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Approved by AICTE & Affiliated to RGPV Bhopal

Newsletter

July-Dec. 2019

Department of Electrical & Electronics Enginering

DEPARTMENTAL ACTIVITIES

SISTec Department of Electrical and Electronics Engineering announces a hands-on winter training program for 3rd-year Electrical Engineering students from 6th Jan 2019 onwards.

The topic of the training - Sensors, Controllers & peripherals based on Arduino, Installation, Commissioning & Testing of 2kw Roof-Top Solar plant.

SISTec holds winter break training for students

Students learning during winter break training at SISTec.

■ **Staff Reporter**

SAGAR Institute of Science and Technology (SISTec) organized winter break trainings at its Gandhinagar and Ratibad Campus.

The trainings organized during semester break laid emphasis on skill enhancement of students with sharing of information on trends prevailing and exposure to emergence of future jobs and innovation.

Various Industry experts, faculties conducted specific trainings to hone the skill sets of the students to make them industry ready.

Computer Science Engineering Department conducted trainings on Machine learning, Mobile Application Development, Python, Core Java, Web Designing and C Programming with help of experts in each domain. Mechanical Engineering Department conducted trainings on the basics of fabrication of car body by sheet metal; 5HP diesel engine etc.

Trainings of Electrical Department were aimed with interactions from experts and faculty on Circuit Design using breadboard and Electrical Transformers. Electronics and Communication Department conducted training sessions with focus areas of

MATLAB and SCILAB, identification of basic electronic components, implementing circuit on breadboard and IoT based projects addressed through AVR micro-controller and different prototype boards. Trainings by the Civil Engineering Department enriched students on surveying, material testing and Auto CAD. 800+ students attended various training sessions to gain knowledge and avail hands-on experience from specialists and experts through various sessions.

Speaking on the occasion, Director, Siddharth Sudhir Agrawal, said that, "Our semester break trainings provide hands on experience to students and provides them immense opportunities to learn and gain knowledge. We will continue with our mission to provide quality education to students".

SISTec holds winter break training

OUR STAFF REPORTER
BHOPAL

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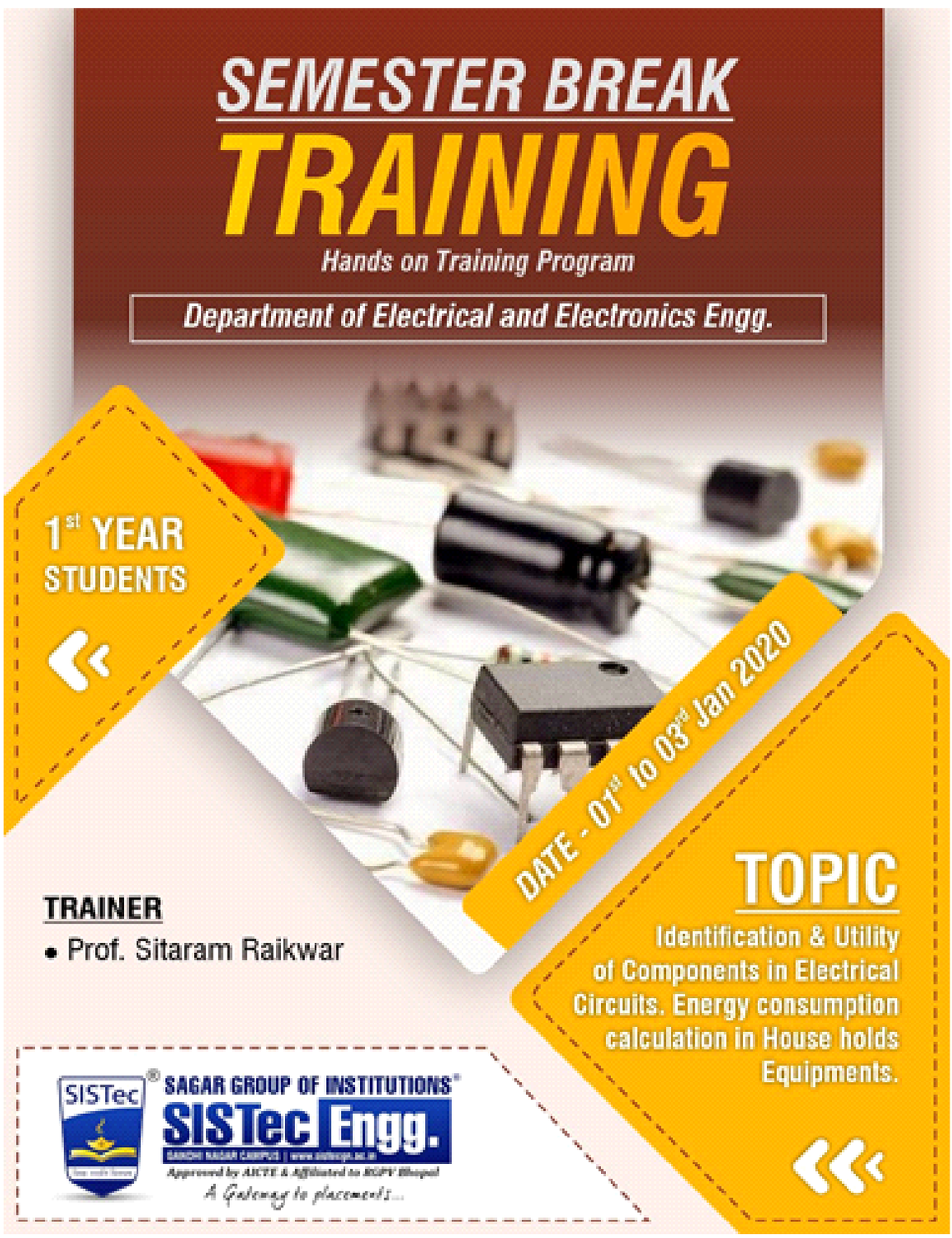
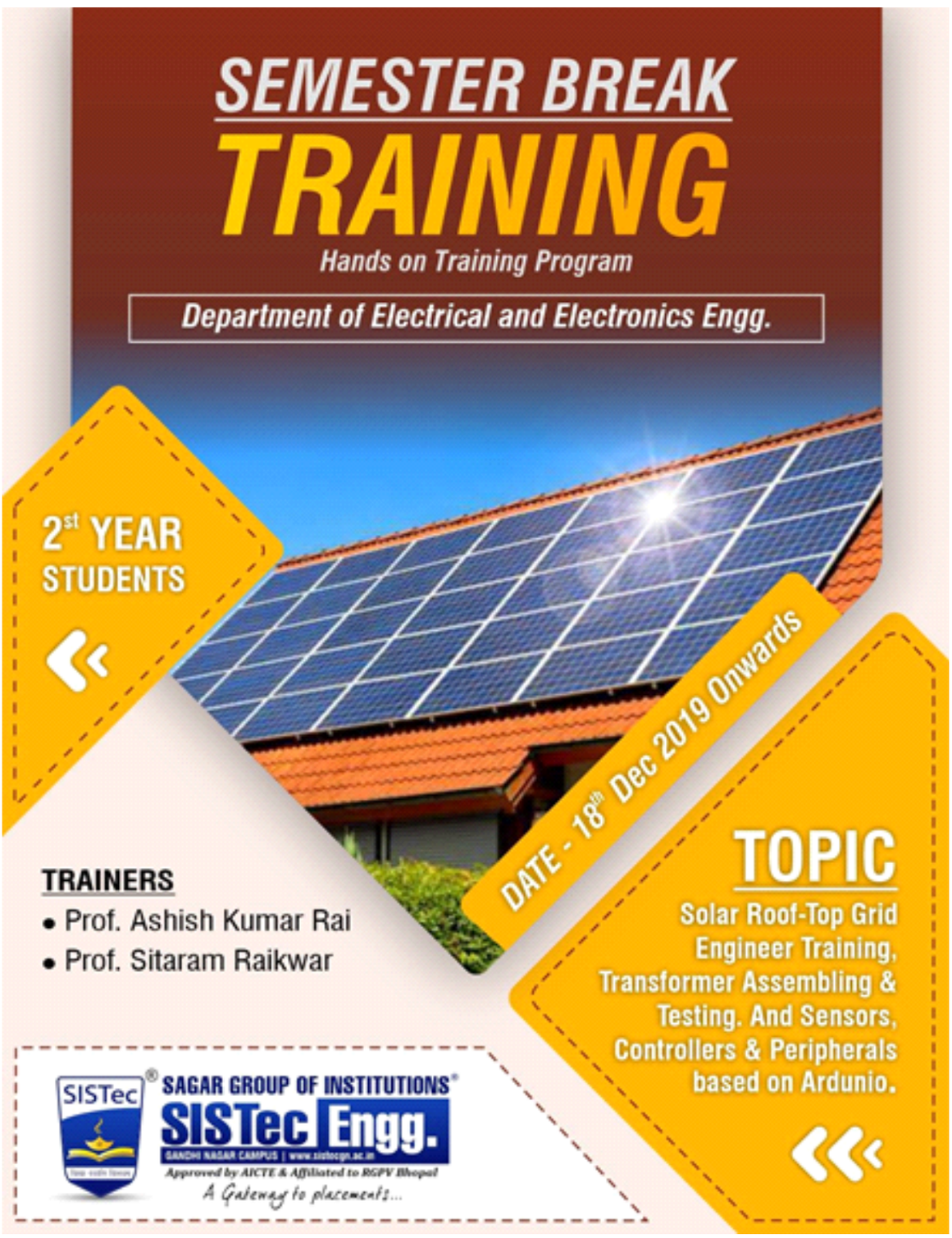
SISTec Department of Electrical and Electronics Engineering announces a hands-on winter training program for 1st-year Electrical Engineering students from 1st Jan - 3rd Jan 2019

The topic of the training - Identification & Utility of components in Electrical Circuits. Energy Consumption calculations in House Holds Equipment.



SISTec Department of Electrical and Electronics Engineering announces a hands-on winter training program for 2nd-year Electrical Engineering students from 18th Dec 2019 onwards.

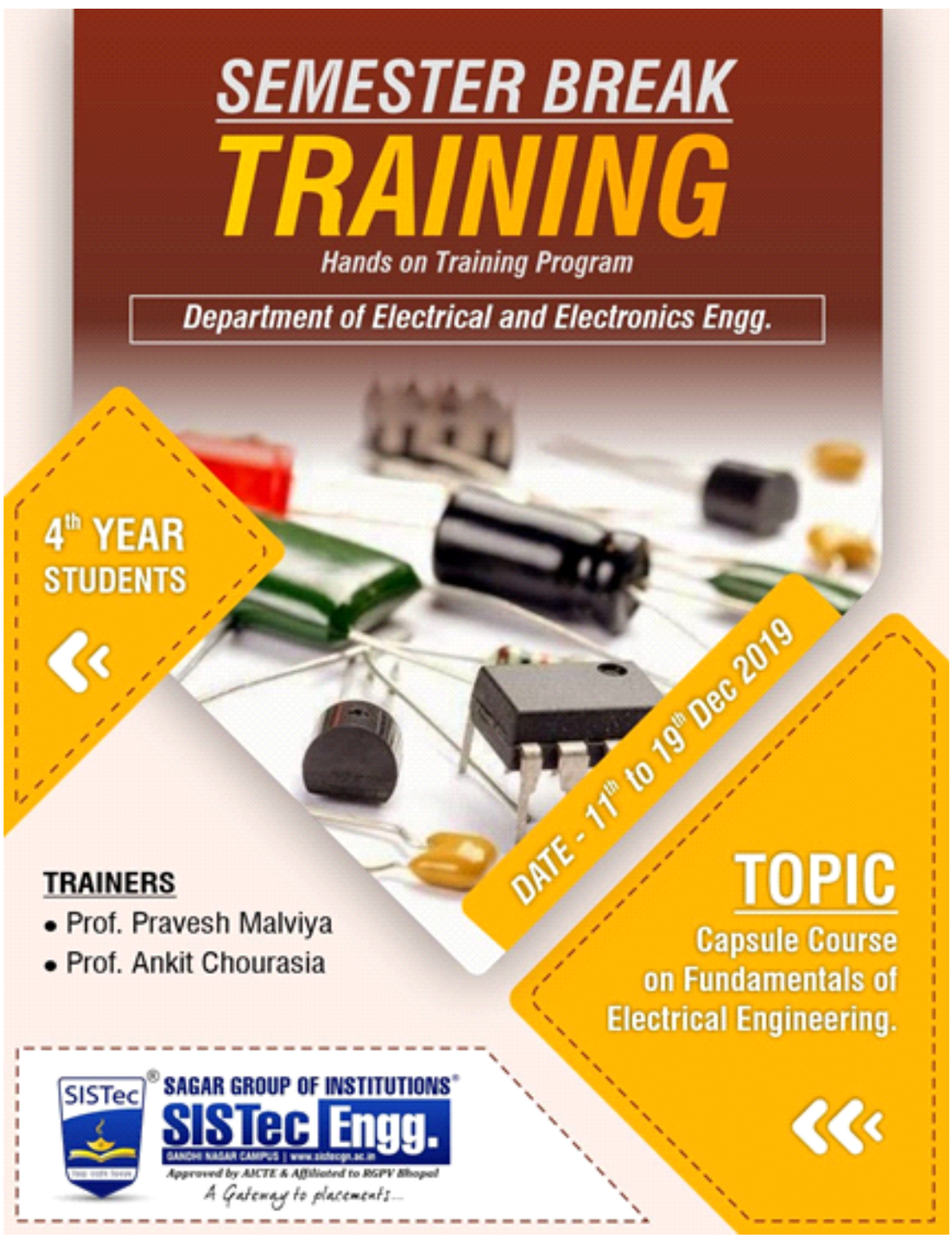
The topic of the training - Solar roof- top grid engineering training, transformer assembling & testing and sensors, controllers & peripherals based on ardunio.



"The more that you read, the more things you will know. The more that you learn, the more places you'll go."

SISTec Department of Electrical and Electronics Engineering announces a hands-on winter training program for fourth-year Electrical Engineering students from 11th to 19th Dec 2019.

The topic of the training - Capsule course on fundamental of Electrical Engineering.



Faculty Development Program on "Super-critical & Ultra-critical thermal power technologies in Indian scenario"

SISTec Department of Electrical & Electronics Engineering - Three days FDP

The Department of Electrical & Electronics Engineering, SISTec-GN, conducted a three-day Faculty Development Programme (FDP) from 21st Aug. to 23rd Aug. on "Super-critical & Ultra-critical thermal power technologies in Indian scenario", under TEQIP-III, RGPV.

The course was intended to increase the awareness about the recent trends in thermal power generation i.e. Super-critical & Ultra-critical power generation technology and how mature is the technology in India.

This course introduced the existing and upcoming technology, boiler working details & unit auxiliaries' power requirements.

Following objectives were accomplished during the program-

- Provided an overview of the current power generation trends in India.
- Study of existing & up-coming Thermal Power generation technology in India with Indian & imported coal.
- Overview of sub-critical, super-critical & ultra-critical technology.
- Detailing on construction & operation of super-critical boiler, turbine & generator.
- Performance analysis of super-critical plant & its auxiliaries.
- Case study on plant availability, load response & fuel flexibility.
- Overview of Power plant Instrumentation.

This programme will definitely help research scholars, faculties, power engineers & students to learn about complete details of Super-critical & ultra-critical power technology.

Following were the experts from the Industry who took the sessions for this 3 day FDP-

- Dr. K.C. Yadav (Director, JIPT, Jindal Power ltd., Tamnar C.G.)
- Mr. G. Ramachandran (Consultant, L&T ltd. Baroda, GJ)
- Mr. D.K. Dey (Retd. G.M., BHEL, Consultant Adani Power ltd.)
- Dr. V.K. Sethi (EX-Director, RGPV, V.C. RKDF University, BPL)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Department of
Electrical & Electronic
Engineering
1 Days Training Program on
Super-Critical
&
Ultra-Critical
Thermal Power Plant Technology
in Indian Scenario
21st - 23rd Aug 2019
10 AM onwards
SUPERHEATER OUTLET PRESSURE (bar)
RECIRCULATION
(Drum Type Control)
SUBCRITICAL
LOAD (% MCR Steam Flow
ISTec
Sagar
Group
Building Nation
SAGAR GROUP OF
SISTec
1. Steam generator operating modes
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Industrial Visit (12 July 2019)

~Ujaas Energy Ltd. Solar Power Plant, Ichhawar

The students of Electrical Engineering department visited Solar power plant situated in Ichhawar developed by Ujaas Energy ltd.

Students gained knowledge about erection & commissioning of solar panels and their connectivity to the electrical grid.

Students also underwent training based on solar systems in which they learnt about load calculations needed prior the installation of solar panels and eventually they learned to design roof-top solar panel system.

Moreover during the visit they were also exposed to the core electrical technology to transfer generated electrical power to the sub-stations and to the grid via transformers.

Solar Power plants will soon become one of the biggest contributors to India's huge appetite for power. Solar Power will help in meeting the ever increasing power demands of our shining nation.

Therefore this industrial visit encouraged the students to build their career in the fields of solar power systems.


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Training update (02 July 2019)

Electrical department conducted training for 2nd year and 3rd year students. The focus of the training was on basic electrical and electronics components.

The students learned about resistors, inductors, capacitors, potentiometers, diodes, transistors, IC's and how, where and why to use all these components.

The students also got hands-on practical training session in which they did experiments based on resistors, capacitors, LED's and diodes.

Day 2 ~ Training Update

The training on the second day took place for 2nd and 3rd year Electrical Engineering students.

The second year students learned the concept and functions of Neutral, Live and Earthing, their importance and applications in any electrical wiring. Students also learned about safety precautions while working with electricity.

Along with students also leaned the basics of electrical house wiring, 2-way switches, intermediate switches.

And in the afternoon session students did electrical connections on their own and prepared extension boards.

And by using intermediate and 2-way switches they made circuits to control any electrical load from many different locations.

Third year students got their training session on Designing of 2 KW solar power plant, and all the required equipment. They also learned about the process to install a solar power plant and also how to design a solar plant system for any given electrical load.

Day 3 ~ Training Update

In the today's training session the students learned about

Electromagnetic Relays and Sensors and to be specific "Infra--Red Sensors".

Relays and Sensors plays a very important role in any electrical and electronics circuit, they help in controlling the circuits without wires.

So in today's session third year students learnt about IR sensors, their working, operation and construction.

And in the forenoon session students made circuits by using IR sensors to control the electrical appliances like bulb, motor etc.

And for the third year students there was a training session on Innovative Solar products, In which students learnt about many practical possibilities of solar power system.

Students were also provided an hands on practical session based on model preparation, in which they made models based on solar power like Solar mobile charger, Solar Wind Hybrid, Solar PIR, Solar LDR Light, Earth-quake detector.

Day 4 & Day 5 ~Training update

Today's session for Third year electrical engineering students was based on MATLAB. It is a high level language used for numerical and technical computing. It is useful in solving mathematical functions such as linear algebra and statistics. And nowadays also used as an important tool for solving optimization problems.

In MATLAB session students learned about basics of MATLAB, different commands, creating vectors, solving matrix, use of mathematical operators and how to plot different functions.

And for third year students there was a training session on Advanced MATLAB, in which students learned about practical implementations of MATLAB, which include simulation of three phase induction motor at changing loads, DC machine on various changing loads and simulation of three phase transformer.

This advanced MATLAB session helped the students to develop an understanding of the electrical machines, and moreover it can help them in making electrical models in real time.


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