

AATRAL

ஆற்றல்



EEE Newsletter
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Farewell



The Farewell for the final year students of Batch 2012 was conducted in the month of April. The programme started with a prayer song "As we gather in this place today." The first event conducted was a game. A few seniors were asked to come forward and share their memories and perform some interesting dares which made their lives a joyous one in the college. After this game, two seniors - one representing the boys and the other the girls, thanked the faculty members of the department for their love and sincere efforts rendered and which enabled them and their friends to be successful. After this, there was a dance performance by the third year students which was lively, energetic and enjoyed by all. This was immediately followed by distribution of gifts to the students of the final year. The gift consisted of a card wishing them success and a mug which had their group photo printed on it. The card was signed by all the faculty members of the department. To cherish their happy moments in the college during their past years, a video was played reminding them of their achievements at LICET. The programme ended with a vote of thanks delivered by the Head of the Department. The students departed with a heavy heart though it had joyous moments.

EEE Faculty Award

The funds accrued by way of remuneration for the faculty of Electrical department was handed over to LICET Management to initiate EEE Faculty Award in the year 2015. This award would be presented every year to the best outgoing student of the department. In the year 2016, Ms. R. Aishwarya Snowji of Batch 2011-2015 was awarded the 'EEE Faculty Award' in appreciation to her performance in university exams and for having secured the 15th rank in the university. The department also appreciates her participation in various extra-curricular activities.

Person' of the year 2015- 2016. A special thanks to Mr M Augustine, AP/EEE for organising an enriching workshop on "Design of Digital Controllers in FPGA using MATLAB System generator" in association with IEEE students' chapter.

On behalf of the department of Electrical and Electronics Engineering, I sincerely thank the management, students, and editorial team members, for the successful publication of the 3rd issue of newsletter.

Ms A Inba Remy

From The HoD's Desk

This issue of EEE Department Newsletter contains the details of our major achievements in academic and sports activities in the last quarter.

A positive attitude leads to success and happiness. Optimism, ability with regular training, confidence and a sense of time are the requisites for any significant outcome. Only proper guidance leads to the right path. Let me make use of this special occasion and avenue to congratulate our students and the faculty members of the department of Electrical and Electronics Engineering for the same.

With a sense of joy I extend my sincere hearty congratulation to our department girls for bagging the overall girls' sports championship trophy 2016. On this note I do congratulate and appreciate Ms J Kavya Elizabeth of final year for receiving the fame-fetching title 'The Best Outgoing Sports



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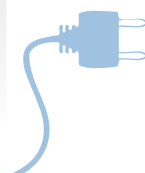
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Alumni Talk

Ms. Debbie

EEE Graduate from 2011 - 2015 batch

When someone asks me about my college, I always put a smile on my face and proudly say that I am a Loyolite, it feels great to be a part of LICET.

Four years in LICET have trained and moulded me in many ways, it sure did teach me how to handle pressure and it has given me some best memories that I would cherish forever. One can never forget those late night preparations for semesters, group studies, assignments, punishments, late slips, lectures so on. Above all LICET has given me wonderful friends for life.

Though I don't know what future hold for me, I am happy that my career started in Techm through LICET and am grateful to my college for that.

Dear friends college life is one of the best phases in life, it is where you get to know more about yourself and what you are capable of. It will definitely be a push to your career. Don't let marks decide your future because this is just a journey and not a destination. Be prepared to face the world in your own individuality, it's a scary world but you can find happiness by doing the things you love. You are the author of your life and don't let anyone else write your story. Stand up for what you believe and never give up.

Enjoy your college life to the fullest, Collect as many memories as possible because when you look back marks never make you smile but memories do!!
Wishing you success in everything you do!!



Mr. Thileepan Sathyaraj

EEE Graduate from 2010 - 2014 batch

நஞ்சையும் புஞ்சையும் கொஞ்சி விளையாடு!

தஞ்சையெனும் வீரச்சோழனுர் என் எழில்நாடு!
ஓராழிற் கனவுகள் எண்ணிலா எதிர்பார்ப்புகள்
உள்ளூற நாணமிகு அழுங்கல்! அழகியல் அச்சம்!
எதிர்பாரா நேரத்து எதிர்வந்து தாக்கும் கண்கள்!
மெல்லிய கோடுகள் கீறிய மந்தகாச புன்னகைகள்!
தலைஏறாத காலணியாதிக்க ஆங்கிலவழிப் பாடங்கள்!

அப்படியேயர் இனிய தொடக்கம் - என் கல்லூரியின் முதல் வாரங்கள்!

காலம்காட்டி மனதில் என்றைக்குமாய் நின்ற வழிகாட்டிகளாய் எங்கள் பேராசான்கள்!
வலி தந்தும் வலிமை தந்தும் சென்ற அனுபவங்கள்!

இணைபிரியா தோழர் கூட்டம் - ஆளுக்கொரு திசைகாட்டி திரியவிட்ட கடைசி நிமிடங்கள்!
அப்படியேயர் தவிர்க்க இயலாத முடிவு - என் கல்லூரியின் இறுதி வாரங்கள்!

Ms. Joselin Jebamalar

EEE Graduate from 2011 - 2015 batch

The days in LICET are the most colourful days of my life. I started colouring my life right from the bridge course classes. Those were the best days which I could cherish forever. LICET feels like home. LICET has taught me more about life. The most inspiring part about Loyola is its different approach towards education. LICET has taught me that education is not merely about books and gaining technical knowledge. It is also about the holistic formation of the individual.



Teachers are friendly and are always approachable for the academic needs of the students and more like a family. Apart from academics, Engenia and sports day brings out the hidden potentials of an individual. The Eco club of LICET brings all the environment-lovers together and is instilling the spirit of protecting our environment into students, which is the need of the hour, in current scenario. Loyola made me grow spiritually. And Loyola church is the favourite place for many Loyolites, like me. I am currently doing my masters in Power electronics and drives in SSN college.

Dear juniors, cherish every bit of your life in Loyola to the core. In no part of the world, you are going to get this life again. Update your knowledge each day. Never miss out enjoying the trees and parrots in the campus. Seize the opportunities in your everyday life and learn from it. Make the most of what you have got. Never quit learning. Be more compassionate. Be there for one another. Make this world a better place to live in. Be a good individual. Be a loyolite. Let your light shine!!!!

ஆசிரர்களை போல கண்டிக்கும் நட்பு வட்டம்!

நண்பர்களை போல யழுகும் ஆசிரிய திட்ட வட்டம்!

நினைவு நீரோடையில் நிறைவாய் நிறைய ஓட்டம்!

களை எடுத்து கல்வி விளைத்து — நிலையறு

கலைபல காட்சியுற ஆழப்பாற ஊரும் மேடைகள்

தந்து

உடல் வளர் தினவு யாராட்ட விளையாட்டுகள் என

என் சந்தோஷ உண்டியலில் விழுந்த தங்க

நாணயங்கள்

இஞ்சினியா மற்றும் ஸ்போர்ட்ஸ் டே!

புதுசுகளை வரவேற்பதிலும்!

புதிய ஆற்றலை

வளப்படுத்துவதிலும்!

புதிய முயற்சிகளை

வலுப்படுத்துவதிலும்!

என்றுமே தனிச்சிறப்பு

வாய்ந்தது

மின்னல் வாள்பிழக்கும் என்

மின்னணு மின்னியல்துறை.

அன்றையும் தந்தையும் அருகில்

Ms Sruthi S

EEE Graduate from 2011 - 2015 batch

From the days of rubbing stones to create fire to the days of android phones

the wide development

in the technology is

because of engineers

like you and me. It's

a little spark in you

that you trigger

in yourself that

makes you stand

out of the crowd.

I'm deeply in debts

to our institution for

molding me to be the

person I am today.

After completing

my course in 2015, I was

offered a job as graduate trainee

engineer at

Masterkuba software services pvt ltd. I

encourage young budding talented students

with goals to achieve high to opt for electrical

and electronics engineering as this subject

has a variety of scopes and never gets boring.

I am deeply conscious that i am richer by far

because of the LICET management and staff

who have always been a constant support to

climb up the ladder of success. When i walk

down the memory lane, my college days at

LICET always evoke the most precious and

priceless memories. My colleagues have always

rallied around me during the vicissitudes of

my life. Failures are finger posts on the roads

to achievement. Failures lead to success, so

never let them dissuade your goals. The days

spent on understanding IEEE papers, making

presentations in class, attending seminars,

discussing projects, and working on them

after college hours, the spirit of togetherness

experienced during cultural and sport activities,

last minute assignments, punishments, lectures

from professors and HOD, inplant trainings,

Industrial visits etc., are few memories that

would turn out to be the best part of my college

life. In the race of achieving never forget to

cherish these moments. Memories play a very

confusing role, they make you laugh when you

remember the times you cried together but

make you cry when you remember the time

you laughed together. I never kept note of the

time i spent in LICET. It seems just yesterday

i entered the premises of LICET for the first

time and became one of the members of the

huge family. A diamond doesn't start out

polished and shining. It was once nothing but

a piece of carbon, but with enough pressure

and time becomes spectacular. Similarly, we

students enter the portal of LICET arid and

unfurnished but finally turnout to be groomed

and responsible youngsters of the society. A

noble life is not a blaze of sudden glory won,

but addition of days in which good work is

done. For all that i am and all that i continue

to achieve I remain humble and grateful to my

alma mater-LICET.



இல்லை எனும் குறைநீக்கி
என்னையும் ஆளாக்கி விட்ட ஏற்றமிகு
லிசெட்-யே!

உன்னை எப்போதும் வாழ்த்தி வாழ்த்தி
வணங்குவேன்!

உன்னை எப்போதும் வணக்கத்துடனே
வாழ்த்துவேன்.

-புசமை நிறைந்த நினைவுகளுடன்

Departmental Activities

INDUSTRIAL TRAINING

To bestow the feel of having the actual hands on experience, the department arranges for Industrial trainings to students at various industries. Some of them are

1. BSNL
2. KORATTUR SUBSTATION
3. ICF
4. FORD

INDUSTRIAL VISITS

- The students of Third year EEE visited 400 kV Switchyard, Sriperambudur on 16.02.2016. In the plant, students carefully studied and observed the switchyard model, transformers, circuit breakers and various electric apparatus. They got information and field knowledge about Power Distribution and Transmission. Students clarified their various doubts regarding the process in the switchyard.
- The students of Second year EEE visited Ennore Thermal Power Station, Chennai, one of the four major thermal power plants of Tamil Nadu, on 09.02.2016. Presently the plant has an installed capacity of 450-MW. Students were exposed to the equipment in the plant and had the feel of actual process in the generation of electrical energy in a coal fired thermal power plant.
- The students of First year EEE visited Ashok Leyland, Chennai, an Indian automobile manufacturing company on 04.02.2016. The design and working of engines manufactured for the vehicles were explained to the students in detail. Students also observed the assembly of parts. The tests performed on engines and other parts were well explained by an expert trainee. The visit provided the students an insight to the manufacture and assembly of automobile parts.



Inplant Training

Given below are some of the industries that our students underwent training.

S.No	ORGANIZATION	Total No of Students	YEAR
1.	BSNL, Salem steel plant	2	I
2.	BSNL, ICF, BGR-Energy, DHARANGADHARA CHEMICALS, TTPS	17	II
3.	TNEB, ETPS, TTPS, AIR, KORATUR SUBSTATION ICF, RAMCO CEMENTS, FORD	19	III
4.	CHENNAI PORT	2	IV



400/230kV SRIPERUMBUDUR SUBSTATION

We students of third year Electrical and Electronics department had a great opportunity to visit Sriperumbudur substation on 16th February 2016. Two of our department staffs Ms. Annie Nancy and Mr. Augustine accompanied us to the substation. Sriperumbudur substation receives power from different power plants like Mettur Thermal Power Station, Neyveli lignite Corporation, Madras Atomic Power Station in Tamil Nadu. The power is transmitted and distributed to places in and around Chennai. The various components that we saw in substation are primary power lines, Overhead lines, Ground wire, Current transformers, Potential transformers, Circuit breaker, Isolators or Isolating switches, Lightning arresters, Earth switch, Coupling capacitor, Bus-bar, Main transformer, Control building, Security fence, Secondary power lines. Primary power lines carry the medium voltage power to distribution transformers located near the customer's premises. Distribution transformers again lower the voltage and typically feed several customers through secondary distribution lines. Commercial and residential customers are connected to the secondary distribution lines through service drops. We also had an opportunity to go to the control building where the voltage level, current level, real power, reactive power and various other parameters can be viewed and monitored.

Thus we were able to view the various components used in substation for transmission and distribution of power. The visit was more informative and it helped us gain knowledge.

Asmitha Singh (III EEE)

ASHOK LEYLAND - I EEE

On receiving the letter of permission from ASHOK LEYLAND, Ennore, Chennai, 1st year EEE students along with two faculty members, Ms. Monisha Ann and Ms. Priyadarshni, went on an industrial visit to ASHOK LEYLAND during the March Month. The visit developed a clear idea about the functioning, working and maintenance of the plant and technology and various departments under which this industry has made a remarkable status in the market.

First we visited front and back assembly unit. The functioning of various stages of this unit were explained to the students. This was followed by visits to various other units viz., spare parts, engine assembly, break, wheel & axle, and crank shaft etc... The entire visit lasted for 2 hours. In all these places, the units in charge engineers and technicians explained the working of their respective units, and answered the questions asked by the students which was well received by them. It was an informative, interesting and successful visit and we also learnt the various applications of machinery and the processes involved.

We express our thanks to the HoD, Mrs. InbaRexy, who permitted us to go on a visit, the faculty members who accompanied us and the officials who explained the various sections of the Company.

ROSHINI A (I EEE)



ENNORE THERMAL POWER STATION (ETPS) - II EEE

On a beautiful day of Feb 9th, around 9:00 am, our class II –EEE along with two faculties Mr. Infant Raj and Ms. Sharadha set out in our college bus to our third industrial visit to Ennore Thermal Power Plant (ETPS) with lot of excitement and eagerness to see how a thermal power plant looked like. After an hour’s travel we reached the power plant and we were greeted by two engineers of the power plant.



We had a quick special lecture given by a senior engineer, on the very basic concepts of power production and distribution. He explained about the regional and state grids and also about the parameters considered during the conversion of water to steam.

Then we were taken to the coal yard and were shown how the coal is prepared for combustion purpose. The bituminous coal is imported from Australia and is transported in goods train to the coal yard. It is pulverized in pulverization mills and is sent to the combustion chambers.

Followed by this, we went to the boiler sections where water boils at 140 degree Celsius and this journey through the core of the power plant really instilled a desire to work in a power plant. The steam produced in this section is passed to the turbine where the kinetic energy of steam is converted into useful work of rotating the blades of turbine thereby rotating the shaft of the generator coupled with it. Generator rotates at a speed of 3000 rpm. Our guide engineer clearly explained about the capacity of each generator section. ETPS has a total installed capacity of 450 MW, comprising of 2X 60 MW and 3X 110 MW units. As all the units have completed more than 30 years of Repair and Maintenance (R&M) work has been carried out in all the units and now only one 60 MW unit is functional. We also visited the UCB (Unit Control Board) where there is an elaborate system to monitor the set parameters of the boilers, turbines and generator. Officials in UCB monitor the values recorded by the control system and respond to the error values by altering the steam input to the turbine thereby maintaining safe operations of the power plant.

Later we went to the cooling section and distribution section. About 10% power produced in ETPS is being utilized for the running of the power plant itself. Remaining 90% power is being stepped up from 11 KV to 110 KV / 230 KV and it is sent to the feeders for distribution. These feeders are connected to the regional grids. Various components installed in the different section were totally new to us and got a brief insight of its working and significance.

FEEDBACK:

It gave us a deep insight of how a power plant functions. We got a clear idea of how power is produced and transmitted. We were able to get a vivid view of all the sections of the ETPS

We witnessed the actual functionality of the power plant and we could relate it in a much better way with, what we learnt from the books. Techniques for protection were explained to us. We had a grit to take up our lessons more professionally to be successful electrical engineer. Our guide also explained the shortcomings of the technologies used in ETPS, the resultant low efficiency of the power plant and the environmental hazards created by it. Kindled our interest to do development projects to overcome the limitations of the power plant. Most of our hearts were set to discover a newer power source with high reliability and increased efficiency of power production.

Jeneve Vinolia (II EEE)

Workshop



Resource person	Dr M Senthil Kumaran, SSNCE
Participants	3rd year EEE students
Title	“Design of Digital Controllers in FPGA using Matlab System generator”
Venue	J31, Power System Simulation Lab
Technical Society	Workshop in association with IEEE students chapter.
Dates	11-03-2016 to 12-03-2016

PROJECT EXPO

Mr. Jishak Kasparov L, Mr. Muthamilselvan N, Mr. Harisankar M. students of III year EEE, and Mr. Jagadhis Kumar Student of III year ECE, worked on a project titled ‘Line Follower with Integrated Firing Mechanism’, an unmanned riot control robot. The project was also presented in Anna University and was qualified for second level.



SPORTS

The 6th Annual Sports Day was conducted on 5th March 2016. Officer A. Mayilvaganan, IPS presided over the event as the Chief Guest.

The students of the department of EEE actively participated in the events in the true spirit of sportsmanship. The girls proved their mettle yet again and bagged the overall girls’ sports championship trophy. The sports captains and the co-ordinators performed their duties very well in bringing laurels to the department.

EEE Dept’s Girls wing won the Overall Championship cup for sports activities during 5th Annual sports day.



When I received the news of my award, as the best outgoing Sports person of the year 2015-2016, I was beyond excitement. I was really happy that the hard work and time that I had put in was recognized. Nothing is worse than missing an opportunity that could have changed your life and I am really glad that I did not miss the opportunity of studying in an institute like LICET. There has been constant support throughout my four years in college and I sincerely thank all those who helped me get through the various difficulties. I would like to extend my special thanks to Mr. Benkin Dinesh, the physical director and my department. Thank you

Kavya Elizabeth J. (IV EEE)

SPORTS ALL THE WAY

The annual sport day of our college was held on March 5th, 2016. The chief guest for the day was IPS officer A. Mayilvaganan. I would like to share my experience of the college sports day. I participated in the 100m, 200m running and the long jump event winning the first place in all the three events. I was awarded the individual championship amongst the girls. This was possible only through determination and hard work. The right training was critical in achieving this which was given by my personal coach. I take this opportunity to thank my personal coach, the physical director and his assistant, my department HOD and the staffs for having supported me to achieve this.

I also take pride in saying that I had an opportunity to share a few words with the chief guest A. Mayilvaganan. He was a man of Great Spirit, inspiring us through his speech and telling the state of sports in our country.

Knowing my achievements in athletics through the physical director, he congratulated me and inspired me to keep improving and achieve great heights in this field.

Last but not the least I thank the Lord Almighty for helping me achieve all this.

Meena T. (III EEE)

**Paper Presentations by Faculty**

Ms. A. Inba Remy, Presented a paper titled, "Investigation of Performance Parameters for Interleaved PFC Boost Converter" at International Conference on Electrical, Electronics and Computer Engineering.

Guest Lectures by Faculty

Faculty from the department delivered lectures at Andhra Loyola Institute of Engineering and Technology

DATE	CLASS	SUBJECT	NAME OF THE FACULTY
19-02-2016	III EEE & IV EEE	Chopper Controlled DC motor Drives & Operation of PMLDLC (Permanent Magnet Brushless DC motor) & PMSM (Permanent Magnet Synchronous Motor)	Ms A Inba Remy
19-02-2016	II EEE & III EEE	Multi Vibrators & Newton Raphson Method Using Matlab. Power System Stability	Mr A Infantraj
19-03-2016	IV EEE & II EEE	Wave Energy Converting Devices & Gas Insulated Sub-Station	Ms S Sathya Bharathy
21-03-2016	II EEE	Stability and root locus techniques, Frequency response & State space analysis.	Dr N Kamala

SEMINAR & GUEST LECTURES

Guest lectures were carefully weaved with both academics and industry forum. Accordingly, eminent professors from IIT (academicians) and Senior Management Executives of Companies were invited to interact with our students. Such an approach gives an insight to the student on the importance of acquiring theoretical knowledge and to meet out the industries expectation.

DATE	VENUE	TOPIC	SPEAKER'S NAME AND ADDRESS	PARTICIPANTS (Students)
18.02.16	G-01	Engineering Management and Career Planning	Prof. Krishnakumar Rao V. Adjunct Professor, Alliance University, Bangalore	II & III year EEE
10.02.16	F-11	Human Space Exploration : Challenges & Opportunities	Dr. Antony Jeevarajan & Dr. Judith Jeevarajan, NASA Scientists	IV year - EEE

**Workshops/Seminars attended by faculty**

In the process of continuous learning and enhancement of technical knowledge of Staff, the department motivates the staff to attend various programmes.

Name of the Faculty	Title of the Workshop	Venue	Organiser of the Workshop	Date
Ms.A.Inba Remy	Modeling and Simulation of Mechanical systems using MATLAB and Simulink	Le Meridien	MathWorks	23.02.16
Ms.A.Inba Remy	Engineering Response to Climate change	LICET	LICET	15.01.16 & 16.01.16
Dr.N.Kamala	Emerging Avenues In Advanced Control	NIT - Tiruchirapalli	Automatic Control and Dynamic Optimization Society	17.10.2015
Ms.S.SathyaBharathy	Engineering Response to Climate change	LICET	LICET	15.01.16 & 16.01.16
Ms.G.Annie Nancy	Engineering Response to Climate change	LICET	LICET	15.01.16 & 16.01.16
Ms.L.Ramya Hyacinth	Current Issues on Power Quality and Microgrid	St. Joseph's Institute of Technology	Dept. of EEE, St. Joseph's Institute of Technology, Chennai	29.10.2015 & 30.10.2015
Mr.A.Infant Raj	Engineering Response to Climate change	LICET	LICET	15.01.16 & 16.01.16
Ms.S.Priyadarshini	Power System Transients	St. Joseph's College of Engg.	St. Joseph's College of Engg.	19.01.2016 to 23.01.2016

Summer Program 2015

The ICAM –SUMMER PROGRAM was one of a kind. The program helped all the students to gain international exposure, hands on experience through project and industrial exposure through industrial visits. Thus this program had a positive impact on our academic development and also on a personal perspective.

International exposure is something very important for a student. Getting that exposure before we can complete the under graduation is a great opportunity. It helped us to know a new culture, new custom and a style of living completely different from ours. Another advantage is that we learnt the language before going to France. So we got to know a new language and we also improved our language skills by communicating with the people there. We are now quite proficient with the language.

This program also helped us to be self reliant. We had to take care of ourselves for a month without our parents around. Through this we learnt to be responsible and organised in our daily endeavours.

Project was the most important part of the program. We built a 3D printer with the guidance of the ICAM students. This helped us learn project management and also how to work in a team.

The process of management involved the following steps:

- Starting up: We were made to organise our project procedure in steps by playing a game where we had the steps and had to arrange it in sequence. The steps in sequence were:
 1. Suitcase manufacturing
 2. Metal manufacturing
 3. Aluminium machining
 4. Axis manufacturing
 5. Picking components
 6. Y axis assembly-Main frame
 7. X & Z axis assembly
 8. Electrical wiring-power
 9. Electrical wiring-command
 10. Electrical calibration
 11. Mechanical calibration
 12. Adjustments & calibrations
 13. End of project
- Planning and design: We planned our daily tasks and set weekly targets to complete



our project on time.

- Construction: With the help of the manual that was provided and with our daily plans we constructed the 3D - Printer step by step.
- Monitoring: There were check points for us where the guides checked our progress and our work regularly to avoid mistakes in our product.
- Completion: As a team we worked and completed the project on time.

The project required electrical, mechanical work and also programming. The project team consisted of members from all departments. So all of us learnt CNC machining, electrical connections, programming and co-ordinated with each other and completed the task.

Industrial visit: All of us were taken to visit a few companies in Toulouse. This time we were taken to companies related to our core. We visited two companies -

- Actia
(electronic board manufacturer)
- Safran, Aircelle
(aircraft engine manufacturer).

Both these visits helped improve our knowledge.

The program as a whole has taught us many things like being self reliant, adapting to new environments quickly, to work in a team, leadership and finally how to proceed with doing a project in an organised manner.

**Meena.T (III EEE)
ICAM, Toulouse, France
30.05.2015 to 29.06.2015**

The summer program attended by a group of 21 students from LICET in ICAM, Lille campus was one of the best knowledge enriching experience. We had been given an opportunity not only to visit the beautiful nature of the place, but also to do a science project out there, namely the “Solar Car”. The following steps were being carried out for the development of the solar car in a scheduled way:

Design of imprinted holders for solar panels using Solidworks.

Manufacture of imprinted holders for solar panels using 3D printers.

Study about the working of solar panels and other devices which are being powered by the solar energy.

Study about the efficiency of the solar panels based on the amount of solar radiation incident on them.

Development of the supporting metal parts of the solar car using turning and milling machines, such as the automated lathe machines and CNC machines, that were made available in the ICAM industrial site.

Development of the electrical wire harnessing and remote control of the solar car using the electrical circuit diagram.

Development of the outer body of the solar car using mechanical tools such as the driller machines and other basic mechanical lever tools.

Assembling of the Solar Car.

Finally, the finished solar car was made to undergo the test run on a flat surface, so as to check the controls, wheel alignment and thereby perform further fine tuning process.

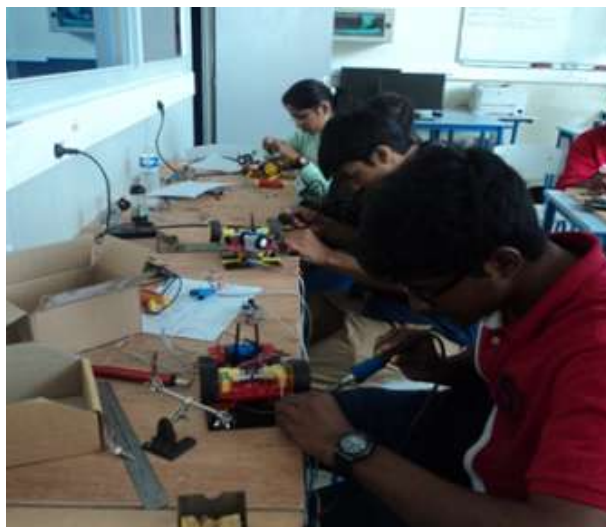
The above steps were perfectly paralleled up with the scheduled time, for the successful completion of the “Solar Car”, and thereby teaching us the importance of project management.

Moreover, this project taught us not only the technicality hiding behind the development of a Solar Car, but also implanting within us the key idea of being a “team player”, rather than exhibiting ourselves as distinct individuals.

Besides working towards the completion of the Solar Car project, we were also taken to some of the well-renowned industries such as Alpha Glass, Toyota and Safran-Morpho, wherein we saw as to how production process, design and quality management of various products was carried out in real time, in accordance to the needs of the people.

On the whole, the summer program in ICAM, Lille taught us how to be productive and efficient in a short period of time. Moreover, it helped us to discover the importance of being an active team player and guided us to carry out project management in an effective way. Also, from a common man’s point of view, it paved a way for us in understanding the similarities and differences between the ancient Dravidian culture and the old Celtic culture.

**J Joseph Rajesh (III EEE)
ICAM, Lille, France
30.05.2015 to 29.06.2015**



College Day



The 6th Annual College Day of Loyola-ICAM College of Engineering and Technology was held on 18th March 2016.

Mr. Charles Etienne Verdier, Managing Director of Renault Nissan Technology and Business Centre, India presided over the event as the Chief Guest and Mr. Stephen Sudhakar, Vice President - HR, Hyundai Motor India Ltd. was the Guest of Honour.

Dr Jose Swaminathan, the Principal of LICET presented the Annual Report of the academic year 2015 -16. The valedictorian of the year was honoured and prizes were distributed to the academic achievers and students who participated in social works.



Electricity and Students

7 REASONS TO START A BUSINESS WHILE IN COLLEGE

Starting a business while still in college is definitely a big step in life. It has several pros and cons. Sure, we are bound to lose sleep and also spend some money in launching, but it has a whole lot of advantages that one can simply not regret. Here's why.

1. Low risk, High reward

What have we got to lose? We don't own anything, we have few commitments relative to later in life, and the worst case scenario is that we go back to doing what we're doing now. The best approach is to start a serious business venture per year, figure out if it's going to work out and plan accordingly. The sooner we test the ideas, the better.

2. Campus resources

We get to have free access to several valuable resources in campus like experienced professors' advice, meeting rooms and digital libraries for which we have to pay dearly for otherwise. It sure is a good way of putting our tuition fees to use!

3. Real world education

You can only learn so much in the classroom. The start-up world is a great bridge between material taught and applied concepts. Though it is very hard compared to studying for the exams, it sure is more valuable than any textbook lesson.

4. Accessible customers

Students are a valuable resource for testing out your ideas. They don't demand money and they also give honest feedback. If you can get students to pay for something it's a good sign your product or service is viable. Students are also connectors. They have the power to make your product go viral.

5. Mentoring

Students have the greatest advantage when it comes to getting guidance from successful entrepreneurs simply because they don't find students as a threat to their ventures.

6. Co-workers

It is true that students lack experience, but then nobody knows their capabilities, including themselves! The successful entrepreneurs of tomorrow are in college today, and when are you going to have a better time to recruit them than today, when they don't yet realize what they're capable of?

7. Career building

Last of all, in spite of failures in your business venture, it's surely a huge plus in your resume. Starting business shows that you're proactive, creative, and driven--just the type of employee successful companies are looking for. Start-up experience in college will pave way for quicker leadership opportunities in a company.

Source: <https://www.entrepreneur.com/article/273689>

Silvia Noble (II EEE)

என் தவறா! என் தவறா!
இந்த பூமியில் பிறந்தது என் தவறா

தாயும் இல்லை தந்தையும் இல்லை
அன்பு செய்ய யாரும் இல்லை

பள்ளிக்குச் செல்ல காசும் இல்லை
பணிக்குச் செல்லும் வயதும் இல்லை

அழகுரல் கேட்பதற்குச் செவிகள் இல்லை
அழகையைத் துடைத்திடக் கரங்களும் இல்லை

சொந்தம் பந்தம் யாரும் இல்லை
யாவருக்கும் உண்டு எல்லை

காலையும் மாலையும் உணவும் இல்லை
பதுங்கிப் படுத்திடக் கூரையும் இல்லை

பயணம் தொடர்ந்திடச் செருப்பும் இல்லை
உடலை மறைத்திட மாற்றுத் துணியும் இல்லை

எந்த தீய பழக்கம் இல்லை
வளர்த்துக் கொள்ள வசதியும் இல்லை

என் வரலாற்றில் மகிழ்ச்சியே இல்லை

பசியும் பிணியும் பிரியவில்லை
நண்பன் என்று யாரும் இல்லை
எதிர்த்து நிற்க எதிரியும் இல்லை

எனை காதல் செய்ய அழகனும் இல்லை
யாருக்கும் என் மனதை புரிந்து கொள்ள
அவசியமில்லை

மரணம் வரும் பயமும் இல்லை
வந்தால் கூட கவலை இல்லை

தூக்கிப்போட நதியும் இல்லை
வாழ்ந்து பார்க்க ஒன்றும் இல்லை

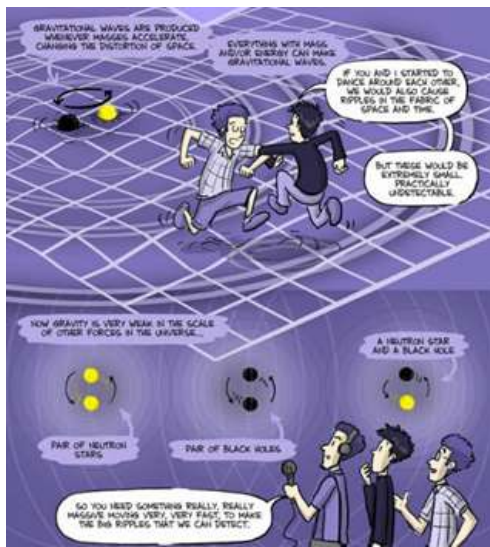
என் தவறா என் தவறா!
இந்த பூமியில் பிறந்தது என் தவறா!

-இம்மானுவேல்.ச

Mysteries like the space itself, stormed me. What is this current phenomenon that has recently got our minds rippling? How does such a phenomenon still exist, where was it predicted centuries ago? How did anyone foresee such an explosive, intangible- yet an event subtle to us, happening few billion light years away from Earth? If I were to brief on this, all I would have are questions to be asked rather than answer yours.

If you are “spaced” out, then let me introduce you to the world of relativity, where normal things at Earth, would not act the same in space. In short, they defy the refrains framed by our Earth, the classical mechanics. The whole world ran around Newton’s postulates for a brief period of time, until Einstein tagged along. He took the laws framed by Newton as a challenge and redefined what Newton had said about classical mechanics. Concepts sure were like oil and water. Newton said mass was constant but Einstein said it changes with speed. That’s relativity folks!

As I had given a gist of what governs the space and time continuum, let us now dive a little deep into the uncharted territory of space, where cataclysmic events happen. As said, we are in no way near to witnessing those. These events happen where a massive object moves at such devilish speeds. Those times, pioneers were only able to postulate their hypotheses, yet to be proven. Technology since those times rose has continued to rise and we now have enough to prove what our frontiers had said about. One such phenomenon is the gravitational wave.



Einstein once said, gravitational waves existed in 1916. His observations had come out of pure thought. He predicted that “**When a massive object collides with another, or changes speed, it produces shockwaves or gravitational waves**”. It was as if, he had sensed those waves way before anyone else could have. He didn’t believe himself on this. He had passed away at the brink of its discovery. Many scientists after him, started their pursuit for these waves.

Richard Feynman predicted that if gravitational waves exist, they are theoretically detectable by a proposed “**Sticky Bead Argument**” which was designed to show that the passing gravitational wave should, in principle, cause a

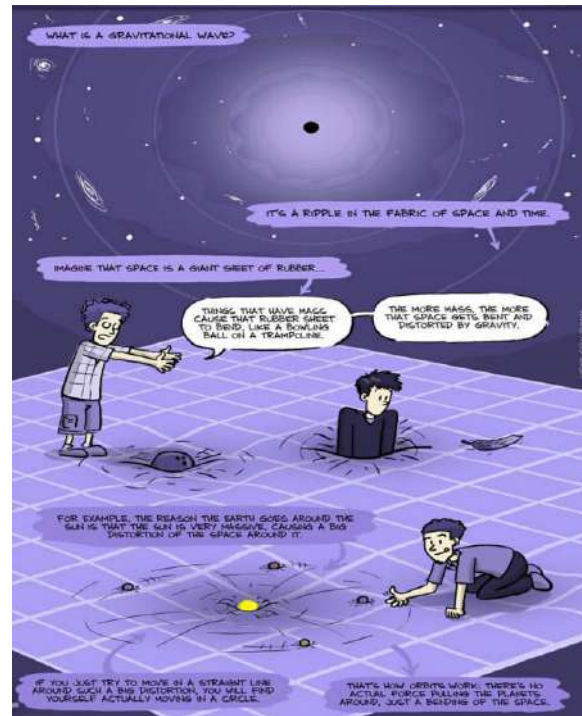
bead to freely slide along a stick to move back and forth, when the stick is held transversely to the wave’s direction of propagation, thus heating the stick to which bead is stuck.

- 1962 - **M. E. Gertsenshtein** and **V. I. Pustovoit** published the first paper describing the principles for using interferometers to detect very long wavelength gravitational waves.
- 1968 - **Joseph Weber** reports that gravitational waves have been detected, but the report’s findings prove to be false. **Rainer Weiss** analyses Weber’s method and found LIGO.

What are gravitational waves? “**Gravitational waves are ripples in the fabric of space and time**”. We call the space as a fabric because it is said to be so black that one could even feel the texture.

How do these waves propagate? By relativity, any object that has mass can distort space around as it moves by compression and stretching. Imagine stretching an elastic band or any fabric. What happens? Band compresses vertically when stretched horizontally. This is how these waves propagate in space. Even we distort space, but it is barely noticeable.

When can we actually notice the distortions in space? In order to actually see it, we need a massive object whipping at velocities high enough to create visible distortions in space.



“**In general relativity, the effects of gravitation is ascribed to space-time curvature instead of a force**”.

We know that the planets revolve around the sun. But how and why? Since, the sun has more mass and energy than any other planets in our solar-system; it distorts space in such a way that the planets take a roundabout the sun. But the magnitude is just enough to make planets revolve the sun. As stated above, only gravity’s effect is considered in space as the distortion itself.

Where are such waves known to be created? One such wave was observed recently by

what is assumed to be, a collision of massive black holes that might have happened roughly around **400 mega parsecs** (1.3 billion light years) from Earth. In general, these waves can be created by any massive object at high velocities. It took roughly about 10 trillion (9,975,601,597,000 years) for the waves to get near Earth.

How are such waves formed? Scientists assume that the cause of those waves are the black holes circling each other for aeons, in a sort of mating dance, gathering pace with each orbit, hurtling closer and closer. In a fraction of a second, the black holes finally merge, radiating energy hundred times the stars in the universe combined. Each black hole was assumed having a mass roughly 30 times the mass of sun. They rammed hard with an enormous bang. Soon as they collided, the recoil of that started distorting space around which was, the very gravitational waves. There was calm after the storm then.

Until next instalment!!!

Harikrishna (II EEE)

வாழ்க வையகம் வாழ்க வளமுடன்

வாழ்க்கை நாம் கேட்காமலே கிடைத்த வரம்.....!!!

ஆனந்தித்திருப்போம்.....!!!

வாழ்க்கை நாம் கேட்காமலேயே கிடைத்த வசந்தம்.....!!!

அனுபவிப்போம்.....!!!

வாழ்க்கை கேட்காமலேயே கிடைத்த பரிசு.....!!!

கொண்டாடுவோம்.....!!!

வாழ்க்கை நாம் கேட்காமலேயே கிடைத்த விளையாட்டுத் திடல்.....!!!

போற்றி வாழ்வோம்.....!!!

வாழ்க்கை நாம் கேட்காமலேயே கிடைத்த சத்தியம்.....!!!

உணர்ந்து உற்சாகம் கொள்வோம்.....!!!

வாழ்க்கை நாம் கேட்காமலேயே கிடைத்த சகாப்தம்.....!!!

சாதனையோடு வலம் வருவோம்....!!!

வாழ்க்கை நாம் கேட்காமலேயே கிடைத்த சந்திப்பு.....!!!

மகிழ்ந்து களித்திருப்போம்.....!!!

மொத்தத்தில் வாழ்க்கை வாழ்வதற்கே.....!!!

சுகமாகவே சுகித்திருப்போம்.....!!!

வாழ்வதற்காகவே வந்தோம்.....!!!

வாழ்ந்து காட்டுவோம்....!!!

வாழ்க்கையின் விடியல் தொடங்கட்டும்.....!!!

வாழ்க வளமுடன்

Raymond (II EEE)



Feedback at : hodeee@licet.ac.in