Ref: GTU/CID-ODS/DE portal/AY2023-24/ 177

Date: 6 /01/2024

## Circular
## Guidelines and Schedule of Design Engineering Module
## for 4th and 6th Sem Students

To,

The Principals/Directors/HoD/DE Coordinators/Students of BE Colleges affiliated with GTU.

GTU – Centre for Industrial Design (Open Design School) strives to stay abreast of the latest trends in Design & Innovation, Entrepreneurship, and Technological advancement. To achieve this goal, GTU has introduced the Design Engineering (DE) subject, which is based on Practical Based Learning (PBL). This approach aims to equip students with the necessary industrial skill sets through a hands-on, Learning by Doing approach.

GTU has developed a web portal to effectively manage and coordinate all activities related to DE. Through this portal, all stakeholders associated with the DE subject can stay connected and informed about the latest information and updates. GTU sincerely appreciates the efforts of all stakeholders in utilizing this portal to implement the DE subject and adhering to the specified timeline for all activities as outlined in the guidelines.

It is our earnest desire that all affiliated degree engineering colleges of GTU take full advantage of the portal's resources and join hands in contributing to the vision of building Digital India in its true essence. All colleges are urged to complete the activities listed in Annexure 1 according to the provided schedule.
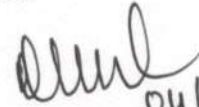
Kindly visit the Design Engineering web portal at: http://www.de.gtu.ac.in
For any queries related to DE projects/portal, please connect with us at:
designprojects@gtu.edu.in
For any queries related to DE subject and feedback, please connect with us at:
design@gtu.edu.in

Registrar, GTU
04/01/24

Copy to:
(1) Centre for Industrial Design (Open Design School)
(2) Design Innovation Centre
(3) GTU Innovation Council

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## <u>Annexure 1</u>

### Instructions for all BE colleges affiliated with GTU:

(Important guidelines for students, guide, DE coordinators, HOD, and Principal)

1. Registration for the Student Team, Faculty member/Guide, and Design Coordinator is now open for the Summer 2024 (Even) semester on the DE portal at http://www.de.gtu.ac.in. Please note that to guide Design Engineering projects, the faculty member must be trained at the Faculty Development Program (FDP) organized by GTU. Students are encouraged to form new teams for their projects, and there is no limitation on the number of team members allowed. However, the guide must ensure the involvement of each team member and equitable distribution of work in the project.

2. In the 4th semester, students are required to undertake fresh projects distinct from those pursued in the 3rd semester. These projects should encompass branch-specific topics employing the Reverse Engineering approach. For additional information, please consult the guidelines outlined in the 4th-semester module, accessible on the DE portal within the academic tab.

3. *Each college must designate one Design Coordinator* (one per college, not branch-wise) who has been trained at the FDP organized by GTU. The Design Coordinator is responsible for managing and coordinating DE-related activities. *The Design Coordinator should also register on the DE portal and will serve as the main point of contact with the GTU Design Team for any queries or suggestions.* Furthermore, the Design Coordinator will oversee the students' progress in their Design Engineering projects, ensuring compliance with the provided timeline/schedule.

4. *All guidelines, circulars, and the latest news related to DE can be found and will be available on the portal.*

5. Study materials, canvases, and other relevant formats are accessible on the portal for DE subjects. These materials are updated timely in accordance with requirements and new developments, so stakeholders are advised to visit the portal frequently for the latest information and updates.

6. Students are encouraged to utilize resources such as GTU IDEALAB, Design Innovation Centre, SSIP, or available lab resources for their prototype development. However, students must provide clear and detailed references to the sources they utilize in both the evaluation form and project reports. This practice ensures proper acknowledgment of resources and promotes transparent documentation of the development process.

7. Design Engineering-related blogs will soon be initiated to enhance understanding of the subject. If anyone comes across valuable materials, blogs, case studies, news, etc., related to DE, please send them to design@gtu.edu.in, and the team will update them on the portal for everyone's benefit.

8. Colleges are requested to share reports of events, case studies, and achievements related to DE for uploading on the DE portal.

9. It is crucial for every college to strictly adhere to the schedule provided for DE-related activities in the Even semester of AY 2023-24.

## Tentative Schedule for Design Engineering Module:

### FOR 4th SEMESTER

| Task | Activity related to DE for AY 2023 - 24 (Summer 2024/Even Semester) | Timeline |
|---|---|---|
| 1. | Registration for Team/Guide/DE Coordinator | Till 10th February 2024 |
| 2. | Problem Definition/Project title | |
| | 2.1 Domain selection | |
| | 2.2 Reverse Engineering | |
| | 2.3 Observation | Till 29th February 2024 |
| | 2.4 Empathy Canvas – Mind Mapping | |
| | 2.5 Prior Art Search (PAS) | |
| 3. | **Monthly Assessment - I** | |
| 4. | Ideation (Canvas, PAS) | Till 20th March 2024 |
| 5. | Product Development Canvas (PDC) & User Feedback | |
| | 5.1 Learning Needs Matrix (LNM) | |
| 6. | **Monthly Assessment - II** | Till 20th April 2024 |
| 7. | Rough Prototyping & Iteration | |
| 8. | **Monthly Assessment – III** | Till 10th May 2024 |
| 9. | Report Submission, Generation of the project certificate | Till 20th May 2024 |

### FOR 6th SEMESTER

| Task | Activity related to DE for AY 2023 - 24 (Summer 2024/EVEN Semester) | Timeline |
|---|---|---|
| 1. | Registration for Team/Guide/DE Coordinator (If new Project) | 20th January 2024 |
| 2. | Problem Definition/Project title (If new Project) | |
| | 3.1 Domain selection | |
| | 3.2 Observation | |
| | 3.3 Empathy Canvas – Mind Mapping | 10th February 2024 |
| | 3.4 Prior Art Search (PAS) | |
| 3. | **Assessment - I** | |
| 4. | Ideation (Canvas, PAS) | |
| 5. | Product Development Canvas (PDC) & User Feedback | Till 10th March 2024 |
| | 5.1 Learning Needs Matrix (LNM) & Detailed Design | |
| 6. | **Assessment - II** | Till 20th March 2024 |
| 7. | Working Model / Prototype / Testing | |
| 8. | **Assessment – III (Design Demo Day)** | Till 10th April 2024 |
| 9. | Report Submission, Plagiarism check, Generation of the project certificate | Till 25th April 2024 |

**Note:** Students who are continuing their 5th-semester project to 6th semester, will directly start working from Ideation or Product Development phase (where they left their work in 5th sem) till the working model as per the above schedule and guidelines of DE-2B

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