



**GUJARAT TECHNOLOGICAL UNIVERSITY**

**Design Innovation Centre (DIC)**

**MHRD funded Project - Hub & Spoke Model**



**Certificate Offline Course in**

**Design Thinking** to nurture **Creativity and Innovation** leading to **Entrepreneurship**

**Avail 30% Scholarship from GTU**

## **Course Abstract**

Course name: *Design Thinking (DT) to nurture Creativity and Innovation leading to Entrepreneurship (Offline)*

Beneficiaries: *From Any discipline; Students, Faculty members, researchers, Industry Professional, Innovators/Start-ups or any aspirants who wish to learn about DT*

**Apply Now**

Duration: *Four (4) months*

Timing: *3 hrs. / Session (Saturday only, Flexible timings for professionals)*

\*Tuition Fees: *Rs. 15,000/- (Including GST, Registration Kit and other reference materials)*  
**(After 30% scholarship, it costs Rs. 10,500)**

(Partial Payment is accepted: EMI 1: Rs. 5500, EMI 2: Rs. 5000)

Evaluation Pattern: *Continuous evaluation based on Practical learning, MCQ, Final evaluation for Capstone Project at the end of course*

Prerequisites: *Optimistic & Un-learning mind-set, Enthusiasm of learning new things*

**The course is in association with Innovation & Research Foundation (IRF).**



## **Relevance**

Design thinking is a proven, experiential and iterative problem solving approach that any business or profession can employ to achieve great innovative results. Design thinking combines creative and critical thinking that allows information and ideas to be organized, decisions to be made, situations to be improved, and knowledge to be gained. It's a mindset focused on solutions and not the problem.



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Recently many large industries and organizations working in the areas of manufacturing, ICT, Logistics, Healthcare and Public systems have strongly advocated that design thinking and allied tools add value to the kind of employees that they need to run 21st century enterprises, which face global competition and which need continuous innovation. Some of the world's leading brands, such as Apple, Google, Samsung and GE, have rapidly adopted the Design Thinking approach as well Design Thinking is being taught at leading universities around the world, including d.school, Stanford, Harvard, MIT and GTU.

- ✚ Design-driven companies have outperformed the S&P Index by 228% over 10 years. (Source: DMI)
- ✚ Companies that foster creativity enjoy **1.5** times greater market share. (Source: Adobe)
- ✚ **50%** of design-led companies report more loyal customers (Source: Adobe)

### **Objective: Understanding Design Thinking Methodology**

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This course is meant to nurture the Creativity and Innovation quotient among the learner for solving complex problems and designing a better solution. Also for those who want to pursue their career in this evolving area of Design Thinking and Innovation. The course is designed to understand the Design Thinking methodology with tools and techniques applicable for problem solving and innovation through theory sessions, hands-on practices, project on real issues, case studies etc.

The course shall provide an understanding & hands-on exposure to Design Thinking process & its various tools & techniques for each stages; Exposure to corporate world expectations; gain self-understanding with regards to 21<sup>st</sup> Century Skills & Competencies needed by corporate world, life cycle of Product Development through converting ideas into useful marketable solutions approach.

### **About the Course**

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Design thinking works at the intersection of human needs, technological feasibility & business viability thus providing meaningful solutions to day to day as well as strategic needs of different levels of needs. Since most of the participants are students with low or medium working experience, thus, the course shall focus upon sensitizing and developing design thinking as a contextual problem solving mind-set & skill. Learn these principles to create a solutions that delight your customers. Design Thinking is often referred to as “Outside the Box” thinking, but to think “Outside the Box” one should know about the context and boundary conditions for the user. So GTU-DIC Design Thinking course caters the contextual needs of the learner and will not be a template based course. It also integrates the entrepreneurial aspects to convert one's idea into useful marketable solutions and hence



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learner would develop the skills on how to create a start-up, various traits of an entrepreneur, verticals of an enterprise, funding and marketing strategies, IPR and legal aspects etc.

### **Learning Objectives**

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It is expected that students shall be able to address these at the end of the course,

- ✚ Learn Design Thinking as an approach for Human- Centred Innovation
- ✚ Practice interviewing and observation skills to develop an empathetic worldview
- ✚ Framing actionable problem statements, Ideate & conceptualize
- ✚ Understanding of prototyping as a strategy to develop & test ideas
- ✚ Develop problem solving approach, holistic viewpoints and sustainability aspects while creating any solutions
- ✚ Create own start-up and how to run a business

### **Course Outline**

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- ✚ Design Thinking Introduction: Global perspective, case studies on successful utilisation of DT process
- ✚ Design Thinking process, methods and Design Principles, “Learning by Doing” approach
- ✚ Problem Articulation and Understanding the needs of an user, Define a Point of view
- ✚ Ideation, Sketching and Conceptualization,
- ✚ Prototyping and testing to create Minimum Viable Product
- ✚ Product Design & Development
- ✚ Business Model Creation and Business Cases

### **Teaching / Learning Methodology:**

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- I. The Design Thinking course will be **offline**, practical based involves Hands-on exercises, Face to face counselling and experiential program.
- II. The course content will be available in form of study material, presentations, video and case studies. During the course, student may also request for the interaction with concerned faculty and industry experts for resolving their doubts and learning difficulties as per availability of experts.
- III. Weekly Assignments/Tutorials and tasks will be given for their projects which requires involvements of 5-6 hours a week.
- IV. At the end of the course, learner will be ready with their product and business plan to start their own start-up if they wish and further supports will be provided by GTU Incubation and DIC program in terms of funding, mentoring, fabrication lab support, company formation & legal structure, IPR etc.



### **Three steps Registration Process:**

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**(1) Enroll Now:** <https://forms.gle/7En1fKCT4DXNug5A7>

After registration through above link, kindly make payment through below link and Refer Step-by-step guide (<https://go.aws/2wbFfeA>) for payment process for your reference.

**(2) Payment link:** <https://www.onlinesbi.com/sbicollect/icollecthome.htm>

After payment, download the payment receipt and upload the receipt through the link given in the payment guidelines, for successfully enrolment into the course.

**(3) DIC Course Payment receipt upload:** <https://forms.gle/dt9njJbbtwGsCWPn6>

Note: GTU – DIC committee deserves all right to admit, cancel and alter the course content without any prior notice. The jurisdiction for any discrepancy will be Ahmedabad.

### **Profile of Mentors:**

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**Mr. Rohit Swarup** is Recipient of two National Awards: Shiksha Bharti Puraskar & Indian Leadership Award for Educational Excellence.

He is working with various State Governments in India, China & Canada on projects related to an education and innovation ecosystem creation in the areas of Management, Technology, and Design.

Senior Mentor to Incubators supported by Atal Innovation Mission, Niti Aayog, Govt. Of India. He serves on the Board of several Universities, Design Colleges, Management Colleges & Incubators in India & China. He is a jury member and senior consultancy to NID. He has delivered more than 325+ Seminars & Workshop at several national & international forums.

Chairman, Innovation & Research Foundation; Founder Director, Explorra School of Design & Technology and Futurz Xplored. He has a Bachelors degree in Mechanical Engineering and PG Diploma in Business Management and Ph.D. in Design pedagogy & intervention for K12.





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**Mr. Karmjitsinh Bihola:** MS (Product Design, USA), B.E (Mechanical)

**Profile:** Mr. Bihola is a Design Thinker at mind-set and an Entrepreneur at heart, having master degree in Mechanical Engineering with specialization in Product Design from Stevens Institute of Technology, New Jersey, USA. He is working as an evangelist to develop, implement and spread the awareness about the concept of Design Thinking to foster Innovation and Entrepreneurship in the engineering colleges affiliated to Gujarat Technological University (GTU), Ahmedabad. He created the Design Spine, workshop modules and evaluation system from 3<sup>rd</sup> to 6<sup>th</sup> semester across engineering at bachelor level for "Design Engineering" subject based on Design Thinking methodology at GTU and every year, approx. 100K students are taking this course in GTU. He is deft in Design Thinking (DT) process using apt tools to create most creative and innovative solutions leading to Start-up. Mr. Bihola has trained 4000+ faculty members of engineering through 50+ Faculty Development Program (FDP) of basic to advance level. He was instrumental in setting up Design Innovation Centre (Hub & Spoke model) at GTU, granted by MHRD to build an innovative and design lead ecosystem. He was also pivotal in crafting a student start-up policy (SSIP) of Gujarat State. He is having 6.5 years of experience in academic focusing on curriculum development of Human Centered Design through continuous interaction with the industries and 1 year of industrial experience as Mechanical Design Engineer.



Deft in Design Thinking (DT) process to create most creative and innovative solutions with hands on experience in DT tools like Empathy Map, various Observation tools, Customer Journey Mapping, Opportunity Mapping, Card Slot, Analogy Thinking, Lateral Thinking, Divergent Thinking, Decision Matrix, Business Model Canvas and many more.

**Experience:** He is having 6.5 years of experience in academic focusing on curriculum development of Human Centered Design through continuous interaction with the industries and 1 year of industrial experience as Mechanical Design Engineer.

***For any query related to the course, kindly contact:***

Mr. Karmjitsinh Bihola, Course Coordinator, GTU.  
Assistant Professor, Centre for Industrial Design, GTU.  
Coordinator, DIC – HUB, GTU.

Call: 079 – 23267 531/593 or +91-95128 22525

Email: [dic@gtu.ac.in](mailto:dic@gtu.ac.in)

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