GTU INNOVATION COUNCIL

Guidelines for BE Final year Project IDPs/UDPs

FAQs and Guidelines as suggested by Council of Deans at GTU

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FAQs

IDP/UDPs/Research Projects in the curricula is to make sure that students do some innovative work, which can be related to the product / process within/ outside the industry. Or the IDP/UDPs/Research Projects may be based on some unsolved problems of the society.

> **Notes:** 1.Innovative work can be defined as attempting different things in different ways and making a difference.
>
> 2. A Final year student at GTU may work on one of the two types of projects, as a part of the requirements for the Degree/Diploma. The two types are IDPs or UDPs.
>
> 3. Both IDPs and UDPs will follow similar procedures (protocols) and in both the cases the authenticity of the project is to be verified by the internal project guide.
>
> 4. The Project may be done at either the College or at the industry according to the inputs from the internal guide.

- Industry Defined Projects (IDP)**:** is a project, which is designed to improve (either a product or a process in either forms/features/functions based on a real life challenge from an industry. Dedicated hours have been allotted every week for all branches for interaction with industries and for working on the IDP/UDP. The term depicts that the projects is to be anchored upon an industrial use and it is to be done under the guidance of both an internal guide at the College and anexternalmentor from the industry. However whether the definition is appropriate for a Final Year project is to be decided by the faculty onlyand its related issues will be binding to the students group.

- User Defined Projects (UDP)**:** is a project based upon the needs of an. NGOs, informal sectors, Govt. organizations and society at large). Alternatively the UDP can be on a research problem identified by the faculties. Or it could be the idea of student himself.

- Guides**:** A facultiy from the educational Institution of the student will be the guide for the project. The industry persons or any other experts can mentor the projects. (For some projects, multiple guides can be taken.) During the final project examinations, the projects are evaluated by a group of two examiners consisting of an internal examiner and the external examiner appointed by the University. However for a project, based on an IDP, the Principal/Director of the educational institution should invite the Industry mentor/guide to join the group of examiners for evaluation of the project, as the 3rd examiner.

- The final year project is divided into two semesters (7th & 8th) .
  > *Note: For IT projects, if a student is able to complete the project work during the first semester, he/ she may apply to the HOD for permission to take an additional*

project during the second semester. (The guides/HOD/students have to check the progress and in suitable cases only a new project is to be allowed with a record keeping at corresponding department)

- Generally, students will be expected to complete one third of the total work expected from the Project Definition, during the 7th Semester. The remaining two third work will have to be completed before the end of 8th Semester. However if the Project Definition given at 7th Semester, requires less work to be done, then a new definition, requiring proportionate work corresponding to the time and credits allotted at the 8th Semester, will be given to the students, during the start of 8th Semester.

- A student may take either IDP or UDP. However the proposal for the Final Year project will have to be submitted in the required format.

- Kho-Kho model (relay) of projects can be allowed where a semi finished project done by the previous year's students, at a particular department, can be adopted by the students of the next year.

- The number of students per group for a project has to be decided by the college/ department/ project guides. (In specific cases the guides may allow inter college projects after mutual consent of both the Principals.)Team size should always depend on the size of the projects and required man-hours to implement the defined work.

- Any student can go to any industry in or outside his Sankul for defining the IDPs. (25 GTU Innovation Sankuls have been established across the State).

- The students can take inter-disciplinary projects during the final year after consultation with the guide in his/ her department.

- The final year students may seek the help of Coordinator of the Udisha Club / Departmental Coordinators for assignment to an appropriate industry or any help while doing the IDPs/UDPs.

- The Principals/ Directors of the colleges are required to coordinate with Sankul Co-Chairman (Academic) and Sankul Co-Chairman (Industry) and build relationships with industries.

- The students have to mention the name of the industry / source of the industry defined project while submitting the project definition immediately after commencement of the academic session during the first semester of the Final Year.

- Those students who have already undergone the training or industrial visit can define a project definition from the respective industries, based on the training or industrial visit.

Where ever feasible the students have to demonstrate a proof of prototypes/working model during the final examinations. Each team has to keep all their progress documented while working on the project.

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Guidelines as Suggested by the Council of Deans

The students are supposed to scout for the IDP/ UDPs before commencement of the first semester of the final academic year. The student will take review inputs from the faculty member, who is/are to be his/her/their Guide for the project and submit /present a presentation in power-point and document, in then format of (http://gtu.ac.in/udishapdf/IDPIndustryDefinedProject.pdf) . (In case of a UDP, students have to fill the user's detail in place of the details of the industry) before 10th August 2012. (Team/individual will submit a report on the problem/project to the HOD. The IDP/UDP is mandatory for all branches.)

1. Each team has to present their IDPs/UDPs/Projects in front of their whole class and all faculty members of the corresponding branch in the month of August 2012. Beginning from August, till the end of the Semester, students group will have to start actual project work. Once again the student group will be regularly visiting industry / meeting faculty guides as per time allotted in the time table, and will submit weekly/biweekly (as per college) progress reports to guides/mentors/industries/college.

2. Colleges may invite other experts including industry persons; Sankul Co-Chairs /Directors of the Sankul/faculties during these presentations. All the presentations/IDP-UDP reports of all the branches of the college will be sent to GTU through Udisha Coordinators.

3. If the guides/HODs find   during the presentation that the IDPs/UDPs are not suitable or is a repeatition (done exactly the same thing in the same manner before) or having not sufficient authentification about the industryr who has provided the projects/problems, the teams may be asked to resubmit new definitions/value added definitions within 15 days . (The weightage is to be given based on the innovativeness of the concept, the originality of the concept and the usefulness of the project)

4. If IDP is not of the required level, the students may be asked to work on a UDP, defined by a Faculty member)

5. Each team has to present (in report) their literature survey/ prior art survey of their ideas while presenting their IDPs/UDPs. If they are adding value to any existing product or process they might suggest the frugality/cost benefit or benefits to any common user or to an SMEs (small and micro enterprises) through their IDPs/UDPs.

6. The teams have to be evaluated out of 50 marks.

7. The internal evaluation of the IDPs/UDPs during the 7th and 8th semester is to be done through continuous evaluation process at each department of respective colleges to gauge the efforts of the students. The teams are supposed to keep their industries/users informed about their progress. The continuous evaluation/presentation is to be done once in a month/bimonthly as decided by the colleges. Departments may invite the industry mentors to the presentations The opinion of the industry mentors may be taken into account by the internal guide for internal evaluation

8. The industry guides/any other experts, who have helped in IDP/UDP may be invited to address the students about the innovations adopted/needed by them during these presentations or in the given time frame in the academic calendar for project.

9. While submitting the IDPs/UDPs as individual or as a the individual/team has to submit a self declaration[3] form in the given format about the authenticity of the IDP/UDP to ensure that the innovation/project/IDP/UDP is being developed with the help of their guides (external/internal). The Head of Department and the internal guide must not accept ready solution, prepared by a third party and presented by a student/ team of students. In such scenarios the internal guide/ Head of Deopartment may cancel the project, at any stage, if proper justification cannot be produced. (A record of such scenarios is to be maintained at the department for reference of GTU)

10. The hard copies of the IDP/UDPs forms with self declaration form (signed) is to be kept as record of the corresponding department of the corresponding colleges. (The soft copies is to be submitted to GTU according to the given format online after presentations/evaluation)

The detailed format for industry defined project scouting is posted at the GTU website. The students will also have to submit the problem / project definition to the concerned college in soft copy. The problem definition should have content as per the given guidelines including details of previous attempts to solve such problems / projects and the proposed ways to solve the problem / process by the concerned student or the team of students.

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Evaluation Scheme for IDP/UDP

Final Year projects of Degree engineering students

Scheme for Evaluation of IDPs out of 50 marks (This is for reference and colleges can make any suitable changes in a particular branch if required)

The Colleges are to evaluate the IDPs/UDPs submitted by the Final Year students for their Final Year projects.

The Deans have suggested the following scheme for the evaluation out of 50 marks:

Sr. No	Description	Marks
1	Role of innovation and creativity of the project	8
2	Utility of the project for Industry/Academic	8
3	Related study and Literature review	8
4	Work plan/Schedule	6
5	Proposed implementation methodology	6
6	Presentation of work progress	4
7	Report writing	4
8	Communication Skills	3
9	Question and Answer	3
	TOTAL	**50**

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SELF-DECLARATION (by a student/ team of students) of each IDP/UDP

(This has to be attached along with IDP/UDP report while submitting to the departments in hard copy)

SELF-DECLARATION (by a student/ team of students)

I/we

_____

_____ (Name of student/students),

the student(s) of _____Branch /enroll number_____ enrolled at

_____(college name) hereby certify and declare the following:

- I/we have defined my/our project based on inputs at _____(users name / industry/any other user like faculties or any other organizations) and each of us will make significant efforts to make attempt to solve the challenges . I /we will attempt the project work at my college or at any location under the direct and consistent monitoring of _____(guides name/industry/user) . We shall adopt all ethical practices to share credit amongst all the contributors based on their contributions during the project work. (We will work on the project work under the direct and consistent monitoring of Industry mentors and Faculty Guides)

- I /we have not purchased the solutions developed by any 3rd party directly and the efforts are made by me/us under the guidance of guides.
  The project work is not copied from any previously done projects directly.   (The same problem can be attempted done in new ways.)
- The project work submitted by me/us is prepared by me/us and I/we fully understand the contents. We will make best efforts to solve the problems given by the user/ industry. If the project is in relay model (kho-kho) we will share credits with the initial contributors.

- _____(Name of industry) to the best of my knowledge is a genuine industry , engaged in the professional service/social organizationsI/we understand and accept that the above declaration if found to be untrue, it can result in punishment /cancellation of project definition to me/we including failure in the subject of project work.

Name/Names:

Contact number/numbers:

Date: Sign:/signs

Place:

GUJARAT TECHNOLOGICAL UNIVERSITY

IDP/ UDP Project Statement Form

(This is a sample format and departments can modify it if they need as per required scenario and sector)

TITLE OF PROBLEM/PROJECT

DICIPLINARY | INTER-DICIPLINARY	
	DISCIPLINE/S

STUDENT PARTICULARS

	NAME	MOBILE NO	EMAIL ID
1.			
2.			
3.			
4.			
5.			
COLLEGE NAME			
COLLEGE CODE			
BRANCH			
SEMESTER		**YEAR**	
TEAM CODE (to be given by the institute)			
SIGNATURE OF STUDENTS (TEAM MEMBERS)			

INDUSTRY PARTICULARS/USER'S DETAIL

INDUSTRY DETAILS			
NAME			
ADDRESS			
CONTACT NO.	**OFFICE**	**MOBILE**	
NAME OF INDUSTRIAL ESTATE			
COMPANY LOGO (optional)			
INDUSTRY GUIDE DETAILS			
NAME			
MOBILE NO.			
EMAIL ID			

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SUGGESTED FORMAT OF IDP/UDP REPORT

PROBLEM SUMMARY

- The problem summery may be a concise description of the industry related technical issues which can state the problem, which the student has found out while visiting the industry.
    - ✓ Aims and Objectives of the work and related things

DETAILED DESCRIPTION OF PROBLEM

- The problem statement has to be well defined in 3-5 pages (minimum) with detailed facts and figures as and when possible. The description can have figures/inputs from floor persons from industries / parameters related to specific domain of technology.
- Problem description can also include :
    - ✓ Brief literature review/patent review as it is one of the key of success for any project/research work
    - ✓ Materials , methods
    - ✓ A brief description about method/protocol going to adopt for problem solving
    - ✓ References

EXPECTED OUTCOME

- The students while interacting with industry persons have to note down the expected out comes (in 1-2 page) from that particular industry due to the proposed innovation either in product or processes. This will gauge the industrial needs and students progress while working on the final year project.

OTHER DESCRIPTION (IF ANY)

- The students are advised to do some literature research related to the corresponding problem / innovation both before and after visiting the industry/MSME during summer vacation. They can give some suggestions about the issues based on literature research of corresponding problems / projects in feasible cases.

The format of documentation may be slightly modified as per the need of specific branch. For example in the documentation of any industrial waste, one may have to give information about composition of waste, type of waste (Solid, Liquid, Gas, Semi-Solid), quantity of waste etc. If a department uses any improved format of this documentation then they are supposed to inform GTU so that they can be shared with all colleges to help all.

The problem/project reports have to be submitted to Departmental HODs of corresponding GTU College in softcopy. They will be evaluated in August 2012.