

**Design and Innovation Centre**

**at**

**Banaras Hindu University  
and  
Indian Institute of Technology (BHU)**  
Varanasi 221005, UP, INDIA

*with Spokes*

*Mahatma Gandhi Kashi Vidyapeeth (MGKVP), Varanasi  
(State University)*

*Indian Institute of Information Technology (IIIT), Allahabad  
(Centrally funded Technical Institutes)*

*Motilal Nehru National Institute of Technology (MNIIT) Allahabad  
(Centrally funded Technical Institutes)*

## **Structure of Proposed BHU –IIT (BHU) Design Innovation Centre**

Design Innovation Centre (DIC) is a joint proposal of the Banaras Hindu University (BHU) and collaboration with Indian Institute of Technology – IIT (BHU) to be funded by Department of Higher Education, Ministry of Human Resource Development, Government of India.

**Role of BHU in HUB position :** BHU will be taking care of the multidimensional Design & Innovation projects and courses respectively in the area of Agriculture, Food processing, Art & Culture, Health, Humanities, Branding for Artisans - Handicrafts (Aesthetics, Ethics, Values, Print Media, Web and management support).

**Role of IIT (BHU) in HUB position :** IIT (BHU) will specifically will be taking care of Technological and Engendering aspect related to Design and Innovation projects and course and further, will be mainly involved in Prototyping and final development of the projects.

## **OBJECTIVES**

The BHU - IIT (BHU) Design Innovation Centre is to provide a platform to students and faculty members having zeal for learning and creativity, and passion to convert their creative ideas into significant, more viable design innovations.

At present it felt that there is need of Design Innovation Centre at BHU - IIT (BHU) campus the motive for same is **“To assist design and development of feasible projects at the department and DIC itself”**, of course the other benefits derived from same will be enhanced with hands on experience and realization of good working projects.

The basic purpose of setting up BHU - IIT (BHU) Design Innovation Centre is to promote:

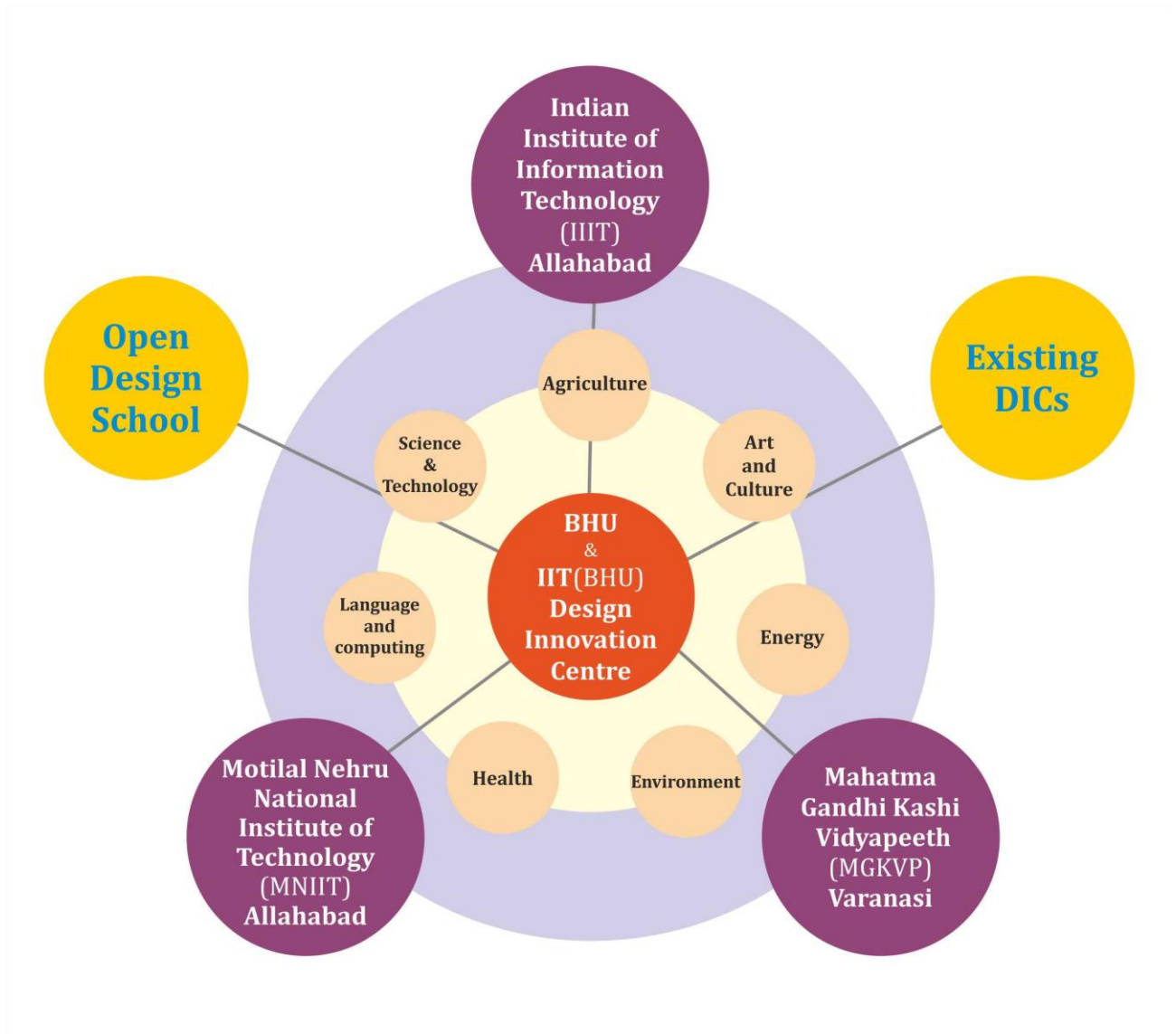
- Culture of innovation and creative problem solving.
- Knowledge sharing and collaboration amongst industry, academia, government Institutions, research laboratories, etc.
- To focus interdisciplinary design focused innovation and creativity.
- To facilitate evolution of new models of academia - industry interactions as well as academia-social interactions and develop institutional networks for innovations in the thematic areas.

Besides above said parameters DIC will also work for its sustainability.

- Coordination for Intellectual Property Rights (IPR) works.
- Establish an Innovation gallery where earlier, current and future works (*Patents, Prototypes, Ideas generation*) of Design and Innovation will display for further research.
- Provide Digital Media facility for Students, Faculty and Artisans of local area including Web Design, Short Films, Animation films and educational contents, E-content development, Mobile Applications, Branding and Marketing for its innovative works.
- Facilitate to Artisans and local entrepreneur about Design and Innovation.

**MAIN FOCUS:** The present DIC is planned with multidisciplinary approach, and will be focusing mainly on the following key areas of social and national importance.

Agriculture, Art & Culture, Energy, Environment, Language and Computing, Science and Technology  
**Hub and Spoke model**



## Deliverable

It is focused on providing current tools related to qualitative and ethnographic research, interdisciplinary and design thinking geared toward innovation processes applicable to society and industry. We see innovation as a process of continually addressing users' real and changing needs in order to improve quality of life through products, services, experiences and new tools.

### Year wise details for Deliverable of DIC from HUB and Spokes (expected)

S. No.	Deliverables	2015-16			2016-17			2017-18		
		HUB	Spoke	Total	HUB	Spoke	Total	HUB	Spoke	Total
1.	Patent and Design Registration	4	3	7	6	6	12	8	9	17
2.	Prototype	4	3	7	6	6	12	8	9	17
3.	Innovative Ideas (constructive)	4	6	10	8	8	16	8	8	16
4.	Courses*	3	3	6	3	3	6	3	3	6

*\*(as per university/institute/UGC/ MHRD and other government norms)*

**Sustainability :** After 3<sup>rd</sup> year Centre will generate revenues with Small and Medium Scale Industries, Self Entrepreneurs and Academia through facilitating design in prototyping of different projects, and consultancies.

## USP of the Centre

**We will create a fast moving system for design registration through Indian Patent Office and best place of innovation for everyone.**

## Proposed Course Outline

*(After approval of DIC project by MHRD all proposed courses will be widely discussed in different academic forums of the concern Institutes (HUB and Spokes) and duly approved by our academic and administrative bodies (Academic Council, Executive Council, Senate and others) and there be a chance of minor to major changes in these course, but all courses will be discussed and approved as per the guideline of UGC/ MHRD).*

## Proposed Six Courses structure to be run by Hub and Spokes

- 1. Banaras Hindu University (HUB)**  
Design and Innovation in Agriculture and Food Technology
- 2. Indian Institute of Technology - BHU (HUB)**  
Design and Development of Instrumentation and Sensor Technology
- 3. BHU – IIT (BHU) DIC**  
Design and Innovation in Handicraft Technology
- 4. Mahatma Gandhi Kashi Vidyapeeth (MGKVP), Varanasi (Spoke)**  
Design and Innovation for Regional Food Industries (Sweet and Street Foods)

5. **Indian Institute of Information Technology (IIIT), Allahabad (Spoke)**  
They will be running course and projects in the Designing and Innovations in Language Technologies.
6. **Motilal Nehru National Institute of Technology (MNIIT) Allahabad (Spoke)**  
They will be contributing in the area of Medical Diagnostics and Research with aim to providing routine and critical diagnostic services as well as to develop skills of scientific research to solve complex medical issues with advanced diagnostic facility under stringent ethical regulation and good laboratory practices. Course by them will be run in the area of 'Translational Health and Bio-Entrepreneurship'.

All proposed courses will run under existing educational structure which may be in one of the following formats:

- Open credit courses leading to minor area (*will be implementing immediately in the existing engineering programmes in UG & PG levels by offering courses on Design and Innovation*)
  - Certificate Course plan for Summer and Winter workshops and trainings.
  - Short term course of duration 2-4 weeks (*Especially targeting teaching and technical staff.*)
  - PG Diploma (One to one & half year) – *proposed programme will be run by DIC for its sustainability and it'll start from the 2<sup>nd</sup> year of DIC.*
  - *Ph. D. thesis*
- (These courses will run as per UGC/MHRD/University and Institutes norms).

**Course Format :** Core Courses, Elective Course, Thesis and Prototyping

**Intake** - 40 students

Intake will be come from HUB, Spokes, existing DICs and their spokes and open to all as per rules.

**Contact person from HUB:**

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**Sample course outline**

## **Art and Culture**

*(one topic or combination from followings)*

1. Changing culture of Semi Urban cities through Performing Arts and Visual Arts with aesthetic and ethical aspects.
2. Tribal and Adivashi cultural aspects with language and aesthetics.
3. Innovations in Handloom Designs including Aesthetics and ethical values.  
*(Weaving, Handicrafts, Textile, Carpet, Wooden Toys, Pottery etc.)*
4. Ethics and Human values in Innovation and Design.
5. Language relationship and innovation in Literature  
*(Hindi, Urdu, Bhojpuri, Tribal (Adivashi) and Awadhi)*
6. Rural languages and its Cultural phenomena during Festivals and functions *(marriage, birth etc.)*
7. Architecture, Hospitality, Exhibition, Retail, Display, Tribal Art, Culture, Language, Handicrafts with Technological innovations to relate with Society or Tribal Agricultural innovation challenges
8. Design and Innovation in Visual Arts and Performing Arts
9. Frugal Innovation in Art, Culture, Science and Technology with aesthetics and ethical values aspects.

## **Design**

*Core Courses may be:*

1. Human-Centered Design
2. Design Research
3. Design Communication and Methods
4. Design Strategy
5. Embedded system based design
6. Engineering system design

*Elective Courses may be selected on the basis of area of specialization:*

1. Industrial Design
2. Visual Communication
3. Animation
4. Interaction Design
5. Automotive Design