



You Choose, We Do it

St. JOSEPH'S COLLEGE OF ENGINEERING

St. JOSEPH'S GROUP OF INSTITUTIONS

OMR ,Chennai - 119

JETCHEM ENGINEERS

DESALINATION

DEPARTMENT OF CHEMICAL ENGINEERING

DEPARTMENT ACTIVITIES

FROM 1st JUNE 2017 TO 31st MAY 2018

Volume : 33

Messages...

Dr.B.BabuManoharan M.A., M.B.A, Ph. D.
Chairman

"JET CHEM ENGINEERS", the technical magazine of Chemical Engineering students is a reflection of the activism they possess. It is heartening to know that they are bringing out their 33rd Volume that has its focus on **"Desalination"**. I extend hearty congratulations to them.

Mrs.S.Jessie Priya M.Com.

Managing Director

I would like to express my gratitude to the students and staff members of Chemical Engineering department for their effort in releasing the magazine **"Desalination"**- Volume 33

Mr. B. Shashi Sekar M.Sc.

Director

I take immense pleasure to congratulate the students and staff members of Chemical Engineering department for their effort in releasing the magazine **"Desalination"**-Volume 33

Dr. VaddiSeshagiri Rao, M.E.,M.B.A, Ph.D.
Principal, St.Joseph's College of Engineering.

The 33rd Volume of **"JET CHEM ENGINEERS"** being released by the students of Chemical Engineering deserves appreciation for its focus on **"DESALINATION"**. I extend hearty congratulations to them

MESSAGE FROM EDITORIAL BOARD

"DESALINATION" is the topic around which the 33rd Volume of **JET CHEM ENGINEERS** is woven. Desalination has the potential to reliably produce enough potable water to support large populations. We are very grateful to our beloved **Chairman Dr.B.BabuManoharan M.A., M.B.A, Ph.D., Managing Director Mrs.B. Jessie Priya M.Com & Director Mr.B. Shashi Sekar M.Sc, Principal Dr. VaddiSeshagiri Rao, M.E., M.B.A, Ph.D** for their constant encouragement and their keen interest towards the Department activities.

-The Editorial Board

Editorial Advisors:

Dr.R. Baskaran
Professor and HOD (Staff & Lab affairs)

Dr.N.Venkatesh
Professor and HOD (Student'saffairs)

Editorial Board:

Ms.N. Deepa, Asst Professor
Mr.Raghavendar.S, IV Year

CHEMICAL DEPARTMENT – ANNA UNIVERSITY RANK HOLDERS – 2017

Ms. RAZIKA SUBHANA A
D/O, Mr. M.ABDUL MALIK
Mrs. FATHIMA MALIK
Rank: 4 CGPA: 9.26
Cash prize Rs. 25,000



Ms. JAYASHREE Y
D/O, Dr.Y.SREENIVASA VARMA
Dr. Y. SWAPNA
Rank: 7 CGPA: 9.14
Cash prize Rs. 25,000



Ms. NIVEDITHA J R
D/O, Mr. J.RAMESH BABU
Mrs. P LALITHA
Rank: 15 CGPA: 8.95
Cash prize Rs. 25,000



Ms. KAVI NILA G
D/O, Mr. V GURUSARAN
Mrs. R LATHA MAHESHWARI
Rank: 18 CGPA: 8.92
Cash prize Rs. 25,000



Ms. AMRUTHA C
D/O, Mr. C CHOCKALINGAM
Ms. C SUMATHI
Rank: 21 CGPA: 8.86
Cash prize Rs. 25,000



Ms. ROHINI N S
D/O, Mr. SHIVAKUMAR N S
Mrs. ASHA N S
Rank: 23 CGPA: 8.83
Cash prize Rs. 25,000

VISION OF THE DEPARTMENT

- ✓ To provide knowledge centered education that continually responds to changing realities in the field of Chemical Engineering.

MISSION OF THE DEPARTMENT

- ✓ To establish academic integrity so as to inculcate the professional skills to compete in global environments.
- ✓ To enrich the Chemical Engineering knowledge through research & innovation.
- ✓ To hone the skills of students to succeed in Chemical Industry.

20TH GRADUATION DAY REPORT

The 20th Graduation Day was held on the **22nd Aug 2018**. **Dr. BabuManoharan, M.A., M.B.A., Ph.D. Chairman**, St. Joseph's Group of Institutions presided over the function. **Mrs. S. Jessie Priya, M.Com., Managing Director**, **Mr. B. Shashi Sekar, M.Sc., Director** St. Joseph's Group of Institutions, **Dr. Vaddi Seshagiri Rao, M.E., M.B.A., Ph.D.**, Principal of St. Joseph's College of Engineering graced the occasion.

Mr. M. Siva Kumar, Chief Executive Officer, ICT Academy and **Mr. Madan Singh**, Delivery Manager – IBU, Banking & Financial Services – Tech Mahindra delivered the Graduation address and distributed the degree certificates.

1430 students were conferred degrees. The College has bagged the highest number of University Ranks a total of 97 ranks in popular branches for the 12th consecutive year in Anna University Examinations held in May 2017.

All the Rank holders were appreciated and lauded by Cash Prizes and shields, a total of worth **Rs. 28 lakhs** which includes **Rs. 50,000/-** each for the **Gold Medal** and **Silver Medal** and **Rs. 25,000/-** each for all other **Rank Holders**. The total prize money values up to **Rs. 33.67 lakhs**.

PLACEMENT DETAILS

Out of the **1430** students who received their degree, **1372** of them are placed through campus interviews, **78** of them got selected through off campus and **64** of them have chosen to be entrepreneurs. The students are recruited by in many leading organizations like Cognizant Technologies, Wipro, Infosys,

Mu-Sigma, CommVault, Global Analytics, Vembu Technologies, Tech Mahindra Solution Technologies, HDFC, ICICI, Yes Bank, ITC Ltd, L&T, Zoho, Naukri.com, HCL, Hewitt, Renalult Nissian, Virtusa, RBS, Accenture, Mindtree, Kotak Mahindra Bank, Pepsico etc., with a salary ranging from 3.2 lakhs to Rs 12 lakhs per annum.

HIGHER STUDIES

186 Students are pursuing their higher studies at various Universities in India as well as abroad. Students have got admission into top ranking Universities like University of Texas, Stanford University, Carnegie Mellon University, University of Massachusetts, Arizona State University, North Carolina State University, National University of Singapore, Illinois Institute of Technology, NJIT, University of West Virginia, Leeds University (UK), North Carolina State University, IITs, IIMs, NIITs etc, through our Advisory Bureau for Higher Studies (ABHS).

CO - CURRICULAR ACTIVITIES

- **Mr. M. Karthicraja, Mr. VL. Krishna Prasad**, Department of Electronics and Instrumentation Engineering received INAE Award for the project "Cassandra – IOT in Women Safety" and bagged Rs 10,000 cash Prize.
- **Abirami.K**, Department of Bio Technology received the Best Student Award from ISTE for her outstanding performance.
- **Ms. Aparna Viswanathan, Ms. Nisha Jayashankar** of Biotechnology department have completed their final year project in the field of **Allergic Asthma at National University of Singapore** from December 2016 - March 2017
- **Ms. Lincy Zipporah S**, Department of Biotechnology had undergone special internship "Sea turtle and coastal conservation project" at **Mexico, USA** for a period of 15 days.
- **Ms. Sameera Nazeer**, Department of Biotechnology had undergone summer training internship in **Neurological Science at Indian Institute of Chemical Biology, Kolkata** for a period of 40 days
- **Mr. Rokesh R and Ms. Mohana Priya. N**, Department of Biotechnology have got admitted for their Post-Graduation Programme at **IIT - Kharagpur and IIT - Guwahati** respectively with **GATE** fellowship.
- **Tanay Paradeshi**, Department of Information Technology was selected campus Ambassador by **Twenty 19**, Chennai.

EXTRA-CURRICULAR ACTIVITIES

Our students have excelled not only in the field of academics, but also in the field of sports. We have A.Alex, J.Leonard, K.Pramoth, Neil Franclin, A. Divagar, J.Narayanan, S.Sarathkumar, R.Vijayarajan, R.PradeepRajkumar, B.Monisha, R.Rajakumari, M.Nandhini, K.Saroja, P.Masilamani, P.G.Deepasri, & Monisha Srihari who represented our college in various events at the National and International Levels.

The Management, Principal and Staff extended a hearty congratulation to all the above students and all the budding graduates for their academic and extracurricular achievements.

| | | |
|--------------------------------|---|------|
| No of students Appeared | : | 1558 |
| • No. of students Passed | : | 1430 |
| • Pass Percentage | : | 91.8 |
| • First Class with Distinction | : | 133 |
| • Passed with First Class | : | 974 |

Ranks bagged by the college right from its inception (From May 1998 University Examinations)

| | | |
|----------------------|---|------|
| • Total No. of Ranks | : | 1216 |
| • Gold Medals | : | 53 |
| • Silver Medals | : | 45 |
| • Other Ranks | : | 1118 |

Anna University Ranks for the 12th consecutive year

| | | |
|---------------------------------|---|----|
| • Total No. of University Ranks | : | 97 |
|---------------------------------|---|----|

University Rank Awards : Total Rs. 33.67lakhs

| | | |
|------------------------------------|---|-----------------|
| • Gold Medal Cash Award (3*50,000) | : | Rs. 1.50 lakhs |
| • Cash Award (94*25,000) | : | Rs. 23.50 lakhs |
| • Shields & Medals | : | Rs. 3.0 lakhs |

Placement

Total No. of Students Placed through

| | | |
|----------------------|---|------|
| • Campus Recruitment | : | 1372 |
| • Off Campus | : | 78 |
| • Self Employed | : | 64 |

Higher Studies

Students pursuing higher studies through

Advisory Bureau for Higher Studies (ABHS)

| | | |
|----------|---|-----|
| • Abroad | : | 115 |
| • India | : | 71 |

Sports

| | | |
|--|---|----|
| • International Players | : | 1 |
| • National Players | : | 15 |
| • Represented Anna University in All India University Tournaments | : | 13 |

BEST OUTGOING STUDENT 2016 – 2017 PASSED OUT BATCH

| S. No | Department | Name of the Best Outgoing Student |
|-------|-------------|-----------------------------------|
| 1. | CSE | NIVETHA .S |
| 2. | ECE | STANETH ANN .S |
| 3. | EEE | JANNATH NISHA .H |
| 4. | IT | SANGEETHA RAMAN |
| 5. | CHEM | RAZIKA SUBHANA |
| 6. | ICE | PARAMESWARI .M |
| 7. | EIE | KARTHICRAJA .V M |
| 8. | MECH | LIBNISH S |
| 9. | BIO | RITU MAHESH RAMAMURTHY |
| 10. | MBA | SRIKKANTH .V.P |
| 11. | MCA | JESU SAHAYA MOICA .J |

The Trust has constituted awards to the topper in each branch. The awardees of the Trust awards are:

| S.No | Name of the Award | Branch | Year | Name of the Student |
|------|-------------------------------------|----------------------------|-----------|------------------------------|
| 1 | Dr. M.G.R Award | CSE | 2013-2017 | Ms. NIVETHA .S |
| 2 | A.P. Baulraj Award | ECE | 2013-2017 | Ms. MADUVANTHI .M |
| 3 | Abraham Lincoln Award | EEE | 2013-2017 | Ms. JANNATH NISHA .H |
| 4 | Mother Teresa Award | MECHANICAL | 2013-2017 | Ms. KEERTHANA .C J |
| 5 | Dr. A.P.J. Abdul Kalam Award | ICE | 2013-2017 | Ms. PARAMESWARI .M |
| 6 | KalpanaChawla Award | EIE | 2013-2017 | Ms. ABI ESWARI .R |
| 7 | Martin Luther King Award | IT | 2013-2017 | Ms. SANGEETHA RAMAN |
| 8 | DeivaPulavarThiruvalluvar Award | CHEMICAL | 2013-2017 | Ms. RAZIKA SUBHANA .A |
| 9 | M. Visvesvaraya Award | Bio-Tech | 2013-2017 | Ms. ABIRAMI .K |
| 10 | MahakaviSubramaniyaBharathiar Award | M.B.A | 2015-2017 | Ms. POOJA .S |
| 11 | PavendarBharathidasan Award | M.C.A. | 2014-2017 | Ms. KALAIVANI M .K |
| 12 | AnnaiJanaki M.G.R Award | M.E (Applied Electronics) | 2015-2017 | Ms. SAHAYA PROJOLIN .S |
| 13 | PerunthalaivarKamarajar Award | M.E (Power Electronics) | 2015-2017 | Ms. S.SUDHA MERLIN |
| 14 | Arignar Anna Award | M.E (Computer Science) | 2015-2017 | Ms. JENIF D SOUZA .W S |
| 15 | Nelson Mandela Award | M.E (C & I) | 2015-2017 | Ms. GEETHANJALI .R |
| 16 | Sir C. V. Raman Award | M.E (Power Systems) | 2015-2017 | Ms. MANGAIYARKARASI .P |
| 17 | SrinivasaRamanujan Award | M.E (Software Engineering) | 2015-2017 | Ms. LINNET PRINCY JUSTINA .V |
| 18 | C.K Prahalad Award | M.E (Manufacturing | 2015-2017 | Ms. GNANASEKARAN K |
| 19 | Dr. Muthulakshmi Award | M.Tech(Bio.Tech) | 2015-2017 | Ms. LALITHA .K |
| 20 | Dr. S. Radhakrishnan Award | M.E – Embedded System | 2015-2017 | Ms. KRITHIKA .S |

ACHIEVEMENTS OF OUR STUDENTS YEAR AFTER YEAR

| Year of passing | UNIVERSITY RESULTS | | | PLACEMENT | | | HIGHER STUDIES | | ANNA UNIVERSITY RANKS | | | |
|-----------------|----------------------|-----------------------|-----------|--------------------------|----------------------|----------------------------|----------------|-------|------------------------------|-------------|---------------|-------------|
| | Total No of Students | No of Students Passed | % of Pass | Through Campus Interview | Off Campus Interview | Self Employed Own Business | Abroad | India | Total no of university Ranks | Gold Medals | Silver Medals | Other Ranks |
| 2006 | 902 | 817 | 90.5 | 469 | 176 | 33 | 98 | 41 | 62 | 3 | 2 | 57 |
| 2007 | 984 | 892 | 90.6 | 609 | 144 | 29 | 76 | 34 | 45 | 1 | 2 | 42 |
| 2008 | 1014 | 923 | 91.2 | 810 | 31 | 23 | 38 | 21 | 45 | 3 | 4 | 38 |
| 2009 | 1227 | 1134 | 92.4 | 681 | 267 | 33 | 97 | 56 | 59 | 6 | 2 | 51 |
| 2010 | 1273 | 1183 | 92.9 | 705 | 298 | 62 | 88 | 30 | 59 | 3 | 3 | 53 |
| 2011 | 1380 | 1265 | 91.7 | 864 | 218 | 60 | 97 | 26 | 84 | 5 | 4 | 75 |
| 2012 | 1365 | 1229 | 90.1 | 901 | 176 | 70 | 92 | 39 | 123 | 2 | 3 | 118 |
| 2013 | 1368 | 1243 | 90.9 | 686 | 161 | 58 | 112 | 51 | 112 | 1 | 1 | 110 |
| 2014 | 1485 | 1329 | 89.7 | 697 | 184 | 71 | 129 | 58 | 107 | 4 | 1 | 102 |
| 2015 | 1471 | 1315 | 89.4 | 910 | 227 | 174 | 133 | 59 | 106 | - | - | 106 |
| 2016 | 1481 | 1357 | 91.6 | 1237 | 76 | 51 | 112 | 75 | 117 | 6 | 5 | 106 |
| 2017 | 1558 | 1430 | 91.8 | 1372 | 78 | 64 | 115 | 71 | 97 | 3 | 2 | 92 |
| 2018 | | | | *877 | | | | | | | | |

* as on 24-07-2018

DEPARTMENT OF CHEMICAL ENGINEERING

| | | |
|--------------------------|--|---|
| UNIVERSITY RESULTS | Total No of students graduated | 69 |
| | No of students graduated in First class with distinction | 14 |
| | No of students graduated in First class | 50 |
| PLACEMENT | Through Campus Interview | 35 |
| | Off Campus Interview | 9 |
| | Self Employed Own Business | 1 |
| HIGHER STUDIES | Abroad | 4 |
| | India | 3 |
| ANNA UNIVERSITY RANKS | Total no of university Ranks | 6 |
| | Ranks | 1.Ms. Razika Subhana A Rank: 4 CGPA: 9.26 2.Ms. Jayashree Y Rank: 7 CGPA: 9.14 3.Ms. Niveditha J R Rank: 15 CGPA: 8.95 4.Ms.Kavi Nila G Rank: 18 CGPA: 8.92 5.Ms. Amrutha C Rank: 21 CGPA: 8.86 6.Ms. Rohini N S Rank: 23 CGPA: 8.83 |
| Recipient of Trust Award | | MS. RAZIKA SUBHANA A (Deiva Pulavar Thiruvalluvar Award) |

STAFF ACTIVITIES

Dr.R.BASKARAN

- Published a paper entitled “Intensified degradation of pharmaceutical effluents by novel aerobic iron-dwarf activated molecular oxygen in the presence of ascorbic acid” in Desalination and water treatment vol.102, pg 273-279
- Published a paper entitled “Adsorption of Hexavalent Chromium in Industrial Water Using Pithe cellobium Dulce Bark” in Research Journal of Pharmaceutical, Biological and Chemical Sciences, vol 8, issue 1, pg 1450-1455
- Published a paper entitled “Effect of Addition of Salts on Excess Enthalpy in Methanol – Carbon tetra chloride Mixture “ in Russian Journal of Physical Chemistry
- Presented a paper on ‘Monitoring of Continuous Crystallization Process using Dissimilarity index’ at the “International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC) and published in the IEEE Xplore
- Participated in a one day conference ICT Academy Bridge 2018 - Chennai Edition held on 28th March 2018 at ITC Grand Chola, Chennai.
- Attended an MSME sponsored National Level Seminar on “Advanced Composites and its Manufacturing Technology for 3d-Printing” at Rajalakshmi Institute of Technology from February 22 to 24 , 2018
- Attended an IIChe sponsored National Seminar on “Software Packages for Dynamic Modeling and Distributed Control System” at Sri Venkateswara College of Engineering from 16th to 17th March, 2018.

Dr. N. VENKATESH

- Attended AICTE sponsored Quality improvement Programme on “Coal quality management and utilization” organized by IIT Varanasi during 24th -29th July, 2017.
- Participated in AICTE sponsored Quality improvement Programme on “ Thermo chemical conversion of biomass for energy and fuel” at IIT Chennai , during 12th -17th February, 2017.
- Attended AICTE sponsored Quality improvement Programme on “Biology for engineers” organized by IIT Bombay during 4th - 8th June, 2018.

Mr. S. VINOD KUMAR

- Attended short term course on “Recent trends in clean technology for sustainable environment organized by Coimbatore Institute of Technology during 16th – 22nd April, 2018.

Ms. B. S. RATHI

- Participated in Faculty training Programme on “Process Instrumentation, Dynamics and Control” organized by Anna University, 22nd -29th, November 2017.

Ms. N. DEEPA

- Published a paper entitled “Air inducing characteristics of self inducing character with non newtonian working fluid” in International Journal of Modern Science and Technology, Vol 2, No.8, 2017, Page 292-296.
- Attended two weeks Faculty Development Programme sponsored by AICTE on “Recent trends in Energy, Environment and Solid waste management” organized by Coimbatore Institute of Technology during 13-26th Nov,2017

Ms. APARNA A M

- Presented a paper on ‘Monitoring of Continuous Crystallization Process using Dissimilarity index’ at the “International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC) held on 28th Jan 2018 and published in the IEEE Xplore.
- Attended one week Faculty Development Programme on “ Development of thermodynamics Laboratory for undergraduates’ at IIT MADRAS during 22nd – 27th Jan, 2018
- Attended an IIChe sponsored National Seminar on “Software Packages for Dynamic Modeling and Distributed Control System” at Sri Venkateswara College of Engineering from 16th to 17th March, 2018.

Ms.SIVARANJANEE.R

- A paper entitled “ “Carbon sphere: Synthesis, characterization and elimination of toxic Cr (VI) ions from aquatic system” was published in Journal of Industrial and Engineering Chemistry 60 (2018) 307–320
- Participated in National Seminar on “Recent Advancements in Chemical, Food, Energy and Environmental Engineering” held at Anna University held during March 15-16,2018
- Attended one day faculty development programme on “Pursuing Emerging Technologies” at Cognizant on 26th May , 2018.

Ms. TAMILARASI.A

- Attended One month Induction Training Program conducted by Teaching Learning Centre at IIT Madras from 23rd April to 18th May 2018.
- Participated in National Seminar on “Recent Advancements in Chemical, Food, Energy and Environmental Engineering” held at Anna University held during 15th -16th March,2018

LIST OF STUDENTS (2013 – 2017 BATCH) RECEIVED THE OFFER LETTER FOR HIGHER STUDIES

ADVISORY BUREAU FOR HIGHER STUDIES

The advisory Bureau for higher studies (ABHS) is functioning as a separate wing with the prime notion to serve the student community for getting higher studies admission in India and abroad. The main objective of ABHS is to enable the students to prepare for the tests like GRE, TOEFL, GMAT, IELTS, GATE, CAT etc. ABHS has the latest information, books and CD's regarding GRE, TOEFL, GMAT, IELTS, GATE and CAT.

The activities of ABHS are

- ABHS organizes guest lectures to equip the students for pursuing higher studies in India and abroad.
- Various Workshops and seminars are handled by resource persons from IDP, USIEF, Cambridge University, British Council and other higher studies agencies.
- Apart from this, the students are exposed to the first hand information from Associate Director, Deans, Department heads and faculty members from many educational institutes like SUNY, University of California, University of Pennsylvania Graduate school of Education, Arkansas State University, Swinburne University, University of Sussex, Illinois Institute of Technology, Rochester Institute of Technology and Southern Illinois University.
- Many Academicians have visited our campus and also briefed the students about the application process, scholarships and requirements in their respective universities.
- The Business English Certificate (BEC), a certification from Cambridge University is a qualification in English for work. It is given under three levels - Preliminary, Vantage and Higher.
- All the second year students are given BEC training for a week and then they take the BEC examination, conducted by the Cambridge University in our campus itself.
- For the past five years, our college is getting best preparatory centre by the Cambridge University
- For the benefit of the Hostel students, coaching classes for the qualifying exams like GRE, TOEFL, GATE and CAT have been arranged in the campus.

Our students have got admission into various top ranking universities in different countries like USA, Australia, UK, New Zealand, Canada, Germany, Sweden and Singapore. To name a few, University of Texas, Stanford university, NJIT, Carnegie Mellon university, University of Massachusetts, Arizona State University, North Carolina state University, Illinois Institute of technology, University of Pennsylvania, Leeds university, University of Birmingham, NUS, NTU, University of West Virginia, MRIT, University of MTU, McGill University etc. The number of students who have got admission for higher studies during recent years is as follows:

| S.No | Academic Year | No of students* |
|------|---------------|-----------------|
| 1. | 2017 - 2018 | 67** |
| 2. | 2016 - 2017 | 147 |
| 3. | 2015 - 2016 | 187 |
| 4. | 2014 - 2015 | 192 |
| 5. | 2013 - 2014 | 187 |
| 6. | 2012 – 2013 | 163 |
| 7. | 2011 – 2012 | 131 |

- This is the number of students who have gone for higher education immediately after the completion of course.

** The admission process is still going on.

Apart from this many students are pursuing higher studies in India like NITs, IITs, IIMs, and IIPM.

A **master's degree** is an academic degree granted to individuals who have undergone study demonstrating a mastery or high-order overview of a specific field of study or area of professional practice. Within the area studied, graduates are posited to possess advanced knowledge of a specialized body of theoretical and applied topics; high order skills in analysis, critical evaluation, or professional application; and the ability to solve complex problems and think rigorously and independently. The degree is awarded upon graduation from a university.

INTERNATIONAL STUDIES ABROAD: Master's Degree programs around the world allow students to enroll in a graduate program at an institution abroad while receiving the personalized support services that define INTERNATIONAL STUDIES ABROAD programs throughout the world. The majority of programs can be completed in English in as little as one year. Upon successful completion of the program, students will receive their master's diploma and academic record from the university abroad.

In the department of Chemical Engineering

| S.NO | NAME OF THE STUDENT | COURSE | INSTITUTE |
|------|---------------------|---|---|
| 1. | Avinash S Ram | Master Of Engineering, Chemical Engineering | University Of Toronto |
| 2. | Jayashree Y | M.S. Chemical Engineering | Clarkson University |
| 3. | Mahima H | Master Of Engineering, Chemical Engineering | Jersey Institute Of Technology |
| 4. | Pavithra Gabriel | M.S. Chemical Engineering | University Of Florida |
| 5. | Raveena Narayanee | M.Tech, Chemical Engineering | Anna University |
| 6. | Vijitha G | M.Tech , Chemical Engineering | Govt. College Of Technology, Coimbatore |
| 7. | Nivethitha J R | M.Tech, Chemical Engineering | NIT Trichy |

CONQUISTA 2018



DISTRIBUTION OF 673 PLACEMENT ORDERS TO THE PLACED STUDENTS

Conquista'18– the word that makes us well with pride of our achievement. CONQUISTA is the ceremony of issuing the offer letters to the students recruited through campus placement. It was held on April 7th, 2018 with grandeur.

The function was presided by Muthuvel G – Vice President, Global Delivery Head, Data & Analytics Unit, Center Head, Infosys, Chennai who handed over the offer letters to the students in the presence of Dr.B.Babu Manoharan, The Chairman, Mrs.B.Jessie Priya & Mr.B.Shashi Sekar, The Managing Director & The Director and Dr.Vaddi Seshagiri Rao & Dr.P.Ravichandran, Principals of St Joseph's group of Institutions. Human resources - Campus Hiring from Cognizant and Infosys were also present as 'special invitees'.

We are proud to inform that we have achieved a placement record of 841 so far in this year. It is indeed a golden feather in the cap of St. Joseph's Group of Institutions.

COMMUNICATION SKILL ENHANCEMENT PROGRAM



Centre for Training and Placement of St Joseph's is largely responsible and committed towards the identification and catering to the need of training of students so that they are able to develop a good personality; and assist them to find right job and help them place in right companies before they pass out. We realize that in order to convert a raw student in to employable graduate, several behavioural attributes need to be addressed in addition to the development of technical skills. Some of the behavioural attributes are good

communication skills, developing positive attitude towards work, and understanding of moral and ethical values.

Every academic year, our college has taken an initiative to improve the communication skill of the students by organizing 48 hrs Communication skill enhancement program. The aim of this program is to empower our students to take up the future campus recruitment with confidence. All the first year students are evaluated for communication skill by the expert committee. Based on the evaluation students are categorized into **three levels** and students are given appropriate training. This communication enhancement program is conducted by corporate trainers from **Strides & Winspire**.

CENTRE FOR TRAINING AND PLACEMENT PLACEMENT ORIENTATION PROGRAM AND OTHER ACTIVITIES



The Centre for Training and Placement has conducted Aptitude crash course for first & second year students by SMART. Aptitude crash course was conducted in two phases, first phase in the first semester & second phase in the third semester. Placement orientation program-II (POP II) was conducted for the final year students by SMART and trained them on soft skills, quantitative aptitude skills etc., to prepare them for placement recruitments. Also POP III, a company specific training programme was conducted by SMART to

crack Cognizant, Infosys, Wipro test pattern.

The Centre for Training & Placement conducted Online aptitude assessment tests on every week for all the students through the skill rack portal.

Apart from these the students have undergone mock tests in Cognizant. AMCAT have conducted various test pattern such as Cognizant, Wipro, Infosys before appearing for placements. Subsequent to the above training, Cognizant has conducted Evolve Program (Transition from College to Corporate) for the final years, which helped them to understand the expectations of the corporate world. Infosys conducted a session on “interview preparatory” & Wipro conducted a session on “employability”.

Students have also acquired BEC certifications, other value added certifications. In addition to the above certifications, IT Refresher program was conducted for all final year students by Top freshers to enhance the IT related technical skills. Also series of Mock tests, Interviews & intensive coding training have greatly improved the performance of the students in the campus recruitments to a great extent.

E box have conducted various coding training on C,C++,Java and data structure from second year. Students can practice various coding programs every day software

PLACEMENT DETAILS OF BATCH 2017-2018

Total of 841 students are selected through campus recruitment processes for the year 2017 - 18 with an annual salary package, starting from Rs 2.5 Lakhs to 7.5 Lakhs for UG & PG students.

Number of Individual Offers : 841

St. Joseph's College of Engineering : 612

St. Joseph's Institute of Technology : 229

| St. Joseph's College of Engineering | | St. Joseph's Institute of Technology | |
|-------------------------------------|------------|--------------------------------------|------------|
| Course wise | | Course Wise | |
| BRANCH | TOTAL | BRANCH | |
| BIO | 51 | CSE | 61 |
| IT | 89 | | |
| ECE | 65 | IT | 31 |
| EEE | 48 | | |
| MECH | 51 | ECE | 45 |
| EIE | 51 | | |
| ICE | 29 | EEE | 41 |
| CHEM | 35 | | |
| CSE | 97 | MECH | 34 |
| MCA | 12 | | |
| MBA | 65 | CIVIL | 17 |
| Total | 612 | Total | 229 |

We are proud to inform that 841 students have been selected by the Core / Product Company, Omics, Infosys, Zifo R&D, Tnq, Scope E Knowledge, Fmi, Amazon (Alexa Data Service), Zoomrx, India Mart, Zoho (Tech Support), Spic, Cads Software, My Green Energy, Maestro Steel, Mindtree (Phase II), Hsbc, Kaar, Comcast, Hexaware Technologies, Zoho (Intern), Doodle Blue, Bosch, Wipro, Virtusa, Ntt Data, Cts, Tata Communications, Infotrellis, Msc Technology, Fourkites, Verizon, Ntt Data, Infotrellis, Maarga, Tata Communications, Valued Epistemics, Fourkites, Amphisoft, Torry Harris, Excelencia, Teamware Solutions, Thoughtworks Zoho (Content Writing), Sagitec Solutions, Biju's, Bosch (Phase II), Sosaley, Sanmina, Odyssey, Amphisoft, Zoomrx, Embedur, Edureka, Capital First, Valleypoint, Valued Epistemics, Data Patterns, Torry Harris, Ninjacart, Excelencia, Valued Epistemics, Pratian Technologies, Rivigo, Lapiz Digital Services, Autocrat Automotive Stamping Ltd, Capgemini, Yes Bank, Lapiz Digital Services, Surya Infotech, Rivigo, Nvh, Wheels India (Hr Trainee), Costking, Asahi India Glass, Anand Groups, Emerson, Digient, Johnson Controls, Comcast, Sirius, Tcs, Odyssey.

PLACEMENT DETAILS OF BATCH 2018-2019

We are glad to inform you that the following students got selected in various Core / Product Companies through Campus placement as on July 10th 2018.

| Sl.No | Name of the Candidate | Branch | College | Company |
|-------|-----------------------------------|--------|-------------|----------------|
| 1 | Jaffery Irudayasamy | EEE | Engineering | Soliton |
| 2 | Monisha Mary Arockian | EEE | Engineering | |
| 3 | Shriram M Chinnathurai | EEE | Engineering | |
| 4 | Vijay Sankar | EEE | Technology | |
| 5 | Abdun Nihaal A N | CSE | Engineering | ZOHO |
| 6 | Karthikeyan K | CSE | Engineering | |
| 7 | Supraja.D | CSE | Engineering | |
| 8 | Akil Arulsamy | IT | Engineering | |
| 9 | Harold Prabhu | IT | Engineering | |
| 10 | Pranesh Jameen Arumugapandian | IT | Engineering | |
| 11 | Surya Venkat Raghava Bupesh Kumar | IT | Engineering | |
| 12 | Hariharan D | MECH | Engineering | |
| 13 | Aswin.C | CSE | Engineering | |
| 14 | Chrisvin Jem Peniel | CSE | Engineering | |
| 15 | Akshay Raman Jayaraman | EEE | Engineering | |
| 16 | Navaneethakrishnan Subburaj | IT | Engineering | |
| 17 | Jaithun Mahira K Z | CSE | Engineering | |
| 18 | Vikash Anil | IT | Engineering | |
| 19 | Robin R | EEE | Technology | |

The following list of companies will be visiting our college for the campus placement in the month of July 2018

| Company Visited | Date of Interview | Salary Package (Lakhs / Annum) |
|-----------------|------------------------------|--------------------------------|
| ZOHO | 09 & 10th April 2018 | 4.6 / 6.5 |
| ELITISTS | 10-Jun-18 | 5 - 6 |
| SOLITON | 26 & 27 June 2018 | 4.2 - 5.4 |
| ZOHO | 28, 29 & 30 June 2018 | 4.6 / 6.5 |
| ODESSA | 03 & 06 July 2018 | 5.5 |
| Zifo | 26th July 2018 | 3.7 |
| MUSIGMA | 09 July & 10, 11 August 2018 | 3.3 |
| SYMANTAC | 10 July & August 2018 | 4 |
| NUTPAM | 10 July & August 2018 | 4 |
| AJIRA | 16 July & August 2018 | 4 |
| DOODLE BLUE | Jul-18 | 3 |
| CODEBRAHMA | Jul-18 | 6 |







We are having many forthcoming recruitment by reputed industries in following months and we are training our students in a structured way.

PLACEMENT TRAINING DETAILED SCHEDULE 2018-2019

| SEM | ACTIVITY | ELIGIBILITY | TRAINING PARTNER | DURATION (In Days) | DATES |
|-------------------------------------|---|---|---------------------------------|--------------------|-------------------------|
| I | Communication skill Enhancement | ALL | STRIDES / WINSPIRE / VISTAMIND | 3 | August / September |
| | Aptitude Crash Course (Phase I) | ALL | External Vendor | 3 | August / September |
| III | BEC Training | ALL | STRIDES / WINSPIRE / SIX PHRASE | 6 | June 18th to June 30th |
| | Aptitude Crash Course (Phase II) | ALL | VISTA MIND | 3 | June 21st to June 30th |
| V | Advanced Data Structures | ALL | SKILL RACK | 3 | June 20th to July 4th |
| | Department Specific Value Added Course | ALL | EXTERNAL VENDOR | 3 | June 20th to July 4th |
| VII | Advanced Datastructures & Algorithm (College Sponsored) (Training & Virtual Learning) | ALL Departments (Selected Students Only) | EXTERNAL VENDOR | 10 | June 20th to June 30th |
| VI | AMCAT Assessment I | UPTO 3 ARREARS | ASPIRING MINDS | 3.5hrs | March 23rd & 24th |
| VII Total package worth Rs. 8000 | Placement Orientation Program II | | SMART Training Resource | 6 | May 28th to June 19th |
| | Datastructures & Algorithm | | SIX PHRASE | 6 | May 28th to June 19th |
| | CODE Fit Training | | SIX PHRASE | 6 | May 28th to June 19th |
| | CoCubes Online Assessment I | | CO CUBES | 3 hrs | July 5th & 6th |
| | AMCAT Assessment II | | ASPIRING MINDS | 3.5hrs | July 7th & 9th |
| | Mock Interview I | | EXTERNAL PARTNER | | July 20th & 21st |
| | AMCAT Assessment III | | ASPIRING MINDS | 3.5hrs | December |
| | CoCubes Online Assessment II | | CO CUBES | 3 hrs | December |
| | Placement Orientation Program III | | EXTERNAL PARTNER | 6 | August 27th to Sept 1st |

PLACEMENT DETAILS OF CHEMICAL ENGINEERING STUDENTS 2017- 2018

The Management and faculty of Chemical Engineering Department congratulate the following **students** for getting placed in reputed companies through campus interviews. We wish them all the very best for their future endeavour.

| NAME OF THE STUDENT | COMPANY NAME |
|--------------------------|---|
| Arun Kumar J | MANALI PETROCHEMICALS  |
| Mohankumar K | |
| Kishor S | |
| Thaila. K | |
| Udith Kiran A | |
| Saran Kumar M | |
| Prasanth N | SPIC  Nourishing growth |
| Naveen B | |
| Askin John Samuel R | INFOSYS  POWERED BY INTELLECT DRIVEN BY VALUES |
| Daniel Manogaran D | |
| Delight Azariah Daniel W | |
| Keerthana. P | |
| Saran Kumar M | |
| Sinto Stephen | |
| Supriya.B | |
| Vineeth Anton Jose T | |
| Arun Kumar J | ZOHO  Work · Online |
| Raghul M | |
| Sneha Jose | |
| Harish T | AMAZON  |
| Geetha N | |
| N.Noor Faseeha | |
| E.Yamuna | |
| Robin Jerry Moses P | TNQ  |
| Naveen B | |
| Harish T | |
| Harithajennifer D | |
| Karthik V Ashok | |
| Kishor S | |
| Mohammed Shahnawaz S | |
| Nandhini G | |
| Robinson N | |
| Sarah E | |
| Shankara Narayanan B | |
| Vipin K B | |

DEPARTMENT TOPPERS

A right honor at the right time will have an impact on life forever. The students who have catalyzed their actions into accomplishments by achieving good grades in the University Exam are motivated by the management in different ways by

- ❖ **Anna university rank holders will be awarded Rs.25, 000/- each and for gold medal Rs.50, 000/- on our college Graduation Day.**
- ❖ Awarding University Rank Holders with Shields on Graduation Day.
- ❖ Honoring the First University Topper from each Department with a special shield incorporating the name of a famous Personality.
- ❖ Issuing extra book bank library cards for semester toppers to enhance learning skills and better understanding.
- ❖ Awarding merit certificates at the end of each semester for subject toppers as well as overall toppers.
- ❖ Hosting Special lunch for the semester toppers on that day.

DEPARTMENT TOPPER'S – ABOVE 8.3 CGPA

IV YEAR (2017 – 2018) – Passed out

| S.No | Name of the Student | Total Grade Points out of 1820 | CGPA |
|------|--------------------------|--------------------------------|------|
| 1 | Delight Azariah Daniel W | 1678 | 9.22 |
| 2 | Prasanth N | 1669 | 9.17 |
| 3 | M. Muthu Nandini | 1629 | 8.95 |
| 4 | Saran Kumar M | 1627 | 8.94 |
| 5 | G. Nandhini | 1620 | 8.90 |
| 6 | N.Noor Faseeha | 1618 | 8.89 |
| 7 | J. Malathi | 1615 | 8.87 |
| 8 | Shivani K | 1612 | 8.86 |
| 9 | G.Vishali | 1606 | 8.82 |
| 10 | Supriya.B | 1604 | 8.81 |
| 11 | Haritha Jennifer.D | 1597 | 8.77 |
| 12 | Sneha Jose | 1595 | 8.76 |
| 13 | Naveen. B | 1570 | 8.63 |
| 14 | Arun Kumar J | 1564 | 8.59 |
| 15 | Kishor S | 1560 | 8.57 |
| 16 | Geetha.N | 1558 | 8.56 |
| 17 | Thaila. K | 1557 | 8.55 |
| 18 | Vineeth Anton Jose T | 1556 | 8.55 |
| 19 | Daniel Manogaran D | 1552 | 8.53 |
| 20 | E.Yamuna | 1540 | 8.46 |
| 21 | Abinaya.J | 1538 | 8.45 |
| 22 | Askin John Samuel R | 1525 | 8.38 |
| 23 | K.Janaki | 1511 | 8.30 |

III YEAR (2015– 2019) – Current IV Year

| S.No | Name of the Student | Total Grade Points out of 1420 | CGPA |
|------|-------------------------|--------------------------------|------|
| 1 | Mohamed Ibrahim S | 1353 | 9.20 |
| 2 | Aakash V R | 1315 | 8.95 |
| 3 | Karthick Raj S | 1313 | 8.93 |
| 4 | Aishwarya M | 1303 | 8.86 |
| 5 | Daniela Onasis A | 1303 | 8.86 |
| 6 | Raghavendar S | 1294 | 8.80 |
| 7 | Shijoy Thomas | 1293 | 8.80 |
| 8 | Lamsy Alex | 1286 | 8.75 |
| 9 | Kaviya S | 1281 | 8.71 |
| 10 | Rajeshwaran K | 1275 | 8.67 |
| 11 | Nandhitha S | 1262 | 8.59 |
| 12 | Mukilan T | 1259 | 8.56 |
| 13 | Gobicca M | 1258 | 8.56 |
| 14 | Sriganesh Parameswaran | 1257 | 8.55 |
| 15 | Monika Madhiyan Mookkan | 1255 | 8.54 |
| 16 | Kamalidevi J | 1253 | 8.52 |
| 17 | Pradeepkumar B | 1236 | 8.41 |
| 18 | Ajay Kumar V | 1230 | 8.37 |
| 19 | Kiruthika J | 1229 | 8.36 |
| 20 | Shashanka Bhat P | 1229 | 8.36 |
| 21 | Joefrey Daniel P C | 1226 | 8.34 |
| 22 | Jayasuriya S | 1173 | 8.32 |
| 23 | Sivasankar S | 1221 | 8.31 |

II YEAR (2016 – 2020) – Current III Year

| S.No | Name of the Student | Total Grade Points out of 980 | CGPA |
|------|-----------------------|-------------------------------|------|
| 1 | Vedha Lakshmi S | 899 | 9.17 |
| 2 | Revathy R | 880 | 8.98 |
| 3 | Irene Joseph | 865 | 8.83 |
| 4 | Surendran V | 864 | 8.82 |
| 5 | Hariharan R | 846 | 8.63 |
| 6 | Roshni M | 845 | 8.62 |
| 7 | Haripriya M | 840 | 8.57 |
| 8 | Earnestraj D | 834 | 8.51 |
| 9 | Hilton Samuel B | 831 | 8.48 |
| 10 | Shriram M R | 830 | 8.47 |
| 11 | Akash A | 829 | 8.46 |
| 12 | Madeshwaran J | 829 | 8.46 |
| 13 | Lenny Allwin Deepak F | 827 | 8.44 |
| 14 | Chandrasekar S | 823 | 8.40 |
| 15 | Gokul Ramesh K | 820 | 8.37 |
| 16 | Yapase Sajil N | 815 | 8.32 |

FIRST YEAR (2015– 2019) – Current II Year

| S.No | Name of the Student | Total Grade Points out of 500 | CGPA |
|------|---------------------|-------------------------------|------|
| 1 | Monika V | 456 | 9.12 |
| 2 | Dharkshith K | 453 | 9.06 |
| 3 | Ragul R | 449 | 8.98 |
| 4 | Amala Deepa D | 442 | 8.84 |
| 5 | Aravindan K | 442 | 8.84 |
| 6 | Cheranmadevi G | 436 | 8.72 |
| 7 | Karthik M | 428 | 8.56 |
| 8 | Selvabharathi V | 426 | 8.52 |
| 9 | Kaviya V | 425 | 8.5 |
| 10 | Adithya G | 422 | 8.44 |
| 11 | Vaishnavi K | 421 | 8.42 |
| 12 | Ramalingam S | 418 | 8.36 |
| 13 | Kasthuri E I | 415 | 8.3 |

NGO'S(NON-GOVERNMENT ORGANIZATION)ACTIVITIES

It is pathetic that there are numerous orphanages and old age homes in our society. Our visionary Director yearns for extending a supporting hand to these needy persons. Also, he wanted to invoke the service mind of our students by encouraging visits to orphanages, old age homes and homes for CP children (children with Cerebral Palsy which causes physical disability in human development chiefly in vain areas of body movement). NGO activities bring out the hidden potentials of young minds to serve the needy and to make them responsible citizens. They are exposed to downtrodden lifestyle which is a need of the hour for our country's development.

Our college offers special lunch (Both Vegetarian and Non Vegetarian with sweets, savories and ice creams) to all the inmates of orphanages, old age homes and homes for CP children. Students are provided with transport facilities to visit the homes on activity Saturdays. All the students, from First year to Final year, both UG and PG enthusiastically participated and mingled with inmates of home and

spent the daytime with them and shared their happiness. They also spent their pocket money in useful manner by offering the needy things like rice bags, groceries, toys, clothes, pillows etc. for the inmates.

The department of chemical engineering has participated on Saturdays and the activity was thoroughly enjoyed and appreciated by the students and faculties.

| S.NO | Year | Date of Visit | Type of Organization | Address with phone number |
|------|------|---------------|----------------------|---|
| 1. | I | 21/10/2017 | Orphanage | Mariela's Children Home, Vayalur Check Post, Kalpakkam. Ph- 9952609818, 9944505796 |
| 2. | II | 23/09/2017 | Orphanage | Annai Fathima Child Welfare Centre, Karapakkam. Ph- 9444444874 |
| 3. | III | 19/06/2017 | Orphanage | Grace Children Home, Chengalpet. Ph- 9894822155 |
| 4. | IV | 15/07/2017 | Old Age Home | Sri Sathyanarayana Charitable Trust, Nanmangalam. Ph- 9080303340 |
| 5. | I | 03/03/2018 | Orphanage | Thambillam, Kolampakkam. Ph- 9952019230 |
| 6. | II | 03/03/2018 | Orphanage | Anbinoli, No-6, 4rth Street, KS Nagar, Kavankarai. Ph- 9380407307 |
| 7. | III | 16/12/2017 | Orphanage | Marilla's Children Home, Vayalur Check Post, Kalpakkam . Ph- 8939741550 |

We wish to continue our service forever

STUDENTS ACTIVITIES

The students of our department actively take part in various co-curricular and extra curricular activities not only inside the campus but also outside the campus enthusiastically. Their participation and achievements are listed below:

INTER COLLEGE TECHNICAL AND NON TECHNICAL ACTIVITIES

Knowing the importance of bringing out the hidden talents by means of co-curricular activities, our students have participated in various symposiums at National and International levels and have emerged as winners.

| S.NO | NAME OF THE STUDENT | EVENT | ORGANISOR | PLACE |
|------|---------------------------|--------------------------|---|--------------|
| 1. | Arya B Nair | Chemiczna Quiz | Ssn College Of Engineering | II |
| 2. | Irene Joseph | Chemiczna Quiz | Ssn College Of Engineering | II |
| 3. | Abdul Khaiyoom.K | International Conference | Rajiv Gandhi Institute Of Petroleum Technology | Participated |
| 4. | Aakash. V. R | Chem-Connections | Ssn College Of Engineering | III |
| 5. | Alderick Nirmal Raj. J | Chem-Connections | Ssn College Of Engineering | III |
| 6. | Muthulakshmi Shunmugam | Chemaze | Srm University | III |
| 7. | Pooja Mohankumar | Chemaze | Srm University | III |
| 8. | Nandhitha S | Chemaze | Srm University | III |
| 9. | Mohamed Ibrahim S | Paper Presentation | Srm University | II |
| 10. | Shijoy Thomas | Paper Presentation | Srm University | II |
| 11. | Koushik Ram B | Recalibrte | Srm University | II |
| | | Adzap & Channel Surfing | | II |
| 12. | Raghavendar S | Recalibrte | Srm University | II |
| 13. | Mohamed Shameer M K S | Recalibrte | Srm University | II |
| 14. | Janesh M | Recalibrte | Srm University | II |
| 15. | Vineeth Anton Jose.T | Quiz Competition | Csir-Central Electrochemical Research Institute | I |
| 16. | Prasanth.N | Quiz Competition | Csir-Central Electrochemical Research Institute | I |
| 17. | Haritha Jennifer.D | Tech Quiz | B S Abdur Rahman | II |
| | | Paper Presentation | Crescent Institute Of Science Nd Technology | III |

STUDENTS CHAPTER ACTIVITIES

INDIAN INSTITUTE OF CHEMICAL ENGINEERING ACTIVITIES



Chemical Engineering club has conducted Guest lecture under the banner of Indian Institute of Chemical Engineering (IICHE)

The main objective is to make students aware about the different career options through interaction with industrialists. From this the students get an in-depth professional knowledge in their area of specialization through which they can outperform the questions raised during the interview.

| SL. NO. | DATE | NAME | DESIGNATION | TOPIC |
|----------------|-------------|-----------------------|--------------------------------------|---|
| 1 | 07/07/2017 | Mr.Nagarajan. N | Assistant General Manager - PetroFac | Chemical Engineering Education & Career Prospects |
| 2 | 07/07/2017 | Mr.Gokul.D | Scientist – ISRO | Career Opportunities in Chemical Engineering |
| 3 | 07/07/2017 | Dr.G.S.Venkata Ratnam | Senior Principal Scientist,CLRI | Role of Chemical Engineer |

CURRICULAR ACTIVITIES

Our final year students of Chemical Engineering have done their projects in the following major industries:

- Orchid Chemicals and Pharmaceuticals , Chennai
- CPCL, Chennai
- Tamilnadu Petro products Limited, Chennai.
- CETEX Petrochemicals Limited, Manali, Chennai.
- Madras Fertilizers Limited , Manali
- Manali Petrochemicals Limited, Chennai
- CLRI, Chennai
- IIT Madras.

INDUSTRIAL VISITS

Industry Institute Interaction has become almost a part of the curriculum in today's education. Our students visited some of the industries listed below to keep in pace with the current industrial environment. These visits give them a practical exposure to the actual industrial environment and motivate them to tune their theoretical knowledge as per the required standards set up in the industries.

| YEAR | PLACE OF VISIT | DATE |
|------|--|------------|
| II | BHAVINI, Kalpakkam, Chennai | 16.02.2018 |
| III | Ramco Cements Limited, Alathiyur | 06.02.2018 |
| III | Apollo Breweries Pvt. Ltd ,Gummidipoondi | 06.07.2017 |
| II | Orchid Pharmaceuticals Pvt. Ltd. | 14.07.2017 |

GUEST LECTURES

Guest Lecture is a way of enriching our students with the latest updates of the Industries and Technicalities. The Students are bestowed with knowledge about Industry needs, latest technical updates, Avenues for Higher studies etc.

Eminent personality from prestigious institutions and organizations are regularly invited to share their knowledge on various emerging fields and changing trends.



| S.No | DATE | NAME OF THE RESOURCE PERSON | TOPICS COVERED |
|------|------------|--|---|
| 1 | 04.08.2017 | Dr.N.Vedaraman ,Senior Technical Officer, CLRI | Recent Trends in Chemical Engineering |
| 2 | 13/02/2018 | Mr. K.K.Vishwanath, General Manager, Quality Assurance & Systems | Good Manufacturing Practices, Quality Control and Instrumentation |

STUDENTS COMPETITIVE EXAM RESULTS

A **competitive examination** is an examination where candidates are ranked according to their grades. If the examination is open for n positions, then the first n candidates in ranks pass, the others are rejected.

They are used as entrance examination for post graduate in various university and colleges. Competitive examinations are considered an egalitarian way of choosing worthy applicants without risking influence peddling, favoritism or other concerns.



The following students are qualified in the various examinations like GATE, GRE etc.

| S.NO | NAME OF THE STUDENT | NAME OF EXAMINATION | MARKS SECURED |
|------|---------------------|---------------------|------------------|
| 1. | AVINASH S RAM | TOFEL | 99 out of 120 |
| 2. | DHANASHREE E | TANCET - MBA | 32.66 out of 100 |
| | | TANCET – M.Tech | 16.21 out of 100 |
| 3. | JAYASHREE Y | GRE | 311 out of 340 |
| | | TOFEL | 106 out of 120 |
| 4. | KAVI NILA G | GRE | 307.5 out of 340 |
| | | TOFEL | 100 out of 120 |
| 5. | KAVIPRIYA G | TOFEL | 107 out of 120 |
| 6. | MAHIMA H | GRE | 297.5 out of 340 |
| | | IELTS | 6.5 out of 9 |
| 7. | NAVANEETHA KRISHNAN | IELTS | 7.5 out of 9 |
| 8. | NAVIN R | TANCET - MBA | 57 out of 100 |
| | | TANCET – M.Tech | 30.83 out of 100 |
| 9. | NIVEDITHA J R | GATE | 51.3 out of 100 |
| 10. | PATTABIRAMAN V K | GRE | 306 out of 340 |
| | | TOFEL | 101 out of 120 |
| 11. | PAVITHRA GABRIEL | GRE | 307 out of 340 |
| | | TOFEL | 102 out of 120 |
| 12. | PRIYANTHI K | GRE | 307 out of 340 |
| 13. | VIJITHA G | TANCET – M.Tech | 32.79 out of 100 |

INTRA DEPARTMENT SYMPOSIUM 2017

The department of Chemical Engineering conducted an intra-department symposium for all II, III and IV Year CHEMICAL STUDENTS on **22-07-2017**. The students participated in various events Viz. **HOW WASTE STUFF WORKS**, **Chem Quiz**, **Chem Connections**, **Chemical Hazard Investigation**, **Working Model**

Prize amount of ₹ **10,000** was distributed to the prize winners of all the above mentioned events.

| Sl. No. | Event | I prize (Rs.1000/-) | | II prize (Rs.600/-) | | III prize (400/-) | |
|---------------------------------------|-------------------------------|------------------------|------|------------------------|------|--------------------------|------|
| | | Name of the student(s) | Year | Name of the student(s) | Year | Name of the student(s) | Year |
| 1. | Chem Quiz | Mohamed Ibrahim | III | Thaila K | IV | Monika Madhiyan | III |
| | | Koushik Ram | III | Vineeth Anton Jose T | IV | Jessifer Jimna S J | III |
| 2. | Chem Connections | Muthulakshmi | III | Aakash.V.R | III | Hariharan.R | II |
| | | Nandhita.S | | Jethin Laurence | | Shriram.M.R | |
| 3. | Chemical Hazard Investigation | Aakash V R | III | Soosai Nivek | IV | Daniel Raja N | II |
| | | Jethin Laurence | | Vignesh Kumar | | Kameshwaran G | |
| 4. | How Chem Waste Stuff Works | Raghavendar S | III | Agnel J Naveen | II | Abuthager Rekhan Faris R | II |
| | | Shijoy Thomas | | Hilton Samuel B | | G R Rakesh Raj | |
| 5. | Working Model | Akash Krishnadoss | II | Revathy R | II | Thaila K | IV |
| | | Thiyagarajan M | | Tabuja J | | Vineeth Anton Jose | |
| TOTAL PRIZE AMOUNT Rs.10,000/- | | | | | | | |

செயிண்ட் ஜோசப்ஸ் பொறியியல் கல்லூரி
செயிண்ட் ஜோசப்ஸ் கல்விக் குழுமம்
தமிழ் மன்றம்

பட்டிமன்றம் அறிக்கை- 2018

செயிண்ட் ஜோசப்ஸ் பொறியியல் கல்லூரியில் டாக்டர். எம்.ஜி.ஆர். அவர்களின் பிறந்த நாள் விழாவை முன்னிட்டு 08.02.2018 அன்று செயிண்ட் ஜோசப்ஸ் பொறியியல் கல்லூரி தமிழ் மன்றம் சார்பில்

“குடும்பத்தின் மகிழ்ச்சிக்கும், கலகலப்பிற்கும் பெரிதும் காரணம்

ஆண்களே! பெண்களே!”

என்ற தலைப்பில் பட்டிமன்றம் நடைபெற்றது.

கல்லூரித் தலைவர் மற்றும் நிர்வாக இயக்குனர் டாக்டர்.பாபு மனோகரன், இயக்குனர்கள் B. ஜெஸி ப்ரியா மற்றும் B. சசி சேகர், முதல்வர் டாக்டர். வட்டி சேஷகிரி ராவ் ஆகியோர் முன்னிலையில் நடைபெற்ற இந்த பட்டிமன்றத்தில் முனைவர் திரு. நெல்லை சுப்பையா நடுவராக பொறுப்பேற்று “குடும்பத்தின் மகிழ்ச்சிக்கும், கலகலப்பிற்கும் பெரிதும் காரணம் ஆண்களே!” என்று தீர்ப்பு வழங்கினார். ஆசிரியர்களும், மாணவர்களும் நடுவரது நகைச்சுவையான பேச்சைக் கேட்டு மகிழ்ந்தனர்.

!ÀŃŃŃ! என்ற அணியில் மாணவர்கள் செ. தேவேந்திரன் (I EEE-A), பெ. வைஷ்ணவி (I BIO), ப. தனுஷ் (I EEE-A), சே. சங்கீதா (I BIO), கோ. விஷால்ராஜ் (I ICE)ஆகியோரும்,

–ŃŃŃ! என்ற அணியில் மாணவர்கள் ப. சேதுவேலப்பன் (I MECH-C), இ. ஐஸ்வர்யா அன்னபூரணி (I BIO), பா. நிருபிரியா (I EIE-B), வி. ஜிம் டேவிட் (I EEE-B), பி. அருண் கார்த்திக் (I MECH -A)ஆகியோரும் பங்கேற்று வாதிட்டு அனைவரது பாராட்டுக்களையும் பெற்றனர்.

இவர்களில் பெ. வைஷ்ணவி மற்றும் பா. நிருபிரியா ஆகியோரை சிறந்த பேச்சாளர்களாக தேர்வு செய்து, கல்லூரித் தலைவர் மற்றும் நிர்வாக இயக்குனர் அவர்கள் ரொக்கப் பரிசு ரூபாய் 1000 அளித்து பாராட்டினார். பங்கேற்ற அனைவருக்கும் பங்கேற்பு சான்றிதழ் வழங்கப்பட்டது.

BUSINESS ENGLISH CERTIFICATES (BEC)

Cambridge English: Business Certificates, also known as Business English Certificates (BEC), are a suite of three English language qualifications for international business.

Cambridge English: Business Preliminary (BEC Preliminary) – CEFR Level B1

Cambridge English: Business Preliminary, also known as Business English Certificate (BEC) Preliminary, is the first of the three certificates. It is an intermediate level exam.

Cambridge English: Business Vantage (BEC Vantage) – CEFR Level B2

Cambridge English: Business Vantage, also known as Business English Certificate (BEC) Vantage, is the second of the three certificates. It is an upper-intermediate level exam.

Cambridge English: Business Higher (BEC Higher) – CEFR Level C1

Cambridge English: Business Higher, also known as Business English Certificate (BEC) Higher, is the third of the three certificates. It is a high level exam.

They will help you to achieve your ambitions to:

- ❖ work abroad
- ❖ work with international organizations in your own country
- ❖ Study business-related subjects taught in English.

They show that you can use English confidently in international business environments.

The results of BEC are

| ASSESSMENT NAME | RESULT | NO OF STUDENTS | ASSESSMENT NAME | RESULT | NO OF STUDENTS |
|-----------------|----------------------------|----------------|-----------------|----------------------------|----------------|
| BEC VANTAGE | PASS AT GRADE A | 3 | BEC PRELIMINARY | PASS | 12 |
| BEC VANTAGE | PASS AT GRADE B | 7 | BEC PRELIMINARY | PASS WITH MERIT | 3 |
| BEC VANTAGE | PASS AT GRADE C | 6 | BEC PRELIMINARY | PASS WITH DISTINCTION | 1 |
| BEC VANTAGE | COUNCIL OF EUROPE LEVEL B1 | 1 | BEC PRELIMINARY | COUNCIL OF EUROPE LEVEL A2 | 27 |

BEC VANTAGE : 19 STUDENTS BEC PRELIMINARY: 48 STUDENTS

INTRAMURAL SPORTS

In our college intra department sports was conducted to encourage the students to participate in sports activities. Various houses were formed among all departments and it is mentioned by different names. In our house CHEMICAL, BIOTECH and ICE are grouped together and named as CRANE.



For I year it is conducted on 20th September 2017

- ❖ Basketball (men) - RUNNERS UP
- ❖ Basketball (women) - WINNERS

For II year it is conducted on 7th February 2018

- ❖ Basketball (women) -WINNERS
- ❖ Football (Men) - RUNNERS UP
- ❖ Chess Men (Singles) - N.DANIEL RAJA

For III year it is conducted on 14th February 2018

- ❖ Volley ball (women) - WINNERS
- ❖ Basketball (women) - RUNNERS UP

NATIONAL TECHNICAL SYMPOSIUM – JET CHEM 2017

On September 9th, 2017, the 18th National Students' Symposium "JET CHEM 17" was conducted by the Department of Chemical Engineering. **Rs 25,000 prize money was awarded to the winners of all the events.** Students from various institutions VIZ, A C College of Technology, Anna University, Chennai and Trichy, S S N College of Engineering, Chennai, Vel Tech High Tech Engineering College, Chennai, Sathyabhama University, Chennai, Sri Venkateswara College Of Engineering Chennai participated in the symposium.

- ❖ Total no. of Colleges Participated – **07**
- ❖ No. of Participants – **34**

| Sl. No. | Name of the Event | I Prize : Rs. 3000/- | II Prize : Rs. 2000/- | III Prize : Rs. 1000/- |
|---------|-------------------|--|--|--|
| | | Name(s) of I Prize Winners | Name(s) of II Prize Winners | Name(s) of III Prize Winners |
| 1 | CHEM QUIZ | 1.R S Goutham Kumar 2.M Maheswaran | 1.S Karthik 2.K Jeeva | 1.S M Amresh 2.Bharadwaj |
| | | A C Tech, Anna university | Sri Venkateswara College of Engineering | S R M University |
| II | ELEMENTAL X | 1.S Karthik 2.K Jeeva | 1.R S Goutham Kumar 2.M Maheswaran | 1.Kushpoo S 2.Poorna Priya V |
| | | Sri Venkateswara College of Engineering | A C Tech, Anna university | A C Tech, Anna university |
| III | CHEM WARS | 1.Rohit Mathur 2.Bharadwaj | 1.Dharanidharan 2.Ajith Kumar | 1.Harini S 2.Sowmiya V |
| | | S R M University | S R M University | A C Tech, Anna university |
| IV | CHEM-BOOZLED | 1.P L Sriram 2.G Sudarsan | 1.S NAMresh 2.Karthik Vasudev R N | 1.Kushpoo S 2.Poorna Priya V |
| | | SSN College of Engineering | S R M University | A C Tech, Anna university |
| V | RECALIBRATE | 1.R S Goutham Kumar 2.M Maheswaran | 1.Ruthra Dharshini 2.Nandhini | 1.S Karthik 2.K Jeeva |
| | | A C Tech, Anna university | A C Tech, Anna university | Sri Venkateswara College of Engineering |

VALUE ADDED COURSES

Our college is always one-step ahead in motivating and shaping up our students towards their career development. In this aspect, we are conducting value added courses, which are courses beyond their curriculum, designed to enhance the knowledge of the students in their core fields and specialize themselves in the latest technologies pertaining to their chosen field of studies. Completing such value added courses makes the students to:

- **Enhance their learning skill, technical creativity and innovative ideas.**
- **Gain exposure towards recent trends in core fields augmenting their employability.**
- **Endeavor them for higher studies in India and abroad.**
- **Compete with the fellow students globally.**
- **Carryout innovative projects thereby contributing to research and development.**

Our institution has signed Memorandum of Understanding (MoU) with many leading organizations to organize value added courses to students, to take up specialized courses, which are currently being used in the industries. The students have the option to choose the courses according to their desires and inclinations. During the last academic year, students have undergone various value-added courses based on their interest. In our department many students were benefited and the details are given below.

| Department | Year | Value added Courses | No of Students |
|----------------------|------|--|----------------|
| CHEMICAL ENGINEERING | III | Instrumentation in Chemical Industries | 72 |
| CHEMICAL ENGINEERING | III | Advanced C | 72 |
| CHEMICAL ENGINEERING | III | Digital Image processing` | 72 |
| CHEMICAL ENGINEERING | III | Hands on value added course in computer aided drug designing | 72 |

- Practical classes were conducted on Instrumentation in Chemical Industries for six days during 27.06.2017 to 03.06.2017 . Students have gained wide knowledge on various **instrumentation used in industries.**
- **Advanced C** programming training was given for 3 days by Ebox during 11.01.2018,12.01.2018 & 19.01.2018
- One day training was provided by **Digital Image processing`** by Pantech ProE Pvt Ltd on 23.02.18.
- **Hands on value added course in computer aided drug designing was** conducted by Biozone Research Technologies during 20.02.2018 to 21.02.2018

ONLINE WORKSHOP

- Quality Improvement cell, in collaboration with IIT Mumbai and Anna university, is conducting an online workshop on OPEN FOAM. Following the workshop, students are provided with study materials to help them in facing 45 minute objective type online test. Students cleared the online test and achieved e-IIT certificate from IIT Mumbai. 72 students have attended OPEN FOAM.

II YEAR VALUE ADDED COURSES

Value Added Courses are provided to students with an aim to teach and train in programming skills.. The goal is to accelerate the programming capability needed for solving scientific and real time problems demanded by the corporate world. Students have options to choose the courses according to their desire and inclination. It is great boon to our students, in expertise various Value Added Courses which enables them to face the formidable challenges.

| Department | Year | Value added Courses | No of Students |
|----------------------|------|---------------------|----------------|
| CHEMICAL ENGINEERING | II | C/C++ course | 68 |
| CHEMICAL ENGINEERING | II | Data structures | 68 |

- **C/C++ course** was provided by EBox for three days during 27/06/2017 to 29/06/2017
- Five days training was given on **Datastructure** by EBox during 9.01.18 to 12.01.18 & 19.01.18

ONLINE WORKSHOP

- Quality Improvement cell, in collaboration with IIT Mumbai and Anna University, is conducting an online workshop on C/C++. Following the workshop, students are provided with study materials to help them in facing 45 minute objective type online test. Students cleared the online test and achieved e-IIT certificate from IIT Mumbai. 72 students have attended C/C++.68 students from 2nd year Chemical Engineering have attended C/C++

Course Objective – C/C++, Datastructure

To facilitate the fundamentals of structured and Object Oriented programming concepts and to enhance the programming aspects in C/C++.

The outcome of this course is to enable the students to

- Identify the usage of complex data types to solve scientific and real world problems.
- Identify the major elements in an object-oriented programming language.
- Implement operator overloading.
- Select the proper class protection mechanism.
- Derive classes using inheritance in C++.
- Demonstrate the use of virtual functions to implement polymorphism.
- Write programs utilizing the I/O classes in C++.
- Understand some advanced features of C++ including templates, exceptions, and multiple inheritance.

It is a matter of pride that the courses are taught by the experts from industries using the laboratory facilities available in our institutions to meet the requirements of industry on successful completion of such value added courses make the students to:

- ✓ Accelerate the programming skills
- ✓ Carryout innovative projects
- ✓ Compete with the fellow students during placement and interview process.

BEST OUT GOING STUDENT AWARD 2017-2018

Success is not the destination that we reach. Success is the quality of our journey. The quality of the journey depends upon the goals we set and the mentors we choose. The quality of the mentor lies in appreciating even the smallest efforts as appreciation is the only tool which enables us to build the impossible. Mankind's greatest achievements have come about by constant encouragement. Our greatest hopes could become reality in the future if our efforts are recognized. With this the possibilities are unbounded. All we need to do is to appreciate and encourage the young minds as most achievers are people who have made a strong and deep dedication to pursue a particular goal. St. Joseph's recognizes this dedication by awarding the student with "The Best Outgoing Student Award". The most prestigious and most awaited award ceremony of the year "The Best Outgoing student Award" for this year was held in the St. Joseph's indoor Auditorium.

The criteria of best outgoing students are

- ❖ **Good in academics (CGPA)**
- ❖ **Good communication skills**
- ❖ **Best managerial skills**
- ❖ **Active participation in extracurricular & co- curricular activities.**
- ❖ **Attendance (not taken more than 4 days in a semester)**
- ❖ **Got placed or got admission for higher studies (secured good score in GRE or GATE exam if admission is not confirmed)**

Brought laurels to the department or college

Organized activities at department level or college level

Not undergone any disciplinary proceedings and maintaining neat dress code

Quality of final year project.

The students from various departments were selected as best outgoing students by the faculty members of the respective department. The faculty members select the best students by voting. The student who gets the highest number of votes would be awarded the best student award for the year. The Best outgoing students were felicitated by the Managing Director Dr. B. Babu Manoharan.

The following table shows the names of students from various departments selected as best outgoing student

| S. No. | Department | Name of the best outgoing student |
|--------|-------------|-----------------------------------|
| 1 | CSE | VISHWA PRIYA J |
| 2 | ECE | SERGITON DAVID |
| 3 | EEE | RACHEN R |
| 4 | IT | NANTHA KUMAR R |
| 5 | CHEM | SARAN KUMAR M |
| 6 | ICE | NARMADHA S |
| 7 | EIE | RITESH S |
| 8 | MECH | RAJARAM M |
| 9 | CIVIL | SOORYA B |
| 10 | BIO | PUNNAIVALAVAN K A |
| 11 | MBA | AGILA S |
| 12 | MCA | VARUN NACHIAPPAN S P |

ACHIEVER'S DAY 2018

Achievers day is celebrated every year during the month of April, in which students who brought laurels to the College during the academic year are honoured and rewarded.

Achievers Day for the Academic year 2017-18 was celebrated on 07. 04. 2017. The students who won various competitions have been invited. The invitees were

- Total Sports and Games Teams : 223 Players
- Inter-collegiate Paper presentation, Symposium, Conference position winners : 1463

Students

- Toppers :496 Students
- Blood donors from Youth Red Cross : 53 Students
- Members of Tamil Mandram: 20 Students
- Members of Our College Student Orchestra Team :
44 Students
- Inter-collegiate Cultural Competition Winners : 43 students



| No. of Students Honored | Total Amount Distributed |
|-------------------------|--------------------------|
| 2342 | Rs. 11.13 Lakhs |

On the whole 2342 Students of our college belonging to various categories mentioned above were honored by distributing cheques and certificates on this special occasion.

This special function started at 6.00 P.M. with the High Tea followed by the distribution of Gifts. This event was made even more startling by our College Orchestra team and Dance Program by the students. The event ended at 9.00 P. M. with Splendid Vegetarian and Non-vegetarian Dinner.

OVERALL SPORTS ACHIEVEMENTS

We proudly announce that we have achieved

Over All Championships

For the past 14 years in the following

Mega State Level Tournament/ Meets

Conducted for all the Engineering Colleges/ Arts Colleges in Tamilnadu

1. ANNA UNIVERSITY INTER ZONAL TOURNAMENTS

From 2003 to 2016

Conducted for 631 Engineering Colleges in Tamilnadu

2. TIES (TAMIL NADU INTER ENGINEERING SPORTS)

From 2003 to 2016

Conducted for 631 Engineering Colleges in Tamilnadu

3. JETS

From 2003 to 2016

Conducted for Arts, Science and Professional Colleges in South India

4. ST. JOSEPH'S INTER COLLEGIATE ATHLETICS MEET

From 2003 to 2016

Conducted for Arts, Science and Professional Colleges in South India

SPORTS ACHIEVEMENTS : 2017-18

| BASKET BALL –MEN | | VOLLEY BALL - MEN | |
|--|-----------------------|--|-----------------------|
| ZONE III | Winner | Zone-III | Winner |
| INTER ZONE | Runner | Inter Zone | Winner |
| PSN TROPHY-2018 | Winner | Bertram Trophy 2017 | 3 rd Place |
| SA TROPHY 2018 | Winner | State Level Invitation Volleyball Tournament2017,(Vilupuram) | 3 rd Place |
| SSN TROPHY 2017. | 3 rd Place | Pon State Level Invitation Volleyball Tournament(Vadugapatti) | Runner |
| HOCKEY -MEN | | State Level Vadagadu Volleyball Tournament(Pudukottai) | Runner |
| Zone III | Winner | SA TROPHY-2018 | Runner |
| Inter Zone | Winner | SVEC TROPHY-2018 | Winner |
| Dr.RAJAGOPAL MEMORIAL TROPHY 2017,RASIPURAM. | RUNNER | Buck Tournament2017 | Runner |
| Chennai Youthfest 2017 | Runner | SA Trophy-2018 | Runner |
| PSN Trophy 2018 | Winner | Thamarai Volleyball Club State Level Volleyball Tournament,Kanyakumari,2018 | Winner |
| Zone III | Winner | BADMINTON- MEN | |
| FOOT BALL -MEN | | ZONE III | 3 rd Place |
| ZONE III | Runner | LICET TROPHY 2018 | 3 rd Place |
| B S Abdur Rahuman Trophy-2018 | 3 rd Place | CHESS (MEN) | |
| CRICKET - MEN | | ZONE III | Runner |
| MNM Jain Trophy 2018 | 3 rd Place | S A TROPHY-2018 | Winner |
| KABADDI -MEN | | WEIGHT LIFTING, POWER LIFTING, BEST PHYSIQUE | |
| ZONE III | Runner | Inter Zone (Weight Lifting) | Winner |
| TABLE TENNIS - MEN | | Inter Zone (Power Lifting) | Runner |
| ZONE III | Runner | Inter Zone (Best Physique) | Runner |
| S A TROPHY-2018 | Winner | BALL BADMINTON- MEN | |
| SSN TROPHY 2017 | 3 rd Place | Zone III | Winner |
| LICET TROPHY 2018. | 3 rd Place | Inter Zone | 3 rd Place |
| TENNIS – MEN | | Loyola Bertram Trophy 2017. | Winner |
| ZONE III | Runner | Ms&Mrs Baulraj Memorial Ball Badminton 'B' Grade Tournament 2017 (A' Team), Tiruvarur. | Winner |
| LICET TROPHY 2018. | Winner | Ms&Mrs Baulraj Memorial Ball Badminton 'B' Grade Tournament 2017 (B' Team),Tiruvarur. | 3 rd Place |
| BASKET BALL - WOMEN | | State Level One Senior Ball Badminton Tournament 2017.Jolarpet. | Winner |
| ZONE-III | WINNER | 37 th State Level One Senior Ball Badminton Men Tournament 2018.Tirupur. | Winner |
| S A TROPHY-2018 | Runner | State Level One Senior Ball Badminton Tournament 2018, Karur, TNPL. | Winner |
| INTER ZONE | Runner | TABLE TENNIS - WOMEN | |
| MOP VAISHNAVA TROPHY-2018 | Runner | ZONE III | Runner |
| SSN TROPHY 2017 | 3 rd Place | MOP TROPHY-2018 | Winner |
| PSN TROPHY 2018 | Runner | SSN TROPHY-2017 | Runner |
| SVCE | Winner | VOLLEY BALL - WOMEN | |
| BADMINTON - WOMEN | | SA Trophy-2018 | Runner |
| ZONE III | Winner | Zone-III | Runner |
| INTER ZONE | Winner | Licet Trophy 2018 | 3 rd Place |
| SSN TROPHY-2017 | Winner | Buck Trophy 2017. | 3 rd Place |
| LICET TROPHY 2018 | Runner | WEIGHT LIFTING POWER LIFTING - WOMEN | |
| CHESS - WOMEN | | Inter Zone (Weight Lifting) | Runner |
| MOP Trophy-2018 | Winner | Inter Zone (Power Lifting) | Runner |
| Zone III | Runner | TENNIS - WOMEN | |
| SSN Trophy-2017 (Combined) | Winner | Inter Zone | 3 rd Place |

ANNA UNIVERSITY BLUES 2017-18

| S.NO | NAME OF THE STUDENT | YEAR-DEPT | GAME |
|------|-----------------------|-----------|----------------|
| 1. | S.KARTHIKEYAN | III-EIE | ATHLETICS |
| 2. | M.SIVAPRAKASH | IV-EIE | ATHLETICS |
| 3. | B.PRAVEEN | IV-ICE | ATHLETICS |
| 4. | K.SABARISANKAR | IV-ICE | ATHLETICS |
| 5. | A.MOHAMED NISSAN | II-MBA | ATHLETICS |
| 6. | N.KALAISELVAN | I-MBA | BALL BADMINTON |
| 7. | S.ARAVINDAN | IV-EIE | BALL BADMINTON |
| 8. | B.DANUSH KUMAR | IV-IT | BADMINTON |
| 9. | S.AKSHAYA | I-CSE | BADMINTON |
| 10. | S.AJAY KRISHNA | II-MECH | CHESS |
| 11. | A.S.JAKIL | III-IT | CHESS |
| 12. | B.SOORYA | IV-CIVIL | BASKETBALL |
| 13. | DALAVI SAURABH NAMDEV | III-EIE | BASKETBALL |
| 14. | K.N.NIRMAL | IV-CIVIL | BASKETBALL |
| 15. | J.SUCHITHRA | III-EEE | BASKETBALL |
| 16. | R.TEENA | II-EIE | BASKETBALL |
| 17. | S.DIVYA | III-EIE | BASKETBALL |
| 18. | R.ATHITHAN | IV-CIVIL | TABLE TENNIS |
| 19. | S.AJITH KUMAR | II-EEE | TABLE TENNIS |
| 20. | S.SHANMATHI | IV-CSE | TABLE TENNIS |
| 21. | RAVEENA DEENADAYALAN | IV-IT | TABLE TENNIS |
| 22. | S.LALUPRASATH | II-CIVIL | WEIGHT LIFTING |
| 23. | M.H.SIDIQ | II-EIE | WEIGHT LIFTING |
| 24. | S.KARTHICK | II-MECH | WEIGHT LIFTING |
| 25. | R.KUGESH | II-CSE | WEIGHT LIFTING |
| 26. | D.AGALIYA | II-EIE | WEIGHT LIFTING |
| 27. | R.MAHENDRAN | IV-MECH | BEST PHYSIQUE |
| 28. | M.RANJITH | II-ME | POWER LIFTING |
| 29. | A.SAKTHIVEL | IV-MECH | POWER LIFTING |
| 30. | S.ELAVARASAN | IV-CIVIL | POWER LIFTING |
| 31. | P.RAMYA | II-MBA | POWER LIFTING |
| 32. | K.KAMALI | III-MCA | POWER LIFTING |
| 33. | C.GANGATHARAN | II-MBA | HOCKEY |
| 34. | C.SARATH BABU | IV-ECE | HOCKEY |
| 35. | C.ARAVIND SAMY | IV-EEE | HOCKEY |
| 36. | A.ROBIN FELIX | I-MBA | HOCKEY |
| 37. | R.S.AJAY EASWARAN | IV-ICE | HOCKEY |
| 38. | S.VENISLAS | I-MBA | HOCKEY |
| 39. | S.CLARANCE SUSHIL | III-EIE | HOCKEY |
| 40. | K.ABINASH | III-ICE | HOCKEY |
| 41. | K.BALACHANDAR | I-EIE | VOLLEYBALL |
| 42. | S.PALANI | I-MBA-5 | VOLLEYBALL |
| 43. | V.SELVA VINAYAGAM | I-MBA-5 | VOLLEYBALL |
| 44. | S.VIGNESH | III-EEE | VOLLEYBALL |
| 45. | V.SUBRAMANIAN | IV-CIVIL | VOLLEYBALL |
| 46. | B.MIDHUN KUMAR | I-MBA-5 | VOLLEYBALL |
| 47. | M.S.PAVAN GUPTA | III-ECE | SWIMMING |
| 48. | C.S.B.PRITHIVI RAJ | II-CIVIL | SWIMMING |
| 49. | AJAY NARAYANAN | IV-IT | ROWING |
| 50. | G.V.BALAJI | III-ECE | TAEKWONDO |
| 51. | NICOLAS ISRAL PATRICK | II-EEE | YATCHING |

COLLEGE DAY AND CULTURAL COMPETITION RESULTS

II, III & IV YEAR COLLEGE DAY (2017 – 2018)

The most awaited aura of the year filled with enthusiasm and passion to triumph was all set in the month of August. Enlightening this year with the **College Day '17 Eve, the 11th of August 2017**, a one day fun packed mega cultural extravaganza kindled the joy of the students. A well unified amalgamation of 13 talent hunting events such as quiz, egg shell painting, scrap art, light music, etc., were piled up. Students with their stupendous skills exhibited their talent with zeal and dynamism and the well deserved was embraced with cash reward of **Rs. 1000/-, Rs. 600/-, Rs. 400/-** for the first, second and the third positions respectively.

The following students won prizes in these events

| S.No | EVENT | I PRIZE | II PRIZE | III PRIZE |
|------|-----------------------------|--|---|--|
| 1. | Light Music | M. Arun Kumar – IV ICE | NivedhaMurali Shankar II Bio-Tech | NissiChrisolite A – II IT |
| 2. | Creative Writing (Tamil) | K. Gokul Ramesh–II Chem | E. M Dinesh - III ICE | M. Ramakrishnan – III MCA |
| 3. | Drawing(Pencil) | Uma Maheswari–II EIE | Visali Lakshmi–II EIE | Hanna Isaac–II ECE |
| 4. | Oratorical (English) | Pallav Singh– III CSE | Mary Avelin J – II CSE | Kamala Shruthi. S – III ICE |
| 5. | Creative Writing(Eng) | Preethi.R–II CSE | MattinaMano.M–III IT | SnehaMirulalini –II BT |
| 6. | Oratorical (Tamil) | K.APunnaivalavan -IV Biotech | Eneeyan N – II IT | Arun S –III Chem |
| 7. | Egg Shell Painting | E. Raviraj - II Mech | H. Akshaya- II EIE | R. Rajasekar – IV IT |
| 8. | Quiz | Sathya Narayanan P – III Mech Sannjai R – III Mech | Diwakar S –II MBA David IrudayaVimal – II MBA | Mohamed Rizwan T K – IV ICE Dinesh E M – III ICE |
| 9. | Rangoli | Hemasree S – II CSE Guruprabha V – II CSE | S. Martina Valogia– II M.E(S/W) A.H NazreenFathima – IIME(S/W) | M. Agnes Rachel– II MBA C. Mani Arasi– II MBA |
| 10. | Collage | SaiMahima K – III CSE Raja Lakshmi J. R – III CSE | Abinaya P – IV BioTech Kanagalakshmi B – IV BioTech | Sowmmiya G– IV EEE Yuvashree J S – IV EEE |
| 11. | Dumb C | Agnel J. Naveen - II Chem B. Hilton Samuel - II Chem | RamkrishnaM–IV EIE Rajesh . C – IV EIE | T J Jayasuriya – III EEE G. Kavipriya– III EEE |
| 12. | Scrap Art | A.P Swetha Priyadarshini– II EIE F.R Amirtha Priyadarshini–II EIE | Charulochna–II BioTech AishwaryaMathee – II BioTech | R. Saranya – III IT A. Sanjana – III IT |
| 13. | PattukuPattu | Shereen Esther J – II CSE Yuvedha D – II CSE | S. Akash – III CSE Aswin . C – III CSE | Kirthiga M –III CSE Malvika– III CSE |

The day, **12th of August 2017** we witnessed the most awaited day of the year – the ‘**College Day**’. It is a platform to put on display the cultural dexterity and to nourish the spirit with the splendid palette of multi-flavored events!! This event was made even more startling by the Orchestra team of our college. Students of all departments exhibited their assorted talents and best of the show were rewarded. A huge amount of **Rs. 40,000/-** was distributed to the best dances, best variety shows, and innovative entertainments, such that each deserving team received a prize money of **Rs. 4000/-**. The winners of the cultural events were honored with cash prizes, which were distributed by the Judges.

“Best Events of the College Day”

| S.NO | EVENT NAME | TEAM LEADER | DEPARTMENT | PRIZE AMOUNT |
|------|------------------|---------------------|-------------|--------------|
| 1. | B-Fab | M. Saranya | BT | 4000 |
| 2. | Miming | Gopi & Team | IT | 4000 |
| 3. | Human Formations | R S Divin | CIVIL | 4000 |
| 4. | Shadow Dance | Surya & Team | EEE | 4000 |
| 5. | Human Pyramid | Vijay Karthick | EEE | 4000 |
| 6. | Fusion Dance | Vasavi S A & Team | ICE | 4000 |
| 7. | Cemetery | Muthulakshmi | CHEM | 4000 |
| 8. | Panther’s Dance | Sathish Kumar S | EIE | 4000 |
| 9. | Classical Dance | Chethana S | EIE | 2000 |
| 10. | Mimicry | Benny Paul | MECH | 2000 |

The winners of the cultural events which were conducted on the previous two days were honored with cash prizes and certificates, which were distributed by the college Chairman Dr. B. Babu Manoharan, Principal, Dr. Vaddi Seshagiri Rao and Dean Research Dr. B. Parvathavarthini.

I YEAR COLLEGE DAY (2017 – 2018)

The college day for the first year students was celebrated with a one day mega cultural extravaganza that was put up on the **16th of March 2018**.

A well blended combination of 13 events such as quiz, pattukupattu, scrap art and light music was staged and the students exhibited their talents with enthusiasm and vigor. The deserving young achievers were awarded with a prize money of **Rs. 1000/-**, **Rs. 600/-**, **Rs. 400/-** for the first, second and third places respectively. The following students won prizes in these events:

| S.No | EVENT | I PRIZE | II PRIZE | III PRIZE |
|------|-----------------------------------|---|--|---|
| 1. | Light Music | HemanthPrakash G (Mech) | Varshini S (ICE) | AnuradhaKrishnaratnam (CSE) |
| 2. | Creative Writing (English) | Siva Suriya T (CSE) | Yazhini R (BT) | Anjali Ramani (CSE) |
| 3. | Egg Shell Painting | Sowmiya G (BT) | SibiRajan E K (MBA) | Abhishek S (ECE) |
| 4. | Creative Writing (Tamil) | Raj Krthika R (EEE) | Hemalatha K S (EEE) | Ramya J (ECE) |
| 5. | Drawing (Pencil) | Lokesh R (ECE) | KoyalGopika M (EIE) | Vignesh S (Mech) |
| 6. | Oratorical (English) | Karunya D (EEE) | Vaishnavi K (Chem) | Vijay A (CSE) |
| 7. | Oratorical (Tamil) | Jim David W (EEE) | ArunKarthik P (Mech) | Sethuvelappan P (Mech) |
| 8. | Rangoli | Rakshmitha M (CSE) Priyanka E L (CSE) | Priyadarshini I(ECE) Thevatharshini A (ECE) | Deepa K (M.E S/W) Kalivani I (M.E- CSE) |
| 9. | Dumb Charades (Premils, Final) | Saravanan P (EEE) Rahul R (EEE) | Yogesh S N(EEE) Prem M (EEE) | Kumaraguru K R N (ECE) Praveen Kumar M (ECE) |
| 10. | Scrap Art | Reshika R(EIE) Ramya M(EIE) | Keerthisree P(IT) Malathi V (IT) | Muthu Mohan P (BT) Sathish Kumar G (BT) |
| 11. | PaatukuPaatu (Premils,Final) | Priyadarshini M (BT) BasillaEurroshini L E(BT) | Raj Krthika R (EEE) Hemalatha K S (EEE) | Siva Priya B (EEE) Siji Catherine J (EEE) |
| 12. | Collage | Jennifer Dania T (EEE) Pavithra Ravi(EEE) | Roshni R (MBA) Swathi A P (MBA) | Priyadarshini P (EEE) Purnima T (EEE) |
| 13. | Quiz (Premils,Final) | Vishwanath G K (Mech) Wittin Prince C (Mech) | Saravanan P (EEE) Sri Hari S (EEE) | Abishek P A (ICE) Hari Haran J (ICE) |

The **College Day for I year students** was celebrated on the following day, the **17th of March 2018** which provides a platform to show the talents and spirit of students in various cultural multi-flavored

events. The College Orchestra with first year students gave a pleasant as well as rhythmic entertainment on that day.

Students of all departments have shown their talents and best performances were rewarded. A huge amount of **Rs. 56,000/-** was distributed to the best dances, best variety shows, and innovative entertainments, such that each deserving team receives a prize money of **Rs.4000/-**. Cash prizes were distributed by the Judges to the winners at the end of the day.

“Best Events of the College Day”

| S.NO | EVENT NAME | TEAM LEADER | DEPARTMENT | PRIZE AMOUNT |
|------|--------------------------------|----------------------|------------|--------------|
| 1. | Pyramid formation | Guru Varma.K - | MECH | 4000 |
| 2. | Classical Dance | Thivyalakshmi | EIE | 4000 |
| 3. | Women Power | AishwaryaThiyagaraj | ECE | 4000 |
| 4. | Deunix Teens | RenugaDharene | CSE | 4000 |
| 5. | Gujarathi Dance | Kiruthika.R | CIVIL | 4000 |
| 6. | Marriage Dance | Abirami.V.G | ECE | 4000 |
| 7. | Gana Girls | Janavi .K | CSE | 4000 |
| 8. | Western Via Folk | Sakthivel .S | MECH | 4000 |
| 9. | Red Dragan | Arun Kumar .S | EEE | 4000 |
| 10. | Verteians -Tribal Dance | SivaPriya B | EEE | 4000 |
| 11. | The Step Strike | JyothikaNarayani | IT | 4000 |
| 12. | Classical Dance | Keerthana . A | ICE | 4000 |
| 13. | Dancing Dolls | AishwaryaAnnapoorani | BT | 4000 |
| 14. | Love for Parents-MIME | Prashanth | IT | 4000 |

The winners of the cultural events which were conducted on 16.03.2018 were honored with cash prizes and certificates, which were distributed by the Chairman Dr. B. Babu Manoharan, Principal, Dr.VaddiSeshagiriRao and Dean Research Dr. B. Parvathavarthini.

SPECIAL OCCASSSIONS

IFDHAR

Our College celebrated Ramzan on **18th June 2017**. All the Muslim students in our college underwent fasting within the campus. The early morning food called as “sahar” according to the Muslim custom, was served with delicious items by the college in the mess at 4.30 a.m. In the evening, the Muslim students were served for “Ifthihar” with dates, cool drinks porridge as a sign breaking the fast. The hostel students attended Namaz in their respective hostel rooms. Special Namaz was conducted at 1.00 p.m on Fridays. During Ramzan fasting period, prayers were conducted in our college mosque.

ONAM

The festival of rice harvest was celebrated on **1st Sep 2017** with great spirituality and delight. All Malayali students participated with enthusiasm on this special occasion. Our Beloved Chairman & Managing Director attended this festival with his family and conveyed his wishes to all the students. Malayali students dressed up in their traditional wear, particularly girls wearing the kasavu saree and performed kaikottikali, Malayalam pattu and Nadakam. The celebration was called off with the grand dinner where the menu included aviyal, erussery, pulisery, nenthampazham and different types of payasam.

TEACHERS DAY

Our College celebrated the Teachers day as a special occasion from **Aug28 to Sep 5 2017**. The students entertained their respective department’s faculty members with unique shows on that special day. Our Management gave gifts to all the teachers of our college as a token of appreciation.

Vinayaka Chathurthi Our college celebrated Vinayaka Chathurthi on **25th August 2017**, by decorating Ganesha’s statue of our college temple with flowers. Pooja was grandly performed in the temple in the presence of our beloved Chairman & Managing Director’s family. Delicious food was offered to the Lord and Kozhakatai was distributed to the students. Many students came forward to participate on that occasion and filled in with all blessings of Ganesha.

AYUDHAPOOJA

Our College celebrated Ayudha Pooja on **28th September 2017**, by arranging Kolu for 9 days in our college from the day of Mahalaya Amavasya till Vijayadasami. On this special day, all the Laboratories and Office were beautified with plantain trees, mango leaves and glazing papers followed by a pooja in the presence of Chairman & Managing Director’s family. The remarkable part of this celebration was the mouth-watering lunch, sweets and ice creams that were served for all the students and staff. Gift vouchers for deepavali were distributed on the day of Ayudhapooja to Administrative staff, Technical staff, Non-Technical staff, Drivers, Sweepers, workers in the mess and daily wage workers.

DEEPAVALI

The festival of lights is celebrated with full delight and enthusiasm. Deepavali is the most expected festival by all. This year the festival of lights was celebrated on **14th October 2017**. On this special eve, a grand lunch with exotic dishes ranging from mouth lingering sweets to delicious deserts was served. **Deepam** Kaarthigai Deepam is celebrated on the full moon day in the Tamil month of Kaarthigai. This festival is known for brightened lights lit all over the place signifying growth and prosperity. The deepam celebrations took place in our college on **2nd December 2017** with lamps lighted by the divine flame that is believed to fend off evil forces and escort ecstasy.

CHRISTMAS

Christmas is the season of joy, holiday greetings exchanged, gift-giving, and families getting united. The Christmas celebrations took place in the college campus on **20th December 2017**. On Christmas day, a special mass was conducted in the college chapel. The celebrations included a rhythmic performance from the college choir and an add-on surprise package by Santa Claus. The staff and students were completely spellbound with the Christmas gratification and the day was called off with a hearty lunch.

PADIPOOJA

The festival was celebrated on **3rd December 2017** by decorating the holy steps of Ayyappa with flowers and silk clothes and lighting traditional lamp. The Chairman & Managing Director, Staff and Students attended the pooja and "irumudi" was tied to those who went to sabarimala. Traditional songs were sung in pooja and a grand feast was given to those who attended pooja.

PONGAL

Pongal is an occasion that is believed to chime in the opulence. It is renowned as a thanksgiving festival for various Hindu deities. "Thai" is the first month of the Tamil Almanac where the joy-filled Pongal occasion comes. The celebration in the college took place on **12th January 2018**. The day's lunch was served with different varieties of Pongal. Indeed, Pongal is a festival of freedom, peace, unity and compassion crystallized in the last hymn on unity in the Indian spiritual text the Rig Veda.

HOSTEL DAY

Hostel day is one of the most awaiting occasions of the year in St. Joseph's College of Engineering. This wonderful day was celebrated in the college on **17th February 2018** with lots of events conducted for both boys and girls. The hostel was decorated with colour lamps and balloons making it more eye-catching. Cricket, Volleyball, Basketball, Kabaddi matches were held and the winners and runners were awarded with cash prizes. Cultural events such as singing, skit and dance were performed in the presence of our beloved Chairman & Managing Director. Matches and other events were conducted 3 days prior to hostel day. Special dinner and snacks was provided to the hostilities.

UGADI

Our College celebrated Ugadi on **18th March 2018**. The Telugu New year festival popularly called as Ugadi comes close on the heels of Holi. This day of celebration is marked by religious fanaticism and social jollity. Special dinner was served for the hostel students. Exotic dishes made with raw mango went on well with the occasion. Ugadi which is considered to be the most auspicious time to start new ventures was indeed a cheerful and a memorable celebration to be remembered by the staffs and students of our college.

EASTER

Our College celebrated Easter on **2nd April 2018**. Easter is the springtime holiday marking the rebirth of Jesus and the renewal of the Christian faith. A special programme was conducted by St. Joseph's College Fellowship in our college Placement Cell which was attended by students and staff. The celebrations started with worship songs and prayer. Heartfelt wishes were shared among everyone and ended off with holy blessing of God. **Tamil New Year** Our College celebrated Tamil New year on **13th April 2018**. The Tamil New year festival is popularly called Puthandu. It is the celebration of the first day of the traditional Tamil calendar. The day is marked with feast and decorated with kolams. Special lunch was served to all as a part of celebrations.

ARTICLES

NUCLEAR DESALINATION

Nuclear desalination uses excess heat created by nuclear power plants to evaporate the salt and other unnecessary minerals from seawater and condense the pure water. Reverse osmosis drives the pumps which pressurize the water and force it through tiny, semi-permeable membranes. After this occurs, purified water exits through the membrane, and the salt is left by itself on the other side. This whole procedure is facilitated by nuclear energy, using it to drive the entire process. Although this form of water purification hasn't completely skyrocketed in popularity, many people feel that it soon will because of all the positives it brings to the table.

Advantages

For those countries that already have established nuclear power plant programs (especially smaller to medium sized ones), this form of purification is almost already done. All that these areas will have to do is just equip these plants with some more materials in order to desalinate the salt water. Additionally, nuclear desalination is a promising alternative to using fossil fuels because of the absence of emerging, harmful emissions. Nuclear energy doesn't emit dangerous substances into the air; therefore, it is quickly becoming the preferred choice of fueling in processes like desalination.

Disadvantages

Although this whole process of nuclear desalination may sound too good to be true to some, there are some negatives that help put this whole process into perspective. Because this technique involves using the nuclear power plants as energy to desalinate the water, there are possibilities that some of the radioactive materials could be released into the water itself. Even though most plants already have safety precautions put into place, nuclear energy is a dangerous ingredient that could find its way into this potable water by way of an accident or even through leakage.

Concluding Thoughts

Perhaps nuclear desalination may not be good enough of a tactic to last humans for eternity, but at least it can serve as a temporary solution.

“Seventy percent of our world is covered in water, but only two and a half percent of that comes as fresh water”.

Why shouldn't we pour more time and effort into researching methods such as this one when purifying water is obviously a problem in our world today?

- *MONIKA.V*

II YEAR CHEMICAL

DESALINATION

Desalination process in Nuclear power plant where sea water is used as a source water. At first sea water is taken from the sea into desalination plant for desalination process. The water which enters into the desalination plant is first purified. In this first purification the organisms like algae, fungi and other small microorganisms are removed. And then the particles like stones and etc are removed. Then by the ERCHLORINATION process chlorine is added which has the oxidizing and disinfecting property. With addition of chlorine the various organic and and inorganic materials are oxidized and all the pathogenic and other micro organisms are killed or inactivated. Then by AERATION of water air is added to the water in order to kill all anaerobic microorganisms and to oxidize all organic materials. Then by sedimentation all the materials are sedimented and removed by filtration.

The sea water consists of above 36, 000ppm. After the desalination process it means removal of all minerals present in the water, it has the ppm of about 0. 2ppm. This is stored in the tank. The desalinated water can not be used for drinking directly because it has not minerals in it except cation and anion. So soda is added in a particular amount which makes the desalinated water into drinking water.

- JEROME JOSIAH M

II YEAR CHEMICAL

THE NEW REVOLUTION-DESALINATION

As our global population increases, sources of high quality and fresh water decrease. Only .003% of water on earth is available for human consumption. Inadequacy of good water also could lead to serious problems like drought leading to famine. Statistics say that 13 kgallons of water is wasted domestically around the globe.

DESALINATION

Recycling of water is a best method to solve this trouble. So chemical engineers have scaled an efficient and economical method called DESALINATION operated in a plant. Desalination is the process that removes excess salts and other minerals from water. The impure water is collected and are made to undergo various processes. Two major technologies are primarily used around the globe, THERMAL DESALINATION and MEMBRANE TECHNOLOGIES.

REVERSE OSMOSIS

A well-known process, this process is categorized under **membrane technology**. This plant is set up in a very large scale and gallon of waste water are converted into human consumable water. Basically RO uses pressure gradient as driving force to move high pressure waste water through a membrane and prevent salt ions from passing.

Currently world's largest membrane water treatment plant is located in California. This plant turns treated sewage from sanitation department into drinkable water. The waste water goes through a 3 step purification process. First micro filters remove particles and bacteria. Secondly, using RO process, water is sent into hundreds of RO tubes. Finally exceptional viruses are removed under high powered UV light tanks.

HARITHA R

II YEAR CHEMICAL

METHODS OF DESALINATION

Desalination is one of mankind's earliest forms of water treatment, and is still a popular treatment throughout the world.

The oldest method is to heat the water until the steam comes off. The steam is then collected and cooled until it condenses back into pure water. This process is called **distillation**, and the water is called distilled water.

A similar method is **vacuum distillation**. Sea water is made up of components that vaporize at different pressures. Since water is a volatile component, the pressure of the mixture can be lowered until the water turns into steam, effectively removing impurities such as salt. The steam is then condensed to become fresh water.

Freezing is one of the low-cost methods for desalination. This method can be used in remote areas, cold regions, and small societies. This method is based on the principle that, ice crystals mainly consists of pure water, when the temperature of the saline water is lowered to its freezing point and further heat is removed. This process involves three steps (i.e.), separation of ice crystals from brine, cleaning of the ice crystals to remove the adhering salts on the crystal surface, and melting of ice to produce pure crystals.

The most effective method today that we know of is **reverse osmosis**. This method works by pushing the salt water through a semi-permeable membrane that has holes large enough for the water molecules to pass through but too small for salt or other molecules to pass through. The pressure applied to push the feed water should be greater than that of the osmotic pressure. The water that passes the RO membrane is known as the permeate whereas the salts and other contaminants are discharged through a reject stream/brine stream.

M.HARIPRIYA

III YEAR CHEMICAL

DESALINATION

Desalination or desalinization refers to any of several processes that remove the excess salt and other minerals from water in order to obtain fresh water suitable for animal consumption or irrigation, and if almost all of the salt is removed, for human consumption, sometimes producing table salt as a by-product.

The traditional process used in these operations is distillation - essentially the boiling of water at less than atmospheric pressure, and thus a much lower temperature than normal. Due to the reduced temperature, energy is saved.

In the last decade, membrane processes have grown very fast, and Reverse Osmosis (R.O.) has taken nearly half the world's installed capacity.

Membrane processes use semi-permeable membranes to filter out dissolved material or fine solids.

The systems are usually driven by high-pressure pumps, but the growth of more efficient energy-recovery devices has reduced the power consumption of these plants and made them much more viable; however, they remain energy intensive and, as energy costs rise, so will the cost of R.O. water.

- *SHRIRAM M.R*

III YEAR CHEMICAL

DESALINATION- THE BOON

Desalination has been known to history for millennia as both a concept, and later practice, though in a limited form. The ancient Greek philosopher Aristotle observed in his work *Meteorology* that "salt water, when it turns into vapour, becomes sweet and the vapour does not form salt water again when it condenses," and also noticed that a fine wax vessel would hold potable water after being submerged long enough in seawater, having acted as a membrane to filter the salt. There are numerous other examples of experimentation in desalination throughout Antiquity and the Middle Ages but desalination was never feasible on a large scale until the modern era.

So what is desalination ? What is the necessity to use it? What are the methods that can be adopted? All these question raise up. This article serves best in providing answers to all these questions.

Desalination is a process that extracts mineral components from saline water. More generally, desalination refers to the removal of salts and minerals from a target substance. Most of the modern interest in desalination is focused on cost-effective provision of fresh water for human use because of the water scarcity problem being an alarming issue. Currently, approximately 1% of the world's population is dependent on desalinated water to meet daily needs. According to the International Desalination Association, in June 2015, 18,426 desalination plants operated worldwide, producing 86.8 million cubic meters per day, providing water for 300 million people. This number increased from 78.4 million cubic meters in 2013, a 10.71% increase in 2 years. The single largest desalination project is Ras-Al-Khair in Saudi Arabia, which produced 1,025,000 cubic meters per day in 2014.

There are numerous methods for performing desalination.

- ❖ Reverse osmosis
- ❖ Vacuum flash distillation
- ❖ Multistage distillation
- ❖ Freeze thaw
- ❖ Electrodialysis reversal

- ❖ Solar evaporation
 - ❖ Wave powered desalination
 - ❖ Membrane distillation
- Other approaches include,
- ❖ Forward osmosis
 - ❖ Biomimesis
 - ❖ Electrokinetic shock
 - ❖ Hydrogel based desalination
 - ❖ Nanotechnology
 - ❖ Geothermal
 - ❖ Passarell

So one can conclude that the desalination is one of the best growing technology in purifying water for human use .To put it differently we can say it as the helping hand for our water crisis.

- *VAISHNAVI K*

III YEAR CHEMICAL

REVERSE OSMOSIS DESALINATION

Is it worth it? Reverse osmosis is the most popular desalination process. The current standard technology uses high pressure pumps to force water through semi-permeable membranes to eliminate salt and impurities. Unfortunately those aren't the only things it removes from water. This process also removes the essential minerals from water. In addition it uses high amount of energy to operate impacting your operational costs exponentially. Conventional sea water RO process use up to 3.5KWhrs of energy to produce a cubic metres of desalinated process.

Instead of pushing sea water through dense membranes to remove dissolved salt ions, another option could be, to use electricity to treat sea water, a process known as **electro dialysis**. Electro dialysis is an electrochemical process in which the salt ions which carry either a positive or negative charge are removed from water when they are attracted to the electrodes of opposite charges. In the process ions selectively pass through attracting ion exchange membranes to create separate streams of purified and concentrated water.

The electrochemical concept of moving salts across an electric field uses much less energy than pumping large volumes of sea water through semi-permeable membranes under high pressure. **NEX electro dialysis technology** is a trending one. It provides consistent water quality with variable feed water parameters or partial removal of contaminants without the need for blending. Because output quality can be manipulated by input power adjustments which means the energy consumption, operating costs and space required for sea water reverse osmosis can be reduced and optimized membrane for electrochemical desalination, cost driven design.

This research is co-funded by PUB and Singapore National Research Foundation under its technology

- *REVATHY*

III YEAR CHEMICAL

SOLAR HUMIDIFICATION –DEHUMIDIFICATION METHOD

Water and energy are two of the most important topics on the international environment and development agenda. The social and economic health of the modern world depends on sustainable supply of both energy and water. Many areas worldwide that suffer from fresh water shortage are increasingly dependent on desalination as a highly reliable and nonconventional source of fresh water. So, desalination market has greatly expanded in recent decades and expected to continue in the coming years. In the developing world, water scarcity led to the pressing need to develop inexpensive, decentralized small-scale desalination technologies that use renewable resources of energy. One of the most promising of these technologies, is the humidification–dehumidification (HDH) desalination powered by solar energy.

The solar humidification–dehumidification method (HDH) is a thermal desalination technology that imitates nature's rain cycle.. It is based on evaporation of sea water or brackish water and subsequent condensation of the generated humid air, mostly at ambient pressure. Its basic components are a humidifier, a dehumidifier, and a heater. In the humidifier, air is humidified through direct contact with salty water. In the dehumidifier, hot moist air is put in indirect contact with cold salty water. This causes water vapour to condense, which produces a fresh water stream. Seawater desalination has already confirmed its potentiality to resolve the fresh water problems in numerous countries .It is , however,to be noted that in spite of the good reliability and favourable economic aspects of desalination processes,the problem of high energy consumption till remains to be resolved .

- **VEDHA LAKSHMI**

III YEAR CHEMICAL

Department of Chemical Engineering
Branch Toppers
(Batch : 2014-18)–Passed out (Up to VIII sem)



CGPA 9.22

Mr. DELIGHT AZARIAH DANIEL

S/O, Mr.S.Wellington Dhanasingh, Mrs.Jasmine Patience



CGPA 9.17

Mr. PRASANTH.N

S/O, Mr.R.Narayanan, Mrs.C.Sindhu

(Batch : 2015-19)–Current IV Year (Up to VI Sem)



CGPA 9.20

Mr. MOHAMED IBRAHIM S

S/O, Mr.A.K.Shibly, Mrs.Niyamathunnisa



CGPA 8.95

Mr. AAKASH V R

S/O, Mr.V.Ramesh, Mrs.R.Revathy

(Batch : 2016-20)–Current III Year (Up to IV sem)



CGPA 9.11

Ms. Vedhalakshmi S

D/O, Mr.S.Sundaresan, Mrs.S.Sangeetha



CGPA 8.98

Ms. REVATHY R

S/O, Mr.P.Ramanathan, Mrs.R.Kasthuri

(Batch : 2017-21)–Current II Year (Up to II sem)



CGPA 9.12

Ms. MONIKA V

S/O, Mr.Venkatesan.D, Mrs.Shanbagavalli V



CGPA 9.06

Mr. Dharkshith K

S/O, Mr.K.Kalyana Sundaram, Mrs.K.Dhanalakshmi