Diploma in Computer Engineering

VI Semester

INDUSTRIAL TRAINING

Course Title **: INDUSTRIAL TRAINING**	Course Code **: 18CM601P**
SEMESTER : **VI**	Course Group **: Practical**
Teaching Scheme (L : T : P) per week : 0 **:0 : 48**	Credits : **25 Credits**
Type of Course : **Practical**	Total Contact Periods : **6 Months**
CIE : 600 Marks	SEE : 400 Marks

Prerequisites: Students should have the knowledge of industry culture and practices in addition to basic engineering skills.

Course Objective:

To enable the students to

1. Acquaint with Industry environment and culture.
2. Develop professional skills
3. Enhance the usage skills of modern tools
4. Develop Communication and leadership skills.
5. Encourage entrepreneurship

Course Outcomes:

CO	Outcome
CO1	Appreciate the organizational setup and hierarchy
CO2	Practice the use of Resource optimization techniques
CO3	Develop core engineering skills
CO4	Develop an understanding of solutions for Environmental issues in the industry
CO5	Get acquainted to industry culture and professionalism

Evaluation:

1. The student should submit a report describing the profile of the company, Nature of the job assigned to him /her and other details in a standard format duly attested and approved by the head of the industry after two weeks and before Four weeks from the date of joining through e mail. Hard copy of the report may be submitted in person or by post.
2. A candidate shall be assessed twice in the spell of industrial training i.e. at the end of SECOND month and finally before he/she completes the industrial training

3. The assessment shall be carried out by a committee comprising of a representative of the Industry where the candidate is undergoing training and a faculty member from the respective program from the Polytechnic.

   For Institution level evaluation of industrial training, a committee consisting following faculty members (1) Head of Dept. concerned.(2) Faculty member who assessed the student in the industry (3) any other staff member of department concerned may be formed.

Note: For obtaining Provisional certificate the student has to submit training completion certificate from the industry after six months of training.

- **Evaluation and assessment of Industrial Training**, shall be done and marks be awarded in the following manner, provided the candidates concerned have put up minimum 90% attendance of Industrial Training.

Industrial assessment at Industry	: 600 marks (in two spells of 300 marks each)
Institutional Evaluation	: 300 marks
Semester End Examination (Seminar/viva-voce at Institution)	: 100 marks
TOTAL	1000 marks

Assessment parameters at Industry

Sl No	Learning Parameter	Assessment I (First Quarter)	Assessment II (Second Quarter)
1	Attendance and punctuality	20	20
2	Familiarity of tools and material	30	30
3	Engineering skills	50	50
4	Application of knowledge & Problem solving skills	50	50
5	Comprehension and observation	10	10
6	Professionalism/Professional ethics	20	20
7	Safety and environmental consciousness	10	10
8	Communication skills	20	20
9	Supervisory skills	50	50
10	General conduct during the period	40	40
Total marks for Industry Evaluation		300	300
		600 marks	

Assessment parameters at Institution (End Examination)

Institution Level Evaluation Scheme			
Sl No	**Criteria**	**Marks**	**Time**
1	1st Report Submission	50	within 4 Weeks
2	Seminar-I	50	9th to 10th week
3	2nd Report Submission	50	Within 12 weeks
4	Log book	100	--
5	Seminar-II	50	Before Viva-Voce
	Institute Evaluation Total	**300**	
Semester End Examination			
1	Viva-Voce	50	After 24 weeks
2	Presentation/Demonstration of skills	50	
	Total	100	

The assessment at the institute level will be done by a minimum of three members i.e. Internal Faculty, Industrial Experts/External Examiner and H.O.D. and the shall be averaged

Learning Outcomes

1.0 Observe Safety Precautions and rules of the industry

1.1. State the importance of safety in industries
1.2. Develop an understanding of the safety about personnel protection, equipment protection
1.3. Familiarize with the usage of various safety devices

2.0 Appreciate organizational set up from top executive to workmen level

2.1. Acquaint with the function of each department/section
2.2. Comprehend the inter relationship among various department/sections.

3.0. Observe the end product and various Components/ materials used in the production and

Identify their source.

3.1. Identify the various stages involved in the assembly and production of end product.

3.2. List the final products, their composition and its commercial importance, uses and Applications.

4.0. Develop an Understanding the various stages involved in processing, sequential arrangement of different equipment.

4.1. Represent the whole process and each sub processes with a flow diagram, detail Flow diagram

4.2. Observe and appreciate the resource optimization of space (the arrangement of various equipment and machinery in systematic manner in a less possible area of site), Electricity, Men machinery, money and Time.

5.0. Explain various analytical methods used in the quality control department

5.1. Practice the Testing methods for quality assurance and bench mark standards

5.2. Practice use of various tools, instruments used for quality checking.

6.0. Observe trouble shooting /servicing /maintenance techniques used during the production

6.1.Observe preventive precautions and maintenance of each equipment in the unit

6.2.Follow Staring and shutting down procedures for the equipment in the unit.

7.0 Identify the various pollutants emitted from the plant/Industry.

7.1. State effects of pollutants.

7.2. Explain handling methods of E waste and pollutants disposal

CO / PO - MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	Mapped POs
CO1	3	3		1	2	1	1	3	2	3	1,2,4,5,6,7,8,9,10
CO2	3	3		1	2	1	1	3	2	3	1,2,4,5,6,7,8,9,10
CO3	3	3	2	1	2	1	1	3	2	3	1,2,3,4,5,6,7,8,9,10
CO4	3	3	2	1	2	1	1	3	2	3	1,2,3,4,5,6,7,8,9,10
CO5	3	3	2	1	2	1	1	3	2	3	1,2,3,4,5,6,7,8,9,10

ANNEXURE

PROGRAM OUTCOMES (POs)

1. **Basic knowledge:** An ability to apply knowledge of basic mathematics, science and engineering to solve the engineering problems.

2. **Discipline knowledge**: An ability to apply discipline - specific knowledge to solve core and/or applied engineering problems.

3. **Experiments and practice:** An ability to plan and perform experiments and practices and to use the results to solve engineering problems.

4. **Engineering Tools**: Apply appropriate technologies and tools with an understanding of the limitations.

5. **The engineer and society**: Demonstrate knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering practice.

6. **Environment and sustainability**: Understand the impact of the engineering solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.

7. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

8. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse/multidisciplinary teams.

9. **Communication:** An ability to communicate effectively.

10. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the context of technological changes.