

GUJARAT TECHNOLOGICAL UNIVERSITY

Chandkheda, Ahmedabad

Affiliated



Institute
Logo
Here

(Name of Institute)

A Report On-

(TOPIC)

Under subject of
DESIGN ENGINEERING – 2B
B. E. III, Semester – VI
(XXXXXX Branch)

Submitted by:
Group:

Sr.	Name of student	Enrolment No.
1.		
2.		
3.		
4.		

CCCC DDDD EEEE
(Faculty Guide)

AAAA BBBB CCCC
Head of the Department

Academic year
(2015-2016)

Common Instructions:

- 1) There is no need to repeat/ rewrite these instructions in your report document.
- 2) All below questions are to be attempted to best describe your thinking approaches. Questions may be answered in paragraph form. Avoid bullet unless to mention very specifically something.
- 3) There are no page limit/ word limit for the report, may be you can put in brief/ detail to best of your discretion. Your choice obviously. Student need to describe the process of learning during their semester work in the report along with the specific details of their projects.
- 4) You can also use pictures (in part or full size) of your canvas/frameworks/prototypes. Kindly make sure you reduce the using compression (Format tab at top) with a resolution of 200 dpi. Teams can add picture of any part of canvases to explain particular thing in the report.
- 5) Sections are illustrative here. Students and faculty guide may decide their best way to express the THINKING APPROACH in the report.
- 6) The report can be spiral bound and team can keep one copy with them and they can give a copy to the department for record.
- 7) Examiner need to mail best 3 project reports to design@gtu.edu.in at the time of examination from each branch.
- 8) Teams will have to show the physical canvases, other frameworks and logbooks to the department/examiner during the practical examination and explain briefly.
- 9) After examination students team has to keep record of all the canvases, other frameworks and logbooks for their further reference or submit to the department. They need to safeguard all the canvases, other frameworks and logbooks for future references.
- 10) If you have carry forwarded the project from previous year/semester, examiner may ask for any previous documents related to your project in current semester, hence student need to carry all the previous documents with them to exam.
- 11) In 6th semester, students need to mainly submit prototypes versions with final working models, report and logbook, along with all previous documents of projects as per mentioned above.**

Contents:

Note:

- Content may vary as project to project basis and as per your branch. You also may include or delete some of the below aspects as per your project.
- In 6th semester as per the guidelines, (http://files.gtu.ac.in/circulars/16JAN/Guidelines%20for%20DE-2B_6th%20semester.pdf) students have to work towards final working prototype/model with the versions of iterations. But if project is too big to complete in 6th semester and due to cost and technical constraints if students cannot reach till working model then they can present their prototyping work with other possible ways/methods/forms of prototyping. But students and faculty guide must need to find out best methods to satisfy the external examiner. And your work should include enough efforts for the whole semester.

1. Introduction

- ✓ If you have carry forwarded the project from previous year/semester, then only describe briefly about your previous work in the introduction and carry all previous documents with you.
- ✓ If you have selected new domain in 6th semester, then you need to give details of newly selected domain in 6th semester and all the phases and also related canvases, frameworks for the newly selected area in this semester.

2. Modelling and Analysis using Software:

- ✓ Describes and give details of use of Branch Specific software for simulation/analysis purpose to further refine the design

3. Engineering Economics of Design:

- ✓ Cost Estimation
- ✓ Labour, Material and overhead cost
- ✓ The time value of money

4. Design for Use, Reuse and Sustainability

- ✓ Design for USE – How long this design will work?
 - Reliability
 - Maintainability
- ✓ Design for Reuse
- ✓ Design for Sustainability

5. Prototyping:

- ✓ Versions of Prototypes with all possible modification and iterations to further refine the solutions
- ✓ All these versions and its details must be included in the report

6. Test the prototype

- ✓ Test your design in real operational environment and then iterate if required.

7. Measuring Instruments/ techniques - knowledge and use, manufacturing/fabrication process, electronic circuit/boards, open source tool

- If you have used any Measuring Instruments/ techniques, manufacturing/fabrication process, electronic circuit/boards, open source tool for your problem statement to check the sequential progress/prototype then you need to describe in detail.

8. Comparison of existing materials, methods, tools and equipment for your project and justify your selection of materials, methods, tools and equipment etc.

9. Conclusion/Future scope

10. Video of Prototypes (please refer N.B. below)

Any team having developed final working model of their project while solving a challenge has to make a short film (3-5 minutes video explaining their project by whole team covering- exact challenge which they are trying to solve, what idea they implemented and what are the limitations which can still be improved related to the innovation).

Such teams may refer similar practices at below given link based on experiments at IIT Delhi.

https://www.youtube.com/results?search_query=MEP+101

Student team who has developed a prototype of their 6th Semester DE-2B project should make a video as above and add that in YouTube and share the YouTube link with their faculty guide. Each college should collect these teams' details (who are team members, their registration/enrolment number, and title of project) along with YouTube video link and share with GTU Design Engineering team by mailing the list at design@gtu.edu.in .

GTU design team will create a playlist combining all these video links and share in YouTube so that many can refer them and help taking the ideas to next level when ever needed.

N.B. # 10 is for those teams who have developed some concrete prototypes/working models based on their innovation/project as a part of their

course DE-2B and that was the goal of 6th semester, DE-2B to reach till final working model. Such teams need to be given more weightage for their efforts while taking final examination by both internal and external examiners.