JPCOE Chronicle

"Reach for the Stars"

Monthly Newsletter
JUNE - August '17
Volume VI, Issue I

70th Independence Day

JP COLLEGE OF ENGINEERING

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HOLY FATHER'S MESSAGE

Dear Friends,

The pope said he learned so much about unconditional love, hope and belonging from seeing mothers who never stop embracing, supporting and fighting for what is best for their children incarcerated in prisons, ill in hospitals, enslaved by drugs or suffering from war.

"Where there is a mother, there is unity, there is belonging, belonging as children," he said.

Just like all mothers of the world, Mary, Mother of God, "protects us from the corrosive disease of being 'spiritual orphans,'" that is when the soul feels "motherless and lacking the tenderness of God, when the sense of belonging to a family, a people, a land, to our God, grows dim."

"This attitude of spiritual orphan hood is a cancer that silently eats away at and debases the soul," which soon "forgets that life is a gift we have received -- and owe to others -- a gift we are called to share in this common home," he said.

A "fragmented and divided culture" makes things worse, he said, leading to feelings of emptiness and loneliness.

"The lack of physical and not virtual contact is cauterizing our hearts and making us lose the capacity for tenderness and wonder, for pity and compassion," he said, as well as making us "forget the importance of playing, of singing, of a smile, of rest, of gratitude."

+POPE FRANCIS

PRINCIPAL MESSAGE

Dear Readers ,

I am happy that JPCOE is bringing out a College Newsletter. The College Newsletter will definitely help to showcase the activities that are happening in the campus. It also helps in building up teamwork which is very much needed today in the world of competition. It provides a platform for exposing the merits and academic achievements of the faculty and Students. This enhances the documentation culture of the institute. This would definitely create an impact in the minds of readers, by way of providing larger visibility and dimension to the campus. I hope that this culture of releasing Newsletter continue forever and bridge the gap between achievements and publicity.

Signing of with a quotation "If you want to go fast, walk alone, If you want to go far, walk together".

With best wishes

Dr.M.Rajkumar, Ph.D
Principal, JPCOE.

Graduation Day

The fine event of 5th graduation day celebration for the degree completed students of academic year 2012-2016 was celebrated in JP Engineering college auditorium on 08/07/2017.

The graduation day function was leaded by Rev. Sis. Chinnammal, Correspondent, JP group of institutions. Then the welcome address was given by Mr. S. Thiyagarajan, Principal of JP college of Engineering and delivered a speech about the achievement of our college. Then our honorary chief guest Mr. J. Peter Alphonse, Bsc, BL, Ex MP, delivered his presidential address to the students and distributed the certificates to the graduates.Then Rev.Sr.C.Jodelisa,Administrator,J.P.College of Engineering, and Rev. Fr. Lukas, The campus manager of JP group of institutions also provided their presence in the occasion.

STAFF MEETING

JP College of Engineering conducted the staff meeting on 16-08-2017. The staff meeting commenced with prayer by Mr. Samuel Prem Kumar,AP/MECH and prayer song by Mr. Ashwin Raja,AP/CIVIL and Mr.John Pradap Singh,AP/MECH. Mrs. Shenbagavalli, HOD/ECE welcomed the gathering. Rev Sr. C. JUDE LISA, Administrator ,JP College of Engineering, spoke admissions and discussed with staff members about how many admission they have booked and the future plan regarding admission. Dr. M. Rajkumar, Principal, J.P.College of Engineering spoke on How to improve our results and how to work with dedication and sincerity. Finally Mr.Manoj Kumar, HOD of EEE thanked the Administrator, Principal, HODs and all the faculty members.

COMMON ASSEMBLY

The Common Assembly prayer was organized by EEE, ECE and CSE department of JP College of Engineering on 24.07.2017 at College Auditorium.

Rev.Sr.Judelisa, Administrator, JP College of Engineering,Dr.M.Rajkumar, Principal / JP College of engineering, Mr.T.Manoj Kumar HOD/EEE and Students from Final year, Third year and second year of EEE department were participated in this program along with EEE staff members from JP College of engineering. This program was started with prayer song was sang by CSE Choir students. The bible reading was read by Mr.A.John Jenifer of final year EEE. Rev.Fr. Lucas, Campus Manager, JP Group of Institutions felicitates the Program with the prayer. Then the welcome address was given by Mr.Senthil Murugan HOD/CSE. Mr.T.Manoj Kumar HOD/EEE delivered the special address for the Principal.

Dr.M.Rajkumar Principal/JP College of engineering addresses the students and he gave a wonderful speech regarding the aspects of improving the results and placement..

Finally assembly prayer concluded with a vote of thanks given by Ms.Nivetha of final year ECE.

CSE DEPARTMENT ASSEMBLY

The Department assembly prayer was organized by CSE department of JP College of Engineering on 31.07.2017 at College Auditorium.

Rev.Sr.Judelisa, Administrator, JP College of Engineering, Dr.M.Raj kumar, Principal / JP College of engineering, Mr.N.Senthil Murugan HOD/CSE and Students from CSE department were participated in this program along with CSE staff members from JP College of engineering.

This program was started with prayer song was sang by Choir students. Then the technical presentation was given by the final year student Mr. Michel Antony in the topic of Latest technology.

Rev.Sr.Judelisa, Assistant Administrator, JP College of Engineering felicitate the Program and gave a motivational speech to participate in all the events. Our principal Delivered the speech about discipline and Results.Ms.Aswini from final year student gives the motivational speech on the topic "Self-esteem".

Mrs.Pappu Sivanantham, AP/CSE has delivered a wonderful motivational speech for the students to concentrate more in their studies and to upgrade their knowledge level.Mr.N.Senthil Murugan HOD/CSE felicitates the Program and he gave a wonderful speech regarding the aspects of improving the results.

MOTIVATIONAL PROGRAM

The Department of Science and Humanities conducted a motivational programme for first years on 27.07.2017. A first year student delivered the welcome address. Rev. Sr. JUDE LISA, the administrator of JP College of Engineering and Dr. M. Rajkumar, principal of JP College of Engineering attended the program. Principal motivated the students regarding how to concentrate on their studies and not to be confused about their college and major. Rev.Sr.Judelisa Administrator asked feedback how the students attended the bridge course for three weeks. Students also gave the feedback. Mrs.Annapoorna HoD of science and Humanities addressed the gathering. Finally a first year student gave the vote of thanks.

INDUSTRIAL VISIT

DEPT OF ECE

A team of fifty one Students from II and III year ECE department students in guidance with four staff members from ECE Department visited Vikram Sarabhai Space Centre, Thumba, Trivandrum in the morning session and Science And Technology Museum.

A team of Sixty Students from final year in guidance with four staff members from ECE Department visited Nestsoft Technologies Opp: KSFE, Near Ravipuram Temple,Cochin - 682016, Kerala in the morning session and Maritime Museum, Koch in the afternoon session on 11 August 2017. An Executive of Nestsoft Technologies explained about DIGITAL MARKETING (SEO) and search engine (Google, Yahoo, Bing).

DEPT OF CSE

According to the management guidance and permission, 5 Staff members of CSE,S&H department along with students of II,III year CSE went for Industrial Visit to Keltron Tiruvandrum on 11-08-2017.

According to the management guidance and permission, 2 Staff members of CSE,S&H department along with students of IV year CSE went for Industrial Visit to Cyberia Software Pvt.Ltd.Kollam(Kerala) on 11-08-2017.

GUEST LECTURE

The Guest Lecture Program was organized by EEE department of JP College of engineering on 12.07.2017 in EEE seminar hall.Mr.T.Manoj Kumar HOD/EEE welcomed the chief guest and delivered the special address for chief guest. Guest Lecturer was presented by Mr. SATHISH/Trainer, CADD center from Tenkasi. He gave lecture on the topic of "Electrical CADD", also shared his experience in this field.

Department of CSE organized a guest lecture for CSE students on 5-08-17 at our college Language Lab. Mr.N.SenthilMurugan HOD/CSE gave welcome address.The resource persons came from ECCI, Chennai. Mr.Ramasubramanian gave lecture on the topic 'Core java'. Final year CSE department students Mr.Kannan and Mr.Michael Antony give seminar about "Computer Hardware assempling and OS installation" to CSE department students.It was very useful to our students.

Civil department arranged guest lecture in TOTAL STATION AND GPS (SURVEY INSTRUMENTS) for civil department students (2nd,3rd.and 4th year).on 19.7.2017 at J.P college of Engineering auditorium.

Mr.M.Palani HOD/CIVIL welcomed the chief guest and delivered the special address for chief guest. Guest Lecturer was presented by V Institute of surveying from kollam, Kerala. He gave lecture on the topic of “Total station & GPS”, also shared his experience in this field.

Department of Electronics and Communication Engineering in JP College of Engineering organized a two hours orientation program on 02.08.2017 based on the title "ELECTRONICS SOFTWARE".

Welcome address was given by Mr. V. Ayyappan, AP/ECE. Our Assistant Administrator Rev.Sis.Jude Lisa, Campus Manager Rev.Father Lucas, Principal Dr.M. Rajkumar and HOD Mrs.M.Shenbagavalli were the dignities had their presence in the orientation program and made the function a grand success.

With the technical supportof Ms.Chithambaravalli Business support, Livewire, Tenkasi Our Chief Guest Mr.Vijaya Ragavan ,Senior Technical engineer, Livewire, Tenkasi conducted technical sessions based on the Electronics software.

IEI STUDENTS CHAPTER

The technical competition was started by IEI student's chapter in the EEE department of JP College of Engineering on 29.07.2017 This event was organized by Mr.J.Karunaharan AP/EEE and Mr.Vignesh Bharathi AP/EEE.Totally 87 students from EEE department were participated in this event.

This event will be continued till the end of this semester on every Saturday. The cumulative mark of each team will be calculated and the team which scores the highest mark will be appreciated by providing rolling trophy in our upcoming technical symposium.

SURVEY CAMP

Due to Anna university norms our civil department 3rd year students went to survey camp at courtallam on 11.7.2017 to 15.7.2017.(5 days) . Total 43 students with two teaching staffs and one technical assistent went to camp .In that survey based on the triangulation, trilateration and rectangulation.

10 Recent Inventions in the Electrical Engineering Industry

High Efficiency Photovoltaic Cells

Different engineering approaches have been used to raise collection and distribution efficiency, though perovskite-based cells have recently captured the most attention at major research facilities.

Green Energy Electrical Power Converter

Once you collect energy, converting it for use in the electrical system is an essential next step. A new power converter developed in the Department of Electrical Engineering at the University of Arkansas will now make it easier for users of renewable energy to shunt excess energy into the power grid.

Smart Electrical Grids

As energy systems become more complex and energy sources become more diverse, smart grids are growing in importance worldwide. Smart grids integrate innovative electrical technology at multiple levels to improve flow control, detect malfunctions, and automate service delivery. With end-to-end communication between power plants, distribution sites, and the end user's electrical point-of-presence, it becomes possible to raise efficiency and reduce costs.

Virtual Reality

Virtual reality draws on multiple disciplines, but in terms of providing a sensory experience that maps effectively to "real life," electrical engineering is crucial. The earliest VR technologies consisted of a headset with gloves as an input device, rendering the user mostly stationary.

Eye Tracking Technology

As many consumers develop an adversarial relationship to conventional digital advertising, eye tracking becomes essential – not only to deliver commercial messages, but to better understand what information is of greatest interest. As it has matured, eye tracking technology has grown into an important frontier in accessibility for the disabled, allowing technology access through eye movement. Sensitive electronic sensors are the basis of virtually all eye tracking.

Wireless Wearable Tech

The idea of the "Personal Area Network" has been around in computing science for a long time, but it's only now becoming a practical reality. Devices can now operate on a smaller scale than ever and interface seamlessly with the wider environment.

Graphene

As electrical engineers reach the performance constraints caused by the fundamental properties of matter, advances in materials science become essential. Graphene is perhaps the most important recent innovation. Graphene consists of a single layer of carbon atoms one million times thinner than paper. It's so thin that it is actually considered two-dimensional.

Ion Thruster Energy

It comes as no surprise Star Trek was a defining force in inspiring thousands of people around the world to develop and pursue an interest in engineering. One of the engineering challenges presented by that vision of the future was this: What kind of novel propulsion technology would be necessary to allow manned spaceflight to distant worlds?

Personal Flying Cars

People – engineers and others – have been thinking about flying cars since The Jetsons. Now, a private U.S. firm called Terrafugia is tackling the engineering challenges necessary to deliver a personal flying craft that offers the control and safety required for regular civilian use. It calls its flagship product The Transition, which combines driving and flying in a single vehicle.

40GB Wi-Fi

The maximum speed of Internet connectivity, whether wired or wireless, has always been defined by foundational challenges in electrical engineering – semiconductor size and composition.

By

P.T.Abdullah,III-EEE

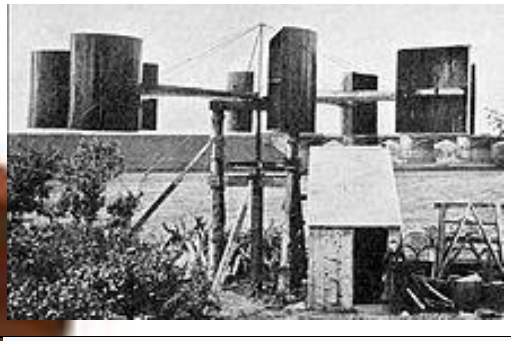
WIND TURBINES

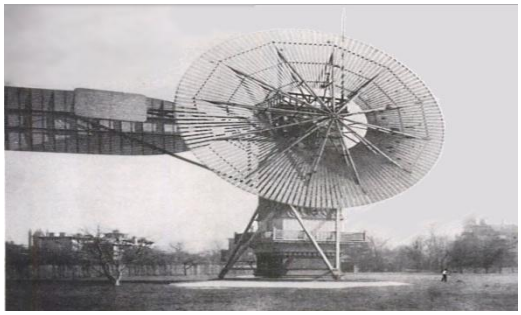
A wind turbine is a device that converts the wind's Kinetic Energy Into Electrical Power

HISTORY OF WIND TURBINES

Wind turbines were used in Persia (present-day Iran) about 500–900 A.D (*anno domini)* The wind wheel of Hero of Alexandria marks one of the first known instances of wind powering a machine in history. However, the first known practical wind turbines were built in Sistan, an Eastern province of Iran, from the 7th century.

Wind turbines first appeared in Europe during the middle Ages. The first historical records of their use in England date to the 11th or 12th centuries and there be reports of German crusaders taking their windmill-making skills to Syria around 1190.





The first automatically operated wind turbine, built in Cleveland in 1887 by Charles F. Brush. It was 60 feet (18 m) tall, weighed 4 tons (3.6 metric tonnes) and powered a 12 kW generator

MODERN WIND TURBINES

FRANCE

BAHRAIN WORLD TRADE CENTER

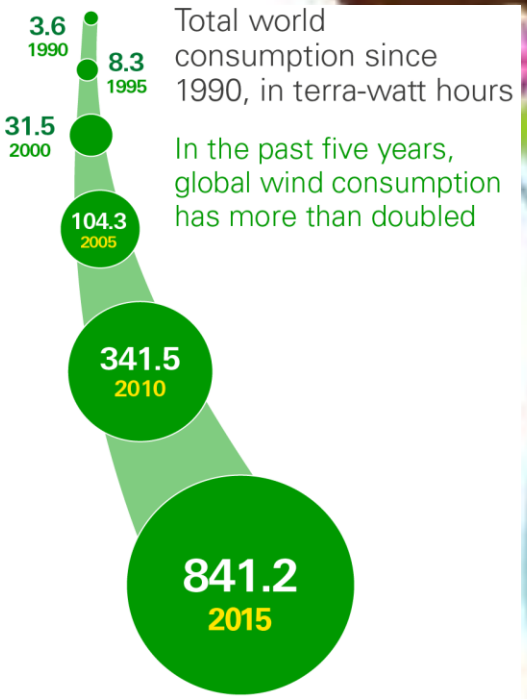
United States

Paris

WORLD WIDE WIND ENERGY USER IN

Top 10: the 2015 country leader board of installed wind turbine capacity (in megawatts)

1	China	145,109
2	US	74,740
3	Germany	45,018
4	India	25,088
5	Spain	23,025
6	UK	14,191
7	Canada	11,190
8	France	10,269
9	Italy	9,126
10	Brazil	8,715



WHY WIND ENERGY IS MUST BE PROMOTED:

- Wind is a premier renewable energy source with zero emissions
- Wind energy can help ease a stressed and antiquated grid system
- Wind energy can also help reduce over-all dependence on fossil fuels and foreign oil
- Allows customer to realize corporate responsibility to environment and save bottom-line dollars

By,

Muthukumar

IV MECH 'A SEC'

LED-BASED READING LAMP

Load shedding is the common problem in developing country where student is more effected. By keeping this problem in mind the group of dreamlover technology post very simple, useful and inexpensive project using ultra-bright white LEDs which provide sufficient light for reading purpose which consume very low power i.e. 3 watts of power. It works like emergency light i.e. when AC mains failure, the battery backup circuit instantly light up the LEDs but when the power resumes, the battery supply is automatically disconnected and this circuit again works on AC mains.

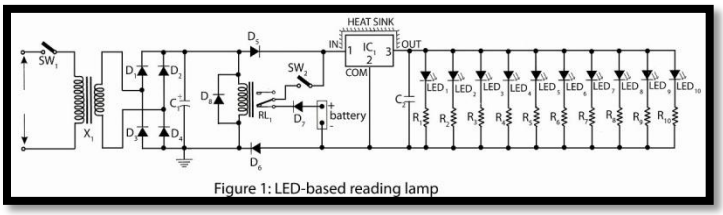


Figure 1: LED-based reading lamp

For power section the circuit of LED-based reading lamp use bridge rectifier connected to secondary coil of 0-7.5V, 500mA step-down transformer X_1. Pulsating DC from output of rectifier is given to input of voltage regulator IC_1 for pure DC output. All LEDs (LED_1 to LED_{10}) is connected in parallel across the output of voltage regulator. Here resistors R_1 to R_{10} are connected in series with the LEDs respectively to limit the currentFor charging battery, a lead from rectifier is directly connected to positive and negative terminals of battery. Here diode D_5 andD_6 is used as reverse-current protection diode that don't allow the battery current to flow towards the supply section and diode D_7 is for reverse polarity protection.

By ,

Bhavani

III ECE

AUTOMATIC TEMPERATURE CONTROLLED FAN

The circuit of automatic temperature controlled fan is build around temperature transducer AD590 followed by operational amplifier LM324. AD590 is a temperature transducer, change temperature into corresponding voltage. The output of transducer is given to pin 2 of IC_2 LM324. The two reference voltage is given to pin 6 and pin 10 through variable resistor VR_1 and VR_2 respectively. The output is taken from pin 7 and pin 8 which further given to base of transistor T_1 and T_2 through resistor R_5 and R_6 respectively. Transistor T_1 and T_2 is used as relay driver transistor. The two input is given from two different stage of regulator.

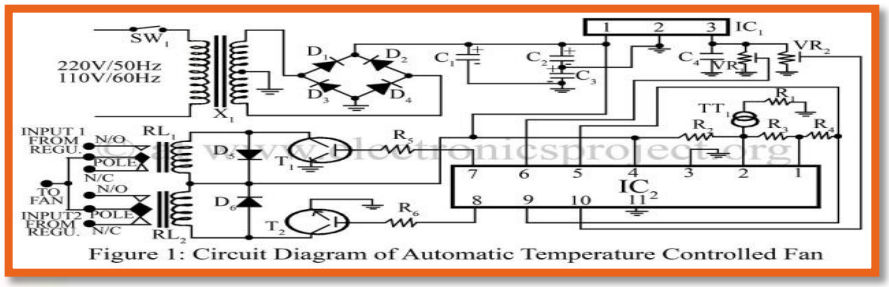


Figure 1: Circuit Diagram of Automatic Temperature Controlled Fan

Power supply Circuit:- The primary AC voltage is step down to 12 – 0 – 12 by using transformer X_1 which further rectified using bridge rectifier (D_1 through D_4). The regulated output is taken from pin 3 of IC_1 where pin 2 is grounded.

By.

FATHIMA THUHRA.M

IV ECE 'A SEC'

Tips to Making Tough Subjects Easier to Learn

Five Practical Neuroscience-Based Learning Tips

1. **Scan the headings, subheadings, and illustrations of the chapter first**

   Now take a moment to visualize the chapter and reflect on the broad purpose of the lesson ahead.

2. **Focus your attention to create conceptual "chunks" of information**

   Let's say your math chapter includes several sample problems with solutions shown. In the process, you're creating chunks of knowledge that you can later retrieve and build on to solve other types of problems.

3. **Pause, recall, and reflect.**

   After you've read a page or solved a problem, close the book and pause to recall the main underlying ideas.

4. **Use simple analogies or comparisons to make concepts memorable.**

   When you frame a concept you've learned as a simple analogy, you're actually giving it a way to connect with other areas of the brain, other ideas.

5. **Space your studies and your practice.**

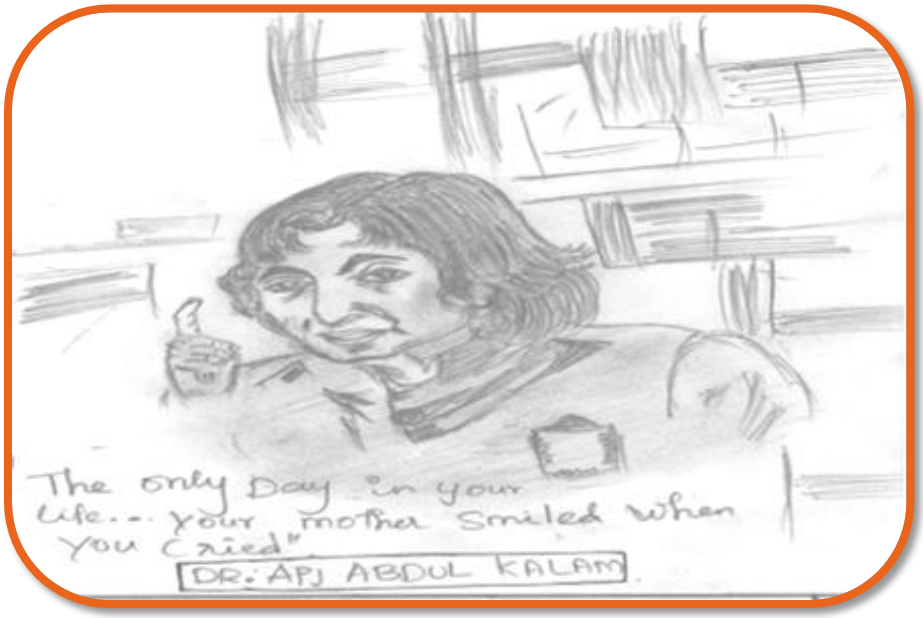
   Your brain is like a muscle that needs alternating periods of exercise and recovery to synthesize new information and ideas. With difficult subjects especially, you need to spread your studies out—studying some every day rather than cramming during a few marathon study sessions.

BY,

PAPPU SIVANANTHAM.N

AP/CSE

BEAUTIFUL ARTS



A.JOHN JENIFFER
IV-EEE

By

M.Kanaga Subramanian

IV-MECH

B.BALA KARTHIKA
IV-CIVIL

V.ANUSHIYA

IV-ECE 'A' SEC

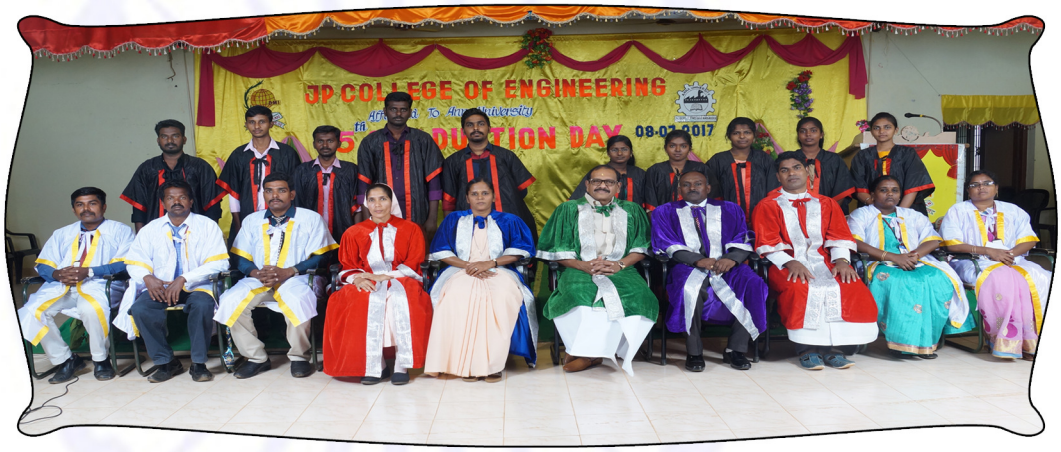
THANK YOU

GRADUATION DAY 2017

CSE

ECE

EEE



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MECH