**Department of Chemical Engineering**

**Research Activity Report (Jul 2019- Jun 2020)**

**1. Research activities of the faculty members:**

Number of faculty in the Department : 20

Number of faculty with Ph D qualification : 07

Number of faculty pursuing Ph D : 06

A). Papers published by the faculty members in National and International Journals:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No. | Name of Faculty | Title of the paper | Title of Journal/ Publisher | Date |
| 1 | G.Sudha | Synthesis and characterization of hybrid graphene nanocoolant for heat transfer dissipation in microchannel heat sinks | Chinese journal of chemical Engineering | JUL 2019 |
| 2 | Kavitha N P | Development of Integrated membrane bioreactor and numerical modeling to mitigate fouling and reduced energy consumption in pharmaceutical wastewater treatment | Journal of Industrial and Engineering Chemistry, Vol.76, pp 159-159 | AUG 2019 |
| 3 | N. Arun Prem Anand | Modeling and optimization of Industrial Scale Membrane Steam reformer for production of Hydrogen | Global Challenges in Energy and Environment Edited by V Subramanian and S Subramanian, Springer, Singapore | 2019 |
| 4 | Sivakumar D | Synthesis and characterization of ultrasonic-assisted Delonix regia seeds: modelling and application in dry seeds | Desalination and water Treatment, 173 (2020) pp 427-441 |  |
| 5 | Palani R | Experimental and kinetic study on the treatment of synthetic and real pharmaceutical wastewater by electrocoagulation | Journal of Indian Chemical Society, Vol 97, March 2020 pp 1-6 |  |
| 6 | R Govindarasu | Studies on Influence of Cell Temperature in Direct Methanol Fuel Cell Operation | MDPI Processes 2020,8, 353  DOI:10.3390/pr8030353 | March 2020 |
| 7 | Dr.N.Deepa Priya | Mass Transfer Studies in Three-Phase Stirred Fluidized Bed using Nanofluids | Chemistry Research Journal,  Vol.5, No. 2, pp.75-81 | March 2020 |
| 8 | Dr.N.Deepa Priya | Hydrodynamic Studies on Split Cylinder Reactor: Experimental and CFD Technique | International Journal of Engineering Research & Technology,  Vol. 9 Issue 05,  pp.200 - 203 | May 2020 |

B). Papers presented by the faculty members in National and International conferences/ symposiums/ workshops:

1. K.S. Sakthisri, R. Raageswari, **M. Yogesh Kumar**, Demonstration of Life Cycle Analysis as Sustainability Assessment Tool for Process and Energy Industries and Solid Waste Management, Technological Innovations in Clean Energy Generation and Environmental Remedies, 4 October 2019, Sri Venkateswara College of Engineering, Pennalur.
2. Karthick S, **R.Palani , Sivakumar D  Meyyappan N**, Parthiban R, Senthilkumar P, “Biosorption of Cr (VI) ions from wastewater by Ficus religiosa barks”First International Conference on Recent Trends in “Clean Technologies for Sustainable Environment (CTSE-2019)” at September 26 – 27, 2019 : SSN College of Engineering, Kalavakkam
3. Dr. R. Govindarasu, ASP,CHE, presented a paper on “Electrochemical reforming of ethanol - water solutions for pure H2 production in a PEM electrolysis cell” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
4. Dr. R. Govindarasu, ASP,CHE, presented a paper on “A review on waste water to methanol production through microbial electrolysis cell” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
5. Dr N Meyyappan Prof & Head, CHE presented a paper on “Review on Fermentative Production And Optimization of Tofu Whey From Soy Processing Industries” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
6. Dr. C. Anand Babu, Prof, CHE presented a paper on “A Review Experimental Studies on Effluent Treatment of Pickling Waste Generated During the Production of Stainless steel” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
7. Harish Kumar N N, Praveen Kumar R, Govindarasu R,“A review on application of Moringa oleifera as a bio-coagulant for surface and groundwater treatment and purification”, National conference on Technological Innovations in Clean Energy Generation and Environmental Remedies, 4 October 2019, Sri Venkateswara College of Engineering, Pennalur.
8. Dr N Meyyappan Prof & Head, CHE presented a paper on “Studies on the effluent treatment of wastewater from Fertilizer industry” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
9. Mr. N. Arun Prem Anand, AP, CHE presented a paper on “Dynamic simulation of a continuously stirred tank reactor (cstr) using aspen hysys” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering,Sri Venkateswara College of Engineering, Sriperumbudur.
10. Dr.R Palani ASP,CHE, presented a paper on “Production of bioplastic through food waste valorization” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
11. S.Nivedha, R.Govindarasu, “Electrochemical reforming of ethanol - water solutions for pure H2 production in a PEM electrolysis cell”, Technological Innovations in Clean Energy Generation and Environmental Remedies, 4 October 2019, Sri Venkateswara College of Engineering, Sriperumbudur Tk.

C). National and International Conferences/ symposiums/ workshops attended by the Faculty members:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.**  **No.** | **Name of Faculty** | **Name of the Conference/ symposium/ workshop** | **Place** | **Date** |
| 1 | Dr.N.Meyyappan | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 2 | Dr.C.Anandbabu | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 3 | Dr. Nalinkanth.V.Ghone | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 4 | Dr.R.Palani | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 5 | Dr.R.Govindarasu | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| AICTE Sponsored STTP on Prospects and Challenges in Biofuels and Bioenergy | St. Joseph’s College of Engineering, OMR, Chennai | 11-16, November 2019 |
| 6 | Dr.M.Yogeshkumar | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| QIP- Short term course on “Data Analysis for Modelling of Chemical and Biochemical Reaction Systems Theory to Practice” | Indian Institute of Technology, Madras | 2-7, December 2019 |
| 7 | Ms.A.C.Vijaya Lakshmi | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 8 | Ms.G.Sudha | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 9 | Mr.B.S.Vishal | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 10 | Mr.S.Rajasekar | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 11 | Mr.D.Sivakumar | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| Two day online workshop on the topic "MATLAB APPLICATIONS IN PROCESS SIMULATION AND CONTROL" held on | Sri Venkateswara College of Engineering, Sriperumbudur. | 23rd & 24th May, 2020 |
| One day national conference on “Technological innovation on clean energy generation and environmental remediation Techinnoceger 2K19”, | 4th October, 2019. | 4th October, 2019. |
|  |  |  |
| One day Workshop on “Writing Scientific Research Paper- Phase VII” . | SSN College of Engineering, Kalavakkam | 25th January 2020 |
| Online International Workshop on "Art of writing scientific research paper " . | SSN College of Engineering, Kalavakkam | 1 - 2 June 2020. |
| One day online workshop on the topic "Introduction to VBA in MS Excel". | Department of Chemical Engineering, SVCE. | 28th May, 2020 |
| Two day online workshop on the topic "MATLAB APPLICATIONS IN PROCESS SIMULATION AND CONTROL". | Department of Chemical Engineering, SVCE | 23rd & 24th May, 2020 |
| Online Faculty Development Programme on "ROLE OF CHEMICAL ENGINEERING IN SUSTAINABLE PROCESS DEVELOPMENT". | Department of Chemical Engineering, SVCE. | 08 June - 12 June, 2020 |
| 12 | Mr.N.Arun Prem Anand | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 13 | Mr.S.Jai Ganesh | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 14 | Dr.G.Saraswathi | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 15 | Ms.N.Sundari | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 16 | Mr.S.Bharath | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |
| 17 | Ms.N.P.Kavitha | Faculty development programme on “Instrumental methods of analysis” | Sri Venkateswara College of Engineering, Sriperumbudur. | 4- 9, November 2019. |

C 1) Online courses attended by the Faculty members:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.**  **No.** | **Name of Faculty** | **Name of the Online Course** | **by** | **Platform** |
| **1** | Dr.N.Meyyappan |  |  |  |
| **2** | Dr.Nalinkanth.V.Ghone |  |  |  |
| **3** | Dr.R.Palani |  |  |  |
| **4** | Dr.M.Yogeshkumar | Course on Programming for Everybody (Getting started with Python) | University of Michigan. | Coursera |
| **5** | Ms.A.C.Vijaya Lakshmi | Excel skills for business Essentials | Macquarie university | Coursera |
|  |  | Excel Skills for Business: Intermediate I | Macquarie university | Coursera |
|  |  | Introduction to Learning Transfer and Life Long  Learning (3L) | University of California, IRVINE | Coursera |
|  |  | Organizational Behavior: How to Manage People | IESE Business School, University of NAVARRA | Coursera |
| **6** | Ms.G.Sudha | Fundamentals of macroscopic and microscopic Thermodynamics | University of colorado | Coursera |
|  |  | Excel skills for business Essentials | Macquarie university | Coursera |
| **7** | Mr.S.Rajasekar |  |  |  |
|  | Mr.D.Sivakumar |  |  |  |
| **8** | Mr.N.ArunPremAnand | Python 3.4.3 |  | Spoken Tutorial, IIT Bombay |
| **9** | Mr.S.Jai Ganesh |  |  |  |
| **10** | Dr.G.Saraswathi | **Industrial Biotecchnology** |  |  |
| **11** | Ms.N.Sundari | Excel skills for business Essentials | Macquarie university | Coursera |
|  |  | Material Science: 10 things every Engineer should know | University of California, Davis | Coursera |
| **12** | Mr.S.Bharath |  |  |  |
| **13** | Ms.N.P.Kavitha |  |  |  |
| **14** | Dr.N.Deepa Priya | Course on Aspen HYSYS – Petroleum assays and oil characterization |  | Udemy |
|  |  | Course on Programming for Everybody (Getting started with Python) | University of Michigan. | Coursera |
| **15** | Dr.R.Keerthi | Online course on Air Pollution – a Global Threat to our Health | University of Copenhagen | Coursera |
|  |  | Online course on Materials Science: 10 Things Every Engineer  Should Know | UC Davis | Coursera |
|  |  | Online course on Excel Skills for Business: Essentials | Macquarie University | Coursera |
|  |  | Online course on Write Professional Emails in English | Georgia Institute of Technology | Coursera |
|  |  | Online course on Industrial Water system | TATA Steel | |

C 2) Online webinars attended by the Faculty members:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.**  **No.** | **Name of Faculty** | **Name of the Conference/ symposium/ workshop** | **Place** | **Date** |
| **1** | Dr.N.Meyyappan |  |  |  |
| **2** | Dr.Nalinkanth.V.Ghone |  |  |  |
| **3** | Dr.R.Palani |  |  |  |
| **4** | Dr.R.Govindarasu | Fluid Catalytic Cracker – Process Modeling and Simulation | SVCE | 12.6.2020 |
|  |  | Multi-Phase Process Engineering - Mixing and Agitation | SVCE | 29.05.2020 – 30.05.2020 |
|  |  | Workshop on Opportunities and challenges for Chemical Engineers | SVCE | 06.06.2020- 12.06.2020 |
|  |  | Strategies to improve the Citation Metrics and Research Impact | AMET,  Chennai | 15.05.2020 |
|  |  | Process engineering concepts | SVCE | 30.05.2020 |
|  |  | Industrial Electrical Actuators and Feedback Elements | SVCE | 05.06.2020 |
| **5** | Dr.M.Yogeshkumar | Multi-Phase Process Engineering - Mixing and Agitation | SVCE | 29.05.2020 – 30.05.2020 |
|  | Conference on “Technological innovation in clean energy generation and environmental remediation” | SVCE | 04.10.2019 |
| **6** | Ms.A.C.Vijaya Lakshmi |  |  |  |
| **7** | Ms.G.Sudha |  |  |  |
| **8** | Mr.S.Rajasekar |  |  |  |
| **9** | Mr.D.Sivakumar |  |  |  |
| **10** | Mr.N.Arun Prem Anand | **Fluid Catalytic Cracker – Process Modeling and Simulation** | **SVCE** | **12.6.2020** |
|  |  | **Multi-Phase Process Engineering - Mixing and Agitation** | **SVCE** | **29.05.2020 – 30.05.2020** |
| **11** | Mr.S.Jai Ganesh |  |  |  |
| **12** | Dr.G.Saraswathi |  |  |  |
| **13** | Ms.N.Sundari | Multi-Phase Process Engineering - Mixing and Agitation | SVCE | 29.05.2020 – 30.05.2020 |
|  |  | Fluid Catalytic Cracker – Process Modeling and Simulation | SVCE | 12.6.2020 |
| **14** | Mr.S.Bharath |  |  |  |
| **15** | Ms.N.P.Kavitha |  |  |  |
| **16** | Dr.N.Deepa Priya |  |  |  |
| **17** | Dr.R.Keerthi | Webinar on Plastic Waste Management | Sri Venkateswara College of Engineering, Sriperumbudur | 26/07/2020 |
|  |  | Webinar on "Fluid Catalytic Cracker- | Sri Venkateswara College of Engineering, Sriperumbudur | 12/06/2020 |
|  |  | Webinar on Process Modelling and Simulation | Sri Venkateswara College of Engineering, Sriperumbudur | 12/06/2020 |
|  |  | Webinar on Intellectual Property Rights in Research | Jyothi Engineering College, Thrisssur | 17/06/2020 |
|  |  | Webinar on Industrial Safety Management | Sri Venkateswara College of Engineering, Sriperumbudur | 26/05/2020 |

C 3) Online FDP’s / workshops attended by the Faculty members:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.**  **No.** | **Name of Faculty** | **Name of the Conference/ symposium/ workshop** | **Place** | **Date** |
| **1** | Dr.N.Meyyappan | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
|  |  |  |  |  |
| **2** | Dr.Nalinkanth.V.Ghone | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **3** | Dr.R.Palani | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **4** | Dr.R.Govindarasu | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
|  |  | Online workshop on Matlab applications in process simulation and control | Sri Venkateswara College of Engineering, Sriperumbudur | 23/05/2020-24/05/2020 |
|  |  | Machine Learning in Computer  Vision Applications, | SVCE | 12th and 13th May 2020. |
|  |  | Online workshop on Introduction to VBA in MS Excel | Sri Venkateswara College of Engineering, Sriperumbudur | 28/05/2020 |
| **5** | Dr.M.Yogeshkumar | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **6** | Ms.A.C.Vijaya Lakshmi | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
|  |  | Online workshop on Matlab applications in process simulation and control | Sri Venkateswara College of Engineering, Sriperumbudur | 23/05/2020-24/05/2020 |
|  |  | Online workshop on Introduction to VBA in MS Excel | Sri Venkateswara College of Engineering, Sriperumbudur | 28/05/2020 |
| **7** | Ms.G.Sudha | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
|  |  | Online workshop on Matlab applications in process simulation and control | Sri Venkateswara College of Engineering, Sriperumbudur | 23/05/2020-24/05/2020 |
|  |  | Online workshop on Introduction to VBA in MS Excel | Sri Venkateswara College of Engineering, Sriperumbudur | 28/05/2020 |
| **8** | Mr.S.Rajasekar | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **9** | Mr.D.Sivakumar | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **10** | Mr.N.Arunpremanand | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
|  |  | Art of writing scientific research paper | SSN College of Engineering | 1.6.2020 - 2.6.2020 |
| **11** | Mr.S.Jai Ganesh | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **12** | Dr.G.Saraswathi | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **13** | Ms.N.Sundari | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
|  |  | Art of writing scientific research paper | SSN College of Engineering | 1.6.2020 - 2.6.2020 |
|  |  | FDP on Universal Human Values | AICTE | 11.05.2020-15.05.2020 |
| **14** | Mr.S.Bharath | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **15** | Ms.N.P.Kavitha | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
| **16** | Dr.N.Deepa Priya | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
|  |  | Online National workshop on Basics of documentation using LATEX | Stella Maris College (Autonomous), Chennai. | 24-30, April 2020 |
|  |  | Online one-week FDP on Green manufacturing: The present & the future | Santhiram Engineering College, Nandyal. | 15-20, May 2020 |
|  |  | Online FDP on Green Engineering and its industrial applications towards sustainable future | Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College, Chennai. | 28-30 May 2020 |
| **17** | Dr.R.Keerthi | Workshop on Opportunities and challenges for Chemical Engineers | Sri Venkateswara College of Engineering, Sriperumbudur | 06/06/2020- 12/06/2020 |
|  |  | Online workshop on Matlab applications in process simulation and control | Sri Venkateswara College of Engineering, Sriperumbudur | 23/05/2020-24/05/2020 |
|  |  | Online workshop on Introduction to VBA in MS Excel | Sri Venkateswara College of Engineering, Sriperumbudur | 28/05/2020 |

**2) Departmental research activities:**

A). Symposium, Conferences, Workshop and Guest lectures Conducted:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| S. No. | Name of the Event | Place | Period | Funding Agency | National/  International | Convener and Faculty In charge |
| 1 | STTP on Instrumental Methods of Analysis | SVCE | 4th Nov 2019 – 9th Nov 2019 | AICTE | National | Dr.N.Meyyappan,  Dr.R.Palani,  Mr.D.Sivakumar |
| 2 | Conference on “Technological innovation in clean energy generation and environmental remediation” | SVCE | 4th October, 2019, | SVCE | National | Dr.N.Meyyappan,  Dr.R.Govindarasu, Ms.G.Sudha |
| 3 | Online Faculty Development Programme on “Role of Chemical Engineering in Sustainable Process Development (RCESPD)” | Google meet | 8-12, June 2020 | SVCE | National | Dr.N.Meyyappan,  Dr.N.Deepa Priya  Dr.R.Keerthi &  Mr.S.Rajasekar |
| 4 | Two day online workshop on the topic "MATLAB APPLICATIONS IN PROCESS SIMULATION AND CONTROL" held on | You Tube | 23rd & 24th May, 2020 | SVCE | 23rd & 24th May, 2020 | Dr.R.Govindarasu.  Mr.D.Sivakumar |

**B) Ongoing funded projects in the in the Department:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S. No. | Name of the Project | Funding Agency | Period &  Amount Sanctioned | Coordinators | Status of the project |
| 1 | Process development and pilot scale demonstration for removal of metallic and other impurities from used pickle solution of SSTP, NFC | BRNS | 3 Years  20.15 Lakhs | Dr. C. AnandBabu and Ms. S. Swathi | In Progress |
| 2 | Production of ultrapure water by indigenous resins and columns | MSME | 1.6 Years  6 Lakhs | Dr. C. AnandBabu  Mr. L.S.Bhadri Narayanan | In Progress |

**C). Projects submitted to Funding Agencies by the Department:**

|  |  |  |  |
| --- | --- | --- | --- |
| Faculty Name | Title of the Project | Funding Agency | Status |
| Dr.N.Meyyappan | Hydrotropic Extraction of Limonin from Lemon seeds | SVCE Intramural Fund - UG | Submitted |
| Dr.R.Palani | Green Synthesis and characterization of copper nano particles | SVCE Intramural Fund - UG | Submitted |
| Dr.R.Govindarasu | Design and characterisation of portable Direct Alcohol Fuel Cell power bank | SVCE Intramural Fund - UG | Submitted |
| Dr.R.Govindarasu  Dr. N. Meyyappan  S.Jaiganesh | Deterpenation and enhancement of Geraniol in Palmarosa Oil | TNSCST | Submitted |
| Mr. S. Jai Ganesh | Design and Fabrication of High Efficiency Cyclone Separator | SVCE Intramural Fund - UG | Submitted |
| Dr N P Kavitha | Enhanced removal of organic/inorganic removal through Electrofenton process | SVCE Intramural Fund - UG | Submitted |
| Dr.R.PALANI |  | SVCE Intramural Fund - PG | Funded |
| Dr N P Kavitha | Effective removal and recovery of Total Dissolved Solids and energy through Electrofenton integrated bipolar electrolysis membrane bioreactor (EBMBR) in industrial wastewater treatment and numerical modeling to give insight to scaleup studies | DST - SERB | Submitted |
| Dr N P Kavitha | Development of Activated Granular Sludge  hybridized Flow electrode Capacitive Deionization Process (FCDI) and numerical  modelling in industrial wastewater treatment” | DST - SERB | Submitted |
| Dr.C.Anandbabu | Evaluation of antimicrobial activity and Extraction of specific biocides from peels of banana variants specific to Tamilnadu | TNSCST | Submitted |
| Dr.R.Palani | Removal of Chromium (VI) ions contaminated water by using the petals of banana blossoms | TNSCST | Submitted |
| N.Arun Prem Anand | Ultrasound Assisted catalytic degradation of Textile industry effluents | TNSCST | Submitted |

D). Research centre status of the department: Active till Dec-2022

**3) Student Research Activities:**

1. **A). List of projects carried out by the students in the department as in house and Industrial project:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S. No. | Name of Student | Title of the Project | Inherent project maker | In house | Industry |
| **Ph.D., (Chemical Engineering)** | | | | | |
| 1 | Ms. B. Suganya | “Studies on the effect of different metabolic uncouplers for enhancing the degradation rate of toluene in a bio-film reactor” | Dr. D. Swaminathan | X | - |
| 2 | Mr. L.S.Bhadri Narayanan | Sodium infiltration studies in irradiated metallic fuels using surrogate materials | Dr. C. AnandBabu | X |  |
| **M.Tech., (Chemical Engineering) -** | | | | | |
| 1 | Auswin Joseph Arulraj G | High value products from low value lingo cellolic biomass | Dr. Nalinkanth V Ghone | X |  |
| 2 | Becky Miriyam I | Removal of chromium(VI) from contaminated water by using the petals of banana blossoms | Dr. R. Palani | X |  |
| 3 | Nivedha S | Aqueous ethanol electrolysis using proton exchange membrane for hydrogen production | Dr. R. Govindarasu |  | X |
| 4 | Shakthi Bhasker | Treatment and recovery of useful products from pickling waste of SSTP | Dr. C. Anand Babu | X |  |
| 5 | Swetha G | Bioactive compounds enriched powdered non alcoholic tofu whey using a spray drier | Dr. N. Meyyappan |  | X |
| **B.Tech., (Chemical Engineering) -** | | | | | |

**B). Research Publications by students in National and International Journal:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No. | Name of Students | Title of the paper | Name of the Journal | Date |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |

**C). Research Presentations by students in National and International Conferences/ symposiums/ workshops:**

1. **K.S. Sakthisri, R. Raageswari,** M. Yogesh Kumar, Demonstration of Life Cycle Analysis as Sustainability Assessment Tool for Process and Energy Industries and Solid Waste Management, Technological Innovations in Clean Energy Generation and Environmental Remedies, 4 October 2019, Sri Venkateswara College of Engineering, Pennalur.
2. **Karthick S,** R.Palani , Sivakumar D,  Meyyappan N**,** Parthiban R, Senthilkumar P, “Biosorption of Cr (VI) ions from wastewater by Ficus religiosa barks”First International Conference on Recent Trends in “Clean Technologies for Sustainable Environment (CTSE-2019)” at September 26 – 27, 2019 : SSN College of Engineering, Kalavakkam.
3. Mr.V.Anantharam, CHE of III year has participated in the oral presentation of “15” Annual session of Students” Chemical Engineering Congress” organized by Department of Chemical Engineering of Shroff S. R. Rotary Institute of Chemical Engineering ,Ankleshwar, Gujarat on 17.10.2019 to 18.10.2019.
4. Mr.N.Ajith Kumar, CHE of III year has participated in the oral presentation of “15” Annual session of Students Chemical Engineering Congress” organized by Department of Chemical Engineering of Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat on 17.10.2019 to 18.10.2019.
5. Mr.N.N. Harish Kumar, CHE of III year has participated in the oral presentation of “15” Annual session of Students” Chemical Engineering Congress” organized by Department of Chemical Engineering of Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat on 17.10.2019 to 18.10.2019.
6. Mr.S Harish Kumar, CHE of III year has participated in the oral presentation of “15 Annual session of Students” Chemical Engineering Congress” organized by Department of Chemical Engineering of Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat on 17.10.2019 to 18.10.2019.
7. Mr.B.Darshan, CHE of II year has participated in the oral presentation of “15 Annual session of Students” Chemical Engineering Congress” organized by Department of Chemical Engineering of Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat on 17.10.2019 to 18.10.2019.
8. Ms.J.Anuja, CHE of II year has participated in the oral presentation of “15 Annual session of Students” Chemical Engineering Congress” organized by Department of Chemical Engineering of Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat on 17.10.2019 to 18.10.2019.
9. Mr.Arsath Kader, CHE of II year has participated in the two days TECHNOBYTE WORKSHOP conducted by IIT Madras on Business Analytics on 27.7.2019 to 28.7.2019.
10. Mr.S Harrish Kumar, CHE of III year has participated in team of “TINKATHON” an event with activity and projects based workshop, a precursor and qualifier to the residential student workshop, conducted at HINDUSTAN INSTITUTE OF TECHNOLOGY & SCIENCE, Chennai on 29.8.2019.
11. Dr N Meyyappan Prof & Head, CHE presented a paper on “Review on Fermentative Production And Optimization of Tofu Whey From Soy Processing Industries” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
12. Dr. C. Anand Babu, Prof, CHE presented a paper on “A Review Experimental Studies on Effluent Treatment of Pickling Waste Generated During the Production of Stainless steel” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
13. Harish Kumar N N, Praveen Kumar R, Govindarasu R,“A review on application of Moringa oleifera as a bio-coagulant for surface and groundwater treatment and purification”, National conference on Technological Innovations in Clean Energy Generation and Environmental Remedies, 4 October 2019, Sri Venkateswara College of Engineering, Pennalur.
14. Abirami P, Praveen Kumar R, Govindarasu R,“ A review on waste water to methanol production through microbial electrolysis cell”, National conference on Technological Innovations in Clean Energy Generation and Environmental Remedies, 4 October 2019, Sri Venkateswara College of Engineering, pennalur
15. Dr N Meyyappan Prof & Head, CHE presented a paper on “Studies on the effluent treatment of wastewater from Fertilizer industry” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
16. Mr. N. Arun Prem Anand, AP, CHE presented a paper on “Dynamic simulation of a continuously stirred tank reactor (cstr) using aspen hysys” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering,Sri Venkateswara College of Engineering, Sriperumbudur.
17. Dr.R Palani ASP,CHE, presented a paper on “Production of bioplastic through food waste valorization” in the National Level Conference titled “Technological Innovation on Clean Energy Generation and Environmental Remediation” was organized on 04th Oct, Department of Chemical Engineering, Sri Venkateswara College of Engineering, Sriperumbudur.
18. S.Nivedha, R.Govindarasu, “Electrochemical reforming of ethanol - water solutions for pure H2 production in a PEM electrolysis cell”, Technological Innovations in Clean Energy Generation and Environmental Remedies, 4 October 2019, Sri Venkateswara College of Engineering, Sriperumbudur Tk.

**D) National and International Conferences / symposiums/ workshops / online courses / webinars attended by the students:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.No | Name | Year | CONFERENCE NAME | VENUE | TITLE OF PAPER | FROM DATE | TO DATE |
|  | ANATHARAM V | III | Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat | Gujarat | ORAL | 17.12.19 | 18.12.19 |
|  | N.Ajith Kumar, | III | Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat | Gujarat | ORAL | 17.12.19 | 18.12.19 |
|  | Mr.N.N. Harish Kumar | III | Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat | Gujarat | ORAL | 17.12.19 | 18.12.19 |
|  | Mr.S Harish Kumar, | III | Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat | Gujarat | ORAL | 17.12.19 | 18.12.19 |
|  | VIJAYAN A | III | CURRENT TRENDS & OPPORTUNITIES FOR CHEMICAL ENGINEERING INOIL,GASINDUSTRY | SAVEETHA ENGINEERING COLLEGE | PARTICIPATED | 6.9.2019 |  |
|  | NARENDRAN P | III | CURRENT TRENDS & OPPORTUNITIES FOR CHEMICAL ENGINEERING IN OIL,GAS INDUSTRY | SAVEETHA ENGINEERING COLLEGE | PARTICIPATED | 6.9.2019 |  |
|  | NARENDRAN P | III | NANO CHEM TECH | SAVEETHA ENGINEERING COLLEGE | PARTICIPATED | 7.9.2019 |  |
|  | VIJAYAN A | III | NANO CHEM TECH | SAVEETHA ENGINEERING COLLEGE | PARTICIPATED | 7.9.2020 |  |
|  | Mr.N.N. Harish Kumar | III | INVENTE 4.0, NATIONAL TECHNICAL FEST | SSN COLLEGE OF ENGINEERING | PAPER | 13.9.2019 | 14.9.2019 |
|  | ABIRAMIP | III | INVENTE 4.0, NATIONAL TECHNICAL FEST | SSN COLLEGE OF ENGINEERING | POSTER | 13.9.2019 | 14.9.2019 |
|  | DEEPIKA V | III | INVENTE 4.0, NATIONAL TECHNICAL FEST | SSN COLLEGE OF ENGINEERING | POSTER | 13.9.2019 | 14.9.2019 |
|  | LALITH KANNA T | III | INVENTE 4.0, NATIONAL TECHNICAL FEST | SSN COLLEGE OF ENGINEERING | POSTER | 13.9.2019 | 14.9.2019 |
|  | KARTHICE G | III | INVENTE 4.0, NATIONAL TECHNICAL FEST | SSN COLLEGE OF ENGINEERING | PAPER | 13.9.2020 | 14.9.2020 |
|  | BALAJI R | III | INVENTE 4.0, NATIONAL TECHNICAL FEST | SSN COLLEGE OF ENGINEERING | PAPER | 13.9.2021 | 14.9.2021 |
|  | SANJAI V | III | EXTRACT - 2K19 | SRRAM ENGINEERING COLLEGE | PAPER | 19.9.2019 |  |
|  | SANJAI V | III | EXTRACT - 2K19 | SRRAM ENGINEERING COLLEGE | POSTER | 19.9.2019 |  |
|  | N.Ajith Kumar, | III | WORKSHOP IN ASPEN + ,CHEMFLUX 7.0 | SRM INSTITUTE OF SCIENCE AND TECHNOLOGY | Participation | 10.10.2019 | 11.10.2019 |
|  | Mr.B.Darshan | II | Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat | Gujarat | ORAL | 17.12.19 | 18.12.19 |
|  | Ms.J.Anuja, | II | Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat | Gujarat | ORAL | 17.12.19 | 18.12.19 |
|  | ARSATH KADER | II | TECHOBYTE WORHSHOP IN IITM | IITM | Participation | 27.7.19 | 28.7.19 |
|  | MUNUSAMY K | II | COIMBATORE INSTITUTE OF TECHNOLOGY | INDENTIFICATION AND CONTROL OF WORKPLACE HAZARDS | Participation |  |  |

**4) Sponsorship details of faculty and students:**

**I) Sponsorship for faculty members:**

A) Faculty sponsored for presentation in National :

Conferences/ symposiums/ workshops

B) Faculty sponsored for presentation in International :

Conferences/ symposiums/ workshops

C) Faculty sponsored for attending national :

Conferences/ symposiums/ workshops

**II) Sponsorship for Students:**

Students sponsored for presentation in National Conferences/ symposiums/ workshops:

Six Chemical Engineering students of II & III year were sponsored a total amount of Rs.8,400 (each Rs.1400) to participate in the oral presentation of “15th Annual session of Students” Chemical Engineering Congress” organized by Department of Chemical Engineering of Shroff S. R. Rotary Institute of Chemical Engineering, Ankleshwar, Gujarat on 17.10.2019 to 18.10.2019.

B). Students sponsored for presentation in :

International Conferences/ symposiums/ workshops

C). Students sponsored for attending national :

Conferences/ symposiums/ workshops

* 1. **Research cell(s) /area(s) of research in the department:**

Mixing, Hydrotopes, Solar Drying, Environmental Technology, Process Control, Automation of Fuel Cell, Membrane Separation, Waste Water Treatment, Biofuel Technology, Food Processing Technology, Bioprocess monitoring and control, Fluidization Engg, Computational Fluid Dynamics, Electrochemical Process, Corrosion and Advanced Oxidation Process.

* 1. **Consultancy work in the department:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Industry / Institution** | **Amount (Rs.)** | **Duration** |
| **1.** | IndCzech Pvt Ltd, Chennai |  |  |
|  |  |  |  |

* 1. **Patent information:**

Co-Ordinator/CH HOD/CH