchamoorthy Saravanan, Shanmugam Rajeswari, Jagadeesan Aravind Kumar, Manivasagan Rajasimman, Natarajan Rajamohan, (2022), "Bibliometric analysis and recent trends on MXene research - A comprehensive review", Chemosphere, 286, 131873**



- **B. Karpanai Selvan, K. Thiyagarajan, Soni Das, N. Jaya, S. Anuradha Jabasingh, P. Saravanan, M. Rajasimman, Yasser Vasseghian,(2022), "Synthesis and characterization of nano zerovalent iron-kaolin clay (nZVI-Kaol) composite polyethersulfone (PES) membrane for the efficacious As₂O₃ removal from potable water samples", Chemosphere, 288, 132405**
- **B. Karpanai Selvan, Soni Das, M. Chandrasekar, R. Girija, S. John Vennison, N.Jaya, P. Saravanan, M. Rajasimman, Yasser Vasseghian, N. Rajamohan, (2021), "Utilization of biodiesel blended fuel in a diesel engine - Combustion engine performance and emission characteristics study", Fuel,122621, <https://doi.org/10.1016/j.fuel.2021.122621>**

SUMMER / WINTER SCHOOLS ATTENDED:

- **Faculty Development Program 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 10th August - 14th August 2020.**
- **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.**
- **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.**
- **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.**
- **Attended Two weeks of Industrial Training programs on Plastic processing and testing organized at the Central Institute of Petrochemical and Technology(CIPET: CSTS) Madurai from 10.06.2021 to 22.06.2021.**



- 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.
- AICTE sponsored a one-week STTP on modeling and simulation of industrial processes(MOSCHEM I - 2021) from 20/09/2021 to 25/09/2021 organized by the Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalai Nagar - 608002, Tamil Nadu, India.
- AICTE sponsored a one-week STTP on Recent advances in soft computing techniques in optimizing Industrial processes (MOSCHEM II - 2021) from 27/09/2021 to 02/10/2021 organized by the Department of Chemical Engineering, Faculty of Engineering and Technology, Annamalai University, Annamalai Nagar - 608002, Tamil Nadu, India.
- AICTE sponsored a one-week STTP on optimization, modeling, and simulation of industrial process publications:

ONLINE COURSES COMPLETED:

- NPTEL-AICTE one-week FDP on Waste to Energy Conversion, January-April 2019.
- NPTEL-AICTE one week FDP on Technologies for clean and renewable energy production, July-September 2019.
- NPTEL-AICTE one week FDP on Non-Conventional Energy Resources, January-April 2020.
- NPTEL-AICTE one-week course on Ecology and Environment, September-November, 2020.
- NPTEL-AICTE one and half week course on Biomass Conversion and Biorefinery, January-April 2021.
- Two Credit course NITTTR Exclusive MOOC "Fundamentals of Outcome-Based Curriculum in Engineering Education", September - November 2020.
- Two Credit course NITTTR Exclusive MOOC "Managing Learning Resources", July - November 2020.



HOD Inauguration:

Our Professor Dr.S.Venkateshan promoted as Head of the Department. Dean of the Institution and all the Department staffs were present during the honoring.



Staff Promotion:

Name	From	To
Dr.S.Venkateshan	Associate professor	Professor
Dr.M.Arulmozhi	Associate professor	Professor
Dr.K.Kumaraguru	Assistant professor	Associate professor
Dr.N.Jaya	Assistant professor	Associate professor



NPTEL stars:



Our Faculties Dr.N.Jaya, Dr.E.Gomathi, and Dr.M.Rengasamy received **"Discipline Star"** **"Domain star"** in their respective Fields and became Stars of NPTEL.

HOD Interview:



Scan QR to visit the website:



Our HOD gave a clear interview on the course of Petrochemical technology and its scope in the **"KARKA KASADARA"** program of Puthiya Thalaimurai TV streamed on July 28, 2021.



Workshops attended / organized:

Two Days Training Program on "Simulation of Process Equipment Using Aspen Hysys" on 06 & 07 March 2021 in Venue: B 029



1730 hrs - 1930 hrs Training Program on "Energy Conservation: Opportunities & Challenges in Oil and Gas Industries" on 18 March 2021 in Webinar

IEI Technical Webinar



The Institution of Engineers (India)
8 Gokhale Road, Kolkata - 700020, West Bengal, India
(Established in 1920, Incorporated by Royal Charter 1935)
[A Scientific and Industrial Research Organisation]
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Organised by
Tiruchirappalli Local Centre, The Institution of Engineers (India)
Under the aegis of
Chemical Engineering Division

Date & Time
18 March 2021
1730 hrs - 1930 hrs

Webinar ID : 706-983-659

Energy Conservation: Opportunities & Challenges in Oil and Gas Industries

Welcome Address by



Prof N Kumaresan
Chairman
Tiruchirappalli Local Centre

Address by



Mr S Rajagopal
Chairman
Chemical Engineering Division Board, IEI

Presidential Address by



Er Narendra Singh
President, IEI

Concluding Remarks by



Prof Swapan Bhaumik
Chairman
Committee for Advancement of
Technology and Engineering, IEI

Vote of Thanks by



Mr A Anand
Honorary Secretary
Tiruchirappalli Local
Centre

Panelists



Mr P N Maran
Chief General Manager
Oil and Natural Gas Corporation (ONGC)
Karaikal



Mr Purushothkumar Santhana Mahalingam
Field Engineer
CUDD Energy Services in Odessa
Texas, USA



Dr N Stalin
Department of Petrochemical Technology,
Anna University, Tiruchirappalli

Moderator
Prof N Kumaresan
Chairman
IEI - Tiruchirappalli Local Centre

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For any assistance, please email to: tiruchirappallilc@ieindia.org

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The participants who opt for 'e-Certificate of Participation', need to register themselves first using the above mentioned registration link and thereafter make a nominal payment of INR 200/- (US\$ 5 for overseas participants) [+ GST @ 18% as applicable] using the payment gateway available against the link:
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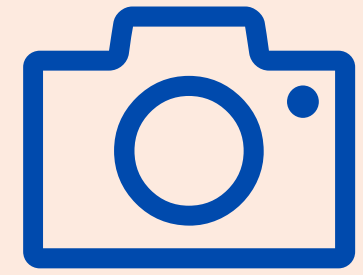
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<https://www.youtube.com/channel/UcKTVQJERdy0AxNiE8wL0PcA>

Scan QR to visit the website:



MOMENTS CAPTURED



Enjoy every moment.





NEWS LETTER TEAM



PROFESSOR IN CHARGE:

Dr. M. Rengasamy

STUDENTS:

- **G. Arnica**
- **Enayah Dastagir**
- **M. Pratheep**
- **G. R. Vigneshwaran**
- **N. Karthick**
- **R. Ukesh**

