



*Design in India...*  
*... a Paradigm of Ascension*

*A Presentation by:*  
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*Faculty of Industrial Design*  
*Activity Chairperson,*  
*Research & Publications*

*National Institute of Design*  
*Ahmedabad, INDIA*

Photo : Dr. Deepak J. Mathew, NID

*September 23, 2008*



## *A 5000 year old civilization*

- A deep spiritual wealth
- Open democratic society

*“In each of these culturally cohesive societies, ‘creativity’ was recognized as a quality as essential and ordinary as the act of breathing.....”*

Source: Convocation Address in 1989 at NID  
by Dr Kapila Vatsyayan



*... rich heritage*  
*... streams of wisdom*

## *India - A Land of People*



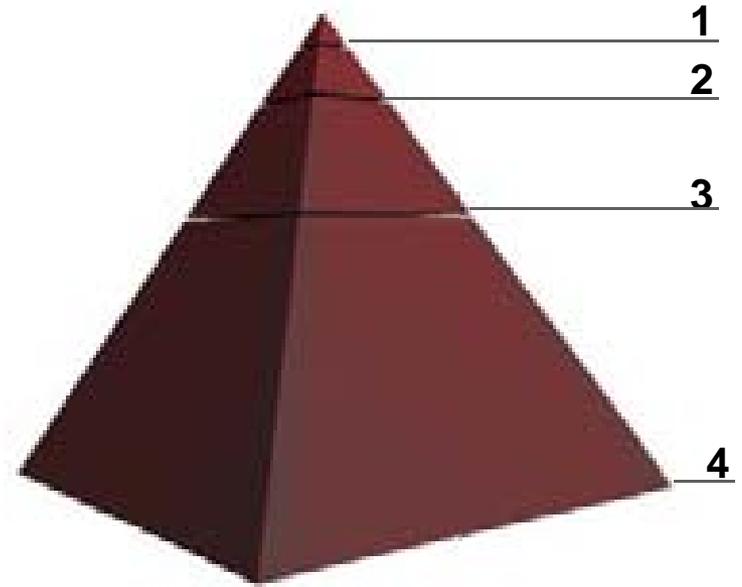
*... over 1 billion population*

*... 18 major and 1600 minor languages and dialects*

*... 6 major ethnic groups, 52 major tribes, 6400 castes & sub-castes*

## *...the economy on a role*

- *Second most populous and fastest growing market in the world*
- *Expanding middle-income group*
- *Increasing Demand for luxury goods & services*
- *Young population (20-49) expected to reach 45% by 2010*
- *Growing appreciation of the role of Design.*



- Tier 1 – 7 million      more than \$ 20,000
- Tier 2 – 60 million    \$ 10,000 to 20,000
- Tier 3 – 125 million   \$ 5,000 to 10,000
- Tier 4 – 700 million   less than \$ 5,000

**Market pyramid of India** (Source: Harvard Business Review July – Aug. 98)

*New and old, modern and traditional, rich and poor all coexist.*

*.....100 million mobile users increased in last one year.*

*Divyabhaskar 08.09.08*

## *Pragmatic Approach*



*“Indians by nature are highly enterprising and they find ingenious and amazing ways to make the most of whatever resources and skills at their disposal to earn their daily living.”*

*...Design is the way of life in India.”*



*“The solutions that are ‘people centric’ - people not as consumers but as human beings - the one that generates new employment opportunities en-cashing the existing skills of the people, improves the standard of living while preserving the values of traditional society, are more likely to achieve success.”*

*“Production by masses and for masses rather than mass-production”*

– Mahatma Gandhi

---

*Diversity of culture, traditions  
and ethnic & economic dimensions  
offer variety  
of  
Opportunities and Challenges  
for Creative Solutions*

---

## *...Seeding Design in the Country*

*' ... the search of forms demands an investigation into values and qualities that Indians hold important to life.. and that there be close scrutiny of those elements that make up a standard of living'*

...The India Report, 1958 **Charles and Ray Eames**

*... to provide a culture-centric multi-disciplinary approach to design, to deal with the diversity that is INDIA.*



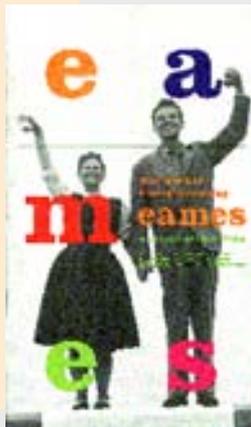
THE  
INDIA  
REPORT

April 1958

Graphic Publishing Division  
The RAND Corporation



UNITED STATES GOVERNMENT PRINTING OFFICE

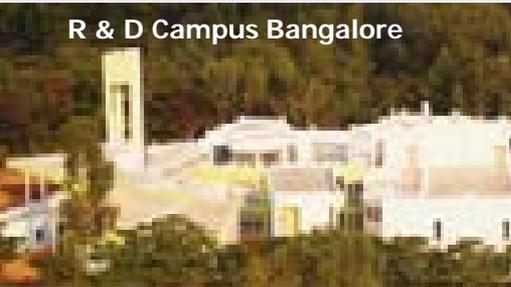


# *National Institute of Design, India*

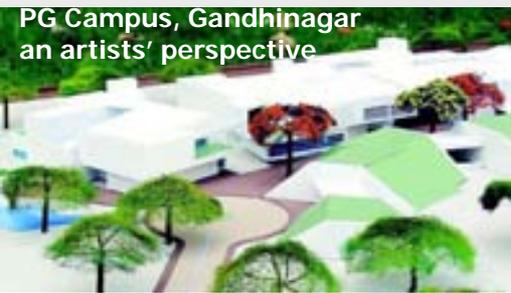
Main Campus Ahmedabad



R & D Campus Bangalore



PG Campus, Gandhinagar  
an artists' perspective



**47** years of design experience,  
about **1500** alumni,  
**800** students,  
**60** full time faculty members,  
around **200** visiting experts,  
**200** staff / project team members,  
& **3** campuses

*...a value based trans-disciplinary Centre of Excellence*

*... amongst 25 best institutes in the world*

The image shows the cover of BusinessWeek magazine. At the top, the 'BusinessWeek' logo is in white on a red background. Below it, the headline 'THAT SINKING FEELING' is written in large, bold, white letters. The main image is a colorful, multi-colored house (yellow, red, blue) with a white picket fence in front of it. There is some text on the left side of the cover, but it is partially obscured and difficult to read.

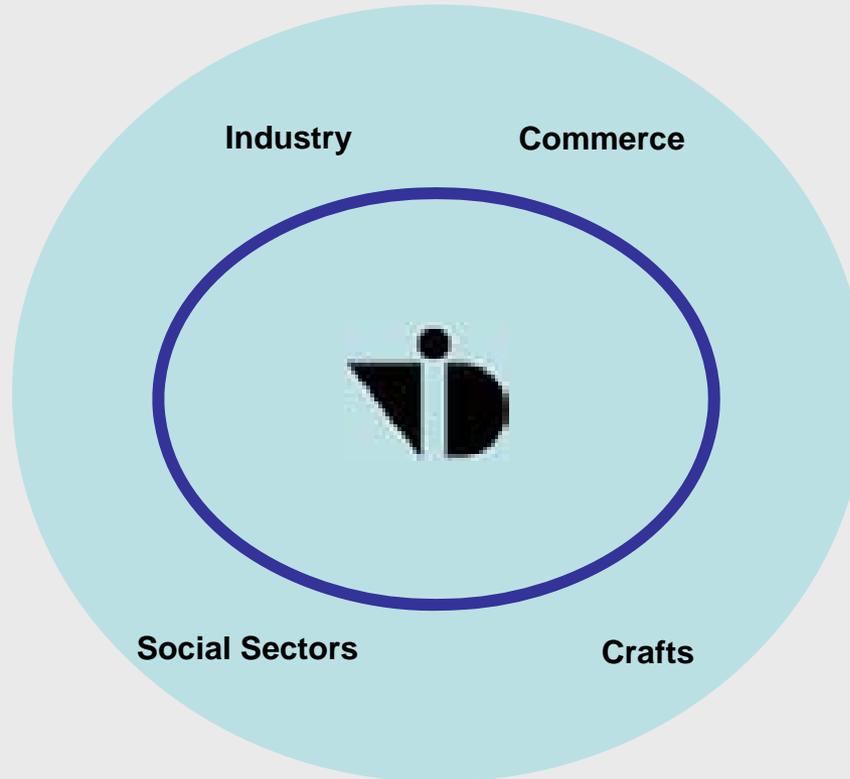
**BEST** COLLEGE FOR DESIGN

### The Top European & Asian Design Programs

Rank	Program	Location
1	London College of Fashion	London, UK
2	London College of Communication	London, UK
3	London College of Design	London, UK
4	London College of Fashion	London, UK
5	London College of Fashion	London, UK
6	London College of Fashion	London, UK
7	London College of Fashion	London, UK
8	London College of Fashion	London, UK
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21	London College of Fashion	London, UK
22	London College of Fashion	London, UK
23	London College of Fashion	London, UK
24	London College of Fashion	London, UK
25	London College of Fashion	London, UK

*Business Week, USA placing NID as one of the top most institutions for design in the world in two consecutive years (2006, 2007)*

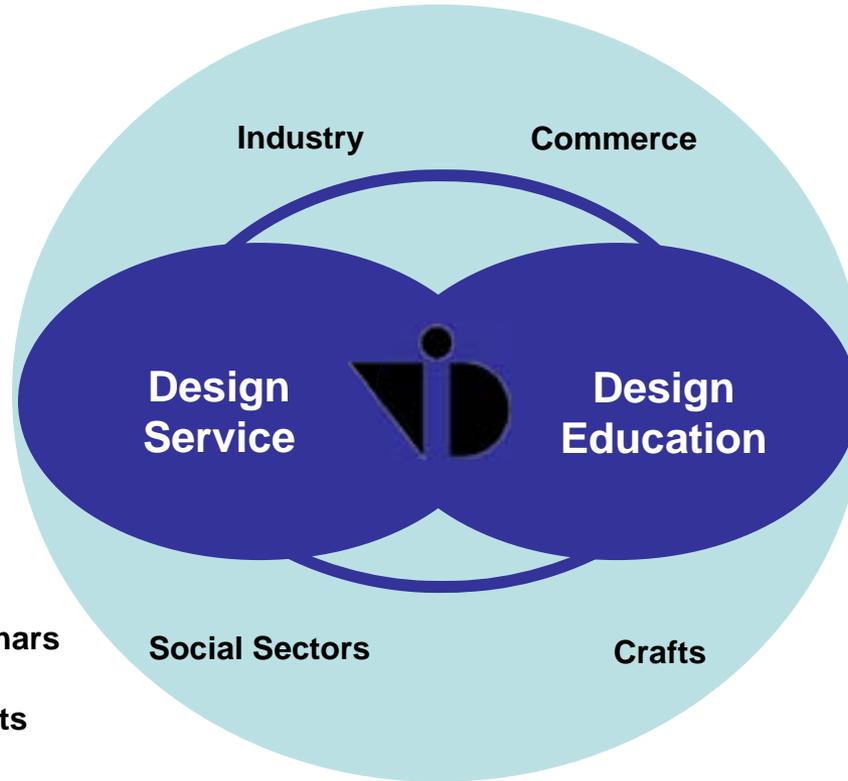
*... the mandate*



- *Design Education & Training*
- *Design Service*
- *Design Awareness & Design Promotions*

## *... the NID perspective*

- NID Satellite Centres



- Design Sensitization Seminars & Workshops
- Design Intervention Projects
- Design Audits & Design Clinics

- Craft Documentations
- Class room Projects
- Industry Internships
- Diploma Projects

- NID Alumni
- 100 Design Houses
- Approximately 1500 Alumni in different disciplines

*Design is about Problem solving for Industry, Commerce and Social Sectors and Creating new opportunities often where none exists*

# *NID's international linkages for education*

**ENSCI & ENSAD**

**Konstfack University of Art, Craft & Design**

**Pforzheim University of Applied Sciences**

**Shenkar College**

**Massey University**

**DuocUC School of Design**

**Danmarks Designskole**

**Monash University**

**University of Moratuwa**

**Politecnico di Milano**

**Royal College of Arts & Design**

**University of Johannesburg**

**Art Centre College of Design**

**Ontario College of Art & Design**

**Kookmin University**

**The Universidad Politecnica de Valencia**

**University College of Creative Arts**

**Rhode Island School of Design**

**Zurich University of the Arts**

**Paris**

**Sweden**

**Germany**

**Israel**

**New Zealand**

**Chile**

**Denmark**

**Australia**

**Sri Lanka**

**Italy**

**UK**

**South Africa**

**USA**

**Canada**

**Korea**

**Spain**

**UK**

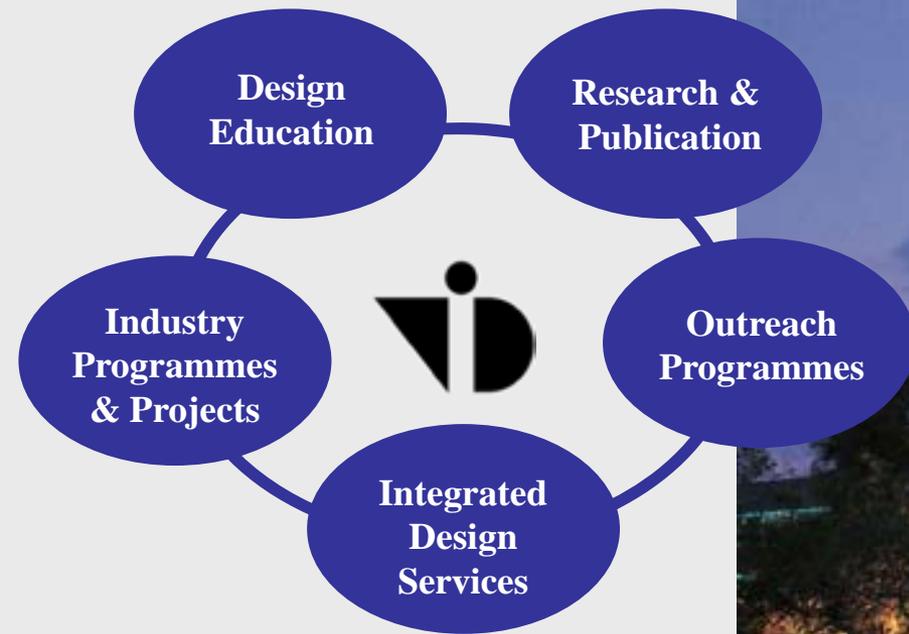
**USA**

**Switzerland**



*... linkages with over 35 design institutes across the world*

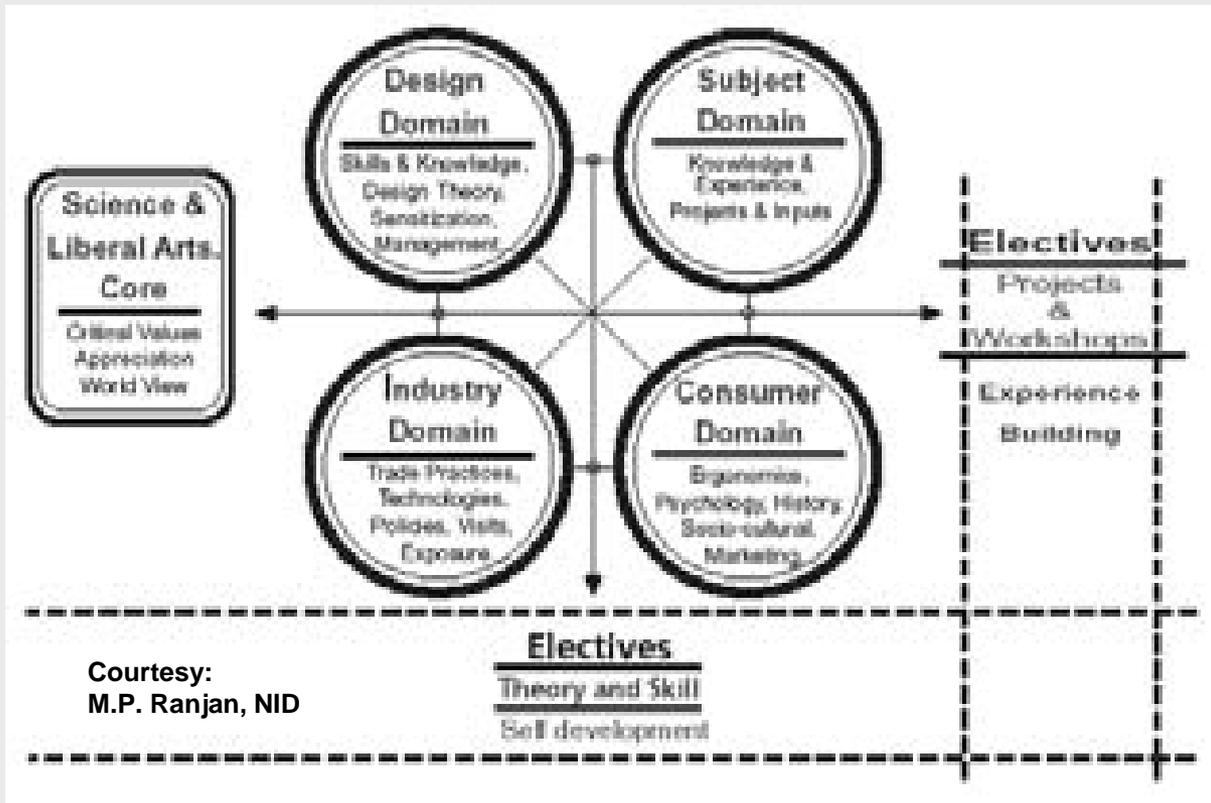
## *NID's creative campus; many facets*



Learning by doing  
Learning together  
Learning to learn

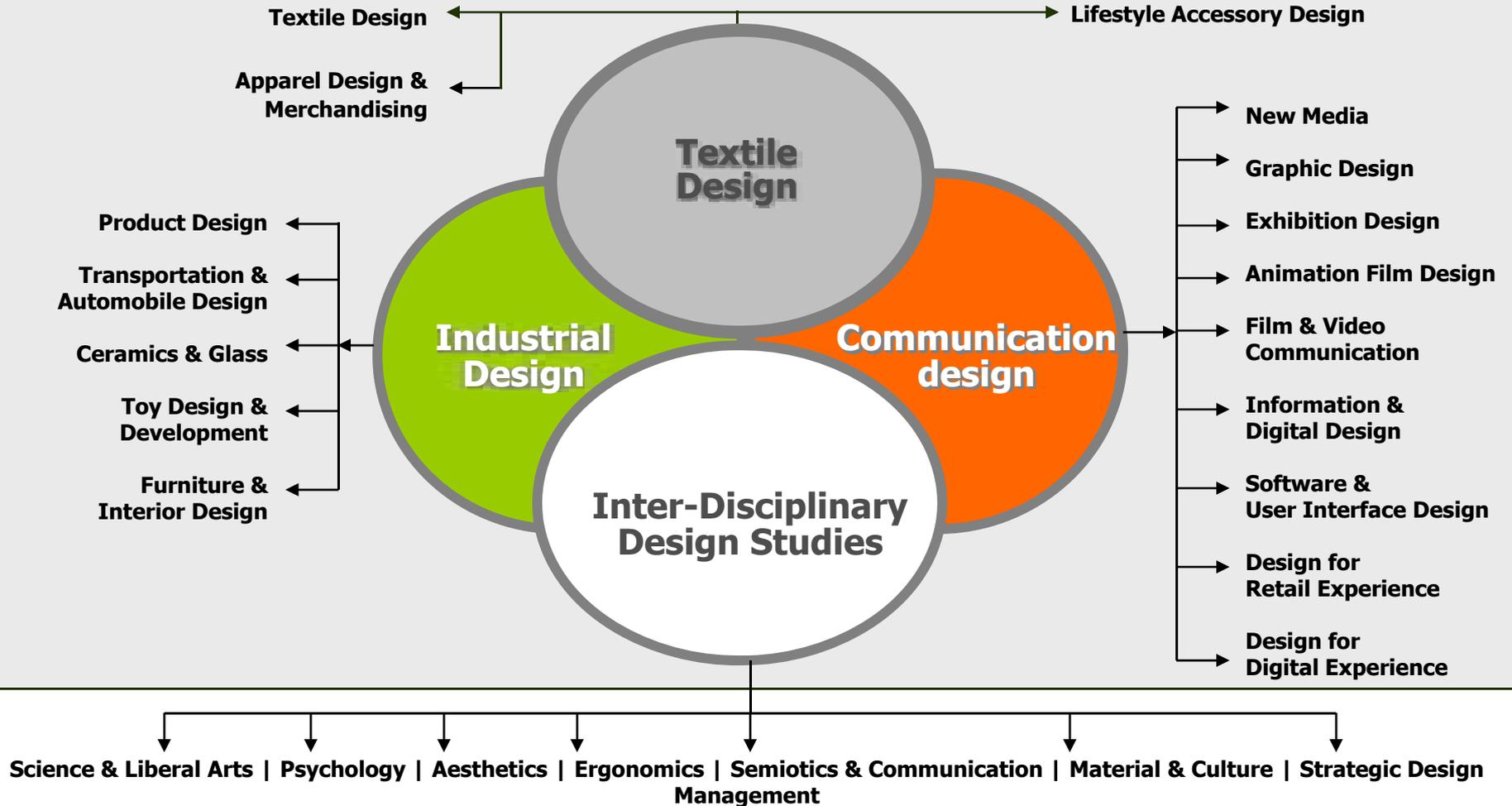
*... improving the quality of Life*

*... trans-disciplinary approach*



*... in pursuit of Design Excellence*

# *...multi-disciplinary learning*



**SPACES - PRODUCTS - IMAGES - SERVICES - EXPERIENCES**

## *...education at NID*



- Hands-on experience
  - Prototype development.
  - Project based learning
  - Experience on live projects.
- Qualitative assessment
  - A combination of individual and peer group learning.
  - Formal – informal dialogue between faculty and student
  - Continuous and critical feedback
  - mentoring
- Originality and Conceptual quality
- Strong knowledge and skill base

*...global perspective but local context  
....socially responsible design*

## *... curriculum structure at NID*



### **Graduate Diploma Programme in Design, GDPD**

Students joining after 12th standard

Programme duration 4 years ( 8 Semesters)

2 Semesters - Foundation Programme at NID

5 Semesters - course / project - 100 weeks

1 semester - Diploma Project - 24 weeks

### **Post Graduate Diploma Programme in Design, PGDPD**

Students joining after graduation from Engineering,  
Architecture, Fine Arts etc.

Programme duration 2.5 years ( 5 Semesters)

4 Semesters - Course Project - 80 weeks

1 semester - Diploma Project - 24 weeks

*Classroom projects, Electives/Workshops, Craft  
Documentation, Industry Internships, Diploma Project*

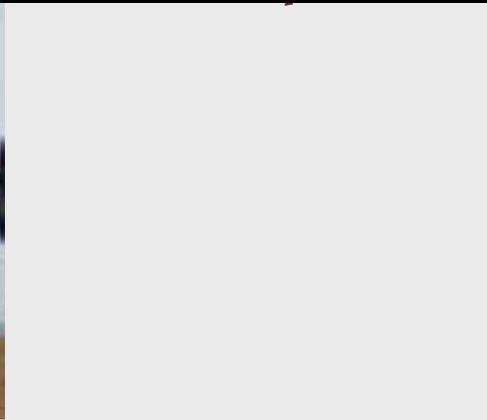
## *...integrating cutting edge technology*

- Digital Archiving
- Visual Images Collection
- Books / Music / Video / CD-ROM Collection
- Craft & Traditional Knowledge Documentation



- *Advanced Innovation Labs in all discipline areas*
  - *Rapid Prototyping facilities*
  - *Virtual Reality Visualizations Lab*
- *State-of-the-Art Knowledge Management Center*

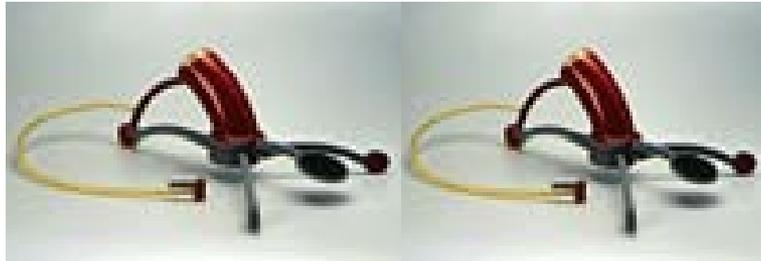
*...collaborative workshops/ seminars*



*Think-tank ,'Local becomes global: The future of education in India and the world', a joint workshop for the students of Konstfack University of Design, Sweden and NID, Ahmedabad*

*Creative Communities for Sustainable Lifestyle, a workshop in collaboration with the Polytecnico de Milano, Italy*

*... user focused approach*



## *...humanizing technology*

**SMEs contribute an overwhelming 95% of industrial units**

**.(www.moneycontrol.com)**



Center for Technology Extension  
DRDO New Delhi

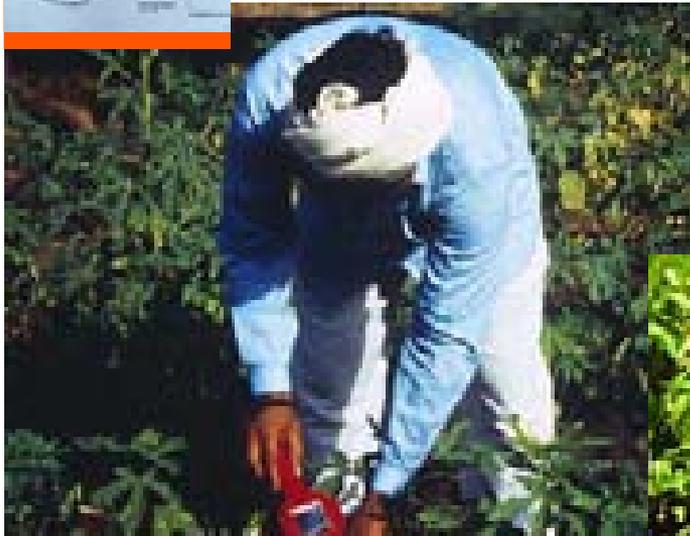


Center for Advance Technology CAT Indore



- *Converting Constraints into Unique Opportunity*
  - *Offshoot applications - New applications*
    - *Indigenization*

*... adapting technology for local use*



## *... crafts*



- Sustainability*
- *value addition*
- *creating new opportunities*

*... hand holding*



**Cube stools  
developed at  
BCDI Agartala**



*Backward Linkages - Product - Forward Linkages*

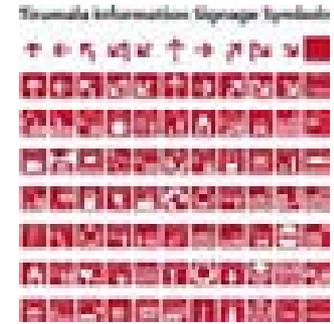
## *...Merging Tradition with Modernity*



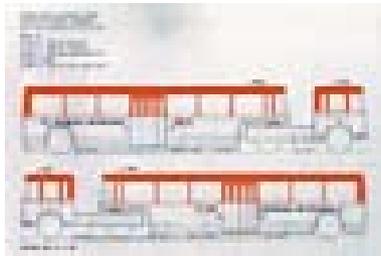
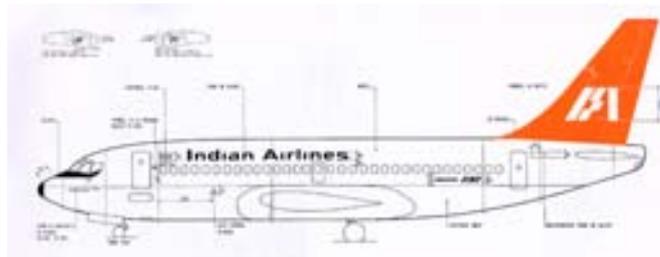
Designer & Project Head: **Mr. V. S. Katiyar** Faculty of Textile. Design, NID

*... Connecting to Contemporary Markets*  
*... utilizing local knowledge & capabilities*

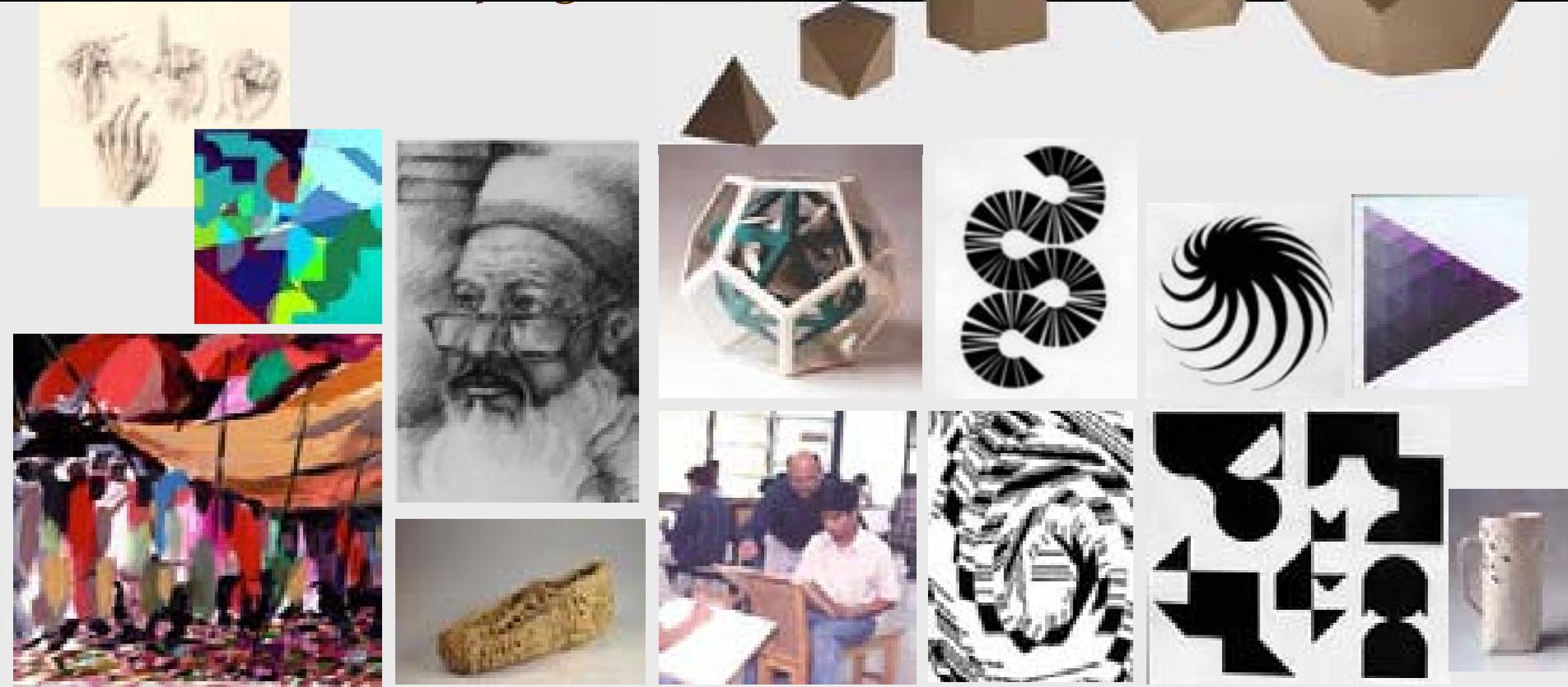
# ...social communication



*...creating brands and identity*

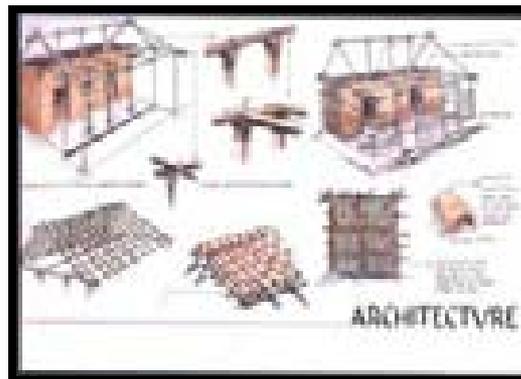
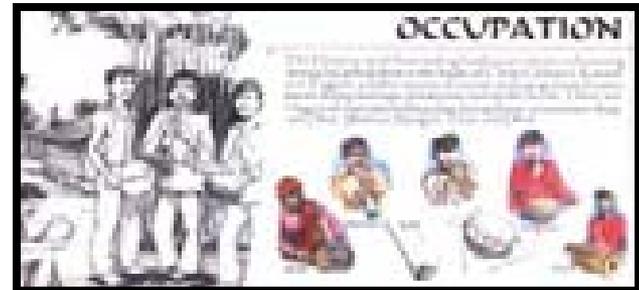
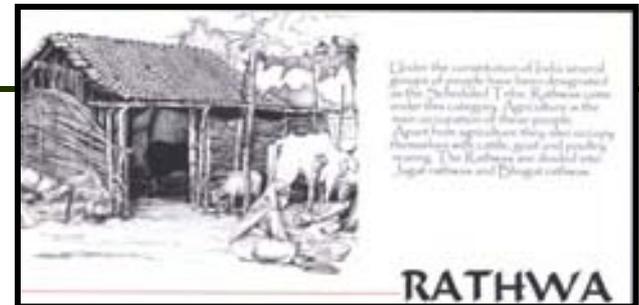


*...foundation programme*



*...focus on different skill acquisition*  
*...integration of skill & concept development*

## *... environment perception*

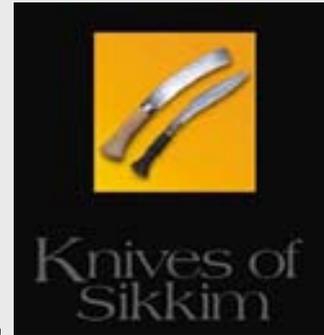


*... to live with the community, share experiences and learn directly from such interactions.*



## *...craft documentation*

*votive terracotta of  
central gujarat*



# ...indigenous innovations



The innovation that this person has done is he has converted the brake lever of the front wheel into accelerator. He has taken the accelerator wire from the accelerator lever and joined it to the brake lever.

He has to strike the handlebar for 10 hrs so he will start to push as he has to start if ever with this innovation as he has to do it press the lever and control the speed of the vehicle thus he is relieved of the pain and making his job easier.

When the brake lever is pressed then the vehicle accelerates.



AN INDIAN INNOVATION: A RURAL WOMAN HAS CONVERTED A TRADITIONAL CLAY POT INTO A COOKING POT WITH THE HELP OF A METAL CAN.



The traditional pot of the rural women is made of clay and is used for cooking. It is heavy and takes a long time to cook. The innovative form is made of metal and is used for cooking. It is light and takes a short time to cook.

**THE INNOVATION:** A RURAL WOMAN HAS CONVERTED A TRADITIONAL CLAY POT INTO A COOKING POT WITH THE HELP OF A METAL CAN.

**THE IMPROVEMENT:** THE INNOVATION IS LIGHTER AND TAKES A SHORTER TIME TO COOK.

**TRADITIONAL DIGI** **INNOVATIVE FORM**

AN INDIAN INNOVATION: A RURAL WOMAN HAS CONVERTED A TRADITIONAL CLAY POT INTO A COOKING POT WITH THE HELP OF A METAL CAN.

## ...young designers 2007



*ImageIN-Intel Healthcare,*  
Pratap Ganapathy, INTEL Technology  
India Pvt. Ltd., Bangalore

*My First Renault,* Moneet Chitroda,  
Renault Design India, Mumbai

## ... young designers 2007



*Concept Presentation of 'The Look of the City' for CWYG 2008, Gauri Burve Elephant Strategy + Design, Pune*

*Echoes of Ethnicity, Parvati Kalvatala, Payal Enterprise Pvt. Ltd. Ahmedabad*

*Concept Representation of Environmental Graphics for the Look of the Stadium for Commonwealth Youth games 2008, Pune, Tanya Thomas Elephant Strategy + Design, Pune*

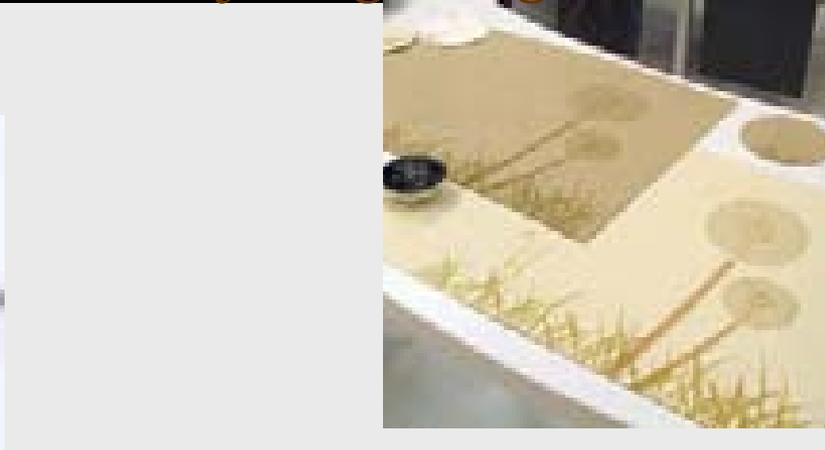
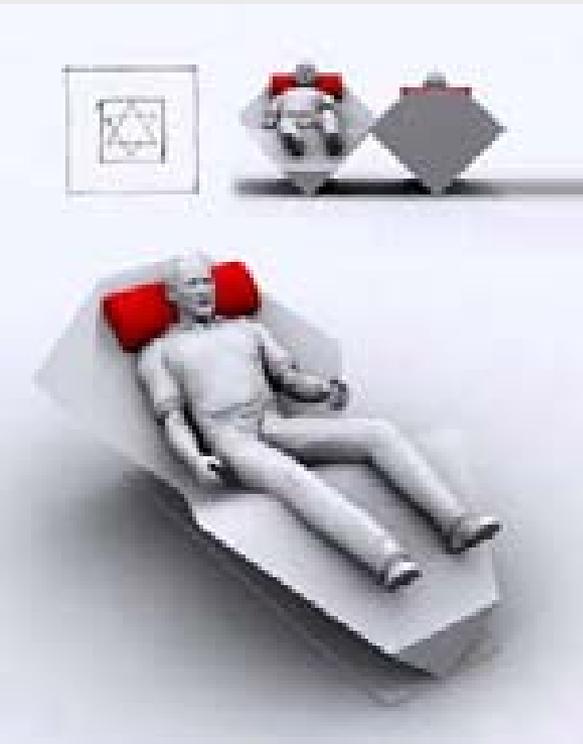
## ...young designers 2007



*Enhancing Customer Experience,*  
Gazala Vahanvati,  
Reliance retail – Apparel Division

*'SAAB'-Brand Strategy and Positioning,*  
Ruchika Rawat, General Motors, Bangalore

*... young designers 2007*



*The Moksha Collection, Arvind Dutta, Studio Mario Mazzer, Italy*

*Ethereal: A Collection of Home Accessories, Nivedita Pandit, Textrade International Private Limited, Mumbai*

## ...young designers 2007



*Integrated Townships: Investing Opportunities for Technological Intervention*, Raman Khanna, Honeywell Technology Solutions, Bangalore

*Promotional Gift Toys by Using Corian Scrape*, Paavani Bishnoi, DuPont, Delhi

# ... young designers 2007

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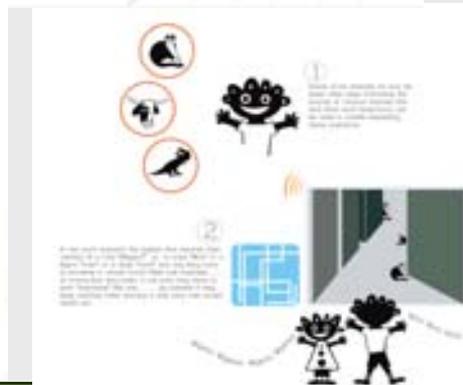
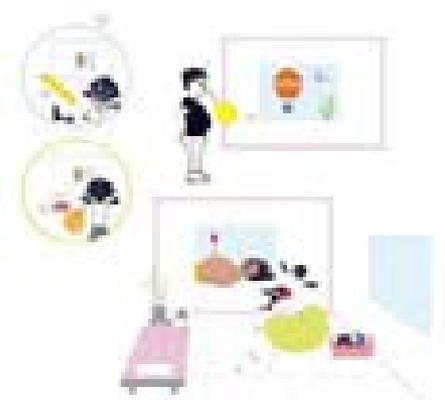
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Accessibility for the Differently Aabled,  
Pallavi Kulkarni,

Interaction Pattern for Games for Kids:  
Home PC Scenario, Sumiran Pandya,

Ford Foundation - NID Diploma Scholarships  
TATA - NID Diploma Scholarships

## *...faculty-led design research projects*

### **Ergonomic study of brick making workers**



Figure 1: Brick-making workers in a rural setting.

Figure 2: Brick-making workers in a rural setting.

The study was conducted in a rural area of West Bengal, India. The workers were observed during the brick-making process, which involves the use of a wheel and a mallet. The study found that the workers experienced significant physical strain and discomfort, particularly in the lower back and arms.

The study also found that the workers had limited access to healthcare and safety equipment. This highlights the need for improved working conditions and access to healthcare for brick-making workers in rural areas.



Figure 3: Brick-making workers in a rural setting.



### **Ergonomic Study of Agricultural Workers**

*Anchor Faculty: Dr. Subir Das*

### **Design Education in Schools through Toys and Games**

*Anchor Faculty: Ms. Gayatri Menon*

### **Paradigm of Indology in the Contemporary Lifestyle Design Context**

*Anchor Faculty: Mr. Shekhar Chatterjee*

### **Disability and Indian Women: Some concerns**

*Anchor Faculty: Ms. Shilpa Das*

### **Curriculum Development for Exhibition Design**

*Anchor Faculty: Ms. Tanishka Kachru & Dr. Jignesh Khakhar*

### **Design of Solar Cooker**

*Anchor Faculty: Mr. Shashank Mehta*

### **Ergonomic Study of Brick Making Workers**

*Anchor Faculty: Dr. Prabir Mukhopadhyay*

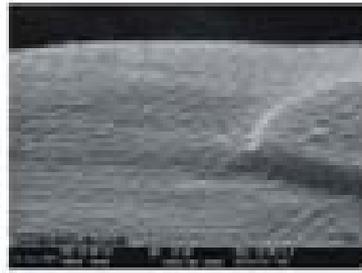
## *...faculty initiated design research projects*

# *Design Research Chairs at NID*

## *John Bissell Design research Chair at NID*



Angora Fibre Before Plasma Treatment



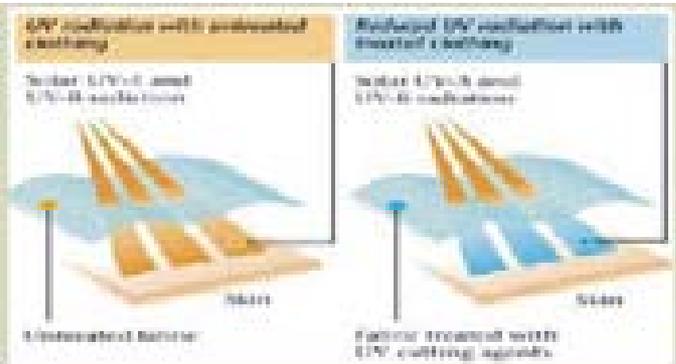
Angora Fibre After Plasma Treatment



## *Atmospheric Plasma Processing For Angora Wool (Appaw)*

# Design Research Chairs at NID

## John Bissell Design research Chair at NID



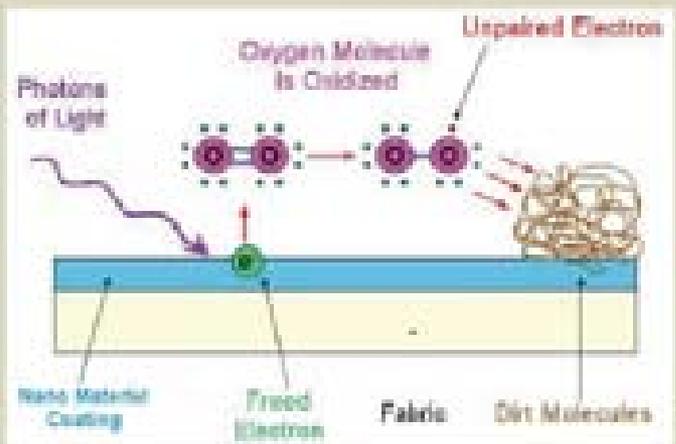
2



3



4



1

### ...Sun-protective & Self-cleaning Textile

1. Protection From Ultra Violet Rays and Control Odor
2. Protection for Two Wheeler Riders from UV Rays and Air Pollution

3. Antibacterial Nano Finish Cotton Fabric
4. Eco Friendly Bamboo Fibre Fill

# Design Research Chairs at NID

## John Bissell Design research Chair at NID



**Polyester Micro- Filament Fabric for Wicking out Moisture from Body Skin**

**Angora Wool Insulates Body from Cold**

**PU Waterproof & Breathable Membrane Laminated to Polyester Face Fabric for Protection from Rain & Wind**



### World Wool Award

Category Concept & Innovation

Certificate of Merit:

**R. S. Rajasekaran, India**

"Protection Clothing for High altitude"

The project is a product of his creativity and passion for his subject. It is a result of his "High altitude" training for the army using Angora wool, with the quality attributes, including its natural oil, which is a natural protection against the cold, rain, and wind. The project will be the best for the Indian army, which people would like to wear right before their eyes.

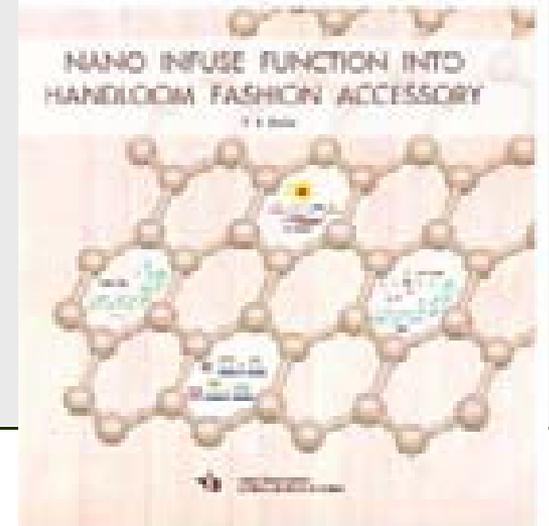
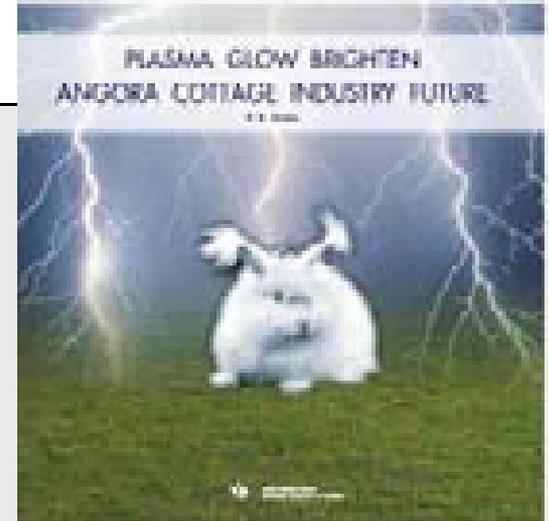
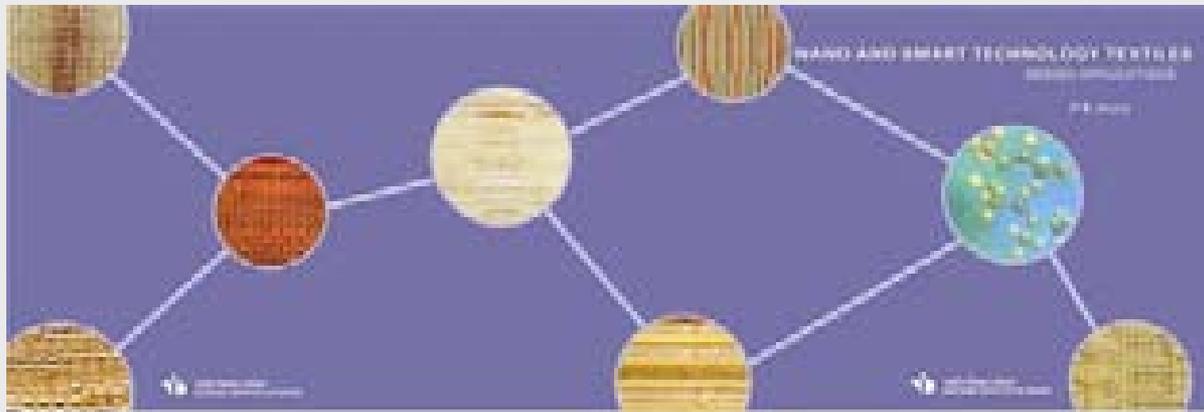
Full Presentation:

Woolmark International Woolmark Organisation  
The Woolmark is a registered trademark of the International Woolmark Organisation  
Phone: +31 (0) 486 41 1111 Fax: +31 (0) 486 41 1111  
www.woolmark.com

*... high altitude clothing for Indian army  
... a diploma project initiated under the design research chair  
... the project now supported by NDBI, NID and the industry*

# *Design Research Chairs at NID*

## *John Bissell Design research Chair at NID*



*... monographs*  
*... awareness workshops/ presentations*

# *Design Research Chairs at NID*



## **O P Jindal Chair for Stainless Steel Product Innovation and Development:**

Chair Supported by the Jindal Stainless Ltd., India to develop new areas and applications utilising stainless steel material and technology in order to contribute to the industry in particular and society in general

### **First Cycle**

- Thrust area being office and hospital furniture.
- 36 furniture prototypes developed 12 designs approved for production
- A monogram 'Simply Stainless'
- Student design competitions, Students' class room projects

### **Second Cycle**

- Thrust area being home applications using specific grade of Stainless steel

Hospital Furniture  
(O P Jindal Research Chair at NID)



# *Design Research Chairs at NID*

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## **Ravi J Mathai Design Research Chair for Design Innovation & Management**

- focus on “Design Innovation for Enriching School Education and Toy-Craft Sectors”
- developing a relevant methods / projects for design education and research

## **Autodesk-NID Design Research Chair**

- The Chair has been introduced to spread quality design education.
- Developing systems and collaborative projects for design technology and fusion.

## **The Charles Eames Design Emeritus Fellowship at NID**

- Set in the context of “Design for Development” and “Design for better Quality of Life”

## **Jamsetji Tata Design Research Chair for Universal Design at NID**

- an industry-academia nexus for promoting design to work towards psycho-social-environmental development of people
-

*...sector specific centers for R&D*



*'Design Edge' - Autodesk-NID Centre of Excellence*

*...sector specific centers for R&D*

**Bullet Shakthi**



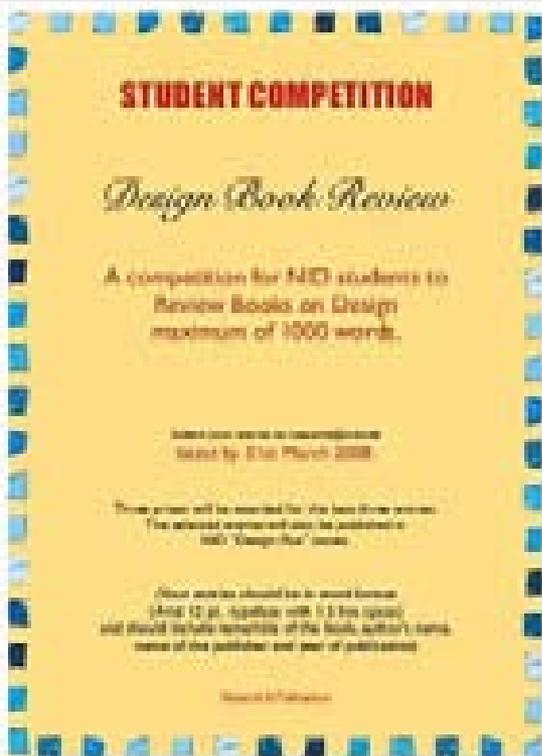
*GRIDS - Grassroots Innovation and design Studio*

*...sector specific centers for R&D*



*Centre for Bamboo Initiatives  
and ...Toy Innovation Centre  
NID- Asian Paints Colour Research Lab*

## *... other departmental activities of R&P:*



### **“Design@ NID”**

A conference for NID students and faculty members with the objective to document and highlight unique design approach used and practiced at the institute.

*Student Design Competitions*

## *...publications at NID*



*...outcome of craft documentations, course documentations, teaching, research and professional work of over 47 years.*

## *Industry Programmes & Projects*



- In-campus design workshops (open to all)
- Off campus design workshops (in Industries / Institutes / Organisations)
- Design Clinics and Audits (for Industries / Organisations)
- Continuing Education (Evening Workshops/Seminars for working professionals)

- *short-term training programmes,*
- *international programmes in design awareness, design clinics,*
  - *collaborative certificate programmes*

# Integrated Design Services



ভাৰতীয় ষ্টেট বেঙ্ক  
ভাৰতীয় ষ্টেট ব্যাংক  
State Bank of India  
भारतीय स्टेट बैंक  
భారతీయ స్టేట్ బ్యాంక్  
இந்திய அரசாங்க வங்க  
भारतीय स्टेट बँक  
ଭାରତୀୟ ଷ୍ଟେଟ ବ୍ୟାଙ୍କ  
भारतीय स्टेट बँक  
ભારતીય સ્ટેટ બેંક  
ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್  
دولت بینک



Design of National Identity Card,  
Client: Election Commission, New Delhi

*... applied design research*

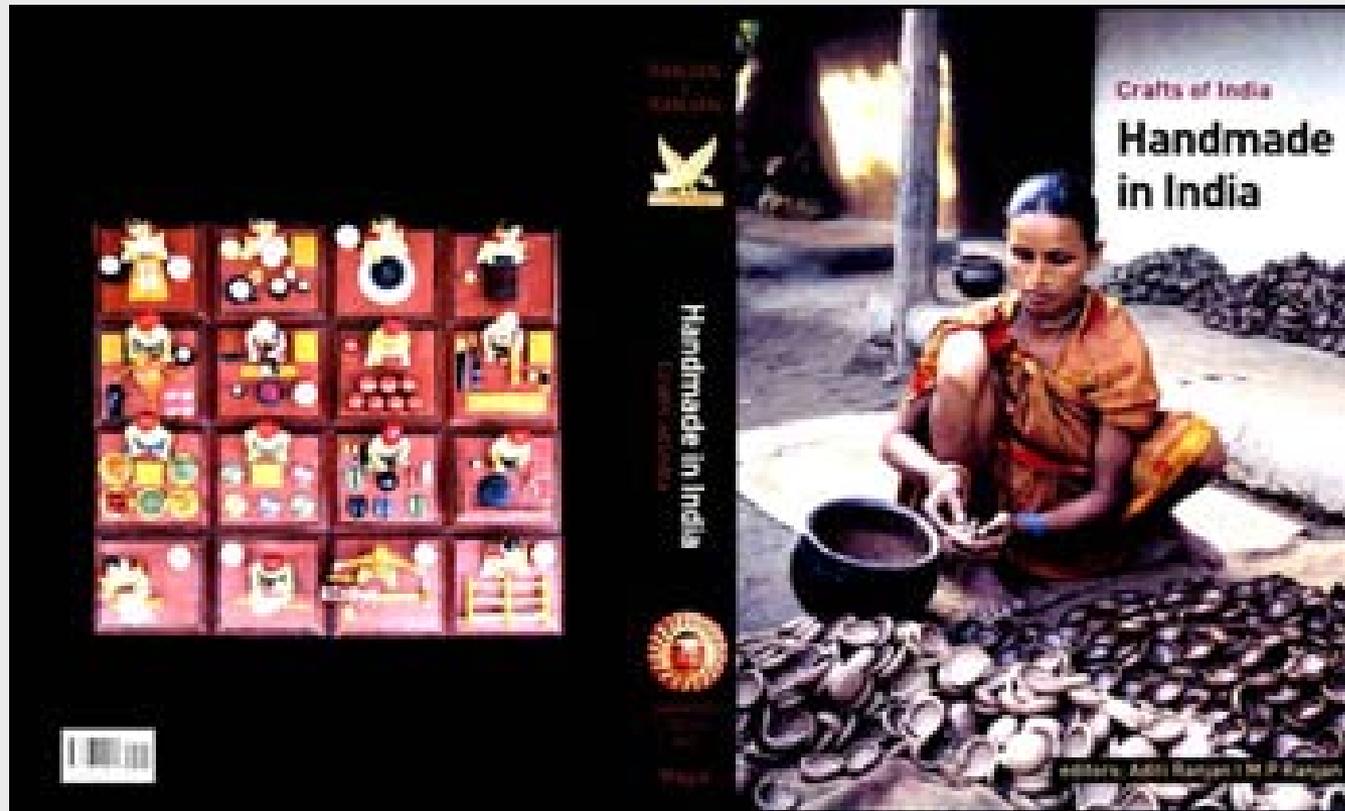
# Outreach Programmes



Clients: NABARD , Ahmedabad  
& GURJARI, Gandhinagar

*... design intervention for craft clusters*

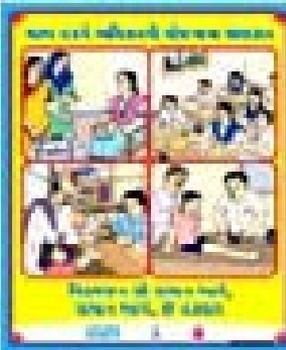
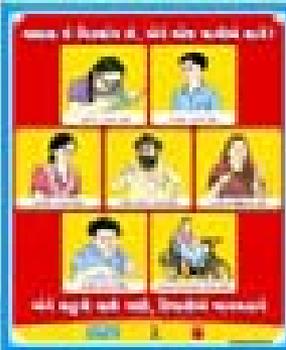
## *Outreach Programmes*



**Comprehensive  
Documentation of  
6 Zones in India,  
102 Meta Clusters,  
600 Craft Clusters,  
600 Crafts**

*Handbook Of Handicraft*

# Outreach Programmes



Strategic Behavior Change-Communications (BCC)  
Campaign on Disability Prevention and Care  
Client: Handicap International, Ahmedabad

Study of Geographical Indications in Traditional Crafts  
21 Crafts Spread over Seven States

# *International Centre for Indian Crafts, ICIC*



*...capacity building, design-technology orientation and skill up-gradation of artisans and craftsmen.*

## **Small Scale Industries**

Craft & Rural Industries

Furniture Systems

## **Multi Disciplinary Interactions**

Graphic Design for Publishing Industry

Information Design

## **Brand Identity & Communication Design**

Visual Merchandising

Web Design & Multimedia

# **NID'S Engagement with Diverse Sectors**

Handloom Sector

Policy Interventions on Design Matters

## **Social Communication**

Consumer Product Design

Packaging Design

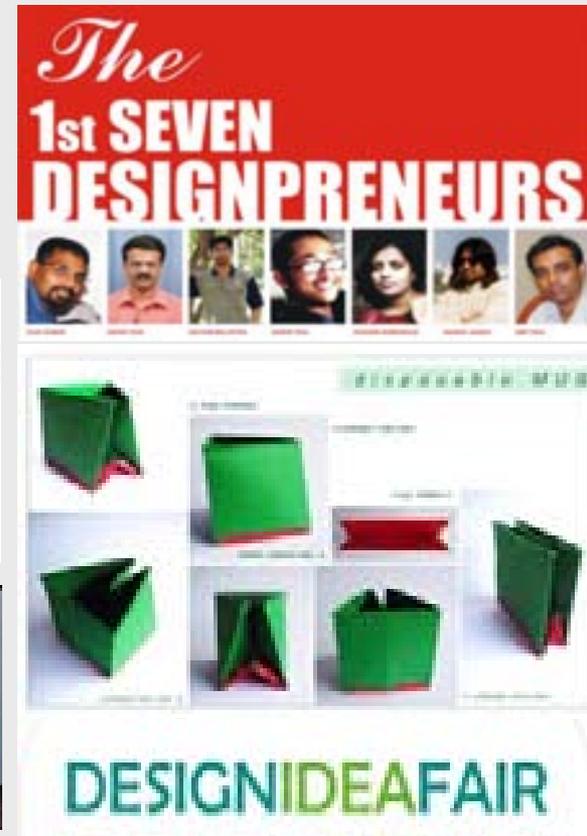
Automobile Design

## **Exhibition & Museum Design**

Lifestyle Products & Accessories

Animation film production

# *Incubating Designs for Markets*



*National Design Business Incubator, NDBI at NID  
Supported by DST, Government of India*

## *NIDUS - the design store*



*... a co-operative venture by the staff and faculty members of NID*

## *... design promotion*



- CII-NID Design Summit
- NID-Businessworld Design Excellence Awards
- International Conference on Design Education (DETM 2005)
- North-East Design Conclave
- Indo-Italian Design Education Seminar
- Seminar on Indian Crafts
- Initiating Indian Design Institution Alliance (IDIA)
- National Design Policy

# Design for Development

## *Successful Design Intervention methodologies*



- **Craft Documentation**
- **Skill Up-gradation** Training Programmes
- **Need Assessment** and Cluster Development
- Setting up and **Handholding** of Design Institutions / Craft Centers/ Design Satellites / Design Cells
- Grassroots Innovation Design Studio
  
- Technology-Design **Fusion Areas**
- **Design Awareness & Training Programmes** for Industries
- **Design Clinics**
- Product Design & Development
- **Design Business Incubator**

## *... sharing experiences*

International Workshop:  
Strategic Design Intervention for  
Developing Economies,  
Supported by DSIR, Govt. of India



Bamboo & Cane Development  
Institute, BCDI, Agartala,



*... capacity building*  
*... capability enhancement*

*Design in India...*

*... a Paradigm of Ascension*

*shashank@nid.edu*



*Thank You !!*



राष्ट्रीय डिज़ाइन संस्थान  
NATIONAL INSTITUTE OF DESIGN