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# EEE NEWSLETTER

[WWW.JBIET.EDU.IN](http://WWW.JBIET.EDU.IN)

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



**JB**  
Institute of  
Engineering and  
Technology



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## SECRETARY MESSAGE



**JB Institute of Engineering & Technology was established in the year 1997 under the umbrella of JB Group of Educational Institutions, Hyderabad. At present JBIET is a UGC Autonomous Institution and permanently affiliated to JNTUH.**

**Under the aegis of JBES, JBIET has succeeded in establishing a Centre of Excellence in UG and PG Courses in the field of Engineering & Management Education for molding and shaping Globally Competent Engineering Graduates (GCEG) with earned Managerial skills and application of domain knowledge.**

**JBES has started the JB Skills Hub from 2016-17 onwards with the objective of bridging the gap between Institute and Industry expectations by offering various modules on Soft Skills, Personality Development, Employability Skills, Social Etiquette and Entrepreneurial activities.**

**The objective of JB Institute is - To produce Responsible and Reliable Engineers powered with Ethical Values to take the initiative and lead in Nation Building; and create a peaceful environment for WORK, WORKER and WORKPLACE.**

## PRINCIPAL MESSAGE

**JBIET is having its Strength in its Faculty and Infrastructure of Laboratories. We are constantly striving to transform the students' aspirations into Reality. We enable this with dedication and commitment to imparting the right education and creating the most conducive environment for learning, research, innovation, and growth.**

**Over the years, we have ensured many a dream has come true for both student, and parent; with our keen focus on career oriented education.**

**We continue to strive towards our goals with purpose as Education is a never ending mission in these increasingly competitive times.**



## HOD MESSAGE

**Being the builders of nation movers of technology, agents of change, captains of industry, you are the driver of the national progress. You have the onerous role to play, to realize the long-cherished dream of making INDIA very soon a developed country.**

**“ALL THE FLOWERS OF TOMORROWS ARE THE SEEDS OF TODAY “**

**“WAVES ARE INSPIRING NOT BECAUSE OF THE RISE AND FALL, BUT THEY NEVER FAIL TO RISE AGAIN”**

## Overview of The Department

The Department of Electrical and Electronics Engineering at J.B Institute of Engineering and Technology was established in the Academic Year 1998-99 with an intake of 60 Students and the first 14 batches of EEE Students have completed the four years of academic program successfully. From the Academic Year 2007-2008, the intake of B.Tech was increased from 60 to 120. The Department is fully established with excellent laboratories and competent staff. The departmental library has 250 volumes of National & International Journals.

The M.Tech program in Electrical Power System was introduced in the Academic Year 2004-05 with an intake of 18 students.

### **Programmes Offered:**

<b>Programme</b>	<b>Intake</b>
B.Tech – Electrical and Electronics Engineering	120
M.Tech – Electrical Power System	18





# **J.B.INSTITUTE OF ENGINEERING & TECHNOLOGY**

**(UGC AUTONOMOUS)**

(Accredited by NAAC(II<sup>nd</sup> Cycle), Approved by AICTE  
& Permanently Affiliated to JNTUH)

## **Electrical and Electronics Engineering Department**

### **Vision**

To be a Centre for State-of-the-art learning and research in the area of Electrical and Electronics Engineering, where the stakeholders could explore, experiment and exhibit their expertise with an industrial outlook.

### **Mission**

**M1: To EQUIP** the student with advanced learning skills in the field of Electrical and Electronics Engineering as well as the professional skills necessary to face the challenges of the future.

**M2: To ENGINEER** the student to engage in research activities leading to innovative applications of technology for the benefit of society.

**M3: To ENABLE** the student with the qualities of leadership and social responsibility.



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## **Electrical and Electronics Engineering Department**

### **Program Educational Objectives (PEOs)**

**PEO1:** To create an excellent academic learning environment by providing awareness on lifelong learning, apply the technical knowledge in the field of Electrical and Electronics Engineering to pursue higher studies or in their professional career.

**PEO2:** To demonstrate technical knowledge to analyse, design, develop, optimize, and implement complex electrical systems, gain multidisciplinary knowledge through projects and industrial training, providing a sustainable competitive edge in R&D and meeting industrial needs in the field of Electrical and Electronics Engineering.

**PEO3:** To possess professional and ethical attitudes with effective communication skills, entrepreneurial thinking and an ability to relate engineering issues to the broader social context. Also, develop requisite skills to excel in their chosen profession with an awareness of contemporary issues and the need for life - long learning.





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## **Electrical and Electronics Engineering Department**

### **PROGRAM OUTCOMES (PO)**

Engineering Graduates will be able to:

PO1	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	<b>Problem analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **Program Specific Outcomes(PSO)**

PS01	<b>Modeling and Analysis:</b> An ability to mathematically model and analyse the performance of Electrical Machines, Power Electronic systems, Control & Instrumentation systems, Electrical Power systems..
PS02	<b>Design and Development:</b> An ability to design the hardware and software requirements for the Development of Electric Drives & Control, Conventional & Renewable Energy and Automation.



## INFRASTRUCTURE

### LABORATORIES

Electrical Machines Lab



Networks Lab



Electrical Measurement Lab



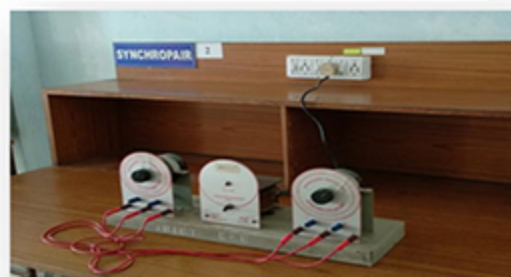
Electrical Power System Lab



Power Electronics Lab



Control Systems Lab



Electrical Simulation Lab

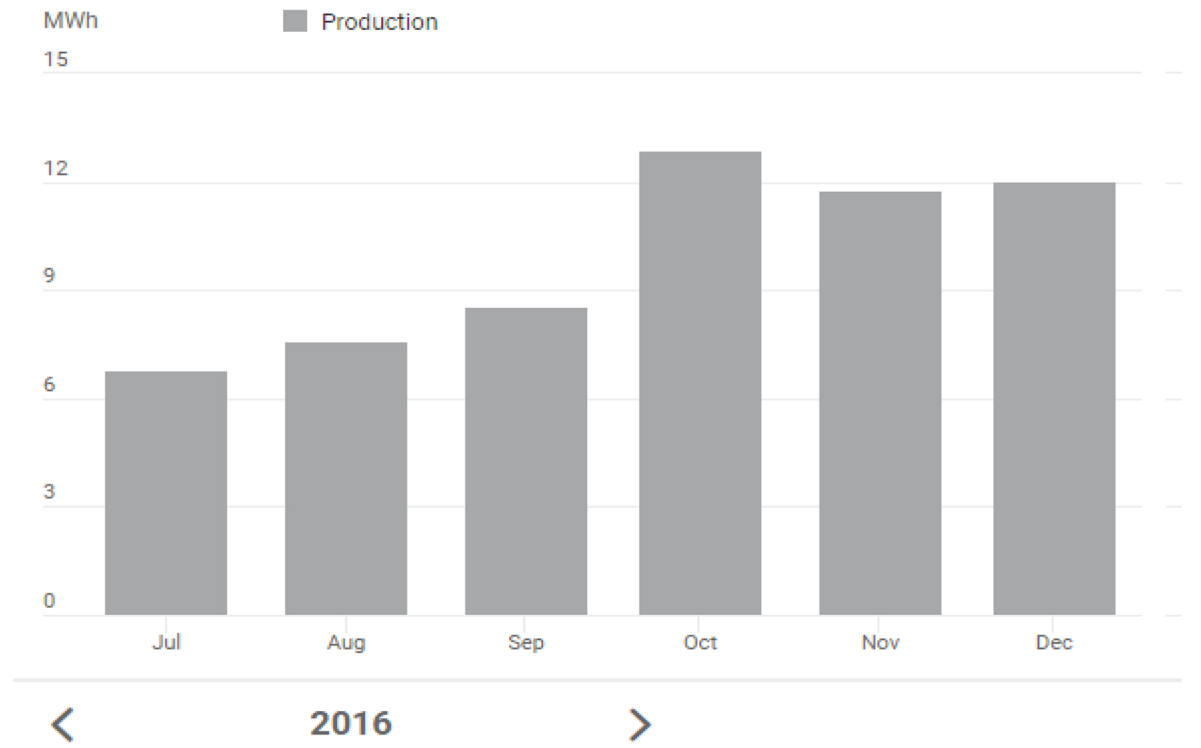


## **SOLAR ENERGY**

### **IBIET 100 kWp SOLAR POWER PLANT**

- Solar power is one of the solutions to overcome the energy deficit in the world. The generation of solar power do not has any adverse effect on the environment.
- Ministry of new and renewable energy [MNRE] Government of India is developing solar/green cities all over India under the green initiatives.
- JBIET has taken initiative in promoting green energy concepts in its campus.
- In its pursuit to become energy efficient, J.B institute of engineering and technology, Bhaskanagar, Moinabad, Hyderabad, Telangana formally commissioned a 100 kWp solar PV plant on 26th February 2016. This project is one of the best among all the JNTUH affiliated colleges in Telangana.
- The plant consists of a total 402 PV modules of each of 250Wp supplied by Sri Savitr Solar Pvt. Ltd. Hyderabad installed at rooftop of main block in JBIET.
- The entire project is executed by Fourth Partner Energy Pvt.Ltd. Hyderabad.
- This plant will generate more than 1.5 lakh units every year. Average monthly power generated is approximately 12600 units. The plant provides substantial cost savings on the power consumption for the college.

### **SOLAR ENERGY PRODUCTION**



## **ACHIEVEMENT OF FACULTY**

### **Papers Published:**

<b>Name Of Faculty</b>	<b>Paper Topic</b>
<b>Mr.TS Sastry</b>	A Novel strategy for PV based UPQC to reduce impact of voltage sag and swell in distribution system ISSN No: 2348-4845 Vol 3, Issue 12 Dec 2016.
<b>Mr R Suresh Babu</b>	Application of SMES Technology in Modern Power System for Improving Power Quality. (INSETR) ISSN No: 2319-8885 Vol No: 05, Issue No 34, Oct 2016.
<b>Mr.M Vinod Kumar</b>	Title Of The Paper Simplified control of solar PV inverter fed to GRID for active and reactive power control during Day and Night ISSN No:2395-4396 Vol, 2 Issue 1, 2016.
<b>Mr. G Raja Sekhar</b>	Published a paper on "The convective heat and mass transfer of nano fluid past a permeable inclined oscillating flat plate" International journal of multidisciplinary research and modern education, Vol-II Issue-II, July 2016. <b>(Impact Factor 3.015)</b>

### **Events Participated:**

<b>S NO</b>	<b>PROGRAM TITLE</b>	<b>NAME OF THE FACULTY</b>	<b>DATE OF EVENT</b>
1	Faculty Development Program	T Devika	5th Dec to 9th Dec 2016, JBIET, Hyd
2	Faculty Development Program	G Pavani	5th Dec to 9th Dec 2016, JBIET, Hyd



## GALLERY

### Dell Exhibition



### Infoquest 16



### GENEREX 2K16





## **EDITORIAL BOARD**

<b>Head of Department</b>	:	<b>Dr.S.Siva Prasad</b>
<b>Faculty Advisor</b>	:	<b>Mr.T.S.SASTRY</b>
<b>Design Head</b>	:	<b>Mr.A.Shiva Rama Krishna</b>
<b>Editor</b>	:	<b>Mr.G.Surya Teja</b> <b>Mr. R.Aishwarya</b> <b>Mr.G.Teja</b>

