



**JET CHEM ENGINEERS ISSUE XXX**

*You Choose; We Do it*



**St. JOSEPH'S COLLEGE OF ENGINEERING**

**St. Joseph's Group of Institutions**

**OMR, Chennai - 119**

**CARBON SEQUESTRATION**



biomass



fuel



excess CO2



nutrients for soil

**DEPARTMENT OF CHEMICAL ENGINEERING**

**DEPARTMENT ACTIVITIES FROM  
25<sup>th</sup> APRIL 2014 - 24<sup>th</sup> APRIL 2015**

## Messages...

- **Dr.B.Babu Manoharan M.A., M.B.A, Ph. D.**  
**Managing Director.**

“**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 30<sup>th</sup> issue that has its focus on “**CARBON SEQUESTRATION**”. I extend to them hearty congratulations.

- **Mr.B.Jaikumar Christhuran, M.E., M.B.A.**  
**Director, St. Joseph’s college of Engineering.**

I take immense pleasure to congratulate the students and staff members of chemical engineering department for their effort in releasing the magazine “**CARBON SEQUESTRATION**”- Volume xxx

- **Dr. Vaddi Seshagiri Rao, M.E., Ph.D.**  
**Principal, St.Joseph’s College of Engineering.**

The 30<sup>th</sup> issue of “**JET CHEM ENGINEERS**” being released by the students of chemical engineering deserves appreciation for its focus on “**CARBON SEQUESTRATION**”. I extend to them hearty congratulations.

### MESSAGE FROM EDITORIAL BOARD

- “**CARBON SEQUESTRATION**” is the topic around which the 30<sup>th</sup> issue of **JET CHEM ENGINEERS** is woven. The renewable energy has its applications in a variety of areas such as Chemical engineering, Power engineering, Energy Engineering, Storage technologies, etc. We are very grateful to our beloved **Managing Director Dr.B.Babu Manoharan M.A., M.B.A, Ph.D., Director Mr.B.Jaikumar Christhuran, M.E., M.B.A., and Principal Dr. Vaddi Seshagiri Rao, M.E., 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 (students affairs)**

#### **Editorial Board:**

**Ms.S.Prathiba, Asst Professor**  
**Mr.S.Vigneshwaran – IV Year**  
**Ms.Nithya sivakami - III Year**

## CHEMICAL DEPARTMENT – ANNA UNIVERSITY RANK HOLDERS - 2014



**Mr. RAJ KUMAR R**  
S/O, Mr.Ramraj.S  
Mrs.Gnanavadiyu.D  
Rank: 1 CGPA: 9.27  
**Cash prize Rs. 50,000**



**Ms. SRIMATHI S**  
D/O, Mr.Sekar.E  
Mrs.Kalavathy.S  
Rank: 3 CGPA: 9.2  
**Cash prize Rs. 15,000**



**Mr. SHRAVAN M  
KRISHNAN**  
S/O, Mr.Muthukrishnan.R  
Mrs.Sreelatha.K  
Rank: 6 CGPA: 9.08  
**Cash prize Rs. 15,000**



**Mr.VENKATA KRISHNAN. S**  
S/O, Mr.Sreenivasan.V  
Mrs.Bhuvanewari.S  
Rank: 10 CGPA: 8.9  
**Cash prize Rs. 15,000**



**Ms. SHREYA S**  
D/O , Mr.Sathyanath.V  
Ms.Sujatha.S  
Rank: 12 CGPA: 8.88  
**Cash prize Rs. 15,000**



**Ms. SANTHINI S**  
D/O, Mr.Subramaniam.P.K  
Mrs.Paameswari.S  
Rank: 13 CGPA: 8.87  
**Cash prize Rs. 15,000**



**Ms. ARUNA M**  
D/O, Mr.Mayilvaganan.A  
Mrs.Indradevi.M  
Rank: 16 CGPA: 8.82  
**Cash prize Rs. 15,000**

# **17<sup>th</sup> GRADUATION DAY REPORT**



The 17th Graduation Day was held on the 8<sup>th</sup> April, 2015 at 2.00 pm. Dr. Jeppiaar Chairman of St Joseph's College of Engineering presided over the function and Mr. Roy Joseph, Head Human Resource, MRF Limited delivered the Convocation Address. Mr. Raghuraman Krishnamurthy, Senior Director, Cognizant Technology Solutions, distributed the Degree Certificates to the fresh graduates. 1329 Students received their degrees. The College has bagged the highest number of University Ranks for the 9<sup>th</sup> consecutive year in Anna University Examinations held in the May 2014. This batch of students has secured 107 Ranks with 4 Gold Medal.

All the Rank holders were awarded Cash Prizes worth Rs. 17.45 lakhs which includes Rs. 50,000/- each for the Gold Medalists, Rs.15,000/- each for all other Rank Holders & Shields. The total prize money amounts to Rs.20.32 lakhs.

## **PLACEMENT DETAILS**

Out of the 1329 students receiving their degree, 697 of them are placed through campus interviews 184 of them are all well placed through off campus and 71 of them have become entrepreneurs. Through campus interviews the students are placed in many leading organizations like Cognizant Technologies, Wipro, Midtree, Verizon, Sanmar, Sasken, Perlos, HDFC, ICICI, RR Donnelly, Asahi India Glass Ltd, L&T, Zoho, Technip, HCL, Hewitt, Renalult Nissian, Virtusa, RBS, Coffee Day, Hinduja Leyland, Kodak Mahindhira Bank, Pepsico etc., with a salary ranging from 2.4 lakhs to Rs 6.5 lakhs per annum.

## **HIGHER STUDIES**

187 Students are pursuing their higher studies both in India and Abroad which includes universities in like University of Texas (UK), University of South Florida (US), University of Melbourne, National University of Singapore, Auburn University, Illinois Institute of Technology, University of West Virginia, Leeds University (UK), North Carolina State University, NJIT, IIT IIM etc., through our Advisory Bureau for Higher Studies (ABHS)

## **CO - CURRICULAR ACTIVITIES**

### **The Indian National Academy of Engineering (INAE) Awards:**

The Indian National Academy of Engineering (INAE), New Delhi has constituted the best project award for the final year students. The selected project is

- “Design of Gyroscopically Controlled biomorphic robot and gait generation for assisted walking of humans” done by Harish Rammohan .S of the Electrical and Electronics Engineering dept under the guidance of Mrs. V.Chamundeeswari
- Mr. Ashwin Sridhar; Ms. Keerthana Ramanathan; Ms. Namritha Maniyodath & Ms. Kirthika Pyandapal of the Biotechnology Department Presented a poster at “11th European Conference on Computational Biology” on 9-12 September 2012 at Basel, Switzerland.
- Ms. Grace Janet Philip carried her final year project work at Saint Barnabas Medical Research Center in Livingston, New Jersey, USA.
- Ms. Akila S V & Mr. Ashwin Sridhar carried their final year project work at NUS, Singapore.
- Mr. Vignesh Karthick S & Ms. Sriragavi A: underwent a Govt. of India Sponsored internship programme for 70 days at Indian Institute of Science Education and Research Kolkata, during the academic year 2013-2014.

### **EXTRA-CURRICULAR ACTIVITIES**

Our students have excelled not only in the field of academics, but also in the field of sports. We have G Satyan who is India’s No 1 table tennis player. R. Sumana, Mr. Prsanna international table tennis player.

R. Veenasree, R. Vidhyasree, P. Suganya, SPB Poorvika, P Anjuka represented our college in various events at the university, State and National 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.

<b>No of students Appeared</b>	:	<b>1485</b>
• No. of students Passed	:	1329
• Pass Percentage	:	89.7%
• First Class with Distinction	:	130
• Passed with First Class	:	1199

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

• Total No. of Ranks	:	896
• Gold Medals	:	44
• Silver Medals	:	38
Other Ranks	:	814

### **Highest Number of Anna University Ranks for the 9<sup>th</sup> consecutive year**

• Total No. of University Ranks	:	107
• No. of Gold Medal	:	4

- No of Silver Medal : 1
- Other Ranks : 102

### University Rank Awards: Total Rs. 20.32 lakhs

- Cash Award : Rs 20.32 lakhs
- Gold Medal (4\* 50,000) : Rs 2,00,000/-
- Other Ranks (103\*15,000) : Rs 15,45,000/-
- Shields & Medals : Rs 2.87 lakhs

### Placement

#### Total No. of Students Placed through

- Campus Recruitment : 697
- Off Campus : 184
- Self Employed : 71

### Higher Studies

#### Students pursuing Higher studies through Advisory Bureau for Higher Studies (ABHS)

- Abroad : 129
- India : 58

### Sports

- International Players : 2
- Represented Anna University in All India University Tournaments : 9

The Trust has constituted awards to all the topper of the class. The awardees of the trust award are

S.N	Name of the Award	Branch	Year	Name of the Student
1	Dr. MGR Award	CSE	2010-2014	Mr. SRIDHAR J
2	A.P. Baulraj Award	ECE	2010-2014	Ms. ANANTHALAKSHMI P R
3	Abraham Lincoln Award	EEE	2010-2014	Ms. SOWMYA R
4	Mother Therasa Award	MECHANICAL	2010-2014	Mr. SATISH KUMAR V
5	A.P.J. Abdul Khalam Award	ICE	2010-2014	Mr. R.S AJISH
6	Kalpana Chawla Award	EIE	2010-2014	Mr. HARIHARA
7	Martin Luther King Award	IT	2010-2014	Ms. MONA R
8	<b>Theiva Pulavar Thiruvalluvar</b>	<b>CHEMICAL</b>	<b>2010-2014</b>	<b>Mr. RAJ KUMAR R</b>
9	M. Visvesvaraya Award	Bio-Tech	2010-2014	Ms. ROMIYA C
10	Mahakavi Subramania Bharathiar	M.B.A	2012-2014	Ms. ANGELINE SHAMILA B
11	Paventhara Bharathidasan Award	M.CA.	2011-2014	Ms. KIRTHIKA S
12	Dr. Radhakrishnan Award	M. Sc.	2009-2014	Mr. CHENTHUR PANDIAN .V
13	Annai Janaki MGR Award	ME (Applied	2012-2014	Ms. DIVYA FRANCIS
14	Perundalaivar Kamarajar Award	ME (Power Electronics)	2012-2014	Ms. JAYALASHMI G
15	Aringnar Anna Award	ME (Computer Science)	2012-2014	Ms. THRESA JENIFFER J
16	Nelson Mandela Award	ME ( C & I )	2012-2014	Ms. RAMA DEVI C
17	C. V. Raman Award	ME ( Power Systems )	2012-2014	Ms. NIMITHA ROSE PETER
18	Srinivasa Ramanujan Award	ME (Software	2012-2014	Ms. RAJALAKSHMI M

## Achievements of our students year after year

Year of passing	UNIVERSITY RESULTS			PLACEMENT			ABHS		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	-	-	-	757 *	-	-	-	-	-	-	-	-

\* as on 6<sup>th</sup> April 2015**DEPARTMENT OF CHEMICAL ENGINEERING**

UNIVERSITY RESULTS	Total No of students graduated	66
	No of students graduated in First class with distinction	14
	No of students graduated in First class	47
PLACEMENT	Through Campus Interview	21
	Off Campus Interview	22
	Self Employed Own Business	05
HIGHER STUDIES	Abroad	03
	India	10
ANNA UNIVERSITY RANKS	Total no of university Ranks	7
	Gold Medal	Mr. RAJ KUMAR R- Rank: I CGPA: 9.27
	Other Ranks	1. Ms. SRIMATHI S-Rank: 3 CGPA: 9.2 2. Mr. SHRAVAN M KRISHNAN Rank: 6 CGPA: 9.08 3. Mr. VENKATA KRISHNAN. S Rank: 10 CGPA: 8.9 4. Ms. SHREYA S Rank: 12 CGPA: 8.88 5. Ms. SANTHINI S Rank: 13 CGPA: 8.87 6. Ms. ARUNA M Rank: 16 CGPA: 8.82
Recipient of Trust Award		Mr. R. RAJKUMAR (Theiva Pulavar Thiruvalluvar Award)

**STAFF ACTIVITIES****❖ Dr. R. BASKARAN**

- A paper entitled “Desalination of well water solar power membrane distillation and reverse osmosis and its effective analysis” was published in International Journal of chem. Tech Research, 2014.
- A paper entitled “Heavy metal stabilization” was published in International Journal of chem. Tech Research.
- A paper entitled “Application of homogeneous oxidative methodologies in degradation of textile dyes” was published in Research Journal of Pharmaceutical, biological and chemical sciences.
- A paper entitled “Solar powered membrane distillation and reverse osmosis process” was published in International Journal of latest research in science and Technology.
- A paper entitled “Variation of flux in membrane distillation ” was published in APCBEE Proceedia, Elsevier

**❖ Dr. N. VENKATESH**

- A paper entitled “Preparation of Nickel Oxide Nano-particles from Sophorolipids” was presented in International Conference on new frontiers in Chemical ,Energy and Environmental Engineering, on 20<sup>th</sup> to 21<sup>st</sup> march 2015 at National Institute of Technology, Warangal
- Attended a Short Term Programme organized by AICTE on “Thermodynamic Analysis of Modern Separation Processes” from 24<sup>th</sup> to 28<sup>th</sup> Nov 2014 at IIT- MADRAS.

**❖ Dr. M. PALANIYAPPAN**

- Attended a Short Term Programme organized by AICTE on “Contemporary trends in process system engineering and management” from 10<sup>th</sup> to 14<sup>th</sup> Nov 2014 at CIT-Coimbatore.

**❖ Ms. S. PRATHIBA**

- A paper entitled “Removal of Heavy Metals from aqueous solution using a cost effective novel adsorbent pearl umbonium” was presented in International Conference On Green Technology For Environmental Pollution Prevention and Control (IGTEPC 2014), National Institute of Technology, Trichirappalli, Tamilnadu” on 27<sup>th</sup> to 29<sup>th</sup> September 2014
- A paper entitled “Investigation on adhesive wear behavior of industrial crystalline and semi- crystalline polymers against steel counterface” was published in International Journal of Chem Tech Research.
- Attended two days National workshop on “recent trends in X-Ray diffraction techniques (RTX-2014)” on 28<sup>th</sup> & 29<sup>th</sup> November 2014at Sathyabama university, Chennai.

**❖ Mr. S. VINOD KUMAR**

- A paper entitled “Dye sensitized solar cells sensitized with natural pigments extracted from mixed fruits” was presented in International conference on sustainable energy technologies ICSET 2014” on 11<sup>th</sup> to 13<sup>th</sup> December 2014 held at PSG College of Technology, Coimbatore
- A paper entitled “preparation and performance of ZnO based dye sensitized solar cells and their effects on various dyes” was presented in International conference on sustainable energy technologies ICSET 2014” on 11<sup>th</sup> to 13<sup>th</sup> December 2014 held at PSG College of Technology, Coimbatore.

**❖ Ms. B. S. RATHI**

- Attended one day National workshop on “Instrumental Methods of Water Analysis” on 28<sup>th</sup> November 2014 held at SSN College of Engineering.



❖ **MS. N. DEEPA**

- A paper entitled “Hydro dynamic studies on air inducing impeller systems ” was published in **International Journal of chem. Tech Research**

❖ **MS. APARNA A M**

- A paper entitled “Monitoring of Continuous Crystallization Process” ” was presented in “International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT 2014), Noorul Islam University, Kumaracoil.

**ANNA UNIVERSITY SPONSORED FACULTY DEVELOPMENT TRAINING PROGRAM ON “MASS TRANSFER”**

Anna University sponsored seven days Faculty Development Training Program was conducted by St.joseph’s College of Engineering, department of Chemical Engineering on MASS TRANSFER. Participants from various institutions attended and gained more knowledge on mass transfer operations and principles.



The following chief guest delivered the plenary lecture on MASS TRANSFER and other scientist and industrial experts have delivered lecture in this field.

- ❖ Dr.P.S.T.sai, professor and HOD IITM Chennai
- ❖ Dr.Radha Associate professor, A.C.Tech Chennai
- ❖ Dr.T.R.Kubendran, professor, A.C.Tech Chennai.
- ❖ Mrs.R.Pushpalatha, Associate professor, SSNCE,Chennai.
- ❖ Dr.Kannan, Associate professor, kongu engineering college.
- ❖ Dr.Nagarajan, IITM, Chennai.
- ❖ Dr.Gnanaprakash, Associate professor, SSNCE, Chennai.
- ❖ Dr.Meyappan,professor and HOD SVCE.
- ❖ DrJoshua Amarnath.D Professor and Head, Sathyabama university, Chennai.
- ❖ Dr.B.Karunanithi, Professor, SRM Univeristy,Chennai.
- ❖ Dr.S.Renganathan Profeseor, A.C.Tech Chennai.
- ❖ Mr.Shar Govindan, Director, Bentley System Inc, U.S.A

**LIST OF STUDENTS (2010 – 2014 BATCH) RECEIVED THE OFFER LETTER FOR HIGHER STUDIES**

**ADVISORY BUREAU FOR HIGHER STUDIES**

The advisory Bureau for higher studies (ABHS) was inaugurated in the year 1999. Ever since its inception, it 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. From this year onwards the GRE and TOEFL training classes have been commenced in the campus.

ABHS is also organizing guest lectures and seminars to equip the students for pursuing higher studies. 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, Arkansa State University, Swinburne University, University of Sussex, Illinois Institute of Technology, Rochester Institute of Technology, University of Denver, Pace University and Southern Illinois University. The Academicians have visited our campus and also briefed the students about the application process, scholarships and requirements in their respective universities.

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, Concordia University, Leeds university, Florida institute of technology, 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:

S.No	Academic Year	No of students*
1.	2013 - 2014	187
2.	2012 – 2013	163
3.	2011 – 2012	131
4.	2010 – 2011	123
5.	2009 – 2010	118
6.	2008 – 2009	153
7.	2007 – 2008	59

***\*This is the number of students who have gone for higher education immediately after the completion of their course and many take up their higher education after one or two years of work experiences in industry.***

Apart from this many students are pursuing higher studies in India like 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.	GANGA.S	M.TECH	A.C.TECH, ANNA UNIVERSITY
2.	GOPI.V	M.E	CONCORDIA UNIVERSITY, KANNADA.
3.	LAKSHMINARASIMHAN SRIDHAR	M.TECH	THE UNIVERSITY OF QUEENSLAND, AUSTRALIA
4.	RADHA BALU	M.TECH	CEG, ANNA UNIVERSITY
5.	SHRAVAN.M.KRISHNAN	M.S	NUS, SINGAPORE
6.	MANIKANDAN.J	M.S	NUS, SINGAPORE
7.	SANTHOSH.V	M.TECH	UNIVERSITY OF PETROLEUM AND ENERGY STUDIES, DEHRADUN
8.	RAJIV.S	M.B.A	UNIVERSITY OF PETROLEUM AND ENERGY STUDIES, DEHRADUN
9	CHELLA GANAPATHY	M.S	UNIVERSITY OF HOUSTON, TEXAS.
10.	MOHAMMED NABEES	M.TECH	M.G.R UNIVESITY, CHENNAI.
11.	SOWGATH	M.TECH	M.G.R UNIVESITY, CHENNAI.
12.	ANJUKA	M.B.A	ST.JOSEPH'S COLLEGE OF ENGINEERING, CHENNAI
13.	POORVIHA	M.B.A	ST.JOSEPH'S COLLEGE OF ENGINEERING, CHENNAI

**PLACEMENT DETAILS OF PRESENT FINAL YEAR  
STUDENTS – 2015 BATCH**

**762 TOTAL STUDENTS ARE PLACED AS ON 08<sup>th</sup> April 2015**

We are glad to inform that 818 Students are selected through campus recruitment processes for the year 2014 - 15 with an annual salary package, starting from Rs 2.4 Lakhs to 10.18 Lakhs for UG & PG students.

<b>BRANCH</b>	<b>TOTAL</b>
CSE	86
IT	87
ECE	100
EEE	86
MECH	71
EIE	85
ICE	34
<b>CHEM</b>	<b>53</b>
BIO	37
MCA	27
ME - CSE	5
ME -SE	3
ME - AE	5
ME -PE	9
ME - PS	4
ME - C&I	2
ME - MANU	1
MTech - BIO	1
MBA	66
<b>Total</b>	<b>762</b>

<b>Company</b>	<b>Total</b>	<b>Company</b>	<b>Total</b>
Cognizant total offers**	461	Wipro - Global Infrastructure Services	2
Wipro total offers**	222	Polaris	5
Infosys total offers**	245	Prime Focus	1
Soliton Technologies	2	Accenture	1
Zoho	7	TNQ	12
CommVault	2	Global Analytics	1
Vembu Techhnologies	2	Aon Hewitt	2
Trimble	2	ITC Limited	1
Vernalis	3	Royal Bank of Scotland	16
RR Donelley	3	BNP Paribas	4
Mindtree	21	ICICI Securities	1
Virtusa	9	Vortex	1
Ideas2it	4	Coffee day	1
Scope International	5	HCL Technologies	3
AGS Healthcare	11	American Megatrends	1
Verizon	5	HDFC Bank	4
NTT DATA	13	Ashok Leyland	1
NAUKRI.COM	1	Sony	1
Globalsoft Solutions	1	Mphasis	1
Datacert	9	Jain Housing	1
TECH MAHINDRA	6	SPIC	5
Jaro Education	2	HCL health care	2
BNY MELLON	11		
ITS Solutions	20	Manali petrochemicals limited	5
<b>Total: 1139</b>			

## LIST OF STUDENTS PLACED THROUGH CAMPUS IN VARIOUS COMPANIES IN THE YEAR 2014 - 2015

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	NAME OF THE STUDENT	COMPANY NAME
AARTHI A		AARTHI A	<b>INFOSYS</b>  <small>POWERED BY INTELLECT DRIVEN BY VALUES</small>
ASHIQ PETER FRANCIS		BHARATH KRISHNA C M	
BALAKUMARAN T P		BHARGAVI V	
BHARATH KRISHNA C M		HEMAMALINI J	
BHARGAVI V		MAHIMA SAJAN V ARGHESE	
HEMAMALINI J		MANIBARATHI V	
KISHORE KUMAR K		PRADHEEP MURALI	
LIBINA THIVYA BELL G		SHWETHA S	
MAHIMA SAJAN VARGHESE		JAMES SYRUS V	
MANIBARATHI V		NAMITHA V	
MOHANA PRIYA M		VIGNESH SHEKHAR	
NIVEDHITHA J G		VIGNESHWAR K	
NIVESHA S		SNEHA J	
PRITHI PARTHASARATHY VRP		SRUTHI S	
PAVITHRA A		VENKATESAN R	
PAVITRA S		Y BIBIN SABILON	
POORNIMA K		Y SUBIN SABILON	
PRADHEEP MURALI			
PRIYA S		Y BIBIN SABILON	<b>MPL-MANALI PETRO CHEMICALS LIMITED</b> 
RAVIKIRAN ` R		Y SUBIN SABILON	
RONALD B		JAMES SYRUS	
SHWETHA S		RAMAKRISHNAN	
SOWJANYA SOWRIRAJAN		BHARATH KRISHNA C M	
SRUTHI S			
TAMILARASI A			
MERCY JACQULINE B		BALAKUMARAN T P	<b>Southern Petrochemical Industries Corporation Ltd</b>  <small>Nourishing growth</small>
REVATHI S		SURAGANI MUNI HEMANTH	
SENTHIL KUMAR T K		VENKATESAN R	
YUVATHY H		VIGNESHWARAN S	
MERCY JACQULINE B		SIVARAMAN R	

## 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

- ❖ Rewarding Gold Medalist with a cash prize of Rs.75, 000/- and University Rank holders wish a cash prize of Rs.60, 000/- on 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

#### FOURTH YEAR –BATCH: 2011 – 2015 (I – VII SEMESTER)

S.No	Name of the Student	Total Grade Points out of 1770	CGPA
1.	Y. BIBIN SABILON	1622	9.16
2.	Y. SUBIN SABILON	1616	9.13
3.	HEMAMALINI J	1606	9.07
4.	VENKATESAN R	1603	9.06
5.	MANIBARATHI V	1600	9.04
6.	AARTHI A	1579	8.92
7.	NIVESHA S	1578	8.92
8.	BHARGAVI V	1576	8.90
9.	POORNIMA K	1563	8.83
10.	LIBINA THIVYA BELL	1558	8.80
11.	MAHIMA SAJAN V.	1553	8.77
12.	MOHANA PRIYA M	1542	8.71
13.	MERCY JACQULINE.B	1069	8.69
14.	TAMILARASI A	1527	8.63
15.	VIJAYALAKSHMI D	1526	8.62
16.	SHWETHA S	1501	8.48
17.	PREETHI C M	1496	8.45
18.	SOWJANYA SOWRIRAJAN	1485	8.39
19.	REETHU SUSAN VARGHESE	1475	8.33
20.	PRITHI V R P	1471	8.31
21.	RAVIKIRAN R	1470	8.31

**THIRD YEAR – BATCH: 2012– 2016 (I – V SEMESTER)**

S.No	Name of the Student	Total Grade Points out of 1290	CGPA
1.	ARAVIND G	1195	9.26
2.	DEEPIKA R	1185	9.19
3.	VENKATESH D	1174	9.10
4.	RAJA RAJA CHOZHAN P	1166	9.04
5.	SANDANA V P	1165	9.03
6.	ARUNACHALAM S	1163	9.02
7.	PRASANTH C	1124	8.71
8.	AMIRTHA VARSHINI P	1116	8.65
9.	NITHYA SIVAKAMI G	1116	8.65
10.	PRAVIN BOSCO C	1107	8.58
11.	MAHESWARI C	1102	8.54
12.	SRIRAM R	1098	8.51
13.	HAFILA	1094	8.48
14.	SHERIN REGI SAM	1080	8.37
15.	SWETHA. V	1080	8.37
16.	KARTHICK	1079	8.36
17.	SARATH R	1076	8.34
18.	PAUL ERICSON P	1074	8.33
19.	SHARADA TN	1074	8.33

**SECOND YEAR – BATCH: 2013 – 2017 (I – III SEMESTER)**

S.No	Name of the Student	Total Grade Points out of 760	CGPA
1.	RAZIKA SUBHANA R	689	9.07
2.	JAYASHREE Y	680	8.99
3.	NIVEDITHA JR	676	8.89
4.	KAVI NILA G	664	8.74
5.	AMRUTHA C	649	8.54
6.	CHERYL PEREIRA	645	8.49
7.	ROHINI N S	644	8.47
8.	VEENA MATHANGI G	644	8.47
9.	MADHUMATHI S	636	8.37

**FIRST YEAR – BATCH: 2014 – 2018 ( I SEMESTER)**

S.No	Name of the Student	Total Grade Point out of 260	CGPA
1.	DELIGHT AZARIAH DANIEL.W	240	9.23
2.	PRASANTH N	239	9.19
3.	MALATHI J	237	9.12
4.	HARITHAJENNIFER D	236	9.08
5.	MANIKANDAN V	232	8.92
6.	VISHALI G	231	8.88
7.	NAVEEN B	229	8.81
8.	KISHOR S	228	8.77
9.	SARAN KUMAR M	228	8.77

10.	YAMUNA E	228	8.77
11.	NANDHINI G	225	8.65
12.	ARUN KUMAR J	224	8.62
13.	DANIEL MANOGARAN D	224	8.62
14.	GEETHA N	222	8.54
15.	SNEHA JOSE	221	8.50
16.	MUTHU NANDINI M	219	8.42
17.	VINEETH ANTON JOSE T	219	8.42
18.	ABINAYA J	218	8.38
19.	AMUDHA K	218	8.38
20.	KEERTHANA V	218	8.38
21.	SINTO STEPHEN	218	8.38
22.	SUPRIYA B	218	8.38
23.	VIGNESWARAN S	218	8.38
24.	CEDRIC DENNY	217	8.35
25.	NOOR FASEEHA N	217	8.35

## *NGO (Non-Governmental 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.

Date	Class	Name of the organization visited
28/06/2014	III Year	<b>GRACE CHILDREN HOME</b> , Chengalpattu, Chennai.
05/07/2014	II Year,	<b>LITTLE HEARTS</b> , Pannaiyur, ECR
06/09/2014	I Year, Chemical	<b>PEACE GARDEN</b> , Guduvancherry.
31/01/2015	I Year, Chemical	<b>TRUTH FOUNDATION</b> , Perambur.
07/02/2015	II Year Chemical	<b>SEED UDKOTTAI</b> , Poonamalle.
21/02/2015	III Year	<b>ROSHINI ILLAM</b> , Sunnambukulathur.

*We wish to continue our service forever*



## STUDENTS ACTIVITIES

### CURRICULAR, CO-CURRICULUR, EXTRA-CURRICULUR ACTIVITIES

S. No	Name of the Student	Year	Name of the Event	Organizer	Place Won
1.	ARUN KUMAR R	II	Paper presentation	SSN College of Engineering	III
2.	JITHIN RAJ K	II			
3.	VEENA MATHANGI G	II	Technical quiz	CIPET, Chennai	I
4.	MADHUMATHI S	II			
5.	MAHIMA.H	II	MATERIAL HUNT	SSN College of Engineering	III
6.	CHERYL PEREIRA				
7.	PAVITHRA GABRIEL				
8.	NIVEDITHA J R	II	CONNECTIONS	Sriram College of Engineering	I
9.	RAVEENA NARAYANEE S				
10.	SIDDHARTHA U	III	Adzap	Madras Institute of Technology	I
11.	B NITHISH	III			
12.	MANOJ CHAKRAVARTHY.M	III			
13.	SANDEEP RAJ. S	III			
14.	SRIRAM R	III	Adzap	SSN College of Engineering,CHENNAI	II
15.	B NITHISH	III			
16.	SIDDHARTHA U	III	B Plan	Madras Institute of Technology	II
17.	SIDDHARTHA U	III	Be The Millionare	A C Tech, ANNA UNIVERSITY	II
18.	SIVA S	III	Bucket Your Business	Sri Venkateswara College of Engineering	II
19.	VENKATESH D	III	Business Plan	SSN College of Engineering, CHENNAI	II
20.	SIDDHARTHA U	III	Business Plan Formulation	A C Tech, ANNA UNIVERSITY	II
21.	ARUNACHALAM S	III	Business Plan Formulation	A C Tech, ANNA UNIVERSITY	III
22.	PAUL ERICSON P				
23.	ARUNACHALAM S	III	Cerebro	Madras Institute of Technology	II
24.	PRAVIN BOSCO C	III	Cerebro	Madras Institute of Technology	I
25.	SIDDHARTHA U	III	Chem No. I	A C Tech, ANNA UNIVERSITY	I
26.	SRIRAM R	III	Chem No. I	A C Tech, ANNA UNIVERSITY	II
27.	B NITHISH	III			
28.	SIDDHARTHA U	III	Chemconnection	A C Tech, ANNA UNIVERSITY	II
29.	SIDDHARTHA U	III	Ciphermission	A C Tech, ANNA UNIVERSITY	I
30.	PRAKASH S	III	Connexions	MAGNA COLLEGE OF ENGINEERING	III
31.	B JOKIM	III	Crazy Quiz	SSN College of Engineering,CHENNAI	I
32.	ARUNACHALAM S	III	Del Q	A C Tech, ANNA UNIVERSITY	II
33.	PAUL ERICSON P				
34.	SRIRAM R				
35.	PAUL ERICSON P	III	General Quiz	Madras Institute of Technology	I
36.	K S AVINASH	III	Get It Right	Madras Institute of Technology	II
37.	VENKATESH D	III	How Waste Stuff Works	Madras Institute of Technology	I
38.	K S AVINASH	III	Inquisites	SSN College of Engineering,CHENNAI	I
39.	ARUNACHALAM S	III			
40.	SIDDHARTHA U	III	Jaw Dropper	Madras Institute of Technology	I
41.	SANDEEP RAJ. S				
42.	ARUNACHALAM S	III	Logo It	Madras Institute of Technology	II

43.	SWETHA V	III	Material Hunt	SSN College of Engineering,CHENNAI	II
44.	SANDANA V P	III			
45.	VARSHA.M.H	II			
46.	PRASHANTH C	III	Mod – E - Link	Madras Institute of Technology	I
47.	K S AVINASH	III	Mod – E - Link	Madras Institute of Technology	III
48.	VENKATESH D	III			
49.	MADHUKAR C N	III	Mystery Project	SSN College of Engineering,CHENNAI	II
50.	SRIRAM R	III			
51.	B NITHISH	III			
52.	SHARADA T N	III	Online Photography	SSN College of Engineering.	II
53.	SANDANA V P	III	Online Quiz	SSN College of Engineering.	II
54.	R DEEPIKA	III	Online Quiz	SSN College of Engineering.	I
55.	ARUNACHALAM S	III	Paper Presentation	CHEMICAL ENERGY & ENVIRONMENTAL ENGINEERING, SSN College of Engineering, CHENNAI	I
56.	PAUL ERICSON P	III			
57.	SRIRAM R	III	Paper Presentation	Sri Venkateswara College of Engineering	II
58.	B NITHISH				
59.	SIDDHARTHA U	III	Photography	KCG COLLEGE OF TECHNOLOGY	II
60.	ARUNACHALAM S	III	Poster Presentation	SSN College of Engineering,CHENNAI	I
61.	PAUL ERICSON P	III			
62.	R DEEPIKA	III	Poster Presentation	Sri Venkateswara College of Engineering, CHENNAI	III
63.	SHARADA T N	III	Poster Presentation	SSN College of Engineering,CHENNAI	III
64.	ROSHAN P R	III	Prove Us Wrong	Madras Institute of Technology	II
65.	SHRIRAM R	III			
66.	SHRIRAM R	III	Quiz Up	Sri Venkateswara College of Engineering, CHENNAI	I
67.	SIDDHARTHA U	III			
68.	SIDDHARTHA U	III	Specher Haus	A C Tech, ANNA UNIVERSITY	I
69.	B NITHISH	III			
70.	ARUNACHALAM S	III	Specher Haus	A C Tech, ANNA UNIVERSITY	II
71.	PAUL ERICSON P	III			
72.	SRIRAM R	III			
73.	SRIRAM R	III	Surprise Event	Anjalai Ammal Mahalingam Engineering College	I
74.	SIDDHARTHA U	III			
75.	SIDDHARTHA U	III	Surprise Event	SMK FOMRA INSTITUTE OF TECHNOLOGY	II
76.	PAUL ERICSON P	III	Technical Connexions	Madras Institute of Technology	I
77.	ARUNACHALAM S	III	Technical Dumb Charades	Madras Institute of Technology	II
78.	VENKATESH D	III	Technical Quiz	SSN College of Engineering,CHENNAI	II
79.	SIDDHARTHA U	III	Technical Quiz	Madras Institute of Technology	I
80.	SIDDHARTHA U	III	Treasure Hunt	Madras Institute of Technology	II
81.	SHARADA T N	III	Treasure Hunt	Sri Venkateswara College of Engineering, CHENNAI	I
82.	R DEEPIKA	III			
83.	R DEEPIKA	III	Treasure Hunt	SSN College of Engineering,CHENNAI	II
84.	SHARADA T N	III			
85.	PRAKASH S	III	Treasure Hunt	MAGNA COLLEGE OF ENGINEERING	III
86.	MADHUKAR C N	III	What Went Wrong	Sriram Engineering College	II
87.	SRIRAM R	III			
88.	PRASHANTH C	III	Working Model	SSN College of Engineering,CHENNAI	III
89.	PRAVIN BOSCO C	III			
90.	MADHUKAR C N	III	Working Model	SSN College of Engineering,CHENNAI	II
91.	SRIRAM R	III			
92.	NITISH B	III			

93.	PRADHEEP MURALI	IV	JAW DROPPER	Madras Institute of Technology	II
94.	VIGNESH SHEKHAR	IV			II
95.	M.JAYARAM	IV	Working Model	Adhiparasakthi Engineering College	II
96.	K.SHAKTIVEL	IV			
97.	PRADHEEP MURALI	IV	Deja Vu	Madras Institute of Technology	
98.	K.KISHORE KUMAR				I
99.	PRADHEEP MURALI	IV	Volatile secrets- Treasure Hunt	Madras Institute of Technology	III
100.	VIGNESH SHEKHAR				
101.	VIGNESH SHEKHAR	IV	Prove us wrong	Madras Institute of Technology	III
102.	J.KATHIRAVAN	IV	Contraption	Velammal Engineering College	II
103.	J.KATHIRAVAN	IV	ROBOMASONS	College of Engineering, Anna University.	II
104.	K.KISHORE KUMAR	IV	Gaming	SSN College of Engineering	I
105.	K.KISHORE KUMAR	IV	Dumb- C	SKR Engineering College	II
106.	K.KISHORE KUMAR	IV	LOGO IT	Madras Institute of Technology	I
107.	K.KISHORE KUMAR	IV	B Plan	Madras Institute of Technology	I
108.	K.KISHORE KUMAR	IV	Design a smart city	Madras Institute of Technology	II
109.	SENTHIL KUMAR.T.K	IV	IDP	SSN College of Engineering	I
110.	K.SHAKTIVEL	IV			II
111.	K.SHAKTIVEL	IV	QUIZ	Adhiparasakthi Engineering College	II
112.	M.JAYARAM	IV			
113.	B.MERCY JACQULINE	IV	What went wrong	Sriram Engineering College	II
114.	B.MERCY JACQULINE	IV	Poster Presentation	Sriram Engineering College	II

### INTRA DEPARTMENT CULTURALS

In our college we have conducted intra department cultural activity to entertain and encourage the students in extracurricular activities. This program was held on 04-02-2015. The lists of winners are

Sl. No.	Event	I Prize ( amount) Rs.300		II Prize ( amount) Rs.200	
		Name of the Student(s)	Year/Sec	Name of the Student(s)	Year/Sec
1	PATTUKKU PATTU	GUNA TWEENA BENIZ.J G.KAVI PRIYA	II	ARUNACHALAM S PRAVIN BOSCO C	III
2	QUIZ	NITISH.B SRIRAM.R	III	MOHAMED NAFIL.M ALRIN ROSSARIO.S.J	II
3	DUMB-C	J.R.NIVEDITHA S.RAVEENA NARAYANEE	II	E.DHANASHREE GUNA TWEENA BENIZ.J	II
4	DANCE	JENIL RAJA SINGH PRAVIN BOSCO JAFFIN SAM RAJ SRIRAM.R	III	SNEHA.E ROHINI.N.S VEENA MATHANGAI.G KAVI NILA.G	II
5	SKIT	MOHAMED NAFIL.M ALRIN ROSSARIO.S.J	II	SIVA SANKAR BALAJI.T.P GOVARADHAN KOKA K.NAVANEETHA KRISHNAN MUTHU SELVAM.E	II
6	RANGOLI	RAJARAJA CHOZHALAN ARAVIND.G	III	E.DHANASHREE E.DHIVYA C.AMRUTHA	II
Total Prize amount Rs. 3,000					

## SPORTS ACTIVITIES

NAME	YEAR	EVENT	NAME OF THE TOURNAMENT	ORGANIZER	PLACE
J.G.NIVEDHITHA	IV	CHESS	TIES	SAIRAM COLLEGE OF ENGINEERING	1
			JETS	ST.JOSEPH'S COLLEGE OF ENGINEERING	2
			INTERCOLLEGE CHESS TOURNAMENT	MOP VAISHNAV	4
			INTERCOLLEGE CHESS TOURNAMENT	D.G.VAISHNAV	3
SOWJANYA SOWRIRAJAN	IV	CHESS	TIES	SAIRAM COLLEGE OF ENGINEERING	1
			JETS	ST.JOSEPH'S COLLEGE OF ENGINEERING	1
			INTERCOLLEGE CHESS TOURNAMENT	D.G.VAISHNAV	4
			CHENNAI DISTRICT	CDCA	1
D.RAJESHWARI	III	VOLLEY BALL	JEPPEPIAAR TROPHY	JEPPIAAR COLLEGE OF ENGINEERING	2
			ZONE	JEPPIAAR COLLEGE OF ENGINEERING	3
			LOYOLA	LOYOLA COLLEGE OF ENGINEERING	2
			MOP TOURNAMENT	MOP COLLEGE OF ENGINEERING	2
			SA TOURNAMENT	SA COLLEGE OF ENGINEERING	1
			TIES	SAIRAM COLLEGE OF ENGINEERING	2
			JETS	ST.JOSEPH'S COLLEGE OF ENGINEERING	1
DEEPIKA SM	III	BASKET BALL	ANNA UNIVERSITY	SSN COLLEGE OF ENGINEERING	2
			TIES	SAIRAM COLLEGE OF ENGINEERING	3
			JETS	ST.JOSEPH'S COLLEGE OF ENGINEERING	2
K.NANDHINI PRIYA	III	VOLLEY BALL	JEPPEPIAAR TROPHY	JEPPIAAR COLLEGE OF ENGINEERING	2
			ZONE	JEPPIAAR COLLEGE OF ENGINEERING	3
			LOYOLA	LOYOLA COLLEGE OF ENGINEERING	2
			MOP TOURNAMENT	MOP COLLEGE OF ENGINEERING	2
			SA TOURNAMENT	SA COLLEGE OF ENGINEERING	1
			TIES	SAIRAM COLLEGE OF ENGINEERING	2
			JETS	ST.JOSEPH'S COLLEGE OF ENGINEERING	1

R.VENKATESH	III	VOLLEY BALL	JETS	ST.JOSEPH'S COLLEGE OF ENGINEERING	1
			SVCE	SVCE	1
			ZONE	JEPPIAAR COLLEGE OF ENGINEERING	1
			INTER ZONE	ST.JOSEPH'S COLLEGE OF ENGINEERING	2
			TIES	SAIRAM COLLEGE OF ENGINEERING	2
J.JAIN JINI JO	III	VOLLEY BALL	JETS	ST.JOSEPH'S COLLEGE OF ENGINEERING	1
			SVCE	SVCE	1
			ZONE	JEPPIAAR COLLEGE OF ENGINEERING	1
			INTER ZONE	ST.JOSEPH'S COLLEGE OF ENGINEERING	2
			TIES	SAIRAM COLLEGE OF ENGINEERING	2
			BESTSAM TOURNAMENT	LOYOLA	2
			KONGU TROPHY	KONGU ENGINEERING COLLEG	2
			B DIVISION CHAMPIONSHIP	YMCA	1
			ROTARY CLUB INVITATION TOURNAMENT	CHENNAI	2
			THENI DISTRICT INVITATION TOURNAMRNT	THENI	
			ANNA FEST	ANNA UNIVERSITY	1
JAIN MATHEW	3RD	BASKET BALL	SRI RAGAVENDRA TOURNAMENT	SRI RAGAVENDRA COLLEGE OF ENGINEERING	3
			INTERZONALS	KARUR	3
			ZONALS	SRM UNIVERSITY	1
			SRI VENKATESHWAR A TOURNAMENT	SVCE	1
			JETS	ST.JOSEPHS COLLEGE OF ENGINEERING	1
			PEER MOHAMMED TROPHY		1
			ANNA FEST	ANNA UNIVERSITY	1
DHIVYA PRAKASH	3RD	BASKET BALL	SRI RAGAVENDRA TOURNAMENT	SRI RAGAVENDRA COLLEGE OF ENGINEERING	3
			INTERZONALS	KARUR	3
			ZONALS	SRM UNIVERSITY	1
			SRI VENKATESHWAR A TOURNAMENT	SVCE	1
			JETS	ST.JOSEPHS COLLEGE OF ENGINEERING	1
			PEER MOHAMMED TROPHY		1
			ANNA FEST	ANNA UNIVERSITY	1

P.KARTHIKEYAN	3RD	KABBADI	ANDHRA TROPHY	KL UNIVERSITY	1
			TIES	SAIRAM COLLEGE OF ENGINEERING	1
			JETS	ST.JOSEPH'S COLLEGE OF ENGINEERING	1
			PSN TROPHY	PSN COLLEGE OF ENGINEERING	1
			INTERZONE	JJ COLLEGE TRICHY	3
			ZONE	JEPPIAAR COLLEGE OF ENGINEERING	1
M.SATHISHKUMAR	3	ATHLETE	1500 METER	ST.JOSEPH'S SPORTS MEET	3
			5000 METER		1
			ANNA UNIVERSITY INTERZONE 12 KILOMETER	JJ COLLEGE ,TRICHY	3
			3000 METER	SENIOR STATE	2
			ZONE 1500 METER	ANNA UNIVERSITY	2
			5000 METER		2
			INTERZONE 1500 METER	ANNA UNIVERSITY	1
			TIES 1500 METER	SAIRAM COLLEGE OF ENGINEERING	1
			5000 METER		2
			10000 METER		1

## GUEST LECTURES

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



- ❖ A very informative Lecture on “**OCCUPATIONAL HAZARDS**” by **Mr.B.M.SUBBURATHINAM** Principal engineer- Technip india (p) ltd.guindy,Chennai on 15-07-2014
- ❖ A very informative Lecture on “**LARGE SCALE SEA WATER REVERSE OSMOSIS DESALINATION**” by **Mr.D.SUDHAKAR** Principal engineer- Technip india (p) ltd.guindy,Chennai on 18-07-2014
- ❖ A very informative Lecture on “**ECO- Industrial Entotox – Case Study: Chemical And Petrol Chemical Region In India**” by **DR.RAMABRAHMAN**, Sr. principal scientist, HOD, Department of chemical engineering, CLRI on 23/01/2015

## INDUSTRIAL VISITS

- ❖ The second year students have visited **Central Institute of Plastics Engineering and Technology (CIPET)**, Guindy, Chennai on 14<sup>th</sup> July 2014 they had a very good exposure to the production of plastics.



- ❖ The third year students have visited **MOHAN BREWERIES AND DISTILLERIES LIMITED, CHENGALPET**, on 08<sup>th</sup> August 2014. Students had a good exposure to distillery industry and distillation column and mass transfer unit operations.
- ❖ The second year students have visited **Sri Meera Laboratories, Chennai**, on 11<sup>th</sup> February 2015 students had a very good exposure in basics of chemical reaction and chemical reactors.
- ❖ The third year students have visited **Neyveli Lignite Corporation (NLC)**, Neyveli on 20<sup>th</sup> February 2015 students had a very good exposure to the process.

## STUDENTS CHAPTER ACTIVITIES

### INDIAN INSTITUTE OF CHEMICAL ENGINEERING ACTIVITIES

- ❖ Under the banner of IICChE, Chemical engineering department has conducted a Guest Lecture programme on “Innovations in the field of Chemical Engineering” on 20.08.2014. All the students from II, III and IV year Chemical Engineering were attended the programme. Mr. R. Durai Raj, Visiting Professor, Indian Institute of Chemical Engineers (IICChE) has presented the lecture. During the programme, a book was given to all the participated students at free of cost by IICChE Regional centre titled ‘Innovation, Your competitive advantage’.

### CHEMICAL ENGINEERING CLUB ACTIVITIES



- ❖ Chemical Engineering club has conducted working model event on Heat Exchanger design for III year chemical engineering under the banner of Indian institute of Chemical Engineering (IICChE). About 20 students (as 10 batches) were actively participated the event with the models designed and fabricated by themselves by applying their engineering knowledge. The preliminary round was conducted on 5.9.2014 and about 5 batches were shortlisted for final rounds of competition. During the final round conducted on 17.09.2014, three best models were identified by the panel of judges comprising HODs.
- ❖ A “Working Model” event on Waste Water Treatment for our students of III year Chemical engineering was conducted on 30.01.2015. About 22 students were demonstrated their models and three models were selected as best model by the panel of judges comprising HODs.

## 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, GMAT, etc.

S.NO	NAME OF THE STUDENT	EXAM	MARKS SECURED
1.	MANIKANDAN.J	GATE	43.33/ out of 100
2.	AMANDA EDWIN	GATE	29.67/ out of 100
3.	SHRAVAN.M.KRISHNAN	GATE	48.33/ out of 100
4.	PRAVEEN KUMAR.S	GATE	36.33/ out of 100
5.	HEMAVATHY.R	GATE	30.33/ out of 100
6.	GOPI VASUDEV	IELT'S	6.5/out of 9
7.	SHREYA.S	TOEFL	110/out of 120
8.	RAJKUMAR.R	GATE	34.33/out of 100
9.	SINDHURI.P	TOEFL	94/ out of 120
10.	SINDHURI.P	GRE	308/ out of 340

## 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 VANTAGE are

ASSESSMENT NAME	RESULT	NO OF STUDENTS
BEC VANTAGE	PASS AT GRADE A	4
BEC VANTAGE	PASS AT GRADE B	6
BEC VANTAGE	PASS AT GRADE C	7
BEC VANTAGE	COUNCIL OF EUROPE LEVEL B1	5

**BEC VANTAGE : 22 STUDENTS**



## COLLEGE DAY AND CULTURAL COMPETITION RESULTS

### COLLEGE DAY - 2015 (II, III & FINAL YEAR)

The most awaited aura of the year filled with enthusiasm and passion to triumph was all set in the month of March. Enlightening this year with the **College Day '15 Eve**, the **26<sup>th</sup>** and **27<sup>th</sup> of March 2015**, a two day fun packed mega cultural extravaganza kindled the joy of the students. A well unified amalgamation of 15 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	Hakkim.R-III MCA	Aishwarya.S-III CSE	Nandhagopal.E-II IT
2.	Creative writing(Tamil)	Anburaja.B-II CSE	Nivetha.P-II ECE	Sneha Mirulalini-II BT
3.	Drawing (Pencil)	Uma Maheswari-II EIE	Visali Lakshmi-II EIE	Hanna Isaac-II ECE
4.	Oratorical (Eng)	Ashik Peter.J-III EIE	Sneha Mirulalini-II BT	Daniel Charles-III ECE
5.	Egg Shell Painting	Ganga.B- II EIE	Prem Chandar.B-III EIE	Preethika.P-II CSE
6.	Creative writing(Eng)	Preethi.R-II CSE	Mattina Mano.M-III IT	Sneha Mirulalini-II BT
7.	Oratorical (Tamil)	Kamalashini.D-III EIE	Barani.M-III EIE	Pradheep Raaj-III Mech
8.	Classical Vocal	Haritha K. Nair-II ECE	Aishwarya.S-III CSE	Madhuvanathi.S- II EIE
9.	Quiz	Pratheesh.V.K-III EEE Vignesh Rajan-III EEE	Aldo Pioline.A.C-II CSE James Ashwin.M-II CSE	Nicholas.A.J-II Mech Nikhil Sanjay-II Mech
10.	Rangoli	Sangeetha.G-III BT Chandra Priya.C-III BT	Abirami.K-II BT Niketha.R-II BT	Parimalar.S-II CSE Preethika.P-II CSE
11.	Collage	Sangeetha.G-III BT Chandra Priya.C-III BT	Sanjana.S-III BT Aparna.P- III BT	Preethika.P- II CSE Parimalar.S - II CSE
12.	Dumb C	<b>Niveditha.J.R-II Chem</b> <b>Raveena.S-II Chem</b>	Hemnaa.S-III EEE Josephine-III EEE	Akshaya Suresh-II CSE Geethanjali.A-II CSE
13.	Scrap Art	Sangeetha.G-III BT Chandra Priya.C-III BT	Vilfrena Jennifer-III IT Sharon Angelene-III IT	Madhumitha.R-II CSE Keerthana.K.R-II CSE
14.	Mehandi	Thivya Roopini-II EIE Vaishnavi.S - II EIE	Hanna Isaac-II ECE Jasmine Nancy.S-II ECE	Baby Shalini-II CSE Akshaya Sriram-II CSE
15.	Pattuku Pattu	Hakkim.R-III MCA Vengadeshwaran-III MCA	Swetha.S-II ECE Shanmuga Priya-II ECE	Ravichandran.M-II MCA Clinton.S-II MCA

The day, **30<sup>th</sup> of March 2015** eye 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 splendiferous 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.

Our department students won prizes in the following categories:

- **Dumb C- I PRIZE - Niveditha.J.R, Raveena.S – II YEAR CHEMICAL**

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 Principal, Dr. Vaddi Seshagiri Rao.

Intramural Sports events for the final years was conducted on **July 18<sup>th</sup>, 2014**, III years on **July 17<sup>th</sup>, 2014** and for the II years it was conducted on **July 16<sup>th</sup>, 2014**. The prize distribution took place on the college day where the certificates and medals for winners were distributed by the Vice Principal, Dr.S.Arivazhagan and Dean Research Dr.B.Parvathavarthini.

### **I YEAR COLLEGE DAY - 2014**

The college day for the first year students was celebrated with a two day mega cultural extravaganza that was put up on the **23<sup>rd</sup> and 25<sup>th</sup> of April 2014**. The following students won prizes in these events:

S.No	EVENT	I PRIZE	II PRIZE	III PRIZE
1.	Light Music	Santhanabharathi-MBA	Inneshius Stany-ECE	Pooja.D-CSE
2.	Rangoli	Saraswathy.R-IT Vijayalakshmi.V-IT	Priyadharshini.A-MBA Divya Manavalan-MBA	Chitra.S-M.Tech-Bio Caroline-M.Tech-Bio
3.	Creative Writing(Tamil)	Pradheep Raaj.S-Mech	Aswin Prakash.P-Mech	Kanimozhi K.R-ECE
4.	Quiz (Premils,Final)	Sankaranarayanan-Mech Ajayantony.I-Mech	Vinmathi.V-M.Tech-Bio Chitra.S-M.Tech-Bio	Aadhith.P-MBA Venkatachalam.R-MBA
5.	Drawing (Pencil)	Nanthini.M-M.Tech-Bio	Hanna Isaac-ECE	Visali Lakshmi.P.R-EIE
6.	Creative Writing(Eng)	Mercy.P-ICE	Kanimozhi.K.R-ECE	Jeffy Merin Jacob-CSE
7.	Collage	Caroline-M.Tech-Bio Vinmathi.V-M.Tech-Bio	Preethika.P-CSE Parimalar.S-CSE	Hanna Isaac-ECE Jenisha Haran-ECE
8.	Egg Shell Painting	Uma Maheswari.M-IT	Kasi Vignesh.M-MBA	Mageswari.S-EIE
9.	Paatuku Paatu (Premils,Final)	Swetha.S-ECE Shameera Banu.S-ECE	Raj Kumar.M-MBA Jeyesh.V – MBA	Nandha Gopal.E-IT Sakthivel.S-IT
10.	Pot Painting	Hanna Isaac-ECE	Ganga.B - EIE	Luxshana.P-CSE
11.	Dumb Charades (Premils,Final)	Sankaranarayanan-Mech Ajayantony.I-Mech	<b>Raveena Narayane-Chem</b> <b>Niveditha J R-Chem</b>	Sheron Raji.R-EEE Lavanya P-EEE
12.	Classical Vocal	Sandhya.S-MBA	Ranjani.V-IT	Uma Maheswari.M-IT

S.No	EVENT	I PRIZE	II PRIZE	III PRIZE
13.	Scrap Art	Balasubramanian.M-MBA Mohamed Inzaman-MBA	Keerthana.R-ECE Madhubala-ECE	Uma Maheswari.M - IT Saraswathy.R - IT
14.	Mehandi	Afreen Bushrakhan-MBA Srilekha S-MBA	Shameera Banu.S-ECE Sharine Jennifer.M-ECE	Vaishnavi-EIE Thivya Roopini.I-EIE
15.	Oratorical (English)	Jayashree.Y-Chem	Mercy.P-ICE	Divya Manavalan-MBA
16.	Oratorical (Tamil)	Aswin Prakash.P-Mech	Pradheep Raaj.S-Mech	Kayalvizhi.K.R-M.E(A.E)

A well blended combination of 16 events such as quiz, pattuku pattu, 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 **College Day for I year students** was celebrated on the following day, the **26<sup>th</sup> of April 2014** 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. 40,000/-** 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.

Our department students won prizes in the following categories:

- **Dumb Charades - I PRIZE - Raveena Narayane-Chemical.**
- **College day prize winners:**

EVENT NAME	TEAM LEADER	DEPARTMENT
RESTAURANT MAYHEM	ALICE SNEHA	CHEMICAL

The winners of the cultural events which were conducted on 23.04.2014 and 25.03.2014 were honored with cash prizes and certificates, which were distributed by the principal Dr. Vaddi Seshagiri Rao, Vice Principal, Dr.S.Arivazhagan and Dean Research Dr.B.Parvathavarthini.

## செயிண்ட் ஜோசப்ஸ் தமிழ் மன்றம்

### தமிழ் பட்டிமன்றம் அறிக்கை



செயிண்ட் ஜோசப்ஸ் பொறியியல் கல்லூரியில் டாக்டர். எம்.ஜி.ஆர். அவர்களின் பிறந்த நாள் விழாவை முன்னிட்டு 04.02.2015 அன்று செயிண்ட் ஜோசப்ஸ் பொறியியல் கல்லூரி மற்றும் செயிண்ட் ஜோசப்ஸ் தொழில்நுட்பக் கல்லூரிகளின் தமிழ் மன்றம் சார்பில்

### "சின்ன சின்ன பொய்கள் வாழ்க்கைக்கு

**சுகமா?**

**சுமையா?"**

என்ற தலைப்பில் பட்டிமன்றம் நடைபெற்றது.

கல்லூரித் தலைவர் கர்னல். டாக்டர். ஜேப்பியார், நிர்வாக இயக்குனர் டாக்டர். பாபு மனோகரன், இயக்குனர் திரு. ஜெயகுமார் கிறிஸ்து ராஜன், இயக்குனர் திருமதி ஜெசி ப்ரியா, தலைமை செயல் அலுவலர் சசி சேகர், முதல்வர் டாக்டர். வட்டி சேஷசகிரி ராவ் மற்றும் முதல்வர் டாக்டர். ரவிச்சந்திரன் ஆகியோர் முன்னிலையில் நடைபெற்ற இந்த பட்டிமன்றத்தில் **முனைவர். திரு. இளசை சுந்தரம்** நடுவராக பொறுப்பேற்று "**பொய்கள் வாழ்க்கைக்கு சுமையே!**" என்று தீர்ப்பு வழங்கினார். ஆசிரியர்களும், மாணவர்களும் நடுவரது நகைச்சுவையான பேச்சைக் கேட்டு மகிழ்ந்தனர்.

**சுகமே!** என்ற அணியில் மாணவர்கள் இர.இதயதர்க்கினி (I EEE-Tech.), ம.வ.புவநிஷா (I EEE), க.ஆ.புன்னை வளவன் (I BT), ச.ஜீவா(I CIVIL-Tech.), பூ.ஷர்மிளா(I CIVIL) ஆகியோரும்

**சுமையே!** என்ற அணியில் மாணவர்கள் ரா. சீதாலட்சுமி (I BT), து.ச.நாராயணன் (I- EEE), ஸ்ரீ. கௌசிக்ராம் (I BT), மு. அபிநயாதேவி (I IT-Tech.), ஜெ. முகமது உசேன்(I EEE) ஆகியோரும் பங்கேற்று வாதிட்டு அனைவரது பாராட்டுகளையும் பெற்றனர்.

இவர்களில் **ம.வ.புவநிஷா** மற்றும் **ஸ்ரீ. கௌசிக்ராம்** ஆகியோரை சிறந்த பேச்சாளர்களாக தேர்வு செய்து கல்லூரித் தலைவர் அவர்கள் ரொக்கப்பரிசு ரூபாய் 1000 அளித்து பாராட்டினார்கள். பங்கேற்ற அனைவருக்கும் பங்கேற்பு சான்றிதழ் வழங்கப்பட்டது.

## ACHIEVERS DAY 2015

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 2014-15 was celebrated on 11. 04. 2015. The students who won various competitions have been invited. The invitees were



- Total Sports and Games Teams : **311** Players
- Inter-collegiate Paper presentation, Symposium, Conference position winners : **1413** Students
- **Blood donors** from **Youth Red Cross** : **53** Students
- Members of **Tamil Mandram**: **12** Students
- Members of Our College **Student Orchestra** Team : **44** Students
- Inter-collegiate **Cultural Competition** Winners : **43** students

No. of Students Hounoured	Total Amount Distributed
<b>1876</b>	<b>Rs. 17.03 Lakhs</b>

On the whole 1876 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 6.30 P.M. with the High Tea followed by the distribution of cheques. 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 13 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 2015

Conducted for 631 Engineering Colleges in Tamilnadu

### 2. TIES (TAMIL NADU INTER ENGINEERING SPORTS)

From 2003 to 2015

Conducted for 631 Engineering Colleges in Tamilnadu

### 3. JETS

From 2003 to 2015

Conducted for Arts, Science and Professional Colleges in South India

### 4. St. JOSEPH'S INTER COLLEGIATE ATHLETICS MEET

From 2003 to 2015

Conducted for Arts, Science and Professional Colleges in South India

## SPORTS ACHIEVEMENTS : 2014-15

<b>VOLLEY BALL - WOMEN</b>		<b>VOLLEY BALL - MEN</b>	
Jeppiaar Engg College Tournaments	RUNNERS	Valangaiman 30 <sup>TH</sup> State Level Volley Ball Men Tournament	WINNERS
MOP Tournaments	RUNNERS	Jeppiaar Engg College Tournaments	WINNERS
Jayaram Trophy	RUNNERS	13 <sup>th</sup> State Level Volley Ball Men Tournament	III PLACE
ZONE 3	III PLACE	ZONE 3	WINNERS
LICET Trophy	RUNNERS	Chola State Level	WINNERS
TIES 2015	RUNNERS	"B" Division City League Volley Ball Men Tournament	WINNERS
Anna Sports Fest	WINNERS	Pon Volley 2015 Seethaiammal Memorial Volley ball Men Tournament	RUNNERS
JETS	A-TEAM WINNERS, B-TEAM RUNNERS	TIES 2015	RUNNERS
S A Engg Trophy	WINNERS	Anna Sports Fest	WINNERS
<b>FOOT BALL</b>		JETS	"A" Team- Winners "B" Team - III Place
T N Physical Education Sports University Tournament	WINNERS	Pon Volley 2015 Seethaiammal Memorial Volley ball	RUNNERS
JETS	IV PLACE	BERTRAM Tournaments	RUNNERS
<b>HOCKEY</b>		Theni volley ball tournament	III PLACE
Dvanchan memorial cup	RUNNERS	Udumalaipet volley ball	RUNNERS
<b>BALL BADMINTON - MEN</b>		<b>BALL BADMINTON - WOMEN</b>	
		All India Inter Collegiate Ball	III Place

		Badmn. (W) Tournament	
St. Joseph's All India Ball Badminton Invitation Tournament for Men	IV Place	ZONE 3	WINNERS
Jayaram Trophy	WINNERS	TIES 2015	III PLACE
ZONE 3	WINNERS	JETS Women	WINNERS
Thiruvarur Mr Baulraj .& Mrs. Soundra Bai Memorial State Level	WINNERS	B S Abdur Rehman University Tournaments	III PLACE
Inter Zone	WINNERS	SSN Tournaments	WINNERS
SVCE Trophy	WINNERS	<b>KABADDI - WOMEN</b>	
JETS Men	"A" Team- Winners "B: Team- IV Place	PSN Trophy	RUNNERS
B S Abdur Rehman University Tournaments	III PLACE	T N Physical Education Sports University Tournaments	WINNERS
<b>TABLE TENNIS - WOMEN</b>		Inter Zone	III PLACE
Jeppiaar Engg College Tournaments	WINNERS	JETS Women	WINNERS
MOP Tournaments	III PLACE	TIES	RUNNERS
JETS	WINNERS	<b>KABADDI - MEN</b>	
ZONE 3	WINNERS	Jeppiaar Engg College Tournaments	WINNERS
S A Engg Trophy	WINNERS	Erode Diamond Star Open Club	III PLACE
TIES	WINNERS	Guntur (AP)- Koneru Lakshmaiah Trophy	WINNERS
<b>TABLE TENNIS - MEN</b>		PSN trophy	RUNNERS
S A Engg Trophy	III PLACE	ZONE 3	WINNERS
ZONE 3	RUNNERS	PSN Trophy	RUNNERS
JETS	RUNNERS	Inter Zone	III PLACE
TIES	RUNNERS	Anna Sports Fest	WINNERS
<b>CHESS - WOMEN</b>		JETS	WINNERS



		TIES	WINNERS
Jeppiaar Engg College Tournaments	RUNNERS	<b>CHESS - MEN</b>	
MOP Tournaments	IV PLACE	Jeppiaar Engg College Tournaments	WINNERS
ZONE 3	RUNNERS	TIES	RUNNERS
JETS	WINNERS	JETS	WINNERS
TIES	WINNERS		
<b>BADMINTON- MEN</b>		<b>BADMINTON - WOMEN</b>	
JETS	RUNNERS	TIES	III PLACE
TIES	RUNNERS		
<b>ATHLETIC- MEN &amp; WOMEN</b>		<b>BASKET BALL - WOMEN</b>	
St. Joseph's Inter Collegiate Athletics Meet	M. Vigneahwar II MBA has WON the BEST ATHLETE AWARD with 986 Points Overall Men & Women Championship With 142 Points	MOP Tournaments	IV PLACE
ZONE 3 & Inter Zone	Men Overall ChampionspWomen Overall Championship 2 <sup>nd</sup> Place	JETS	RUNNERS
		St. Joseph's Ragavendra Basket Ball Tournament	IV PLACE
		ZONE 3	RUNNERS
		TIES	III PLACE
P. Bharath Steven – II Mech has Won 5 Medals (2 Gold, 2 Silver and 1 Bronze) in 40 <sup>th</sup> State Rifle and Pistol Shooting Championship held at Chennai Rifle Club, Chennai	Mr. S. Srijith, I Year CSE has WON the III PLACE with Cash Prize Rs. 50,000 in the Chief Minister Trophy – Tennis – Men organized by Sports Development Authority of Tamilnadu, Chennai		
<b>TENNIS - MEN</b>		<b>BASKET BALL - MEN</b>	
ZONE 3	RUNNERS	Anna Sports Fest	WINNERS
S A Engg Trophy	RUNNERS	JETS	WINNERS
IIT-M Tournament	WINNERS	St. Joseph's Ragavendra Basket Ball Tournament	III PLACE

TIES	RUNNERS	B S Abdur Rehman University Tournaments		WINNERS
<b>TENNIS – WOMEN</b>		<b>WEIGHT LIFTING</b>		
D G Vaishnava Tournament	III PLACE	Tamilnadu State Championship	<b>S .Priyanka I –ICE</b> has WON the 3 <sup>rd</sup> Place Under 63 Kgs	
Inter Zone	III PLACE			
SSN Open	WINNERS			
LICET Trophy	III PLACE			
TIES	III PLACE			
		<b>TIES -- BEST PHYSIQUE</b>	IV PLACE	

**ANNA UNIVERSITY BLUES 2014-2015****(MEN)**

S.NO	NAME	YEAR/BRANCH	GAME
1.	AKHIL REUBEN KANAGARAJ	I MECH	TENNIS
2.	SRIJITH.S	I CSE	TENNIS
3.	SUNDARARAJ.M	III ICE	BASKET BALL
4.	AJAY NARAYANAN	I IT	ROWING
5.	PRADEEP.D.R	II ME	BALL BADMINTON
6.	MOHAMMAD ASHIP SHARIF.S	IV BIOTECH	„
7.	SOMA SEKHER BABU.B	IV ICE	„
8.	KARTHI.M	IV ICE	KABADDI
9.	MOHAMED NISAN.M	III EEE	ATHLETICS
10.	IMMANVEL ALLAN.R	I MBA	„
11.	SATHISH KUMAR.M	III CHEM	„
12.	BHARATH STEVEN.P	II MECH	SHOOTING
13.	ATHITYAN.R	I CIVIL	TABLE TENNIS
14.	DHAKSHIN RAJ.S	I IT	„

**(WOMEN)**

S.NO	NAME	YEAR/BRANCH	GAME
1.	POORVIHA.S.P.B	I MBA	ATHLETICS
2.	SHIYA.S	III ICE	KABADDI
3.	GIRIJA.R	IV MSC-CT	„
4.	MALATHI.N	II MCA	VOLLEY BALL
5.	SNEHA.V	IV ECE	TABLE TENNIS
6.	NARASIMHA PRIYA.S	III BIO-TECH	„
7.	SHANMATHI	I CSE	„

## BEST OUT GOING STUDENT AWARD LIST 2014 – 2015

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 11<sup>th</sup> of April 2015 in the St. Joseph's indoor Auditorium.

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.	Dept.	Man
1.	CSE	GUHAN.AK
2.	ECE	Mr. DENESH KUMAR.S
3.	EEE	Mr. ASHISH B. NAIR
4.	MECH	Mr. VENKATESWARAN.P
5.	ICE	Ms.ARTHI.V
6.	EIE	Mr. SUREKHA.P.M
7.	<b>CHEM</b>	<b>Mr. VENKATESAN.R</b>
8.	BT	Ms.SUMATHI.S
9.	IT	Mr. SURESH .L.V
10.	MBA	Ms.PRIYADHARSHINI
11.	MCA	Mr. CHITTI BABU

The criteria of best outgoing students are good in academics, good communication skills, best managerial skills, as well as good in extracurricular, co- curricular activities.

## 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	ASPEN HYSYS	43
CHEMICAL ENGINEERING	III	C LANGUAGE	48

Totally 4 days practical classes were conducted on ASPEN HYSYS by Edwin Jenson, Director, Chemsys Process Engineering (P) Ltd. Pune.

- 43 students gained knowledge about ASPEN HYSYS
- 48 students from 3<sup>rd</sup> year Chemical Engineering attended ONLINE course on C language conducted online by IIT, Bombay through spoken tutorial program, Anna University, Chennai, conducted at St. Joseph's College of Engg.

## II YEAR VALUE ADDED COURSES -- C, C++

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.

C/C++ course was provided by **Eye open Technologies and Digiterati** and around **71 students are benefited by the course.**

### **Course Objective - C/C++**

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

## CONQUISTA 2015

### DISTRIBUTION OF 762 PLACEMENT ORDERS

#### TO THE PLACED STUDENTS



CONQUISTA'15 – 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 13<sup>th</sup> 2015 with grandeur. The function was presided by Mr. Elangovan Mathivanan, Director – Learning & Development, Cognizant Academy, and Mr. Ramki Krishnan, General Manager – Competency & Operations Group, Wipro technologies who handed over the offer letters to the students in the presence of Managing Director Dr. B. Babu Manoharan, Director Mr. B.Jai Kumar Christhu Rajan and Principal Dr. Vaddi Seshagiri Rao. Ms. Absala, Mr. Pramodh T, Campus team , Human resources, Cognizant and Mr. Karthik, Campus team , Human resources, Wipro were also present as 'special invitees'.

## 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 behavioral attributes need to be addressed in addition to the development of technical skills. Some of the behavioral 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, Vistamind etc.**

**CENTRE FOR TRAINING AND PLACEMENT****12 days Placement Orientation Program and other activities**

The Centre for Training and Placement has conducted placement orientation program (POP'14) from 13<sup>th</sup> August to 18<sup>th</sup> August 2014 for the final year students by Vista Mind & 18<sup>th</sup> August to 28<sup>th</sup> August 2014 for the pre-final year students and trained them on soft skills, quantitative aptitude skills etc., to prepare them for placement recruitments. Faculties from various departments contributed for the orientation program. Department of Mathematics were instrumental in delivering aptitude, logical reasoning sessions. Technical sessions were handled by the concerned departments and Soft skill was handled by the faculty from Business administration, English and some faculties from Engineering Departments.

The Centre for Training & Placement conducted Online aptitude assessment tests on every weeks for all the students including 1st year. Every student has attended 20 online assessment tests per year.

Apart from these the students have undergone mock tests in Cognizant, Wipro and NAC tech tests pattern before appearing for placements. This year the students were exposed to NAC tech tests. 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.

10 Students had hands on experience in live projects through 'KiLab - SKILD program'. 4 Students have been selected for Cognizant CIO-Challenge Program 2013-2014. Our college has joined hands with Murugappa for Murugappa Young Professional (MYP) program.

Students have also acquired BEC certifications, other value added certifications. In addition to the above certifications, series of Mock tests and Interviews have greatly improved the performance of the students in the campus recruitments to a great extent.

## NATIONAL TECHNICAL SYMPOSIUM – JET CHEM 2014

On September 27<sup>th</sup>, 2014, the 17<sup>th</sup> National Students' Symposium" **JET CHEM 14**" 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, S S N College of Engineering, Chennai, Vel Tech High Tech Engineering College, Chennai, Sathyabhama University, Bharat University, Chennai, St. Joseph's Institute of Technology, St. Peter's College of Engineering, Chennai, Sri Venkateswara College Of Engineering Chennai, Anand Institute of Higher Technology participated in the symposium.



- ❖ Total no. of Colleges Participated – **09**
- ❖ No. of Participants – **48**

Sl. No	Event	I prize	II Prize	III prize
1	CHEM CHARADES	PRADEEP KUMAR.T VIVEK.T	PREM KUMAR.S K.DHANASEKAR	SHARMILA PRIYA .M UTHRA.M
		Prize amount:1200	Prize amount:800	Prize amount:500
		SSN College of engineering	A.C.TECH., ANNA UNIVERSITY	SSN College of engineering
2	MINUTE TO WIN IT	PRATIK RAJIV SHAH NIKHIL R KHATRI	GOWTHAM.K I.JOSEPH DANIEL RAJ	SUJITH.A JACOB.M.P
		Prize amount:1200	Prize amount:800	Prize amount:500
		SVCE COLLEGE OF ENGINEERING	SSN College of engineering	VELTECH
3	CEREBRO	SANKKAR.C PRASANNA.V	PRATIK RAJIV SHAH NIKHIL R KHATRI	UTHRA.M M.SHARMILA PRIYA
		Prize amount:1200	Prize amount:800	Prize amount:500
		SSN College of engineering	SVCE COLLEGE OF ENGINEERING	SSN College of engineering
4	GET IT RIGHT	PURNA SANDAR.C.M.J VIGNESH.D	SHIVA SUBRAMANIAN.J PRAVEEN KUMAR.V	VIVEK.T PRADEEP KUMAR.T
		Prize amount:1200	Prize amount:800	Prize amount:500
		SVCE COLLEGE OF ENGINEERING	SSN College of engineering	SSN College of engineering
5	FAST AND FURIOUS	SHANKKAR.C ZAHEER AHAMED	ANANDRAM.P	NIJANTHAN.S MANOJH.M
		Prize amount:1200	Prize amount:800	Prize amount:500
		SSN College of engineering	CEG, GUINDY	SSN College of engineering
6	TECHNICAL QUIZ	T.V.HARISH KUMAR P.GOPI	P.T.MADHAVAN D.ASHOK KUMAR	S.SAKTHIVEL SURENDHAR.A.D
		Prize amount:1200	Prize amount:800	Prize amount:500
		SSN College of engineering	SSN College of engineering	ANNA UNIVERSITY BIT CAMPUS
7	SHERLOCK HOMLES	A.PRAVEEN MANI UDHAYLVAN.V	JEYA VIGNESH.V SUSEENTHIRAN.N	NIL
		Prize amount:1500	Prize amount:1000	Prize amount:NIL
		VELTECH	A.C.TECH., ANNA UNIVERSITY	NIL
8	HOW WASTE STUFF WORKS	K.GOWTHAM T.PRADEEP KUMAR T.VIVEK	JOSEPH DANIEL RAJ.I PREM KUMAR.S DHANASEKAR.K	NIL
		Prize amount:1500	Prize amount:1000	Prize amount:NIL
		SSN College of engineering	A.C.TECH., ANNA UNIVERSITY	NIL



9	WORKING MODEL	V.PRAVEEN KUMAR	K.PREM KUMAR K.DHANASEKAR I.JOSEPH DANIEL RAJ	RJ.SAJID ALI VR SETURAMAN
		Prize amount:1500	Prize amount:1000	A.SUJITH A.PRAVEEN MANI V.UDHAYAVAN
		SSN College of engineering	ANNA UNIVERSITY CHENNAI	Prize amount: 500 + 500 ANNA UNIVERSITY CHENNAI VELTECH
10	GAMING	TARUN DEV DINESH	ABRAHAM TENNYSON.M	S.PANDI
		Prize amount:1000	Prize amount: NIL	Prize amount: 500
		SRM UNIVERSITY	ST.JOSEPH'S INSTITUTE	BHARAT UNIVERSITY

## INTRA DEPARTMENT SYMPOSIUM

The department of Chemical Engineering conducted an intra-department symposium for all II Year and III Year CHEMICAL STUDENTS on 19.07.2014 .The students participated in various events Viz. **HOW WASTE STUFF WORKS, SHIPWRECK, LOGO QUIZ, ADZAP and TECHNICAL QUIZ.** 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 (RS. 400)	
		Name of the Student(s)	Year	Name of the Student (s)	Year	Name of the Student (s)	Year
1	ADZAP	Prashanth C K. Karthick D.Venkatesh M.Gowthaman Pravin Bosco.C	III	Raja Raja Chozhan P Sandeep Raj S Roshan PR Ashok Kumar M Jacob Benny P	III	S.Siva Nitish B Kiran J Neerakkal Jenil Raja Singh Sriram.R	III
2	TECHNICAL QUIZ	Jaffin Sam Raj Aravind G	III	Avinash K S Gowthaman M	III	Veena Mathangi G Madhu Mathi S	II
3	LOGO QUIZ	D. Venkatesh S.Siva	III	Govarthan S B. Jokim	III	V. Swetha G. Nithya sivakami	III
4	SHIPWRECK	Jayshree Y	II	B. Nitish	III	-	-
5	HOW WASTE STUFF WORKS	Alice Sneha George Razika Subhana A Kavi Nila G Cheryl Pereira	II	Amirthavarshini P Maheswari C Bhuvaneswari D Jeniha Christy J M	III	Gouthaman M Venkatesh R Vignesh I Praveen Prabhu E	III
						Jayshree Y Mahima H Sneha E Varsha M H	II
<b>TOTAL PRIZE AMOUNT Rs.10,000/-</b>							

## 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 **II year** it is conducted on July 16<sup>th</sup> 2014

For **III year** it is conducted on Jan 29<sup>th</sup> 2014

- ❖ Volley ball (men) - WINNERS
- ❖ Hand ball (women) – WINNERS

For **IV year** it is conducted on July 18<sup>th</sup> 2014

- ❖ Volley ball (women) – WINNERS
- ❖ Hand ball (men) – WINNERS
- ❖ Hand ball (women) – RUNNERS UP
- ❖ Badminton (singles) (men) - RUNNERS UP

For **I Year** - Kabbadi (men) – RUNNERS UP



## SPECIAL OCCASIONS



### IFDHAR

Our College celebrated Ramzan on **30<sup>th</sup> July 2014**. All the Muslim students in our college undergone 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 are well served for the “ifthihar” that is for breaking the fasting at 6.30 p.m, dates and cool drinks along with the porridge. 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.

### Vinayaka Chathurthi

Our college celebrated Vinayaka chathurthi on **29<sup>th</sup> August 2014**. Lord Vinayaka’s birthday was celebrated by decorating the Ganesha Statue in our college temple with flowers. Pooja was grandly performed in the temple in the presence of our beloved 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.

### Teachers Day

Our College celebrated the Teachers day as a special occasion on **5<sup>th</sup> September 2014**. First year students entertained our college staff and encourage them with unique shows on that special day. Our Management gave gifts to all the teachers of our college as a token of appreciation.

**Onam**

The festival of rice harvest was celebrated on **5<sup>th</sup> September 2014** with great spirituality and delight. All Malayali students came with full rejoyce to participate on this special occasion. Our Beloved 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 includes aviyaal, erussery, puliserry, nenthram pazham and different types of payasams.

**Ayudha pooja**

Our College celebrated Ayudha Pooja on **1<sup>st</sup> October 2014**. The traditional Ayudha pooja celebrations took place 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 which was followed by a pooja in the presence of Chairman and Managing Director's family. The remarkable parts on this celebration were 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 ayudha pooja to administrative staff, technical staff, non-technical staff, drivers, sweepers, scavengers, 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 **18<sup>th</sup> October 2014**. On this special eve, a grand lunch with exotic dishes ranging from mouth lingering sweets till delicious deserts was served.

**Deepam**

Karthigai Deepam is celebrated on the full moon day in the Tamil month of Kaarthigai. This festival is known for brighten lights. The deepam celebrations took place in our college on **5<sup>th</sup> December 2014** with lamps lighted by the divine flame that is believed to fend off evil forces and escort ecstasy and prosperity.

**Padi pooja**

The festival was celebrated in our college on **6<sup>th</sup> December 2014** by decorating the holy steps of Ayyappa with flowers and silk clothes and lighting traditional lamp. 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.

**Christmas**

Christmas is the season of joy, of holiday greetings exchanged, of gift-giving, and, of families united. The Christmas celebrations took place in our college campus on **19<sup>th</sup> December 2014**. On Christmas day, a special mass was conducted in our college chapel. The celebrations included a rhythmic performance from our college choir and an add-on surprise package by the Santa clause. The staffs and students were completely spellbound with the Christmas gratification and the day was called off with a hearty lunch.

### **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. This joy-filled Pongal occasion was celebrated in our college on the **10<sup>th</sup> January 2015**. 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 occasion of the year in St. Joseph's college of Engineering. This wonderful day was celebrated in our college on **8<sup>th</sup> March 2015** 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 and Director. Matches and other events were conducted 3 days prior to hostel day. Special Dinner and snacks was provided to the hostilities. At last, the day ended with whole masthi and fun.

### **Ugadi**

Our college celebrated Ugadi on **21<sup>st</sup> March 2015**. 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 **6<sup>th</sup> April 2015**. Easter is the springtime holiday marking the rebirth of Jesus and the renewal of the Christian faith. A special program 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 end off with holy blessing of God.

## ARTICLES

**Agricultural sequestration**

All crops absorb CO<sub>2</sub> during growth and release it after harvest. The goal of agricultural carbon removal is to use the crop and its relation to the carbon cycle to permanently sequester carbon within the soil.

This is done by selecting farming methods that return biomass to the soil and enhance the conditions in which the carbon within the plants will be reduced to its elemental nature and stored in a stable state. Methods for accomplishing this include:

- Use cover crops such as grasses and weeds as temporary cover between planting seasons
- Concentrate livestock in small paddocks for days at a time so they graze lightly but evenly. This encourages roots to grow deeper into the soil. Stock also till the soil with their hooves, grinding old grass and manures into the soil.
- Cover bare paddocks with hay or dead vegetation. This protects soil from the sun and allows the soil to hold more water and be more attractive to carbon-capturing microbes
- Restore degraded land, which slows carbon release while returning the land to agriculture or other use.

Agricultural sequestration practices may have positive effects on soil, air, and water quality, be beneficial to wildlife, and expand food production.

On degraded croplands, an increase of 1 ton of soil carbon pool may increase crop yield by 20 to 40 kilograms per hectare of wheat, 10 to 20 kg/ha for maize, and 0.5 to 1 kg/ha for cow peas.

The effects of soil sequestration can be reversed. If the soil is disrupted or tillage practices are abandoned, the soil becomes a net source of greenhouse gases. Typically after 15 to 30 years of sequestration, soil becomes saturated and ceases to absorb carbon. This implies that there is a global limit to the amount of carbon that soil can hold.

Many factors affect the costs of carbon sequestration including soil quality, transaction costs and various externalities such as leakage and unforeseen environmental damage.

Because reduction of atmospheric CO<sub>2</sub> is a long-term concern, farmers can be reluctant to adopt more expensive agricultural techniques when there is not a clear crop, soil, or economic benefit.

- **G.Aravind**  
*III Year chemical*

**Enhanced oil recovery by storing the captured Carbon di oxide**

Enhanced oil recovery (EOR) is a generic term for techniques used to increase the amount of crude oil that can be extracted from an oil field. In Carbon Capture & Sequestration Enhanced Oil Recovery (CCS EOR), carbon dioxide is injected into an oil field to recover oil that is often never recovered using more traditional methods.

Crude oil development and production in U.S. oil reservoirs can include up to three distinct phases: primary, secondary, and tertiary (or enhanced) recovery. During primary recovery only about 10 percent of a reservoir's original oil in place is typically produced. Secondary recovery techniques extend a field's productive life generally by injecting water or gas to displace oil and drive it to a production wellbore, resulting in the recovery of 20 to 40 percent of the original oil in place. However, with much of the easy-to-produce oil already recovered from U.S. oil fields, producers have attempted several tertiary, or enhanced oil recovery (EOR), techniques that offer prospects for ultimately producing 30 to 60 percent, or more, of the reservoir's original oil in place.

- **D.Venkatesh**  
*III Year chemical*

**Carbon Sequestration**

Carbon sequestration removes carbon, in the form of CO<sub>2</sub>, either directly from the atmosphere or at

the conclusion of combustion and industrial processes. One type of sequestration is the long-term storage of carbon in trees and plants (the terrestrial biosphere), commonly referred to as terrestrial sequestration. CO<sub>2</sub> removed from the atmosphere is either stored in growing plants in the form of biomass or absorbed by oceans which are called geologic or ocean sequestration respectively. Sequestering carbon helps to reduce or slow the build-up of CO<sub>2</sub> concentrations in the atmosphere.

Before the Industrial Revolution, the concentration of greenhouse gases in the atmosphere remained relatively constant. Except for slow changes on a geological time scale, the absorption and release of carbon was kept in balance. By clearing forests and burning fossil fuels more rapidly than the carbon can be sequestered, industrialization may have altered this equilibrium.

Currently, human activity is directly or indirectly responsible for the release of six to seven billion metric tons of carbon annually. In light of these potential impacts, strategies to help reverse these emission trends like carbon sequestration are increasing in importance.

There are many benefits of carbon sequestration through reforestation like environmental and financial benefits. Some of the environmental benefits are improvement of air

quality, providing habitat for endangered species, improvement of water quality, recreational benefits, and phytoremediation. Some of the financial benefits are recreational revenue, timber and non-timber harvest benefits, tax incentives, waste recycling.

**-PRAKASH.S**

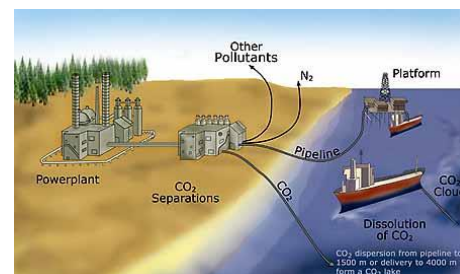
**III Year chemical**

### **CARBON SEQUENSTER IN OCEAN**

One of the most promising places to sequester carbon is in the oceans, which currently take up a third of the carbon emitted by human activity, roughly two billion metric tons each year. The amount of carbon that would double the load in the atmosphere would increase the concentration in the deep ocean by only two percent.

Two sequestration strategies are under intense study at the Department of Energy's Center for Research on Ocean Carbon Sequestration (DOCS), where Jim Bishop of Berkeley Lab's Earth Sciences Division is codirector with Livermore Lab's Ken Caldeira.

One is direct injection, which would pump liquefied carbon dioxide a thousand meters deep or deeper, either directly from shore stations or from tankers trailing long pipes at sea.



"At great depths, CO<sub>2</sub> is denser than sea water, and it may be possible to store it on the bottom as liquid or deposits of icy hydrates," Bishop explains. "At depths easy to reach with pipes, CO<sub>2</sub> is buoyant; it has to be diluted and dispersed so it will dissolve." What happens to carbon dioxide introduced into the ocean in this way may soon be field-tested in Hawaii. Over a two-week period researchers plan to inject 40 to 60 metric tons of pure liquid CO<sub>2</sub> over 2,500 feet deep in the ocean near the Big Island.

One variable they will be measuring is acidity. Water and carbon dioxide form carbonic acid, "but once diluted in sea water, carbonic acid is not the dominant chemical species," Bishop says, "because of seawater's high alkalinity and buffering capacity." If calcium carbonate sediments are involved, acidity is even less. "Think of Tums," he suggests.

Capturing CO<sub>2</sub> is probably most effective at point sources, such as large fossil fuel or biomass energy facilities, industries with major CO<sub>2</sub> emissions, natural gas processing, synthetic fuel plants and fossil fuel-

based hydrogen production plants. Extraction (recovery) from air is possible, but not very practical. The CO<sub>2</sub> concentration drops rapidly moving away from the point source. The lower concentration increases the amount of mass flow that must be processed (per tonne of carbon dioxide extracted).

Concentrated CO<sub>2</sub> from the combustion of coal in oxygen is relatively pure, and could be directly processed. Impurities in CO<sub>2</sub> streams could have a significant effect on their phase behaviour and could pose a significant threat of increased corrosion of pipeline and well materials. In instances where CO<sub>2</sub> impurities exist and especially with air capture, a scrubbing process would be needed.

Organisms that produce ethanol by fermentation generate cool, essentially pure CO<sub>2</sub> that can be pumped underground. Fermentation produces slightly less CO<sub>2</sub> than ethanol by weight.

Broadly, three different types of technologies for scrubbing exist: post-combustion, pre-combustion, and oxyfuel combustion:

In *post combustion capture*, the CO<sub>2</sub> is removed after combustion of the fossil fuel — this is the scheme that would be applied to fossil-fuel burning power plants. Here, carbon dioxide is captured from flue gases at power

stations or other large point sources.

The technology is well understood and is currently used in other industrial applications, although not at the same scale as might be required in a commercial scale power station.

The technology for *pre-combustion* is widely applied in fertilizer, chemical, gaseous fuel (H<sub>2</sub>, CH<sub>4</sub>), and power production.<sup>[13]</sup> In these cases, the fossil fuel is partially oxidized, for instance in a gasifier. The resulting syngas (CO and H<sub>2</sub>) is shifted into CO<sub>2</sub> and H<sub>2</sub>. The resulting CO<sub>2</sub> can be captured from a relatively pure exhaust stream. The H<sub>2</sub> can now be used as fuel; the carbon dioxide is removed before combustion takes place.

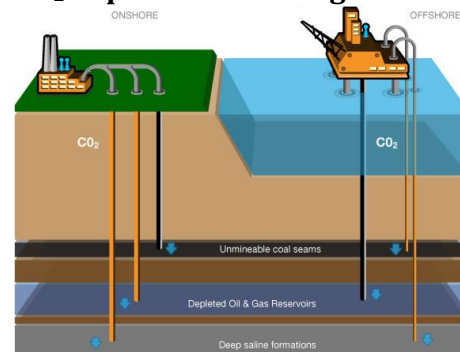
There are several advantages and disadvantages when compared to conventional post combustion carbon dioxide capture. The CO<sub>2</sub> is removed after combustion of fossil fuels, but before the flue gas is expanded to atmospheric pressure. This scheme is applied to new fossil fuel burning power plants, or to existing plants where re-powering is an option.

The capture before expansion, i.e. from pressurized gas, is standard in almost all industrial CO<sub>2</sub> capture processes, at the same scale as will be required for utility power plants.

In *oxy-fuel combustion* the fuel is burned in oxygen instead of air. To limit the resulting flame temperatures to levels common during conventional combustion, cooled flue gas is recirculated and injected into the combustion chamber. The flue gas consists of mainly carbon dioxide and water vapour, the latter of which is condensed through cooling.

-S.VIGNESHWARAN  
IV Year chemical

### CO<sub>2</sub> Capture Technologies



While CO<sub>2</sub> capture technologies are new to the power industry, they have been deployed for the past sixty years by the oil, gas and chemical industries. They are an integral component of natural gas processing and of many coal gasification processes used for the production of syngas, chemicals and liquid fuels. There are three main CO<sub>2</sub> capture processes for power generation.

- post-combustion
- pre-combustion
- oxyfuel

**'Post-combustion' capture** involves separating the CO<sub>2</sub> from other exhaust gases after combustion of the fossil fuel. Post-combustion

capture systems are similar to those that already remove pollutants such as particulates, sulphur oxides and nitrogen oxides from many power plants.

The most commonly used process for post-combustion CO<sub>2</sub> capture is made possible through special chemicals called amines. A CO<sub>2</sub> rich gas stream, such as a power plant's flue gas, is "bubbled" through an amine solution. The CO<sub>2</sub> bonds with the amines as it passes through the solution while other gases continue up through the flue. The CO<sub>2</sub> in the resulting CO<sub>2</sub>-saturated amine solution is then removed from the amines, "captured" and is ready for carbon storage. The amines themselves can be recycled and re-used.

Whilst post-combustion CO<sub>2</sub> capture is technically available now for coal-based power plants, it has not yet been used commercially for large-scale CO<sub>2</sub> removal.

#### **'Pre-combustion'**

**capture** involves separating CO<sub>2</sub> before the fuel is burned. Solid or liquid fuels such as coal, biomass or petroleum products are first gasified in a chemical reaction at very high temperatures with a controlled amount of oxygen. Gasification produces two gases, hydrogen and carbon monoxide (CO). The CO is converted to CO<sub>2</sub> and removed, leaving pure hydrogen to be burned to produce electricity or used for another purpose. The CO<sub>2</sub> is then compressed into a supercritical fluid for

transport and geological storage. The hydrogen can be used to generate power in an advanced gas turbine and steam cycle or in fuel cells – or a combination of both.

**Oxyfuel combustion** (also called oxyfiring) involves the combustion of coal in pure oxygen, rather than air, to fuel a conventional steam generator. By avoiding the introduction of nitrogen into the combustion chamber, the amount of CO<sub>2</sub> in the power station exhaust stream is greatly concentrated, making it easier to capture and compress. Oxyfuel combustion with CO<sub>2</sub> storage is currently at the demonstration phase.

Each of these capture options has its particular benefits. Post-combustion capture and oxyfuel have the potential to be retrofitted to existing coal-fired power stations and new plants constructed over the next 10-20 years. Pre-combustion capture utilising IGCC is potentially more flexible, opening up a wider range of possibilities for coal, including a major role in a future hydrogen economy.

All the options for capturing CO<sub>2</sub> from power generation have higher capital and operating costs as well as lower efficiencies than conventional power plants without capture. Capture is typically the most expensive part of the CCS chain. Costs are higher than for plants without CCS because more equipment must be built and operated. Around 10-40% more energy is required with CCS than without. Energy is

required mostly to separate the CO<sub>2</sub> from other gases and to compress it, but some is also used to transport the CO<sub>2</sub> to the injection site and inject it underground.

As CCS and power generation technology become more efficient and better integrated, the increased energy use is likely to fall significantly below early levels. Much of the work on capture is focused on lowering costs and improving efficiency as well as improving the integration of the capture and power generation components. These improvements will reduce energy requirements.

**-P.Raja Raja Chozhan**  
*III Year chemical*

#### **Main techniques for preventing carbon dioxide from coal-fired power stations**

Carbon capture and storage (CCS) is a range of technologies that hold the promise of trapping up to 90% of the carbon dioxide emissions from power stations and industrial sites. It involves collecting, transporting and then burying the CO<sub>2</sub> so that it does not escape into the atmosphere and contribute to climate change.

There are three main techniques: the post-combustion process involves scrubbing the power plant's exhaust gas using chemicals. Pre-combustion CCS takes place before the fuel is placed in the furnace by first converting coal into a clean-burning gas and stripping out the CO<sub>2</sub>



released by the process. The third method, oxyfuel, burns the coal in an atmosphere with a higher concentration of pure oxygen, resulting in an exhaust gas that is almost pure CO<sub>2</sub>. (See below for further details).

Once the CO<sub>2</sub> has been trapped, it is liquefied, transported – sometimes for several hundred miles – and buried, either in suitable geological formations, deep underground saline aquifers or disused oil fields. The last method is often used in a process called "enhanced oil recovery", where CO<sub>2</sub> is pumped into an oil field to force out the remaining pockets of oil that would otherwise prove difficult to extract.

The technology is not cheap – up to 40% of a power station's energy could end up being used to run the CCS scrubbing and transport systems and experts estimate the average cost of retro-fitting Britain's aged power stations at about £1bn each. Pipes to transport the CO<sub>2</sub> to suitable burial sites could cost £1m per mile. The oldest power stations may end up being uneconomical to refit.

All the components of CCS have been in use by oil companies and chemical engineering plants for decades. But, so far, only a small pilot project at Vatenfall's Schwarze Pumpe power station in northern Germany has connected all the different stages of the CCS chain together. The pilot is an

oxyfuel boiler that can generate 30MW of heat and around 12MW of electricity.

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### **Carbon dioxide recycling / Carbon Capture and Utilization**

Recycling CO<sub>2</sub> may offer a response to the global challenge of significantly reducing greenhouse gas emissions from major stationary (industrial) emitters in the near to medium term, but is usually considered a different technological category from CCS. Technologies under development, such as Bio CCS Algal Synthesis, utilises pre-smokestack CO<sub>2</sub> (such as from a coal-fired power station) as a useful feedstock input to the production of oil-rich algae in solar membranes to produce oil for plastics and transport fuel (including aviation fuel), and nutritious stock-feed for farm animal production. The CO<sub>2</sub> and other captured greenhouse gases are injected into the membranes containing waste water and select strains of algae causing, together with sunlight or UV light, an oil rich biomass that doubles in mass every 24 hours.

The Bio CCS Algal Synthesis process is based on earth science photosynthesis: the technology is entirely retrofittable and collocated with the emitter, and the capital outlays may offer a return upon investment due to the high value

commodities produced (oil for plastics, fuel and feed).

Bio CCS Algal Synthesis test facilities are being trialed at Australia's three largest coal-fired power stations (Tarong, Queensland; Eraring, NSW; Loy Yang, Victoria) using piped pre-emission smokestack CO<sub>2</sub> (and other greenhouse gases) as feedstock to grow oil-rich algal biomass in enclosed membranes for the production of plastics, transport fuel and nutritious animal feed.

Another potentially useful way of dealing with industrial sources of CO<sub>2</sub> is to convert it into hydrocarbons where it can be stored or reused as fuel or to make plastics. There are a number of projects investigating this possibility. Carbon dioxide scrubbing variants exist based on potassium carbonate which can be used to create liquid fuels, though this process requires a great deal of energy input. Although the creation of fuel from atmospheric CO<sub>2</sub> is not a climate engineering technique, nor does it actually function as greenhouse gas remediation, it nevertheless is potentially useful in the creation of a low carbon economy. Other uses are the production of stable carbonates from silicates (i.e. Olivine produces Magnesium carbonate).

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### **Bio-energy with carbon capture and storage**

The main technology for CO<sub>2</sub> capture from biotic sources generally employs the same technology as carbon dioxide capture from conventional fossil fuel sources. Broadly, three different types of technologies exist: post-combustion, pre-combustion, and oxy-fuel combustion.

However, on the critical subject of "upstream large-scale provision of the biomass cultivation/refinery technology, marine based BECCS (i.e. MBECS) operations, within the sub-tropical convergence zones (STCZ), offers a unique combination of stable oceanic environmental conditions which can physically accommodate vast MBECS operations while avoiding the long list of limiting factors found within terrestrial BECCS.

The STCZs are marine deserts with no practical levels of biological activity within the surface or nutricline waters and which also offers vast amounts of renewable energy for cultivation/processing of the biomass.

The raw nutrients found within the nutricline can be used to support vast scale biomass production with only mineral importation. The cultivation of both micro and macro algal species can be augmented with terrestrial species such as halophytes (for oil) and bamboo (for Cellulosic

ethanol) grown through aquaponic sub-systems.

The use of non-photosynthesis dependent cultivation methods, such as described in the paper: "REDUCTION OF CARBON DIOXIDE COUPLED WITH THE OXYHYDROGEN REACTION IN ALGAE, expands micro algal cultivation into all three dimensions.

Farming down the water column to 50+ meters is possible. Also, a broad spectrum of critical (non-fuel) commodities, such as food/feed/fertilizer/plastic and vast volumes of freshwater production, can economically subsidize MBECS biofuel production at sub fossil fuel prices.

Based upon reasonable assumptions concerning biofuel production output for 1 km<sup>2</sup> under the MBECS scenario, the total global replacement of fossil fuels can be achieved at <1.5M km<sup>2</sup> of MBECS operations. Global replacement of fossil fuels is achievable within 20 years, while within that same time frame, all energy importing nations can achieve energy independence through involvement in the IMBECS Protocol.

The coordination of an internationally collaborative MBECS effort is the focus of the Intergovernmental Marine Bio-Energy and Carbon Sequestration (IMBECS) Protocol (developed by Michael Hayes).

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### **CARBON DIOXIDE IN FOOD**

Carbon dioxide is used in the food industry to produce carbonated beverages such as sodas and mineral waters. It is also employed to propel beer on tap, and gives this beverage its famous foam.

Carbon dioxide is also used as an **inerting atmosphere** (for welding or for handling flammable materials, for example). It creates a **protective atmosphere** that enables to control the proliferation of the micro-organisms (insect larvae, bacteria, fungi, etc.) found in foodstuffs such as grains and bread, by depriving them of Oxygen.

Additionally, Carbon dioxide is used in some **fire extinguishers**. It is packaged in the gaseous state but becomes dry ice snow when released. It is able to cool flames and also deprives fire of the Oxygen it needs to burn by displacing air.

In the solid state (-78°C), Carbon dioxide forms **dry ice**. A powerful source of cold, this ice is used to immediately freeze food. It is also used to transport food in such a way that the **cold chain** is not broken. This is how the meals served on airplanes and trains are kept fresh and safe for consumption.

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