8. Human Centred Design for Inclusive Innovation

# **Laboratory Requirements**

- 1. Design Thinking Concepts & Tools Lab
- 2. Advance Data Structure & Algorithms Lab (Python)
- 3. Object Oriented Modeling & Design Lab
- 4. UX & UI Design Lab

# Semester-wise credit requirements

| Semester/Projects | Credits |
|-------------------|---------|
| 1                 | 14      |
| II                | 15      |
| III               | 15      |
| IV                | 14      |
| V                 | 16      |
| Total             | 74      |

#### **Semester Fees**

Tuition Fees - Rs 1,50,000/Institution Fees - Rs 15,000/-

#### **Admission Procedure**

## Eligibility

- BE/B.Tech in Electronics an Communication Engineering, Electrical and Electronics Engineering, Automobile Engineering, Instrumentation and Control Engineering, Aeronautical Engineering, Mechanical Engineering, and other relevant equivalent degrees.
- Qualifying CGPA 6.0 on 10 point scale or 55% aggregate marks in BE/B.Tech.
- Candidate should be currently working in an industry/organization.
- Minimum 2 years of work experience after BE/B.Tech.
- Self-sponsored candidate should be owner of a company with annual turnover of Rs. 10 Lakhs.

#### **Core Courses**

- 1. Design Thinking Concepts & Tools
- 2. Advance Data Structure & Algorithms
- 3. Requirement Engineering
- 4. Object Oriented Modeling & Design
- 5. Creativity & A.I.
- 6. UX & UI Design
- 7. Business Model Innovation

# Executive M.Tech. in CSE (Design Thinking & Innovation) [2.5 Yrs]

Information Brochure



Indian Institute of Information Technology Ranchi-834004, Jharkhand

**Registration Date** 

20 Oct - 30 Nov

#### **About the Institute**

Indian Institute of Information Technology, Ranchi (IIIT Ranchi), is one of the Indian Institutes of Information Technology, a group of 25 Interdisciplinary Technical Universities of higher education started by Government of India, focused on Information Technology. It is an "Institute of National Importance", declared by an act of parliament.

#### **Resource Person**

The faculty members for the programme will include experts from Intellect Design Arena Ltd., IIMs, IIIT Ranchi, NITs and reputed academic/research organizations

# Registration

Fill this registration form to apply https://forms.gle/d2M74yE5eKNjoN8WA

#### **Contact Details**

**Dr. Bam Bahadur Sinha** (Programme Co-ordinator)

Design Thinking & Innovation, Indian Institute of Information Technology Ranchi

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Throughout the programme, tools and techniques for fostering individual and group creativity, management practices that foster (or inhibit) innovation, methods for developing and evaluating ideas for new products, services, and the business models to execute these ideas, and principles and practices for leading innovation are explored. Using a variety of readings, case discussions. experiential examples, exercises, and a challenging team project, students explore and apply the principles of creativity and artificial intelligence in industries. The course also covers the concepts for systematically establishing, defining, and managing the requirements for large, complex, changing, and softwaretechnical. intensive systems, from organizational, and management perspectives.

### **Course Outcomes**

- Break cognitive fixedness and approach problems with a new mindset that integrates creative problem-solving and management.
- Put design thinking into action by collabrationg with peers form a wide range of professional experiences.
- Practice empathy and apply humancentered design through different techniques and mental model.

#### **Elective Courses**

- 1. Web Services & E-Commerce
- 2. Real Time Data Analysis
- 3. Software & System Engineering
- 4. Software Defect & Quality Prediction Techniques
- 5. Optimization Techniques
- 6. Cloud Computing
- 7. Deep & Reinforcement Learning
- 8. Stochastic Process & Queuing Theory
- 9. Information Theory & Coding
- 10. Pattern Recognition

## **Industry Partners**

• Intellect Design Arena Ltd.

Provides large enterprise-grade composable and contextual solutions driving higher business growth, reducing costs and risk on a sustainable basis.

## **About the Programme**

This programme will enable students to understand the concepts of Design Thinking and important tools associated with the application of Design Thinking. The focus will be given to areas of mindset transformation for a human-centered approach first.