

 (Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTUK, Kakinada)
NAAC Accredited Institute and Inclusion under Section 2(f) & 12(B) of UGC Act An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution NH-16, Anakapalle – 531002, Visakhapatnam, A.P.
Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@.diet.edu.in

> Date:1-12-2021 Anakapalle,

То

The principal

Dadi Institute of Engineering and Technology,

Anakapalle

Visakhapatnam

Sub: Permission request for visit to the Power Transformers Plant on 04/12/2021 at power plant engineering works, Autonagar, Gajuwaka.

Respected sir.

The Department of Electrical and Electronics Engineering requests you to send the students of III B.Tech. Students to Power Transformers plant as we have an MoU with them, this will provide a good opportunity for the students as they can upgrade their Technical Skills.

Thank you.

Yours sincerely

HOD. EEF

Head of the Department Electrical & Electronics Engg. Electrical & Electronics Engg. & Tech. Anakapalie - 531 002

Dadi Institute of Engineering & Technols TV INK Z S .C - 531 OF ..



(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTUK, Kakinada)
NAAC Accredited Institute and Inclusion under Section 2(f) & 12(B) of UGC Act
An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution
NH-16, Anakapalle – 531002, Visakhapatnam, A.P.
Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

Date: 02/12/2021 Anakapalle

CIRCULAR

his is to inform you that the students of III and IV B.Tech. of EEE department will have a visit to the Power Transformers Plant on 04/12/2021 to upgrade your technical skills and have hands- on-experience. All the students must attend the visit.

HOD, EEE

Head of the Department Electrical & Electronics Engg. Dadi Institute of Engg. & Tech Anakopalie - 531 002



(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

A NAAC Accredited Institute An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

Approved by A.I.C.T.E ,New Delhi & Affiliated to JNTUK NH-16, Anakapalle-531002

Department of Electrical and Electronics Engineering

INDUSTRIAL VISIT

TO

POWER TRANSFORMERS



Date:04/12/2021

Place:Visakhapatnam

EEE HOD DIET PRINCIPAL DIET





(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

A NAAC Accredited Institute An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

S Roll No Student Name Year/Section Ν 1 Boddeda Pavan Sai Prakash IV EEE A 18U41A0201 2 18U41A0203 Deephi Mahanthi Yagna Shiva IV EEE A 3 18U41A0204 Sundarapu Indu IV EEE A 4 18U41A0205 Dunna Sravan Siva Kumar IV EEE A 5 18U41A0209 Kothala Poorna Rajeswari IV EEE A 18U41A0210 Kucharla Prem Kumar IV EEE A 6 7 IV EEE A 18U41A0211 Maddala Lokesh 8 18U41A0212 Pachhigolla Prasanna Kumar IV EEE A 9 18U41A0213 Pillala Kalyan Chakravarthy IV EEE A 10 IV EEE A 18U41A0214 Rongali Ramya Villuri Kiran Kumari 11 18U41A0217 IV EEE A 12 18U41A0220 Lalam Vandana IV EEE A 13 18U41A0221 Karri Mahesh IV EEE A 19U45A0208 Boliboyina Pydiraju IV EEE A 14 15 19U45A0214 Dadi Praveen IV EEE A 16 19U45A0216 Gilakamsetty Manohar Sri IV EEE A 19U45A0220 Joga Shyamala IV EEE A 17 19U45A0222 Kalepu Likitha IV EEE A 18 Maddala Sai Santhosh 19 19U45A0233 IV EEE B 20 19U45A0250 Pedapati Gnanendra Kuma IV EEE B 21 19U45A0252 Polamarasetty Poorna Sai IV EEE B 22 19U45A0253 Raavi Satish Sekhar IV EEE B 23 19U45A0257 Senapathi Anil IV EEE B 24 19U45A0263 Sunkara Laxman Rao IV EEE B

LIST OF STUDENTS VISITED



(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

A NAAC Accredited Institute

An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

25	20U45A0210	Sirisha	III EEE
26	20U45A0211	D Ravi Teja	III EEE
27	20U45A0229	K Chandrika	III EEE
28	20U45A0244	S Sai	III EEE
29	20U45A0246	S Sai Ganesh	III EEE

REPORT:

Industry Visited: Power Transformers, Visakhapatnam

Chief Patron	: Sri DadiRatnakar, Chairman	
Patron	: Dr. ChallaNarasimham, Principal	
Conveners	: Dr. K. Sujatha, Professor, R&D Convenor	
	Mr.A. Krishna Nag, Associate Professor, HOD-EEE.	
Coordinator	: Mrs ASLK Gopalamma, Assistant Professor, EEE Dept.	
Date	: 04 December, 2021	

Department of EEE, Dadi Institute of Engineering & Technology has successfully organized a field visit to "Power Transformers VIZAG" for students. This was conducted to know the latest technologies used by the Industries. Power Transformers VIZAG located in Visakhapatnam. Its main function is the research and development of the Power Transformers. This has motivated all enthusiastic students to utilize this opportunity and know about the technologies used in the Power sector.

Objectives:



(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

A NAAC Accredited Institute An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

- To create an environment for exploring innovative technologies used in the ships and submarines.
- To nurture and help students in promoting their Ideas to next level.

Outcomes:

- Students have gained confidence in generating and promoting their Ideas used in the power transformers.
- Faculty were able to select students who are innovative and guided them to build their Ideas.

A power transformer is a static machine used for transforming power from one circuit to another without changing the frequency. As there are no rotating or moving parts, a transformer is classified as a static device. Transformer operates on an AC supply. Transformers operate based on the principle of mutual induction.

Use of Power Transformers

Generation of electrical power in low voltage level is very much cost effective. Theoretically, this low voltage level power can be transmitted to the receiving end. This low voltage power if transmitted results in greater line current which indeed causes more line losses.

But if the voltage level of a power is increased, the current of the power is reduced which causes reduction in ohmic or I^2R losses in the system, reduction in cross-sectional area of the conductor i.e. reduction in capital cost of the system and it also improves the voltage regulation of the system. Because of these, low level power must be stepped up for efficient electrical power transmission.

This is done by step up transformer at the sending side of the power system network. As this high voltage power may not be distributed to the consumers directly, this must be stepped down to the desired level at the receiving end with the help of step down transformer. Electrical power transformer thus plays a vital role in power transmission. Two winding transformers are

ADDI INSTITUTE OF ENGINEERING & TECHNOLOGY (Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada) A NAAC Accredited Institute An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

generally used where ratio of high voltage and low voltage is greater. It is cost effective to use auto transformer where the ratio between high voltage and low voltage is less.

Again a single unit three phase transformer is more cost effective than a bank of three single phase transformers unit in a three phase system. But a single three phase transformer unit is a bit difficult to transport and have to be removed from service entirely if one of the phase winding breaks down.



(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

A NAAC Accredited Institute An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in



Fig.1 Industry visit to Power Plant Visit

FEEDBACK FORM

Name of the Activity		Date
Name of the student:	Year:	Branch:

1) Are the students satisfied with the Visit?

Yes/ No



(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

A NAAC Accredited Institute An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution NH-5, Anakapalle – 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

Comments:	
2.) Would you like to offer same activities in the future?	Yes/ No
Comments:	
3.) Did you feel that all visits were conducted in a safe manner?	Yes / No
Comments:	
4.) Are you satisfied with the Visit motivation towards industrial	innovations?
Yes/ No	
Comments:	
5.) Any Other suggestions?	