

#### GUJARAT TECHNOLOGICAL UNIVERSITY

(Established by Government of Gujarat under Gujarat Act No.: 20 of 2007)

# ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી

(ગુજરાત સરકારના ગુજરાત અધિનિયમ ક્રમાંક :૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Ref: GTU/CID-ODS/DE portal/AY2023-24/5622

Date 01 /0 2023

#### Circular

#### Guidelines and Schedule of Design Engineering Module for 3<sup>rd</sup> and 5<sup>th</sup> 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: <a href="mailto:designprojects@gtu.edu.in">designprojects@gtu.edu.in</a>

For any queries related to DE subject and feedback, please connect with us at: design@gtu.edu.in

Registrar, GTU

#### Copy to:

- (1) Centre for Industrial Design (Open Design School)
- (2) Design Innovation Centre
- (3) GTU Innovation Council

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# \$57D - 2007

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#### Annexure 1

#### 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 Winter 2023 (Odd) 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. Students who have already registered in the 4th Semester need not register again but should proceed to the 5th semester. In the 5th semester, the DE project type differs from the 4th semester, so students will need to provide new project details upon moving to the 5th semester.
- 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 Odd semester of AY 2023-24.

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#### Tentative Schedule for Design Engineering Module:

#### FOR 3rd SEMESTER

Task	Activity related to DE for AY 2023 - 24 (Winter 2023/Odd Semester)	Timeline
1.	Registration for Team/Guide/DE Coordinator	Till 21st August 2023
2.	Problem Definition/Project title	Till 31 <sup>st</sup> August 2023
	2.1 Domain selection	
	2.2 Reverse Engineering	
	2.3 Observation	
	2.4 Empathy Canvas – Mind Mapping	
	2.5 Prior Art Search (PAS)	
3.	Monthly Assessment - I	Till 20 <sup>th</sup> Sept 2023
4.	Ideation (Canvas, PAS)	
5.	Product Development Canvas (PDC) & User Feedback	
	5.1 Learning Needs Matrix (LNM)	
6.	Monthly Assessment - II	Till 20 <sup>th</sup> Oct 2023
7.	Rough Prototyping & Iteration	
8.	Monthly Assessment – III	Till 10 <sup>th</sup> Nov 2023
9.	Report Submission, Generation of the project certificate	Till 20 <sup>th</sup> Nov 2023

#### FOR 5th SEMESTER

Task	Activity related to DE for AY 2023 - 24 (Winter 2023/Odd Semester)	Timeline
1.	Registration for Team/Guide/DE Coordinator	Till 7 <sup>th</sup> August 2023
2.	Problem Definition/Project Title	Till 17 <sup>th</sup> August 2023
	2.1 Domain selection	
	2.2 Reverse Engineering	
	2.3 Observation	
	2.4 Empathy Canvas – Mind Mapping	
	2.5 Prior Art Search (PAS)	
3.	Monthly Assessment - I	Till 10 <sup>th</sup> Sept 2023
4.	Ideation (Canvas, PAS)	
5.	Product Development Canvas (PDC) & User Feedback	
	5.1 Learning Needs Matrix (LNM)	
6.	Monthly Assessment - II	Till 10 <sup>th</sup> Oct 2023
7.	Rough Prototyping & Iteration	
8.	Monthly Assessment – III	Till 30 <sup>th</sup> Oct 2023
9.	Report Submission, Generation of the project certificate	Till 10th Nov 2023

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