

Ph. D in DESIGN



**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY,
DESIGN & MANUFACTURING, JABALPUR**

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN & MANUFACTURING, JABALPUR

1. Objective:

The conventional educational system allows individual to excel in a limited field. However, it does not prepare a student to facing the challenges beyond a prescribed path. In the recent years the conventional research fields are rapidly disappearing and the need of interdisciplinary research areas are expanding the knowledge overlapping various fields of professions. It is obvious mind cannot be restricted to a limited space. The paradigms of living and non-living beings create a world of inquisitiveness. The source of such knowledge is the foundations of all design inventions. Creative person thinks differently, which emerges out of such freedom of liberal mind. The intellectual growth through liberal education would fulfill the desire of satisfaction qualitatively rather than quantitatively. Innovation is the key to future generation and prosperity of a nation.

Unfortunately, the present global economic policy increasingly forcing a new parameter in the value system, a new life style is primarily based on quantitative measurements rather than qualitative judgment. Such policy would soon exhaust the flow of creative thinking. The need of the hour is to create a balanced curriculum synthesizing between 'divergent thinking' and 'convergent thinking'. The Ph. D research programme based on the above philosophy looks forward in developing a hub of interdisciplinary research environment. It is expected such research curriculum would generate an ideal liberal research environment breaking the conventional fields to creating a new horizon.

Design is an integral part of the IIITDM Jabalpur since its inception. The fields of design integrate various other subjects, such as art and aesthetics, humanities and social sciences, cognitive science, performing arts along with science and technology. The applications of various science and technology based knowledge emerges out of design. Having 'art and aesthetics' as an integral part of the curriculum it would directly play an important role in IIITDM Jabalpur.

IIITDM Jabalpur is located in a state that is rich with traditional handicrafts, art and colonial architecture, folk and classical music and is the only IT institution in the country where Design is going to establish its benchmark through such interdisciplinary field of liberal curriculum. Such environment has given an exciting challenging opportunity to explore rare fields of research and profession to grow with. There are large numbers of Information Technology Institutes operating in the country. However, having an independent design discipline in an Information Technology institution is unparallel in the country. The programme would broadly like to cover the following fields of research areas- Interaction Design, Ergonomics, Product Design, Visual Communication, Animation, Art and Craft, Landscape Architecture,

Environmental Design, Art & Design, Culture & Design, Design & Aesthetics, Emotion in Design, Space & Design, etc. The research areas would certainly attract large number of scholars from wide range of professions to create a unique hub liberal research environment. Consolidation information of the above areas would create a unique scholarly environment and professionals.

Hence, discipline proposes to introduce Ph.D. programme in Design. The programme envisages developing adequate facility in term of literature resources and studio facility to support the new programme.

2. Ph. D. Research Areas:

The design programme would concentrate on developing a knowledge based design professionals who would become the problem solvers, and who can effectively use different design methodology. They would develop their innovative and aesthetic sensibilities into making a coherent and appropriate research. The students would be encouraged to solve socially relevant problems. The research area would broadly involve, **‘Product, Space and Interaction’**.

The Design Discipline would focus in various fields of application of design and art in the field of science and technology, such as- Interactive Design (HCI, UI, etc.), Ergonomics, Product Design, Media Studies, Color in Design, Visual Communication, Environmental Design and Landscaping, Design & Aesthetics, Art & Society, Crafts Design, etc. The Design Discipline at I.I.I.T.D.M. Jabalpur would have the unique opportunity to take leadership in the above fields of research. Having advantage of Computer Science & Engineering in the Institute the area of HCI & UI, Experiential Design, Usability of products, and Application of Design in Analysis and control of human error, Agricultural Equipment and Process Design etc. would be an appropriate area of research. As mentioned earlier the discipline with its unique quality of research specialization would create an environment to synthesize art, science, and technology in the field of design. No other Information Technology institution in India has such unique environment. Presently in Madhya Pradesh IIIT D&M Jabalpur is the only educational institute where design education is pursued. Ph. D research in Design would be the first in Madhya Pradesh State.

Courses in Ph. D:

Each student has to register for minimum of four courses in each semester. One compulsory course (Research Methodology) for all the design students and other elective courses based on their interest. The Coordinator for the Ph. D Programme would recommend the courses to the students in consultation with the design faculty group.

Compulsory Course:

1. RESEARCH METHODOLOGY & TECHNICAL WRITING

Elective Courses:

1. DESIGN THEORY
2. CREATIVE VISUALIZATION
3. ART: A MEDIUM OF COMMUNICATION
4. ART, DESIGN AND SOCIETY
5. INTERACTIVE DESIGN
6. ERGONOMICS FOR INDUSTRIAL DESIGN
8. Other topics: MAY BE DEVELOPED AS AND WHEN REQUIRED

- Craft, Creativity and Post-modernism
- Communication through Form
- Contemporary Trends in Theater, Film and Art
Animation and Sequential Art
- Colonial Architecture in Indian Context
- Tribal Art and Socio-anthropological Relevance
- Primitive Art, Symbolism and Design
- Traditional Handicraft- Creativity, Material and Techniques
- Traditional Design (handicraft) and Modern Design a Comparative Study
- Traditional Design Concept, Material, Technique and Manufacturing Processes
- Interactive Design & Communication
- Environmental Design and Landscaping
- Folk Performing Art (folk music, folk dance, folk costume, folk play/ drama etc)
- Special Studies in Man, Machine and Space
- Design Ergonomics
- Ergonomics of job/task design
- Experiential design
- Product usability
- Injury prediction in industry
- Ergonomics in manufacturing
- Quantitative research methodology: design reliability, validating design
- Ergonomics in medical equipment design
- Ergonomics in defense, forensic science and national security
- Elementary scientific principles in design