

OPEN DESIGN SCHOOL



Student Start-up Support System
(S4)



Gujarat Technological University
(GTU), Ahmedabad



GTU Innovation Council (GIC)

Faculty Development Program (FDP) in Design Engineering

For Faculty Members, teaching Design Engineering at 3rd and the 5th Semesters or for those, planning to teach Design Engineering at 4th and the 6th semesters

Date: 32nd FDP: 28, 29, 30 September & 1 October 2015

Time: 10.00 am to 5.00 pm; Everyday

Venue: 131, ACPC Building,
GTU Innovation Council (S4-Ci3),
L.D. Engineering College, Ahmedabad.

Kindly register here: <https://goo.gl/XsfcYN>

Achievements of Centre for Industrial Design (OPEN DESIGN SCHOOL) From September 2014 – September 2015

- Thirty One (31) Faculty Development Program till 24th September, 2015
- More than 1900 trained faculty members from 120 engineering colleges affiliating to GTU
- National workshop on *“Understanding International perspective and Methodologies used in Delivering Design Engineering Courses”* by **Prof. Libby**, UPEI, Canada
- GTU's Design Team met representatives from universities from Japan, Korea, Singapore, China, Vietnam, Cambodia, Indonesia, Thailand, Malaysia, Laos, Philippines, Brunei and Myanmar on 6th June at a Board of Directors' meeting of APEN at Indonesia.

Post-graduate Research Centre for Industrial Design

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All these 13 universities are working on introducing Design Thinking and Project-based learning in their syllabi. GTU has been appointed as Director for Indian Chapter of APEN.

- Workshop on “*Integrating Projects and Design into Core Engineering Courses: Enhancing Learning and Preparing Professionals*”. A unique 3-Part course offered by GTU in collaboration with Purdue University, USA expert faculty **Prof. Bill Oakes**, Director, EPICS Purdue University.
- On 20th - 22nd August 2015, the Design Team participated in the 3-Day Workshop: 'Exposure to Product Design and Innovation' at IDC, IIT Bombay.

The FDPs have become more exciting due to various inputs, including the following: GTU's Design Team met representatives from universities from Japan, Korea, Singapore, China, Vietnam, Cambodia, Indonesia, Thailand, Malaysia, Laos, Philippines, Brunei and Myanmar on 6th June at a meeting of APEN. All these 13 universities are working on introducing Design Thinking and Project-based learning in their syllabi.

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Message for Principals/ Directors/ HODs: For every group of 30 students, in every Branch, please see that at least one Faculty Member participates in the FDPs at GTU.

GTU has introduced six courses of Design Spine in academic year 2014-15 from 3rd to 8th semester namely “*Design Engineering*”. **GTU's Centre for Industrial Design – OPEN DESIGN SCHOOL** has taken up the challenge to leverage and help implement this course in all affiliated engineering colleges of GTU. *Centre for Industrial Design – OPEN DESIGN SCHOOL* has successfully organized 22 Faculty Development Program (FDP) during 2014-15, in which 1,500 Faculty Members, from 15 branches from 120 Engineering colleges across the State participated. Now during 2015-16, the Centre is bringing **all new** set of FDPs for Faculty Members of our colleges. **This FDP is suitable for all Faculty Members who want to be acquainted with Design Thinking Methodology. The FDP includes many new and interesting topics in an up-dated format.**

Outline for the new FDPs:

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Day 1			
Session No.	Time	About	Description
10.00 am – 10.30 am		Registration and Breakfast	
1	10.30 am – 11.00 am	Welcome & Orientation session	<ul style="list-style-type: none"> ○ Introduction of Design Spine for 3rd, 4th, 5th Semester to participants ○ Overview, objective and goal of this course
2	11.00 am – 12.30 pm	Introduction of Design Thinking Methodology	<ul style="list-style-type: none"> ○ What is Design Thinking? Its importance, socio-economical relevance ○ Design thinking to foster innovation ○ Systematic problem identification process ○ Systematic problem solving approaches
3	12.30 pm – 1.30 pm	Learning tools - Design Thinking	<ul style="list-style-type: none"> ○ Design in Nature/Bio-mimicry ○ Design as a System approach ○ Design as listening tool for mapping users' unarticulated needs ○ Learning by analogy, artefactual, heuristic and gestalt model
1.30 pm – 2.00 pm		Lunch Break	
4	2.00 pm – 3.00 pm	Hands on exercises	<ul style="list-style-type: none"> ○ Team Building, Domain Selection (Society/Industry project) ○ Log book, documentation strategy – introduction, importance, preparation
5	3.00 pm – 5.00 pm	Observation Technique(AEIOU)	<ul style="list-style-type: none"> ○ Orientation to Field Work – Need for field visit? What/How/Where to Observe ○ Ethnographic tools and its usage ○ Key pain and pleasure points ○ Understanding of User Contexts
			○ Log book exercise on field

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Day 2			
Session No.	Time	About	Description
10.00 am – 10.15 am		Breakfast	
6	10.15 am – 10.30 am	Discussion on Day 1 activity	<ul style="list-style-type: none"> ○ Common Discussion on Importance of Design Thinking and Observation
7	10.30 am – 1.30 pm	Field Activity	<ul style="list-style-type: none"> ○ Team will visit their domain/place of work for getting insights and define problems.
1.30 pm – 2.00 pm		Lunch Break	
8	2.00 pm – 3.00 pm	Summarization and data analysis	<ul style="list-style-type: none"> ○ Analysis of Data - Mind Mapping tool
9	3.00 pm – 5.00 pm	Canvas Preparation activities	<ul style="list-style-type: none"> ○ Summary of AEIOU activity/inputs ○ Preparation of Empathy Mapping
Day 3			
Session No.	Time	About	Description
10.00 am – 10.30 am		Breakfast	
10	10.30 am – 12.00 pm	Problem Definition	<ul style="list-style-type: none"> ○ Secondary research/Prior art search ○ Diachronic and Synchronic analysis ○ Group wise presentation followed by Discussion ○ Verification of problem identified by team through users/stakeholders
11	12.00 am – 1.30 pm	Canvas : Ideation	<ul style="list-style-type: none"> ○ Explanation of Ideation activity and how it will magically affect whole Design experience, combination of Ideas, brainstorming, Opportunity mapping
1.30 pm – 2.00 pm		Lunch Break	
12	2.00 pm – 3.00 pm	Preparation of Ideation Canvas	Team wise Canvas filling activity
13	3.00 pm – 4.00 pm	Canvas : Product Development	Towards <i>Evaluation of Idea</i> activity. Team will identify/refine their purpose and make design for their product/system/process

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14	4.00 pm – 5.00 pm	Preparation of PD canvas	Team wise canvas filling activity
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Day 4			
10.00 am – 10.30 am		Breakfast	
15	10.30 am – 11.00 am	Customer Revalidation	Group discussion for revalidation
16	11.00 am – 12.30 pm	Pre-design & Dirty Mock-ups	Find out Learning Needs to complete the project, distribute learning needs among group members, timeline it and prepare LNM
17	12.30 pm – 1.30 pm	Design for Performance, Safety and Reliability	Participants will be introduced different aspects of design for performance, safety and reliability
1.30 pm – 2.00 pm		Lunch Break	
18	2.00 pm – 3.00 pm	Design for Ergonomics and Aesthetics	How Ergonomics and Aesthetics aspects will raise the value of products?
19	3.00 pm – 4.00 pm	Design for Manufacturability & Assembly (DFMA)	Different considerations and guidelines to be followed for DFMA
20	4.00 pm – 5.00 pm	Design for Cost, Environment	Cost and environment could play major role in Product design and Sustainability
5.00 pm onwards		Valedictory Function	

Should you have any query, kindly write to us at: design@gtu.edu.in

References for Previous FDPs:

- Invitation for registering for the 23rd or the 24th FDPs, scheduled on 30th July to 2nd Aug and from 4th to 7th Aug 2015 at http://files.gtu.ac.in/circulars/15Jul/28072015_11.pdf
- Invitation for registering for the 25th FDP, scheduled from 11th to 14th Aug 2015 at http://files.gtu.ac.in/circulars/15Jul/31012015_03.pdf
- Invitation for registering for the 26th FDP, scheduled from 25th to 28th Aug 2015 at http://files.gtu.ac.in/circulars/15Aug/11082015_02.pdf

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- Invitation for registering for the 27th FDP, scheduled from 31st to 3rd Sept 2015 at http://files.gtu.ac.in/circulars/15Aug/24082015_01.pdf
- Invitation for registering for the 28th FDP, scheduled from 7th to 10th Sept 2015 at http://files.gtu.ac.in/circulars/15Aug/31082015_02.pdf
- Invitation for registering for the 29th FDP, scheduled from 12th to 15th Sept 2015 at http://files.gtu.ac.in/circulars/15SEP/07092015_05.pdf
- Invitation for registering for the 30th FDP, scheduled from 16th to 19th Sept 2015 at <http://files.gtu.ac.in/circulars/15SEP/14092015.pdf>
- Invitation for registering for the 31st FDP, scheduled from 21st to 24^h Sept 2015 at <http://files.gtu.ac.in/circulars/15SEP/16092015.pdf>

References for Guidelines:

- Guidelines for DE-1A (3rd Semester) may be found at:
http://gtu.ac.in/circulars/15June/19062015_01.pdf
- Guidelines for DE-2A (5th Semester) may be found at:
http://gtu.ac.in/circulars/15June/26062015_12.pdf