

**GUJARAT TECHNOLOGICAL UNIVERSITY (GTU)****Competency-focused Outcome-based Green Curriculum-2023 (COGC-2023)**

Semester-V

**Course Title: Summer Internship-II**

(Course Code: 4352001)

Diploma programme in which this course is offered	Semester in which offered
Mechatronics Engineering	5 <sup>th</sup> semester

**1. RATIONALE**

The Concept of Embedded Internships: AICTE (All India Council for Technical Education) has introduced a mandatory 7-10 weeks summer internship program in the new curriculum. This initiative aims to provide students with hands-on experience and practical training in an industry or organization relevant to their field of study. The embedded internships offer an excellent opportunity for students to gain valuable insights into industry practices and enhance their understanding of real-world applications.

We must agree that all Branches of Diploma Engineering are changing rapidly. New technologies are adding fast which effects can be seen in our society. Summer internship is a good option by which students to get flavor of such emerging technology and familiar with industry environment to identify scope and focus of their career development opportunities. Main objective of summer internship is hand-on practice to expose students for thinking about professional career by observing, understanding working mechanism of ongoing work of industry and to obtain various types of skills throughout internship program.

Six Weeks mandatory internship is to equip the students with practical knowledge and provide them exposure to real time industrial environments. Further, this internship, option is provided to do internship in Government Agencies/Private and public industries/ skill centers/etc.

The duration of internship will be of six weeks. It will be after completion of 4<sup>th</sup> Semester and before the commencement of 5<sup>th</sup> Semester. Any options from following can be chosen by the students:

1. **Offline internship in industry** - Student is supposed to produce joining letter and relieving letter once the internship is over in case of Offline internship in any industry.
2. **A Mini Project** - On some suitable topic related to respective Mechanical branch. It can be small fabrication / experimental results/ simulations/ Application development / Design and / or Analysis of System(s) etc. depending on the branch of the student. Preferably a single student should carry out a mini-project.

**2. COMPETENCY**

The purpose of this course is to help the student to attain flavor of the following industry identified competency through summer internship experiences:

- **Develop multiple types of skills such as planning, designing, manufacturing, machining, stores management, communication, collaboration, decision making / Problem solving and management skills along with selected technical knowledge.**

### 3. COURSE OUTCOMES (COs)

The practical exercises, the underpinning knowledge and the relevant soft skills associated with the identified competency are to be developed in the student for the achievement of the following COs:

- a) Learn and adopt the engineer's role and responsibilities with ethics.
- b) Get exposure to the industrial environment for professional activities.
- c) Get possible opportunities to learn, understand and sharpen the technical skills required for technical advancement.
- d) Develop managerial skills required for professional career.
- e) Attain skill for writing technical report and prepare poster for presentation.

### 4. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P/2)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	CA	ESE	CA	ESE	
0	0	6	3	0	0	50	50	100

1. **Offline Internship in industry:** CA Assessment will be carried out based on submitted progress card by Industry resource person and ESE Assessment will be carried out by institute resources person.
2. **A Mini Project:** CA and Assessment will be carried out based on project work by institute resources person

**Legends:** *L*-Lecture; *T* – Tutorial/Teacher Guided Theory Practice; *P* -Practical; *C* – Credit, *CA* - Continuous Assessment; *ESE* -End Semester Examination.

List of Documents to be prepared for Submission:

1. Detail report duly signed and approved by the internal/external mentor
2. Presentation softcopy approved by the internal/external mentor
3. Poster of summer internship activities approved by the internal/external mentor.

### 5. METHODOLOGY

#### 1. Student Application: -

Student will carry out search for undergoing internship and prepare the list of industries. Student will prioritise their search in the form of at least 2/3 choice areas keeping in mind their choice of interest, suitability and availability factors. After making choice students will submit their application indicating

their industry, contact person's phone no & address attached with their brief profile with interest justification & willingness to avail internship.

## **2. Institute /College**

Institute/ College will issue letter Addressed to industry and deliver the same to the student for consideration & offer Internship, indicating probable period and general guidelines and undertaking form.

## **3. Student Joining Letter:-**

Upon acceptance for internship student will submit the joining report duly signed by Industry mentor in the given Performa, to their institute faculty mentor (By e-mail or in person/ PDF/ photo)

## **4. Progress Report at the mid of Internship Duration: -**

Institute faculty will monitor the activities performed by the student somewhere between mid of total internship duration and endorse the same in the prescribe progress report after evaluating daily diary & sign and submit it to the department head. In case of any facilitation needed, institute faculty will do needful to enable student to undergo internship.

## **5. Internship Report**

After completion of internship student has to fill & submit the **"Internship Report"** in the given prescribed Performa to the department.

## **6. Presentation on Internship: -**

Students have to present the Internship report using MS Power Point. The presentation date, time & venue to be displayed on department notice board and all the students have to attend this session. Evaluation grade also have weightage of presentation & Question and Answer session.

## **7. Training Certificate:**

Students have to submit their internship training certificate having pertinent details as Name, Institute name, period of training with start and end dates and signature and stamp of industrial mentors.

## **8. Record Keeping:**

Institute will keep the record of internship in respective departments.

## Summer Internship Registration Form

Note: Students needs to submit this registration form after finalizing mode of internship.

Student Details												
Enrollment Number												
Student Name												
Student Details	Mobile Number :											
	Email Address:											
Branch												
Code and Name of the Institute												
Mentor Details (Institute)	Name:											
	Designation:											
	Mobile No:											
	Email Address:											
Industry Details	Name:											
	Address:											
	Email:											
	Phone:											
	Website:											
Mentor Details (Industry)	Name:											
	Designation:											
	Mobile No:											
	Email Address											
Mode of Internship Carried Out	Offline/ Mini Project											
Title of the Project/ Internship carried out												
Nature of Work Carried Out	Skill developed/ Experimental <del>res</del> / simulations/ Analysis of System(s)/Product or process development, etc...  Other please Specify _____											

Student Signature

Faculty Signature

## Suggested Evaluation Rubrics for Institute

Enrollment No: \_\_\_\_\_

Branch: \_\_\_\_\_

Name of the Students: \_\_\_\_\_

Date of Evaluation: \_\_\_\_\_

<b>Internal Evaluation – 50 Marks PA(I)</b> <b>(To be carried out by the mentor in consultation with Industry)</b> <b>Minimum Passing Marks: 25</b>					
Parameter	Excellent	Good	Average	Not up the level of Satisfaction	Obtained Marks
Mark range	10-09	08-07	06-05	Below 5	
Knowledge acquisition in specific domain. <b>10 marks</b>					
Skill and attitude attainment in specific domain. <b>10 marks</b>					
Feedback and suggestions given are incorporated? <b>10 marks</b>					
Quality of the prepared report and poster <b>10 marks</b>					
Quality of the presentation. <b>10 marks</b>					
<b>Total Marks Obtained Out of 50 PA(I)</b>					

Internal Examiner Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Note: For Summer Internship / Projects / Seminar etc. Evaluation is based on work done, quality of report, performance in, presentation etc.

## Suggested Evaluation Rubrics for Industry

Enrollment No: \_\_\_\_\_

Branch: \_\_\_\_\_

Name of the Students: \_\_\_\_\_

Date of Evaluation: \_\_\_\_\_

Parameter	Excellent	Good	Average	Not up the level of Satisfaction	Obtained Marks
Mark range	10-09	08-07	06-05	Below 5	
Student regularity during the Internship period and pro-activeness / responsiveness towards the given tasks <b>(10 Marks)</b>					
Work Plan, Execution and quality of work in forms of Outcome achieved <b>(10 Marks)</b>					
Engineering Tools and Techniques <b>(10 Marks)</b>					
Quality of poster design and presentation <b>(10 Marks)</b>					
Quality of the report and Skill <b>(10 Marks)</b>					
<b>Total Marks Obtained Out of 50 ESE(V)</b>					

External Examiner Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Note: For Summer Internship / Projects / Seminar etc. Evaluation is based on work done, quality of report, performance in viva-voce, presentation etc.

## 6. AFFECTIVE DOMAIN OUTCOMES

The following affective Domain Outcomes (ADOs) are embedded in many of the above mentioned COs. More could be added to fulfill the development of this course competency.

- a) Work as a leader/a team member as role of Engineer.
- b) Practice environmentally friendly methods and processes.
- c) Follow safety precautions and ethical practices.

## 7. SUGGESTED STUDENT ACTIVITIES

Following are the suggested student-related curricular, which can be undertaken to accelerate the attainment of the various outcomes in this course: Students should perform following activities and prepare reports and give presentation in front of students and faculty members. They should also collect/record physical evidences for their (student's) portfolio which may be useful for their placement interviews:

- a. Perform various tasks given by industry resources person during offline internship.
- b. Perform various tasks required to complete mini project work under guidance of faculty member.
- c. Summer Internship program Interns are required to give a presentation before review committee consisting of a group of academic staff members.
- d. The review committee gives feedback and suggests possible improvements in the work.
- e. At the end of the program all the Summer Internship program Interns make a poster presentation of the work carried out. The poster presentation is open to the public. It is also evaluated by faculty members.
- f. A completion certificate will be issued to all Summer Internship program Interns only after the completion of internship tenure.

## 8. SOFTWARE/LEARNING WEBSITES

- <https://www.internshala.com>
- <https://swayam.gov.in>
- <https://nptel.ac.in/>
- <https://neat.aicte-india.org/>
- <https://www.edx.org/>
- <https://www.coursera.org/>
- <https://www.udemy.com/>

## 9. PO-COMPETENCY-CO MAPPING



Semester V	Summer Internship (Course Code: 4351901 )						
	POs						
Competency & Course Outcomes	PO 1 Basic & Discipline specific knowledge	PO 2 Problem Analysis	PO 3 Design/ development of solutions	PO 4 Engineering Tools, Experimentation & Testing	PO 5 Engineering practices for society, sustainability & environment	PO 6 Project Management	PO 7 Life-long learning
Competency	Use principles of basic electronics to maintain various electronics circuits and equipment						
CO1) Learn and adopt the engineer's role and responsibilities with ethics.	3	2	2	2	2	2	2
CO2) Get exposure to the industrial environment for professional activities.	3	2	2	2	2	-	-
CO3) Get possible opportunities to learn, understand and sharpen the technical skills required for technical advancement.	3	2	2	2	2	2	2
CO4) Develop managerial skills required for professional career.	2	-	-	-	-	2	2
CO5) Attain skill for writing technical report and prepare poster for presentation.	3	-	-	2	-	-	2

Legend: '3' for high, '2' for medium, '1' for low and '-' for no correlation of each CO with PO.

## 10. COURSE CURRICULUM DEVELOPMENT

### COMMITTEE GTU Resource Persons

Sr. No.	Name and Designation	Institute	Contact No.	Email
1	Dr. R.D.Patel	BBIT, V.V.Nagar	9825523982	
2	N.G.Parmar	RCTI Ahmedabad	9426333054	
3	Joseph Soni	BBIT, V.V.Nagar	9898915991	

## Application Performa

Name of student \_\_\_\_\_  
Enrolment No \_\_\_\_\_  
Division \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_  
Email -id \_\_\_\_\_  
Mobile No \_\_\_\_\_  
Date \_\_\_\_\_

To,  
The Head,  
\_\_\_\_\_ Department  
\_\_\_\_\_ Name of College.

**Subject:** -Application for Internship Training Phase –II

Respected Sir,

I, the undersigned \_\_\_\_\_ (name of student) requesting you to issue me Internship Training letter.

My choice is indicated below:

Sr. No	Name & Address Of Industry	Contact Person's Name & Designation	Contact Person's Mobile No.

I will strictly follow the guidelines during Internship. I will follow instruction of my mentor.

Thanking you

Yours Faithfully

**Enclosure:**

1. My brief profile
2. Undertaking Form
3. My justification for choice

**Letter to Industry by Institute**  
**On**  
**(Institute Letterhead / Department Letterhead)**

Ref no \_\_\_\_\_

Date \_\_\_\_\_

To,

\_\_\_\_\_  
\_\_\_\_\_**Subject: - According permission for Summer Internship-II**

Dear Sir,

1. Para –I (Context of GTU Internship scheme)
2. Para –II(Institute information )
3. Details -

Name of student	rolment no & Division	Email of student	Mobile no of student	Name of faculty	Contact no of faculty

Period of Internship: from \_\_\_\_\_ to \_\_\_\_\_ (6 weeks)

4. Closing Para

Thanking you,  
Sd/-  
(seal)

**Note: -**

1. Enclosed General Guidelines of Internship.
2. Candidate will submit his brief profile with this letter.
3. Candidate will be fully under your control during Internship period.
4. Candidate will submit 'Undertaking Form' at the time of joining.

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**Joining Letter / Permission Letter**  
**(On the letterhead of Industry)**

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**No.** \_\_\_\_\_

**Date:** \_\_\_\_\_

**TO WHOM IT MAY CONCERN**

This is to certify that Mr./ Ms. \_\_\_\_\_

Enrolment No. \_\_\_\_\_ student of \_\_\_\_\_ has

shown interest in undergoing Internship for a period of 6 weeks with us.

During the period of his/her Internship with us, He / She will be trained and exposed to various technical processes and we are agree to provide Internship as per our company policy, rules and regulations.

His / Her Industry Mentor will be \_\_\_\_\_.

**(Name of Authorised Person)**

**Designation.**

**Progress Report Performa**

Name of Institute / Industry \_\_\_\_\_

Name of Department \_\_\_\_\_

Name of Intern: \_\_\_\_\_

Enrolment No \_\_\_\_\_ Division \_\_\_\_\_

Date & Day	Period From to	Detailed Description about exposure to processes and inputs provided till the date
		<b>( Description should be in line with the student daily diary)</b>

Remarks: - Internship progress found Very good/ good / satisfactory

Signature of Endorsing Faculty Mentor

Enclosure: If any

**Internship report**  
**(To be submitted by the students at the end of internship)**

Name of Student: \_\_\_\_\_

Enrolment No. \_\_\_\_\_ Div \_\_\_\_\_

Name of Institute \_\_\_\_\_ Mobile No. \_\_\_\_\_

Name of Industry: \_\_\_\_\_

Period of Internship \_\_\_\_\_ to \_\_\_\_\_

Name of Industry Mentor \_\_\_\_\_

Contact No. of Industry Mentor \_\_\_\_\_

(At least 5 or 10 pages A4 size paper with detailed description of outcome achieved during the period of Internship, mention basic details of Inputs gained in terms of Knowledge, Processes, Skills and Development enhancement. The details should be in line with daily diary).

The internship report should be prepared containing Student institute certificate (like project submission), industry certificate, acknowledgement, index, and following details.

Name of the industry :

Address of Industry :

Duration of internship :

Name of Student :

Industry Profile :

Product details and production capacity:

Turnover of the Industry :

Client's details (if available):

Machinery & Equipments details with major specifications:

Raw material details with consumables :

Processes carried out with parameters and detailed description:

Various Departments and its functions :

Knowledge / skill achieved during internship :

Miscellaneous if any :

Conclusion

:

Signature of Student

Signature of Industry Mentor

**Internship Certificate**  
(On the letterhead of Industry)

No. \_\_\_\_\_

Date: \_\_\_\_\_

**TO WHOM IT MAY CONCERN**

This is to certify that Mr./ Ms. \_\_\_\_\_

Enrolment No. \_\_\_\_\_ student of \_\_\_\_\_ has  
successfully completed two weeks Internship in the field of  
\_\_\_\_\_ during the period \_\_\_\_\_ to  
\_\_\_\_\_.

During the period of his/her internship with us, he/ she had been exposed to Different processes  
and have gained adequate technical traits. During the Internship his/her attitude was found  
satisfactory.

**Authorized  
Person / Signatory**

**Industry Mentor**

## UNDERTAKING FORM

વર્ષ 2023 થી અમલીકૃત કરાયેલ અભ્યાસક્રમમાં ગુજરાત ટેકનોલોજિકલ યુનિવર્સિટીએ ઇન્ટર્નશિપ- II (5 અઠવાડિયા ) ને આગવા વિષય તરીકે નિર્દેશિત કરેલ છે. આથી હું નીચે સહી કરનાર વિદ્યાર્થી તથા તેના વાલી બંને આ બાંહેધરી પત્રક સુપ્રત કરી રહ્યા છીએ જેમાં દર્શાવેલ વિગતોનું અમો સંમતિપૂર્વક પાલન કરીશું .

### બાંહેધરી પત્રક

વિદ્યાર્થીનું નામ: \_\_\_\_\_

એનરોલમેન્ટ નંબર : \_\_\_\_\_ ડિવિઝન : \_\_\_\_\_

ડિપાર્ટમેન્ટ : \_\_\_\_\_

મોબાઈલ નંબર : \_\_\_\_\_

ઇમેઇલ આઈ.ડી : \_\_\_\_\_

આથી , અમો સંમતિપૂર્વક બાંહેધરી આપીએ છીએ કે ,

- 1) ફાળવાયેલા / પસંદગી કરેલ ઇન્ડસ્ટ્રીમાં હું નિયમિતપણે ગેરહાજર રહ્યા વિના મારો ઇન્ટર્નશિપ કાળ પૂર્ણ કરીશ.
- 2) ઇન્ટર્નશિપ અવધિ દરમિયાન જે તે ઇન્ડસ્ટ્રીની સમય સારણી નું અચૂકપણે પાલન કરીશ અને સંસ્થાના ઓળખપત્ર ( આઈ કાર્ડ )ને હંમેશા સાથે રાખીશ.
- 3) ઇન્ડસ્ટ્રી મેન્ટર મને જે સૂચના , નિર્દેશો , આપે તેનું પાલન કરીશ.
- 4) ઇન્ટર્નશિપ અવધિ દરમિયાન હું સલામતી અંગેના નિયમોનું પાલન કરીશ
- 5) સંપૂર્ણ ઇન્ટર્નશિપ દરમિયાન હું મારી સલામતીની સંપૂર્ણ જવાબદારી લઉં છું . મારી નિષ્ઠાળજી કે



લાપરવાહીથી થનાર નુકશાન માટે કોલેજ કે ઇન્સ્ટ્રી જવાબદાર રહેશે નહિ .

6) હું મારી પ્રવૃત્તિ થકી ઇન્સ્ટ્રી ને કોઈ નુકસાન નહિ થાય તેની સંપૂર્ણ કાળજી રાખીશ અન્યથા થનાર નુકસાનની જવાબદારી મારી રહેશે .

7) સંસ્થા તથા ઇન્સ્ટ્રી દ્વારા મને મારે કરવાની કાર્યવાહી ની સંપૂર્ણ સમજ અપાયેલ છે જે મેં સમજી લીધેલ છે અને તે અનુસાર તેનું ચુસ્તપણે પાલન કરવા બંધાઉં છું.

વિદ્યાર્થીનું નામ અને સહી : \_\_\_\_\_ વાલીનું નામ અને સહી : \_\_\_\_\_

તારીખ : \_\_\_\_\_

સ્થળ : \_\_\_\_\_