


Government of Karnataka
Department of Technical Education
Board of Technical Examinations, Bangalore

	Course Title: INPLANT TRAINING		
	Scheme (L:T:P) : 0:0:4	Total Contact Hours: 52	Course Code: 15EE67P
	Type of Course: Periodical Exposure and working in industrial environment	Credit :02	Core/ Elective: Core(practice)
Only CIE:25 Marks			

Prerequisites: Enthusiasm to Explore New things by participating in individual tasks available in outside industrial learning environment and acquires skills from participating in such activities.

Course Objectives:

Inplant training is a learning opportunity for students. Students should therefore receive feedback on their performance so that they can grow professionally. Overall professional development of diploma electrical engineers is the need of the day for enabling them to sustain in competitive global environment..

COURSE OUTCOME

On successful completion of the course, the students will be able to:

Course Outcome		CL	Linked PO	Allotted hours
CO1	Exposure to the industrial environment and Recognize the requirement of the industry and cope with the industrial scenario	Application/Analysis/Innovative	2 to 10	4hrs/week
CO2	Identify career paths taking into account Their individual strengths and aptitude and Prepare a report about the work experience in industry	Application/Analysis/Innovative	2 to 10	
CO3	Communicate effectively through technical presentation.	Application/Analysis/Innovative	2 to 10	
CO4	Enhancing the employability skills and start-up skills to increase his ability to engage in, life-long learning,	Application/Analysis/Innovative	2 to 10	
CO5	Develop individual confidence to handle various engineering assignments and expose themselves to acquire life skills to meet societal challenges	Application/Analysis/Innovative	2 to 10	
		TOTAL		52 Hours

COURSE-PO ATTAINMENT MATRIX										
Course	Programme Outcomes									
	1	2	3	4	5	6	7	8	9	10
INPLANT TRAINING	0	3	3	3	3	3	3	3	3	3
<i>Level 3- Highly Addressed, Level 2-Moderately Addressed, Level 1-Low Addressed.</i> Method is to relate the level of PO with the number of hours devoted to the COs which address the given PO. If >40% sessions addressing a particular PO, it is considered that PO is addressed at Level 3 If 25 to 40% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 2 If 5 to 25% of classroom sessions addressing a particular PO, it is considered that PO is addressed at Level 1 If < 5% of classroom sessions addressing a particular PO, it is considered that PO is considered not-addressed.										

1. Inplant training:

52 HRS

A. Introduction

1. Inplant training means a course of training in any industry or establishment undergone by the student of final year diploma in Electrical Engineering in pursuance of memorandum of understanding between industry and department of the concerned institute or department can make necessary arrangements in the local vicinity industries to expose their students for industry learning environment.
2. Industry means any industry or business in which any trade, occupation or subject field in engineering or technology may be specified as a designated trade. Establishment includes any place where any industry is carried on.
3. The period of inplant training will be the period of one semester term for the subject. The student can be sent to the industry for one day in a week or for fixed term as the case may be. The period of training and other modalities will be decided by the respective department head in consultation with local industry authorities.

B. The Industries where in-plant training can undergone

1. The Guide allotted by the department head has liberty to select nearby organization/industry of local vicinity with prior approval of principal of the institute. Structured training to be arranged by guide and report of the training, undergone by the individual student shall be submitted.
2. The electrical engineering diploma students can take inplant training in any one of the following industries and study equipments /motors related to electrical engineering.
 - Any Electrical or Electronics area related firm, industry, enterprises, etc,
 - KPTCL
 - ESCOM
 - KPC
 - Refineries
 - Formen Training Institute, Bengaluru-22
 - Apex Hi-Tech Institute, FTI Compus,Bengaluru-22
 - Hydro Power plant
 - Thermal Power Plant
 - Nuclear Power Plant

- Tidal Power Plant
- Wind mill
- Solar power Plant
- Substations
- Embedded Systems firm
- PLC firm
- MEMS
- Nano Technology Sector
- Public sector enterprises
- State government undertaking
- Public limited companies
- Private limited companies
- Individual ownership organisations
- Karnataka Milk Federations Milk Processing and chilling units
- Agro based food processing units
- Agro based industries
- BHEL
- Any other Related Electrical Company
- BSNL
- BEML
- BEL
- HAL
- CPRI
- NAL
- Any DRDO organisation
- Cable process industries.
- Power looms
- Stone crushers / Cement mix plant
- Power looms
- Paper mills
- Cement Factories
- Sugar factories
- Textile industry / Textile machinery manufacturing / garment manufacturing / embroidery / textile printing and dyeing units.
 - MUSS(Master Unit Sub-Station)
- The power generation units

- **LOCAL VISITS**

- Local motor rewinding workshop
- Local Sub-Stations.
- Local granite process industries.
- Local sugar factories.
- Local lathe machine shop.
- Stone crushers / Cement mix plant
- Local welding shop
- Local Garment industries
- Local cement industries
- Local diesel power plants

- **Ply wood industries**
- **Milk processing industries**
- **Transformer manufacturing industry**
- **Fabrication industries**
- **Coffee / Tea curing industries.**

Obligation on students

1. To learn his/her subject field in Engineering or Technology conscientiously and diligently at his place of training.
2. To carry out all orders of his Employer and the Superior in the establishment.
3. To abide by the Rules and Regulations of the Industry/Establishment in all matters of conduct and discipline.
4. The student shall maintain a report of his work during the period of his in-plant training (log sheet)
5. They are required to complete their in-plant training in a given period.
6. During this period, they shall be familiar with the understanding of the process and activities.
7. During this period, they shall be familiar with the understanding of the various motors used in the process.
8. The students can be asked to solve the problem related to electrical equipments/motors, that will make them think and make them try out some sort solutions.

D. Monitoring of Inplant Training

1. The department Head will make the batches in group of students, The faculty will be in charge of supervising and monitoring the activity of the group.
2. The faculty and Industry supervisor will work out a suitable arrangement to review the progress of the work from time to time. The department Head should monitor the progress of in-plant training in association with industry authority.
3. Every student undergoing in-plant training in the respective branch of Engineering in any Establishment shall be treated as a trainee. The provision of any law with respect to labour will not apply to such a trainee
4. It shall not be obligatory on the part of the Employer / Industry to offer any stipend and other welfare amenities available, if any, to the students undergoing in-plant training. However, if the industry desirous to do so, it will be a privilege for the students.

E. Internal examination:

Scheme of valuation

1. CIE

SL No	Particulars	Marks
1	Visiting Industry	10
2	Submission of report	10
3	Viva-voce	05
TOTAL		25

F. Course Assessment and Evaluation Scheme for Project work

	What		To whom	When/Where (Frequency in the course)	Max Marks	Evidence collected	Course outcomes
Direct Assessment met	CIE	IA	Students	CIE	25	Report and Log of sheets	CO1, CO2, CO3, CO4, CO5
	SEE	End Exam		SEE			
Indirect Assessment	Student Feedback on course		Students	Middle of the course	Feedback forms	CO1, CO2	Delivery of course
	End of Course Survey			End of the course	Questionnaires	CO1 to CO5	Effectiveness of Delivery of instructions & Assessment Methods

*CIE – Continuous Internal Evaluation

*SEE – Semester End Examination

Note to IA verifier: The following documents to be verified by CIE verifier at the end of semester

1. Student activities / Inplant Training to be assessed through Rubrics.
2. Student feedback on course regarding Effectiveness of Delivery of instructions & Assessment Methods.

ANNEXURE

REPORT ON INPLANT TRAINING

FORMAT FOR PREPARATION OF TRAINING REPORT

(Four Weeks/Six Weeks/ Six Months)

ARRANGEMENT OF CONTENTS:

The sequence in which the training report material should be arranged and bound as follows:

1. Cover Page
2. Inner Title Page (Same as cover page)
3. Certificate by Company/Industry/Institute (Optional)
4. Acknowledgement
5. About Company/industry/institute
6. Table of Contents
7. List of Tables
8. List of Figures
9. Abbreviations and Nomenclature(If any)
10. Chapters
11. References
12. Data Sheet(If any)
13. Appendices (If any)

The tables and figures shall be introduced in the appropriate places.

TYPING INSTRUCTIONS:

1. The Implant training report must be submitted in Two Copies (one for department and 2nd for library) duly signed by the HOD. Students should also submit the soft copy on CD in pdf format in the library.
2. The length of the training report may be about 40 to 50 page.
3. The training report shall be computer typed (English- British, Font -Times Roman, Size-12 point) and printed on A4 size paper.
4. The training report shall be hard bound with cover page in Maroon color. The name of the students, degree, duration of training period, institute name shall be printed in Bold Black letters on the cover page
5. The training report shall be typed with 1.5 line spacing with a margin 3.5 cm on the left, 2.5 cm on the top, and 1.25 cm on the right and at bottom. Every page in the report must be numbered. The page numbering, starting from acknowledgements and till the beginning of the introductory chapter, should be printed in small Roman numbers, i.e, i, ii, iii, iv..... The page number of the first page of each chapter should not be printed (but must be accounted for). All page numbers from the second page of each chapter should be printed using Arabic numerals, i.e. 2,3,4,5... All printed page numbers should be located at the bottom centre of the page.
6. In the training report, the title page [Refer sample sheet (inner title pager)] should be given first and printed in black letters.
7. The table of contents should list all headings and sub-headings. The title page and certificates will not find a place among the items listed in the Table of Contents. One and a half line spacing should be adopted for typing the matter under this head.
8. The list of tables should use exactly the same captions as they appear above the tables in the text. One and a half spacing should be adopted for typing the matter under this head.
9. The list of figures should use exactly the same captions as they appear below the figures in the text. One and a half spacing should be adopted for typing the matter under this head.
10. The list of symbols, abbreviation & nomenclature should be typed with one and a half line spacing. Standard symbols, abbreviation etc should be used.
11. Training report should consist of following chapters.
 - a. Chapter 1- Introduction
 - b. Chapter 2- Details of department/Areas where the student undergone

training

(It will be divided into several chapters and each chapter should be numbered separately. A chapter may be further divided into several divisions and sub-divisions depending on the content

- c. Chapter 3- PO/Skills attained by training.**
- d. Chapter 4- Conclusion by the student**