Post-graduate Research Centre for Industrial Design

OPEN DESIGN SCHOOL

36th Faculty Development Program (FDP)

Design Engineering (3rd + 4th + 5th + 6th Semester)

Date: **19, 20, 21, 22 March, 2016 (36th FDP)**

Venue: Room No. 131, ACPC Building,
GTU Innovation Council,
LDCE Complex, Ahmedabad

Time: 10.00 am to 5.00 pm; Everyday

Kindly register here: http://goo.gl/forms/kVJVV1arpi

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

GTU introduced courses of Design Spine, during the academic year 2014-15, beginning from the 3rd semester. Design Engineering is a very unique and pioneering initiative of GTU and it is based on techniques, developed and used by engineers and designers all over the globe. One of the key objectives of this initiative is to infuse the methodology of Design Thinking into the mind-set of the students and the Faculty Members so that it is used in the study of all the core subjects of every branch. ***GTU's Centre for Industrial Design – OPEN DESIGN SCHOOL*** has taken up the challenge to help implement this course in all the affiliated engineering colleges of GTU. In the previous Faculty Development Programs (FDPs), organized regularly by the *Centre for Industrial Design* – OPEN DESIGN SCHOOL during the last 1.5 years, more than 2100 Faculty Members from 111 Engineering colleges across the state, from more than 15 branches, have participated.

Now during this semester, the Centre is bringing a new set of FDPs for Faculty Members with new hands-on exercises, presentations, examples and techniques of Design Thinking. This FDP will cover the whole Design Thinking process starting from 3rd sem to 6th sem, suitable for all the Faculty Members. Those, who have participated in earlier Design Engineering FDPs during the last semester or in the FDPs during the academic year 2014-15, should also participate in this new type of FDPs, which presents the material for the 3rd and the 5th semesters in an innovative way, and, which includes new topics in 4th semester along with the information regarding the topics in the 6th semester.

Exclusive features of FDP:

- New set of learning material including PPTs, Videos, Case Studies, Examples etc.
- Hands on exercises designed exclusively for FDPs to understand Design Thinking approach
- Experts session during FDP (Physical interaction or Skype)
- Reverse Engineering & Prototyping techniques

Workshop Program: (Basic Level)

Day 1:

Session 1 - **Welcome & Orientation session** – Introduction to Design Engineering Course

Session 2 – **Introduction** – What is Design Thinking? Its importance, socio-economic relevance

Session 3 – **Learning Tools to better Learn Design Thinking** – Bio Mimicry, Analogy, Gestalt Model and Heuristic Approach – All with examples

Session 4 – **Hands on Exercises** – Team Building and Log book

Day 2:

Session 5 - **Empathy** – Observation techniques & Field work

Session 6 – **Field Visit** – To gather observation data

Session 7 – **Summarization of Data** - Analysis of Data gathered during Observations

Session 8 – **Empathy Mapping** – Canvas Preparation

Day 3:

Session 9 – **Ideation** – Brainstorming techniques to Innovation

Session 10 – **Ideation Canvas** – Canvas Preparation

Session 11 – **Product Development** – Form, Function, Features

Session 12 – **Product Development Canvas** – Canvas Preparation

Day 4:

Session 13 – **Reverse Engineering** – Selection of Branch Specific artefact/component/product

Session 14 – **Disassembly & Identify Technical aspects**

Session 15 – **Contents of 5th Semester**

Session 16 – **Contents of 6th Semester**

Workshop Program: (Advanced Level Component)

A special advanced level component of FDP is for those who had participated in the earlier Design Engineering FDPs during the last semester or in the FDPs during the academic year 2014-15. The components of the advanced level FDP will run parallel with the Basic level components of the FDP. The participants will be introduced to new tools and techniques and to detailed learning of the various phases of Design Thinking with the aim of refinement beyond what the participants may have learnt in the previous FDPs.

The advanced level component of the workshop shall be a combination of **Design Clinic support & Inputs for Design Thinking process/ tools** such as, Research, Observation, Analysis, Visualization, Knowledge Management etc., The following points shall be covered:

Day 1: Review of prior learning by Faculty Members who have taken the training previously –

- **Identifying gap areas** and supporting them by process / tools
- Research: Ethnographic study for observation & documentation
- Tools – **Mind Mapping, Lotus Blossom**
- Finalization of project as a Case Study

Day 2: Project and Clinical support

- Inputs: **Ideation tools like SCAMPER**, Analysis tools

Day 3: Project and Clinical support

- Inputs: **Visualization** Assignment for observation, problem solving, decision making

Day 4: Project and Clinical support

- Inputs: Backward review of the project for each step / stage & tools, understanding gaps and providing support for gap areas

Note:

(1) For Reverse Engineering exercise, Faculty members are required to bring any branch specific artefact/component/product with them. It may be a small stapler, scissors, punch, mouse, keypad, old mobile phones etc.

(2) The Certificate of participation will be only issued to the participants upon successfully completing participation for all the four days. In case a Faculty Member is required to remain absent for any institute- related or personal work during the period of FDP, he/ she will have to attend the next FDP to become eligible for the certificate.

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