

# Design for All



Thinking  
about the  
elderly

SHOWCASING INDUSTRIAL DESIGN AT IIT DELHI

## **Forthcoming issues:**

### **August 2011, Vol-6, No-8**

**Special issue with Human Interaction section of IDSA (Industrial Designers Society of America) and Mr. Bill Mak Chairman will be the Guest Editor and assisted by Ms. Vicki Haberman, Vice Chairman**



### **September 2011 Vol-6, No-9**

**Special issue with 'The Society for accessible Travel & Hospitality (SATH) on the topic "Accessible destinations" and Guest Editor will be Ms Jani Nayar**



### **October 2011 Vol-6, No-10**

**Special issue with Institute for Human-Centered Design and Executive Director Valerie Fletcher will be the Guest Editor.**



## **November 2011 Vol-6, No-11**

***Architect/ Mukhtar Mohammed AlShaibani  
, president of GAATES has principally agreed to  
collaborate with us for special issue  
and he will be the Guest Editor.***



## **December 2011 Vol-6, No-12**

**is a special issue on proceedings of the  
“Better Learning by Design” Conference at  
The University of Vermont on 1st-2<sup>nd</sup> June 2011  
and Guest Editors will be Lawrence G. Shelton, Ph.D.  
and Susan W. Edelman, Ed.D.**





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## **From the Editor Desk:**



**My association with IIT Delhi goes back a long time. As destiny would want it, I was picked up as faculty and sent to Royal College of Art to understand Industrial Design. Seventies were eventful years for Design. Environment & Human care as these issues occupied the front stage. In India the situation was different, we were still exploring how to catalyze industrial development and cope with poverty among the 600 million plus population. Till 1990 we designers would be struggling to woo industry to appreciate the value of design. The major breakthrough happened in 1994 when we started the Master of Industrial Design at IIT Delhi with a mere 5 student pilot batch. Since then we truly matured with an intake of 20 students per year. The placement in industry is 100% and there is an ever increasing demand in the industry and society. When we produce manpower with certain potentialities, we empower the society with those potentialities. The product, human or man-made becomes the carrier of associated values and those values start assimilating into the culture.**

**This month after being closely associated with 14 batchers of Industrial Design, I come to a very happy and memorable closure of**

**my association with Master of Industrial Design at IIT Delhi. This issue showcases the Design Degree Show of the passing out students this year. We bring to you the posters that outline the work that was displayed at the exhibition. All the students could find attractive jobs in the industry as designers. For me this always is a very satisfying moment. Recognition by the society about the importance of design in cultural transformation is an important measure of success of design education at IIT Delhi.**

**In the last few years we had sharpened our focus on the elderly and problems of social concern. This was only possible because of the financial support we received from the Department of Science & Technology, Government of India under their scheme for "Technology Intervention for the elderly". They provided for stipends and project development assistance. Thanks to the same, we are extremely happy working under project SSD/NI/033/2007-TIE for 'Creating awareness among the students and their strategic involvement in product concept development'.**

**I also had the great opportunity to be associated with various initiatives to develop some of the most down trodden villages. I realized that development is simple. In fact there is no rational for poverty to be there or any body to go hungry. I realized that small inputs can have catalytic effects. A toilet, a water storage tank. A few fruit trees, goats and poultry. Honing existing skills. Reaching out holding hands is all that is needed. Just a realization that poverty is unnecessary is all that is needed.**

**In August 2010, Design for All India had brought out a special issue on the design students work supported by the Department of Science & Technology on Designing for the Elderly.**

**This issue further brings to you 5 design cases studies, done under the DST programme. Each study is elaborately written by design students, explaining how they searched meaningful design solutions to meaningful problems.**

**The first paper by Mohit's showcases his approach to exploring the needs of the elderly. Mohit is incisive and uncompromising in his design exploration. Sometimes when you do extra ordinary work, recognition comes late. Such was his case, but finally he was able to convince the jury of the importance of digital games for the elderly.**

**The second paper by Subhasis Bhattacharjee explores shoes and the associated problems faced by the elderly in putting them on and taking them off. I was very pleasantly surprised to discover through him the deep design thinking, from the viewpoint of the elderly, which went into the conceptualization of the traditional Rajhastani 'juti'.**

**The third paper is by Bibhas Ranjan explores the design of a three wheeled rickshaw so that it addresses the problems of senior citizens both on the passenger's and the rickshaw puller's end.**

**The forth paper by Saket seeks to design a trolley suitcase for the elderly. Interesting reading, throws up many possibilities and many latent solutions.**

**The fifth is an excellent paper by Vibin that explores the work environment of informal ironing shops that dot the urban**

neighborhood and provide clothes ironing services for that neighborhood. A real problem was well addressed to reduce drudgery, save on energy costs and increase earning of the service provider. Very thoughtful proposition, well addressed.

These works would not have been possible without the support of Department of Science and Technology, Science & Society Division. My thanks to Dr. Vineeta Sharma, Dr. V.C. Goyal, Dr. Usha Dikshit, Dr. Sobhana for their patience and understanding that provided the environment for the students to think about the society. Hope the programme will continue under a younger faculty.

To highlight student work, Sunil offered to relocate his essay. Please do not miss it.

Dear readers enjoy this issue and I will be so happy if connections happen between the designer student communities around the world. All the authors are on facebook . Seniors please send them feedback.

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***Mohit Gupta***

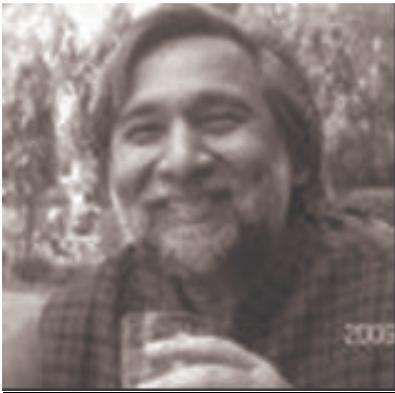
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# **Gaming Interface for Elderly**

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## **Young thoughts on elderly:**

***People still think that elderly means pathetic, poor and unfortunate. Elderly people have not been considered important in the past (majorly due to lack of potential market), with the result that no innovation of science & technology had any significant opportunity to design for them.***

## **Elderly – A potential Market**

**The elderly population increased eleven fold between 1900 and 1999; the nonelderly increased only threefold. In this century, the rate of growth of the elderly population (persons 60 years old and over) has greatly exceeded the growth rate of the population of the world as a whole. The oldest old is the fastest growing segment of the elderly population. However, things are changing fast. Today, the elderly market is the largest market there has ever been. Early retirement and the growth of pensions mean that a sizeable part of the new market is commercially significant and has the money to pay for design.**

Government of India  
Ministry of Home Affairs  
Office of the Registrar General & Census Commissioner, India

2011

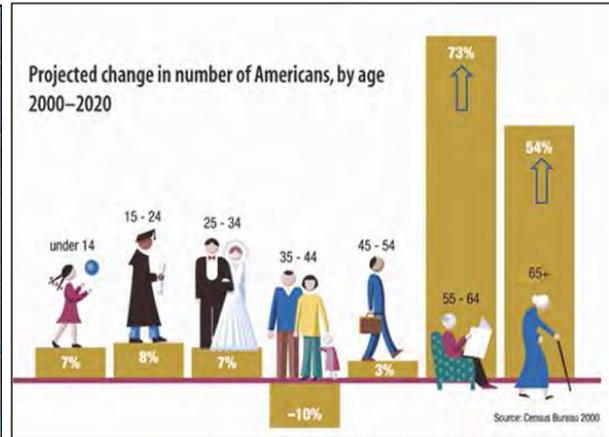
Census Data 2001 >> India at a glance >> Broad Age Groups

Age Groups	Persons	Males	Females
5 years and below	163,819,614	84,599,203	78,820,411
7 to 14 years	199,791,198	104,488,119	95,303,079
15 to 59 years	585,638,723	303,400,561	282,238,162
60 years and above	76,622,321	37,768,327	38,853,994
Age Not Stated	2,738,472	1,500,582	1,237,890
Proportion to total population (%)	7.5%	7.1	7.8
Proportion to total population (%)	0.3	0.3	0.3

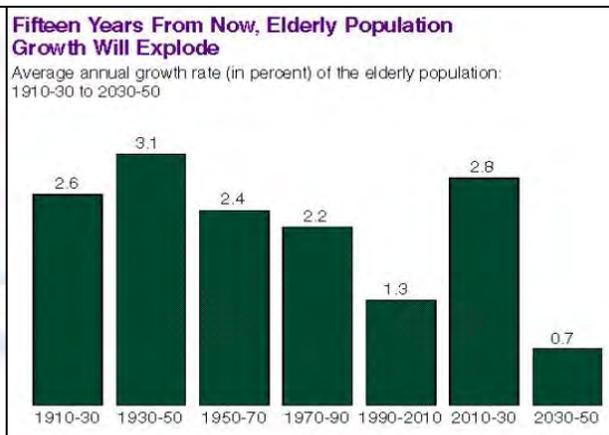
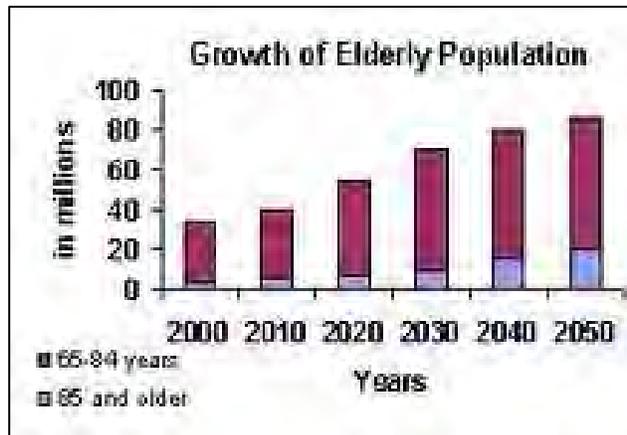
Area | Administrative Divisions | Population | Population Density | Rural Urban Distribution  
Sex Ratio | Broad Age Groups | Variation in Population since 1801 | Institutional & Houseless Population  
Number of Literates & Literacy Rate | Work Participation Rate | Religious Composition | Scheduled Caste & Scheduled Tribe Population

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This website is best viewed at 1024x768 or higher resolution with Microsoft Internet Explorer 6 or above

Source: Census Bureau 2001, India



Source: Census Bureau 2000, USA



Source: <http://sakinsur.com/press/19.html>

Source: <http://horizon.unc.edu/projects/issues/papers.html>

Various Census Bureau figures regarding the growth of age groups across the world were looked upon. High growth rate of the elderly age (i.e. age group 55 & above) was observed.

These charts establish the existence of a significant market potential for products and services especially tailored for the elderly.

<b>Countries</b>	<b>Percent of elderly aged 65+</b>		
	<b>1990</b>	<b>2030</b>	<b>2050</b>
China	5.6	15.7	22.6
India	4.3	9.7	15.1
Korea	5.0	18.1	24.7
Mexico	4.0	19.9	18.6
Canada	11.2	22.6	23.8
France	14.0	23.2	25.5
Germany	15.0	26.1	28.4
Italy	15.3	29.1	34.9
Japan	12.0	27.3	31.8
UK	15.7	23.1	24.9
USA	12.4	20.6	21.4

*Source: UN Population Division (1999)<sup>5</sup>*

**Early retirement and the growth of pensions mean that a sizeable part of the new market is commercially significant and has the money to pay for innovation & design. Today, the elderly market is the largest market there has ever been.**

**Reason of drastic growth of elderly population**

- *Decreasing birth rates*
- *Increasing lifespan*

**Need for designing specialized product for the target user (i.e. elderly)**

**The fundamental requirement of elderly people that has emerged is that the product should enhance and not degrade their health. This**

statement however does not have as easy application as might at first be thought.

An opportunity of great importance now presents itself to innovators, designers, ergonomists, scientists and it is not just theoretical. We must be able to demonstrate our ideas into reality.

### **Body storming Session:**

*Frequent visits were made to*

- *organization taking responsibility for supporting elderly - "Helpage India" and "Care for Elderly";*
- *Hospitals – AIIMS, Safdarjung Hospital, Max Hospital and IIT Delhi Hospital;*
- *Elderly Homes – "Sukhdam OldAge Homes", "Senior Citizen Home Complex Welfare Society" and "Gharunda – Paras Foundation".*
- *Talks with doctors, caretakers and elderly patients.*

We interacted and discussed with the elderly people about their daily lives and other issues. They were also carefully observed while performing acts while living their daily lives or regarding any event happening in their surroundings.

Next happening step was the talk-cum-facts told by doctors and caretakers regarding their experience while dealing with elderly population. Even though all these input did not provide me an opportunity area to work upon; but, instead it made us understand the basic requirements for the design.

**So, the basic Guidelines to be kept in mind while working for elderly included the following:**

***i. Do not design 'special' products for elderly people.***

***Elderly people are not disabled. A shoe or saucepan designed for a disabled foot or hand is unlikely to suit an elderly foot or hand. Provided elderly people are considered at the right stage, all products should be suitable for young and old.***

***ii. The conventional approach to design through style or materials is obsolete.***

***A new way of designing products determined by the way they are used and their effect on the health of the body, rather than careless, stylistic dictates which ignore or are ignorant of important basic human needs.***

***iii. Physical independence is the treasure. Design should encourage the body to work in a healthy way. Older people say that the most important thing in life is physical independence for as long as possible***

***iv. Find the balance between under support and over support.***

***In order for the body to remain healthy it has to 'work'. The design of products should encourage the body to work in a healthy way but not, of course, to an extent where strain or deterioration happens.***

***v. Understanding good body use (what we should do) is far more important than data on what we can do.***

**Ergonomic data may depict an articulated dummy to show what the body is capable of reaching. It is not part of design or ergonomic education to know whether such actions are healthy or natural. Elderly people may be able to reach a certain height, but should they? Provided certain things are understood, products for elderly people can suit younger ones, too.**

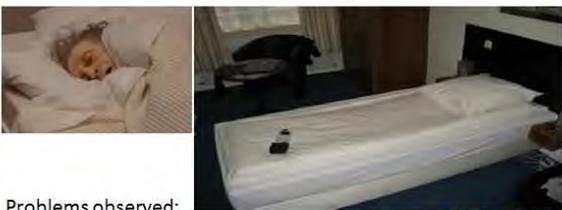
## **Observations and Problem Identification**

**Through experiencing the living and working scenario of the elderly people and observing their activities in various situations, dozens of problems were discovered. Thus, the problems were classified into sub-categories according to their daily lives activities and performance.**

**Specifications of the problems are mentioned under their respective categories. Help of images have been taken for a better understanding of user about the situations and scenarios.**

**They are as follow:**

- ***Bathroom Safety***
- ***Bedroom Safety***
- ***Mobility***
- ***Daily living***
- ***Leisure/Social***

			
Slippery Tiles	Turning of Knobs	<p><b>Problems observed:</b></p> <ul style="list-style-type: none"> <li>➢ Turn downs from both sides of bed</li> <li>➢ Reachability of things</li> <li>➢ Removing / putting blankets</li> <li>➢ Emergency help</li> <li>➢ Spitting issue</li> <li>➢ Dry mouth often occurs</li> <li>➢ Change of bed sheet &amp; user clothes</li> <li>➢ Need for bedside bathroom in case no attached washroom</li> <li>➢ Change of posture from laid down to sitting position</li> </ul>	
			
Discomfort in western toilet seats / unable to use traditional toilet seats	Rubbing & cleaning body		

### Bathroom Safety

### Bedroom Safety

	<p><b>Cane Stick :</b></p> <ul style="list-style-type: none"> <li>• Leaning cane against wall or other surface ; slips &amp; falls</li> <li>• Gives unwanted attention</li> <li>• difficulty to get back the cane once laid on ground</li> <li>• Lifting body from relaxed posture</li> </ul>	
<p><b>Wheel Chair Problems :</b></p> <ul style="list-style-type: none"> <li>o Customization according to personal living space</li> <li>o Limits the productivity or self-usability of victim</li> </ul>		
		
Body balance & falling	<p><b>Personal Mobility Vehicles / Walkers:</b></p> <ul style="list-style-type: none"> <li>▪ Usage technique,</li> <li>▪ Ergonomic and anthropometric requirements to be met</li> <li>▪ Designed as what body can do</li> </ul>	

		
<p><b>Problems observed:</b></p> <ul style="list-style-type: none"> <li>• Difficulty in turning door knobs / latches</li> <li>• Difficulty in eating</li> <li>• Identifying correct medicine &amp; dosage</li> <li>• Identifying switch buttons</li> <li>• Self body lift from relaxed posture</li> <li>• Problems in reading and writing</li> </ul>		
		
		

### Mobility

### Daily Living

**These are few of the problems identified at hospitals, elderly homes & societies, and at various public places. These are basic problems which have been always been in existence for elderly. No specialized product available has put them in the situation of compromise.**



### **Leisure/Social**

**Even though, these problems are in need of immediate solution but personally, I was not much excited on working on any of these scenarios. My search for a real, undiscovered problem, solution to which would make a difference to the elderly.**

### **Problem Refinement**

**The phase of arriving at one real serious problem was the next big task. Mental habits tended to gravitate towards the known problems and choose one. The fear of ambiguity was still persisting. Thus, it led to another brainstorming session at elderly homes (now with even greater concentration and seriousness).**

### **Problem Identification**

**The second visit was more accurate as the mind has already seen and observed the situations and scenarios once. Now the focus was much clearer than before. A very close study of the daily living activities of elderly was looked upon, noting each and every relevant detail to get a feel of their emotions and sensibility.**

## Prominent facts in the living of elderly :



Pray



Yoga



Meals



Sleep



Watch TV



Read



Chit-chat

After the session, it was summed by me that the prominent facts and activities of elderly people are much similar to the basic facts in the lives of the youth and middle age group. The only difference was the lack of work to keep them busy (service and business), which some elderly cover up by doing some vocational work. All the other activities were the same as that of working population. So, where was the difference?

After a lot of thinking and memorizing the scenarios on elderly experienced by me, I concluded that something was definitely something missing in their life that makes the



**difference. Mind was striking hard to find the missing piece overlooked from me unconsciously.**

**At last, it was found!!!**

**“A smile is a curve that sets everything straight.”**



**It was the SMILE – small but very effective. This was the real serious problem with elderly. Most of them have seen so much in life, that the joy ratio in their last stages of lives is almost negligible.**



**Now it was a big challenge to bring back their smiles using the technology. How can technology help them to improve their lives was biggest question.**

**Mind maps were prepared around the simply curve called “Smile”. All keywords relevant to smile were looked upon, to come up to a conclusion. Various subsets were formed and analyzed to come up to a relevant superset.**

**Smile is the essence of happiness and joy. Happiness/Healthy thoughts lead to healthy mind; and Healthy mind leads to Healthy body. So, Smile is needed for healthy body.**

Thereafter, providing them back their smiles will make them healthy at the mental level, which will also affect them positively at a physical level.

## Ideation

With the above problem in background, things were looked upon in the lives of elderly which made them happy. We looked into the games played by them, topics of interactive chit-chats among them, way of loving & caring for their small things, friendliness towards nature, level of amusement towards technology and others. The whole idea was to pick up the solution from the object in their existing life domains for their ease to adaptability.



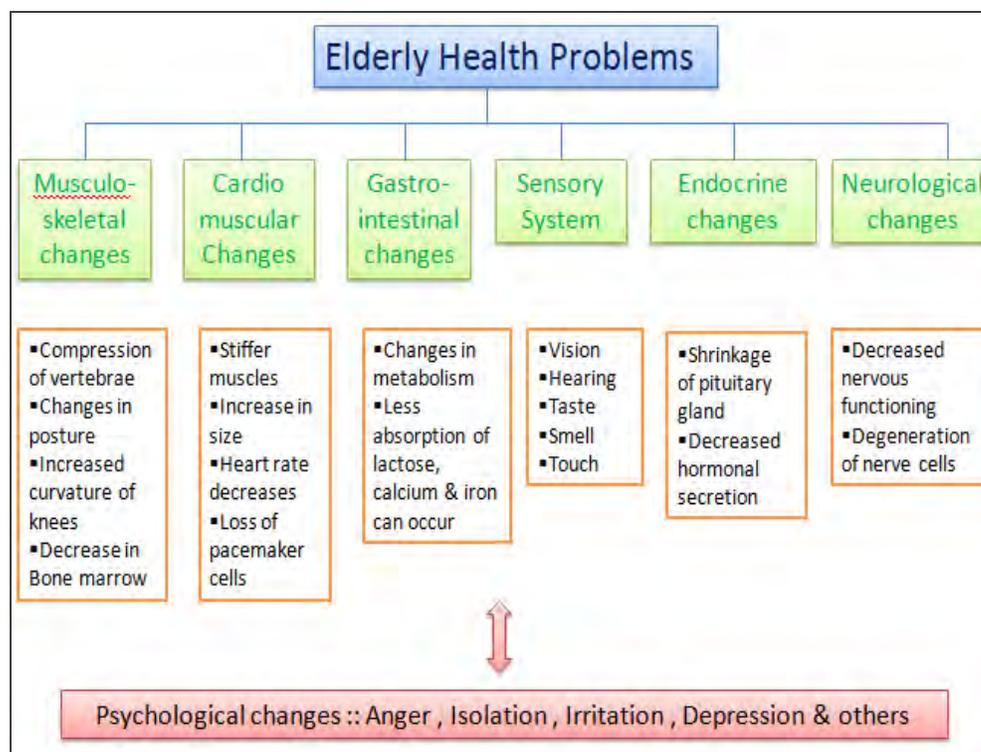
The conceptual idea was customized with the feature of physical work during the joy time.

**Keywords used:**

**Interactive, Entertainment, Easy, Productive, Responsive, Video, Game, Duplex communication, Exercise, Joy, Smile, Happy, Technology, Fun, Animation, Calm, Togetherness**

## Research & Study

Study of all major types the bodily changes with ageing on various body systems was performed. The study was performed at both-physical and mental levels. It was done to get a clear picture of the biological changes happening in body due to age growth. This also helped me to understand their body capacities and efficiencies at various ages. Thereafter, the elderly health problems are put under the hierarchal model according to the various bodily systems and their resulting adverse effects.



**Therefore, from the above analysis of the elderly problems it was clear that**

- ***Overcoming the health problem domain will solve the psychological problem domain.***
- ***Any positive physical change will also produce a positive change in psychological change, although, the level of change is still not very vivid.***
- ***Health body is less prone to psychological turbulence.***

## **Defining target user**

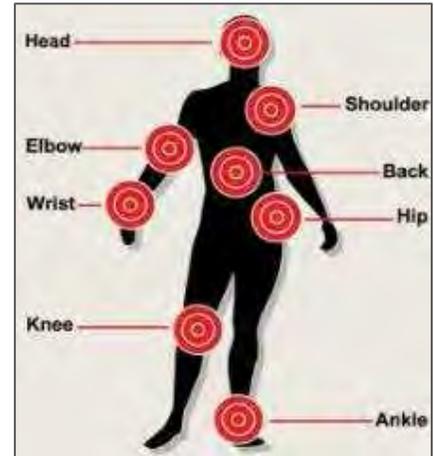
**As understood till now, elderly are a very critical age group of our society and any product that brings change to their lives – not only practically, but also emotionally. This suggested that any design should be done with a sense of great responsibility & care.**

**Thus, as the concept was aimed to entertain elderly with providing exercise to their body while gaming; study of all the body exercises prescribed by physician was done which led to some understanding of the physiotherapy - a health care process which aims to enhance and restore functional ability and quality of life to those with physical impairments or disabilities.**

**Physiotherapy, being a broad field, the target user segment was identified from one of the specialized area of physiotherapy users.**

**Specialty areas in physiotherapy are as follow:**

- 1 - *Cardiopulmonary***
- 2 - *Geriatric***
- 3 - *Neurological***
- 4 - *Orthopedic***
- 5 - *Pediatric***
- 6 - *Integumentary***



**Target user: Geriatric elderly**

**Geriatric class of users covers a wide area of issues concerning the normal older adult. There are many conditions that affect many people as they grow older such as arthritis, osteoporosis, cancer, Alzheimer's disease, hip and joint replacement, balance disorders, incontinence, etc.**

**This group consists of people who are fit; but with ageing, there is always a need to remain healthy and fit.**

**Choice of hand for performing physical work or exercise**

**The next issue was to determine the body part to perform exercise. The choice could not be made randomly; choice needs to be such that the maximum output and productivity is obtained.**

With earlier studies and analogies put up, hand (consisting of palm, wrist & fingers) was the best option for performing physiotherapy and keeping fit. The obvious reason for choosing hand was that it consumes lesser space and limits the mobility requirements at the same time.

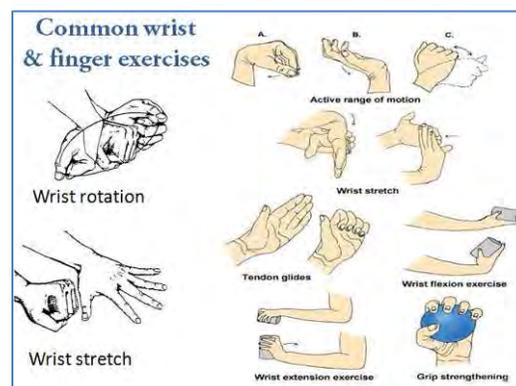
Our hands are very important part as they do so much for us. They are capable of a wide variety of functions: touching, grasping, feeling, holding, manipulating, caressing, and more. Even when we're talking, our hands are a key part of who we are and what we say. Many of us use our hands to help express ourselves while they are talking.

We use our hands to feel whether something is rough or smooth, hot or cold, sharp or dull. We hold a child's hand as we cross the street. We caress the hair of a loved one (touch therapy).

The term "hand-eye coordination" describes the ability of the body's visual system to process information received through the eyes and uses it to direct the movements of the hands. Optimal interactions among the brain, the eyes and the limbs are also essential to perform simple, daily functional tasks.

## User exercise specification

Choice of the hands for exercise does not end the problem. All types of wrist & finger exercises for hand are a vast



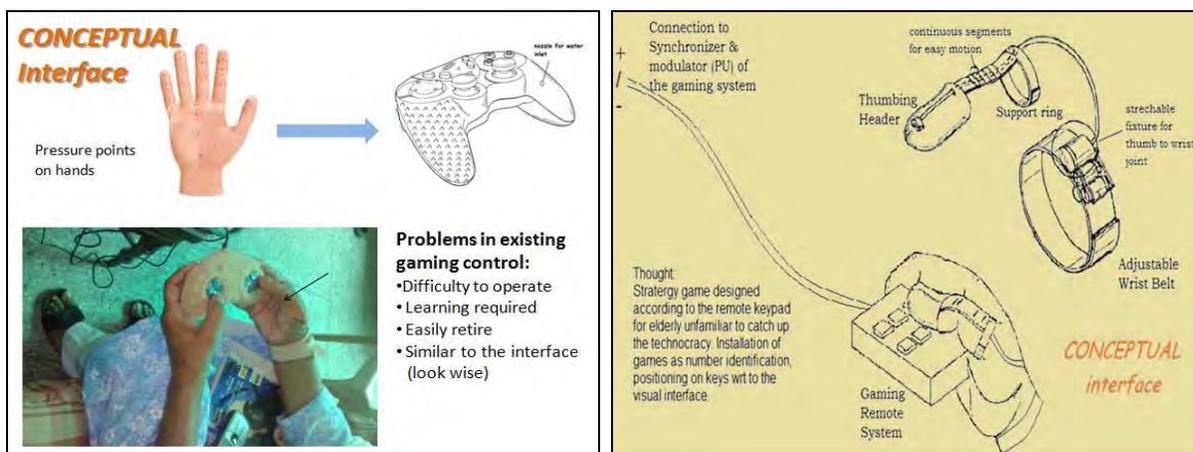
field of research in itself. Some common and most prescribed exercises were observed and taken into account for selection.

Grip strengthening was selected as when we continuously keeping opening and closing wrist, a feel of boost is generated within us. It is also suggested by doctors as stress buster exercise which itself fills my problem needs.

## Concept generation

Ergonomic changes were done in existing gaming interface and their cons were looked upon.

Simultaneously, various gaming interface were designed, keeping in mind, the need of elderly people. Few concepts were sketched and two were finalized for further development.



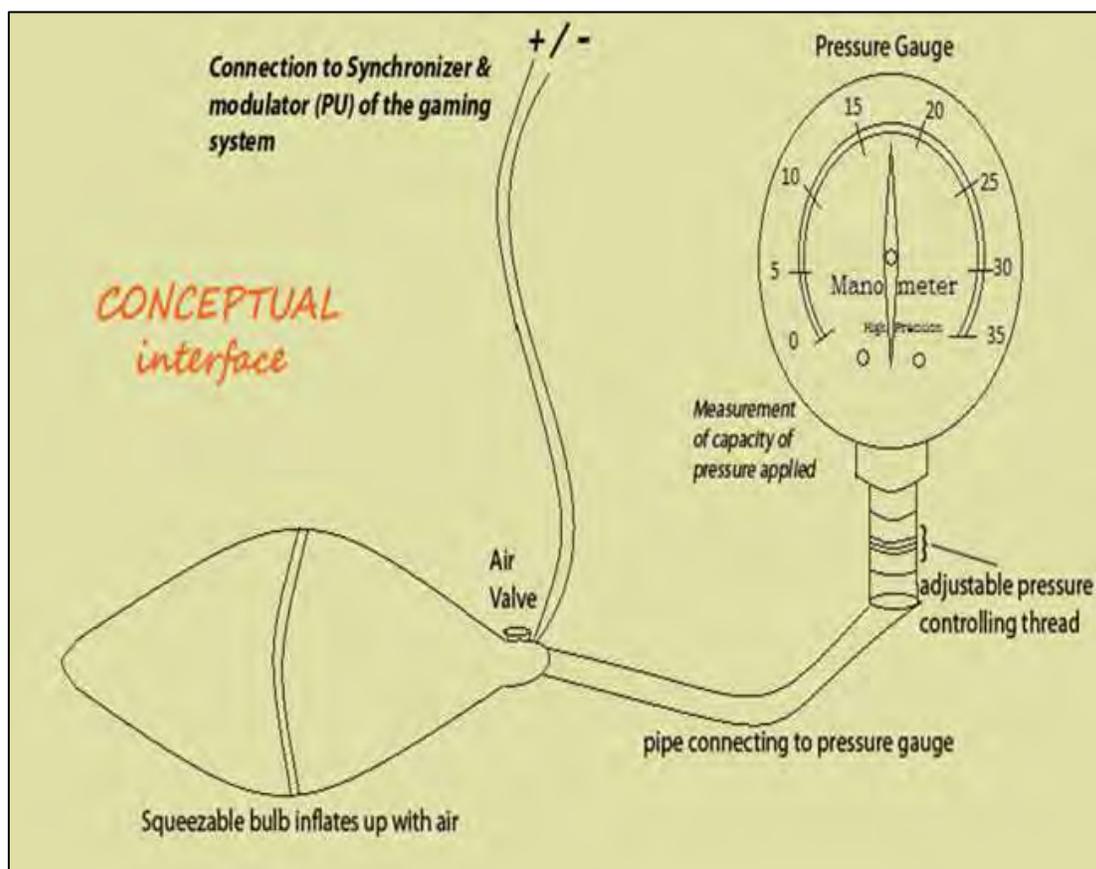
**Modification in existing gaming interface**

**proposed interface design**

Thus, the usability test showed that the existing gaming system was not user friendly for the elderly. Few problems were identified in the customized existing gaming model.

## Concept finalization

Thus, the conceptual diagram on right side was finalized for design. It is inspired from the Sphygmomanometer (blood pressure measuring device used mostly by doctors). This was taken as it belonged to the elderly scenario with doctors and was not new to them. This made the design easily adaptability and reduced learning for user. The wrist exercise would be implied as input for the designed game was kept in backend.



## Prototype Development and Usability Test:



***Inspiration: Sphygmomanometer***

***Provides grip strengthening exercise while enjoying gaming via the interface***

***Video of the usability test can be viewed on:***

**<http://www.youtube.com/watch?v=pCagnk2N7R0>**

### **Game for the designed interface**

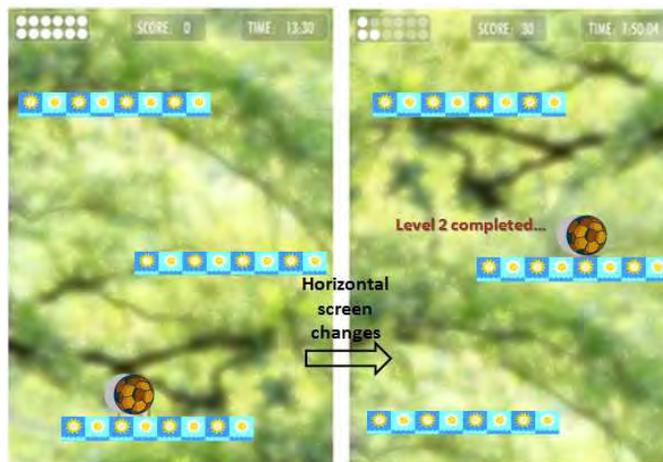
**The designed interface needs a game that suits the elderly mind scenario. So, a few games were cleverly selected in which the game is controlled by the user rather than game controlling the user reactions. The game should suit the mindset up of elderly very well. The game is dynamic with its background and features at every stage so that user is not bored as our mind easily gets used to**

repetitive patterns. It also shows new images on nature as levels are achieved.

## Graphics of Gaming System



The game requires a single response/input for each event which can be easily done by pressing the bulb. This game can be used as an exercise for beginner elderly facing difficulty in stretching, holding, etc.



***A screen shot for look & feel of Graphics at events***

## Displaying Wallpapers

On completion of gaming level, various wallpapers are displayed of nature, pilgrimages, family, social, etc as according to their area of interest.

It also balances the increased emotional content level in elderly while playing the game. The slow rate of achieving normal state from excited state is very healthy for mind and body.



## Another Game: Carom Board

The game works via the same interface device but varies the input according to the pressure applied. User not only has to press the bulb for playing but do it smartly.

All the graphics designed for elderly have little disturbance happening all over the screen. This helps them to focus and concentrate at a particular character or entity.



## **Analysis of elderly at psychological level – causes and consequences**

### ***Causes for psychological problems:***

- ***Relational history of the elderly***
- ***Family and environmental interactions***
- ***Social dependency***
- ***Isolation & loneliness***
- ***Decline in their sense of worth***
- ***No acknowledge and praise***

### ***Consequences from psychological problems***

- ***Chronic pain***
- ***Multiple illnesses***
- ***Struggles with memory loss***
- ***Intense, pervasive sense of guilt***
- ***Thoughts of suicide or a preoccupation with dying***
- ***Feelings of hopelessness or worthlessness***
- ***Slow speech and body movements***
- ***Seeing or hearing things that aren't there***
- ***Sleep disturbances***
- ***Persistent feelings of sadness, often with discouragement***

### **Achievements from the work**

- ***Bring back their smiles and happiness***
- ***Motivate them from their minds to souls***
- ***Improves hand-eye co-ordination ,thus providing mind exercise***
- ***Enriches the social life & increase interactivity with surroundings***

- ***Reduce stress and strain Helps in reducing aging effect & provides mind exercise, which in turn, reduces the possibility of memory loss***
- ***The user is always in active state during the gaming as he/she is unconsciously doing exercise at the same time which solves the problems faced by user in physiotherapy session like responsiveness, output, productivity, interest in act, etc.***

## **Doctors` recommendations**

- ***"Has great potential & can help people suffering from chronicity of illness"***

**- Dr. Alaknanda Banerjee, Max Hospital**

- ***"Will surely increase the holding grasp & thus, show improvement in patients in all pinches – tip to tip, point to point & lateral pinch"***

**- Dr. Devendra Ramteke, AIIMS**

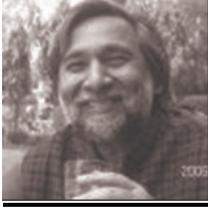
**Received similar positive feedbacks from other doctors from IIT Hospital, Safdarjung Hospital and AIIMS Stanford Biomedical Design Group at AIIMS.**

***Note: This project was supported under the Department of Science and Technology scheme on Technology Interventions for the Elderly (TIE) , project SSD/NI/033/2007-TIE 'Creating awareness among the students and their strategic involvement in product concept development'. The second author was the academic project coordinator / project supervisor for the first author.***



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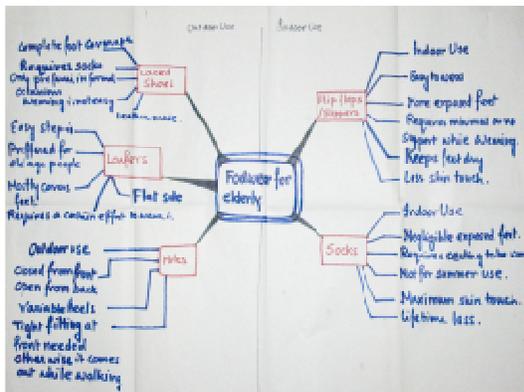
# **Design of Easy to put on and take off footwear for elderly: A design exploration case study**

*Subhasis Bhattacharjee, M. Des. Industrial Design, IIT Delhi*

*Lalit Kumar Das, IDD Centre, IIT Delhi*

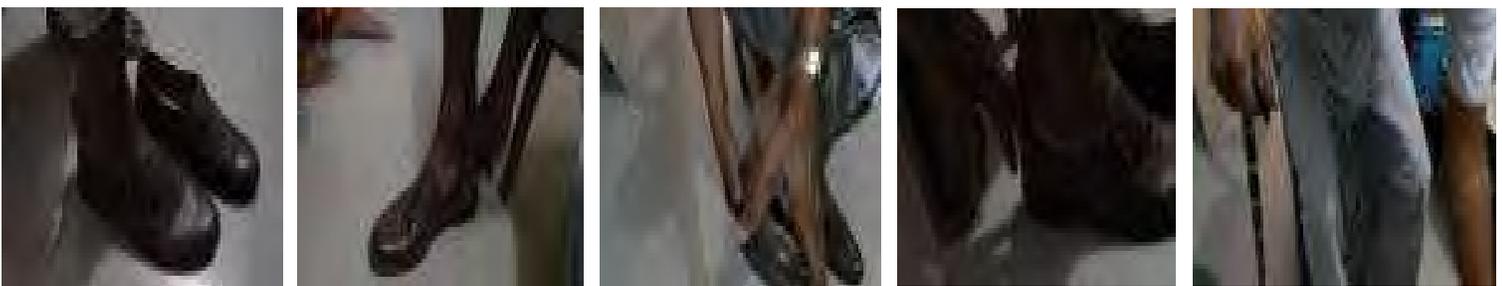
**Easy to put on and take off, footwear for elderly meant for outdoor use is the field we took to look at, analyze, and come up with a solution through Design. Why did we take this issue of footwear while there are many significant issues to look at in the context of the elderly and old age? The answer came in our preliminary search, study, and contextual enquiries. It became quite evident that bending of upper body portion to assist the shoe to easily slip into the shoe by using one's own finger was arduous. It was a hard and painful job for persons with back problem and even hard for elderly as they either needed a support to stand and wear the footwear or have to seat and wear the footwear with hands or use a long shoe horn. Moreover, it is a challenge for people having knee joint pain to wear the footwear either in seated or in standing position. Most significant is the loss of body balance while putting on the footwear as one is supported by one foot at a time. So, we observed that these postural problems as being significant and common problems for elderly of age above 60 years. Consequently it was evident that designing a footwear that is easy to put on and equally easy to take**

off, requiring less time, with no support, or need to sit down or requiring postures and that impairs body balance can be a great help to our seniors. And at least one problem would be solved. And this seemed enormous with over 7 percent of total population in India being set above 60 years of age. So, the first phase of our design process was to explore different footwear in this context. Mind mapping of different footwear helped us to find out which types of footwear to look at for deeper analysis.



**Mind map for footwear and signifying areas to look into**

It was the loafer and the *juti* (locally made footwear in Rajasthan, Punjab, Delhi) that drew our attention as both are comparatively easy to wear and meant for outdoor use. For a further understanding we performed a contextual enquiry with two elderly subjects and two pairs of loafers.



**Contextual enquiry on elderly (male) with first kind of loafer led to observations like substantial dragging of feet, finger or even hand assistance in seated position to successfully put on the loafers and support was required when putting on the shoes in standing position.**



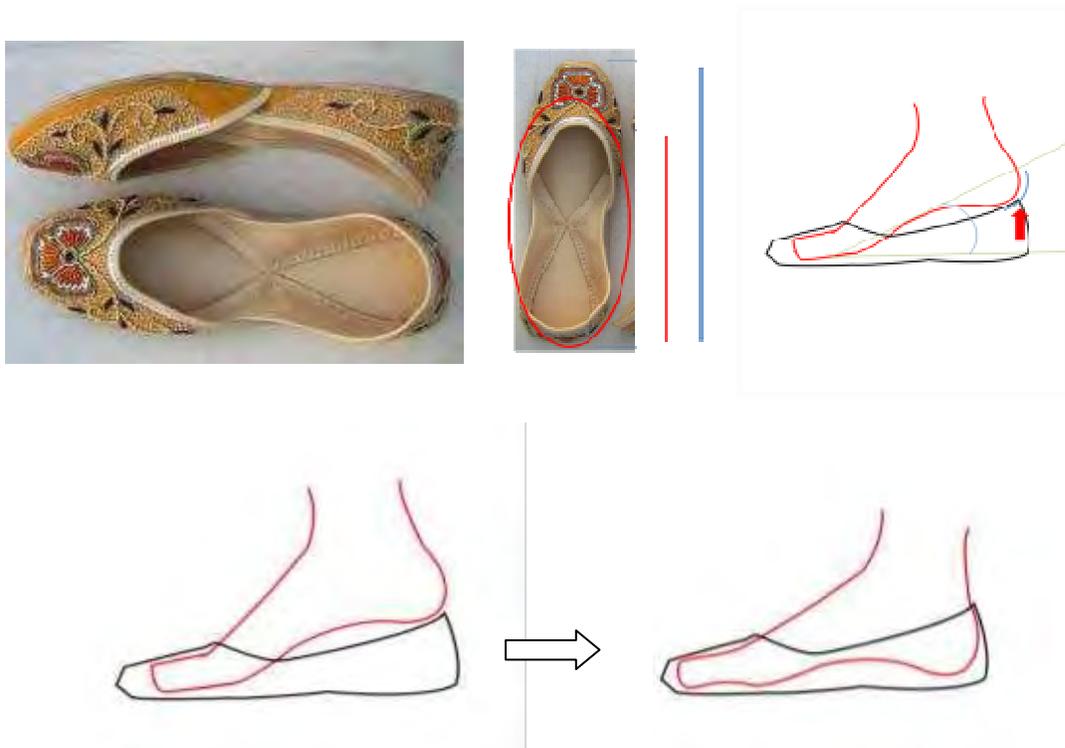
**Contextual enquiry on elderly (female) with second kind of loafer generated observations of feet dragging, finger use in seated position to successfully put on the loafers.**



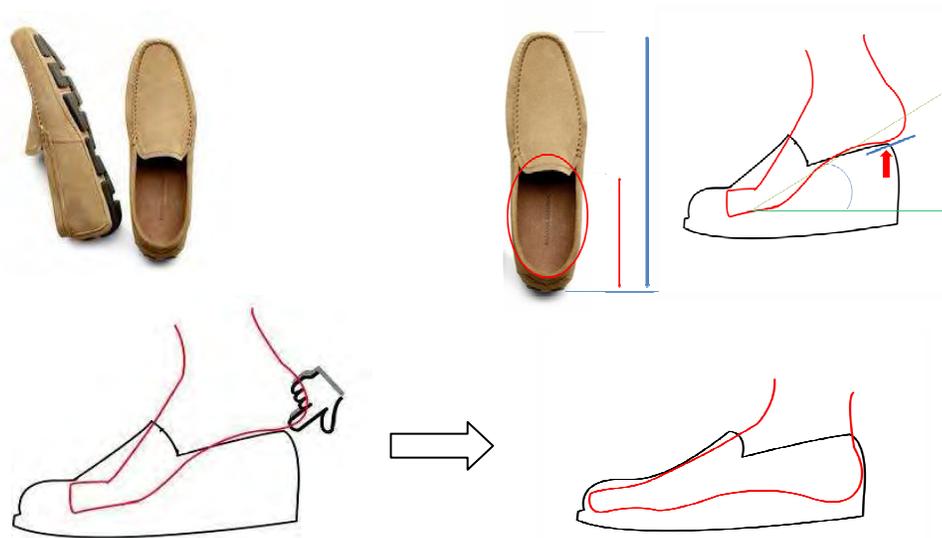
*Study on juti*

**As we analyzed both the above situations we found that the loafer needed finger assistance to put it on completely and it provided maximum coverage of feet whereas the *juti* was easily wearable but had coverage only over toes and heels. It was found that the large opening on top of *juti* rendered it much easier for the user to wear it**

as the foot insertion angle remained low and the heel counter top edge matched the curvature of the foot heel and this made the traditional *juti* an easy winner in many respects. However in case of loafer the top opening was much smaller, this necessitated the user to insert his foot inside at a larger insertion angle and thus, the heel counter top edge was able to find the flat part of the foot heel which made loafer heel counter to bend and thus calling for the finger to pull the bent edge behind to assist user to wear it successfully.

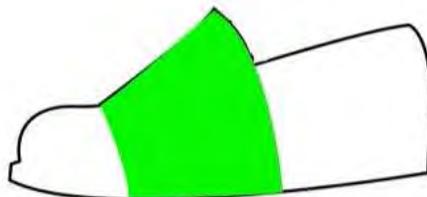


***The large opening on top of juti renders it much easier for the user to wear it as the foot insertion angle remained low and the heel counter top edge found the curvature of the foot heel and this made the juti easy to put on.***



***In case of loafer the top opening has its length half of that of the length of the loafer rendering the user to insert his foot inside with a larger insertion angle and thus, the heel counter top edge was able to find the flat part of the foot heel which made loafer heel counter to bend and thus calling for the finger to pull the bent edge behind to assist user wear it completely.***

**After a thorough analysis we was able to establish that the vital support points for the footwear to grip the feet is the toe box and the heel counter. We can manipulate the mid portion of the upper for lowering the foot insertion angle and yet meet the requirement of fuller feet coverage needed for outdoor use.**



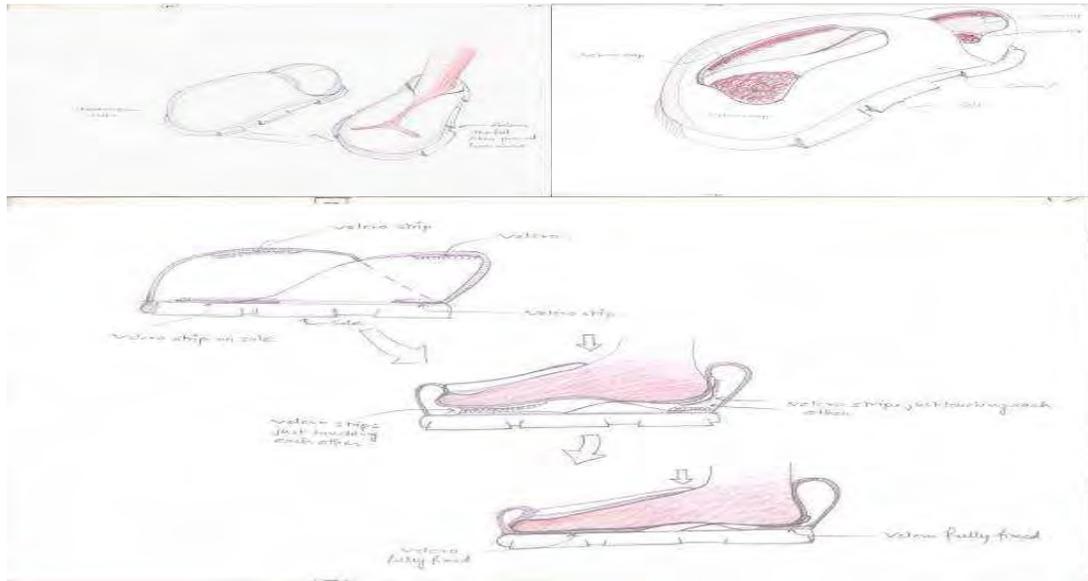
After understanding these, we were able to find the opportunity area and set the design direction as follows: "Design an easy to put on and off footwear for elderly which provides maximum coverage of feet without compromising the comfort and involves minimum ankle movement while wearing."

So, thinking on these lines and after a thorough study of different foot sizes and ergonomics, we conceptualized five concepts of footwear.

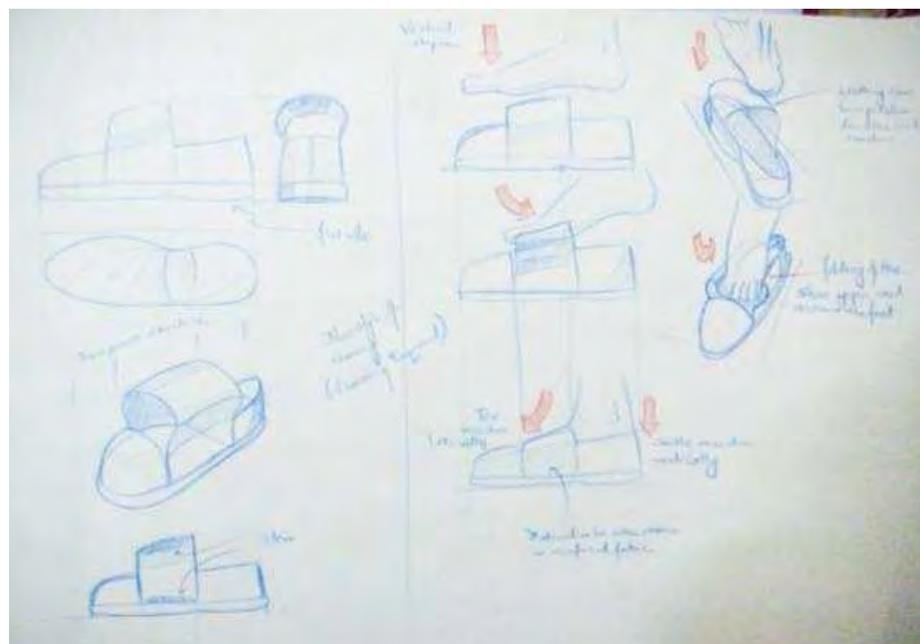


### ***Design Opportunity***

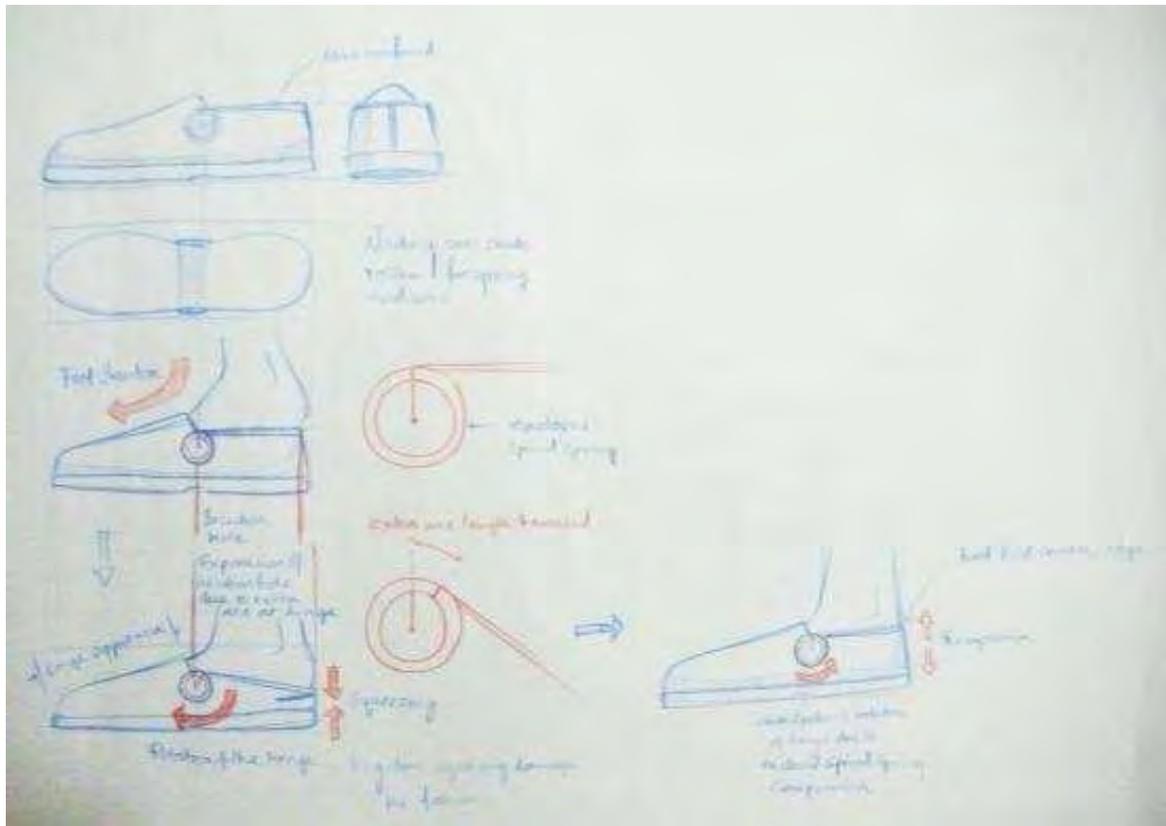
The following concept sketches were developed.



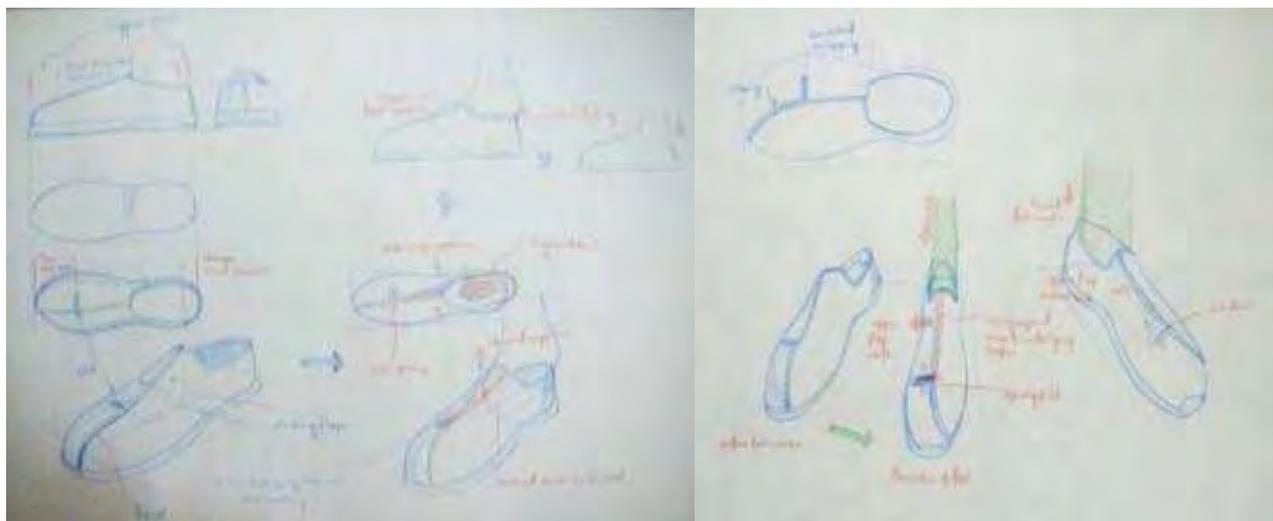
**Concept number 1**



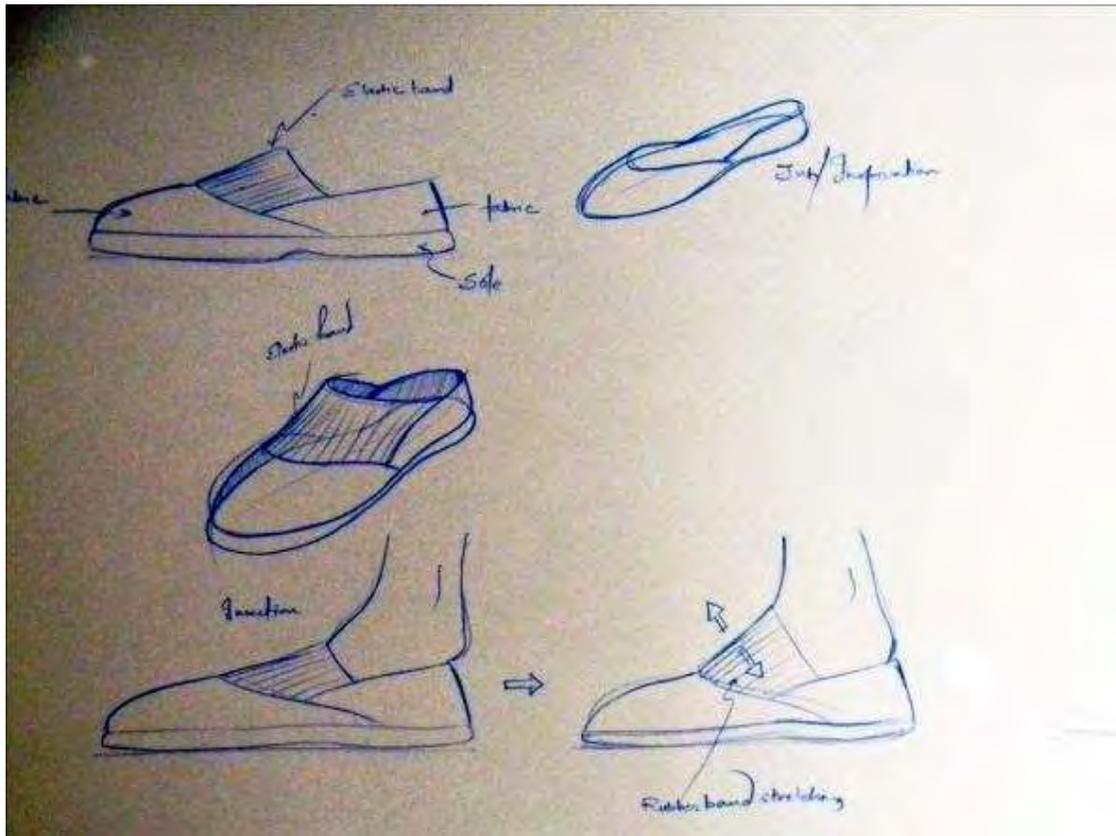
**Concept number 2**



**Concept number 3**



**Concept number 4**



**Concept number 5**

From among the five concepts, concept number 4 and 5 were selected for making trail models and testing. The concept no. 4 provided two overlapping flaps that can slide one over another starting from the top end of the toe box situated at the mid portion of the footwear so that it covers the foot easily and while wearing the flaps move away from each other making more room for the foot to be inserted thus lowering the insertion angle and hence provided easy wearing. While the concept no. 5 was having two pieces one for toe box and another for the heel counter. These extended to meet the toe box as in juti. Further it was also provided with an elastic band at the mid portion of the footwear upper which provided a flexible foot covering and even mid portion extra support.

The mock ups were made accordingly, the concept 4 was made from a loafer and the concept 5 from juti. Then a body storming exercise was done to test the mock-ups. The process resulted in finding out the footwear deformation and front opening problem in concept 4 while bending of the footwear. The elastic in concept 5 made mock-up of concept 5 a bit hard to wear without finger assist.



**Concept 4: Long cut slit**



**Concept 5: Addition of elastic bands at mid portion**

**Concept 4**



Large opening at front

**Concept 5**

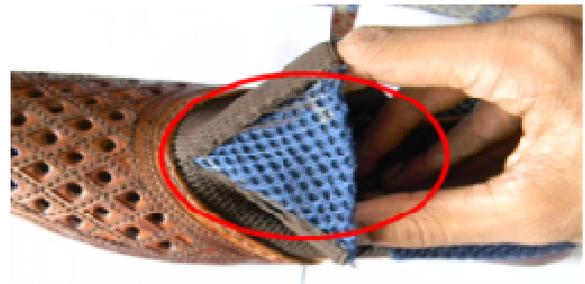


Bending of heel box

Finger assist

**First Body storming session on initial mock up models for concept 4 and 5 respectively and observed deficiencies.**

So, small amendments were done on both the concept 4 and 5 in the form of addition of slit cover from inside and cutting of elastic band in middle respectively and second phase body storming exercise was done. The concept 4 retained the problem of deformation whereas this time for concept 5, we were able to wear the footwear without bending and using fingers, but it required a great deal of time to drag the foot forward into the toe box to fully wear the footwear and that period of time is enough to make an elderly feel uncomfortable and would require a place support themselves or sit.



**Concept 4: Long cut slit covered from inside    Concept 5: Cutting of elastic bands at mid portion**

**Amendments done in mock up models for concept 4 and 5**

**Concept 4**



Deformation of the loafer shape

**Concept**



Great deal of dragging of foot forward due to low toe box height.

Flared out surface

**Second Body storming session on mock up models after necessary amendments for concept 4 and 5 respectively and observed deficiencies.**

So, we decided to look into minimizing the time while wearing the footwear. A short study of the mock-up of concept 5 lead to the idea that giving more space in the toe box without compromising the grip of the toe box can easily minimize the time as *juti* has a low toe box which requires more dragging to set the foot into the footwear. So, we took forward concept 5 and developed the third mock up. In this mock up we used a loafer and cut it like a *juti* so that we had the toe box height increased and added a hard shell for the heel counter which was soft from inside to help the user rest his feet over the footwear itself while putting on the footwear without bending the top edge of heel counter. And last but not the least the elastic band was added at the mid portion of the mock up model.



***Cut the upper of loafer to give shape of *juti* and added an elastic band and a leather heel counter support***



***Third Body storming session on mock up model for concept 5 and observed deficiency***

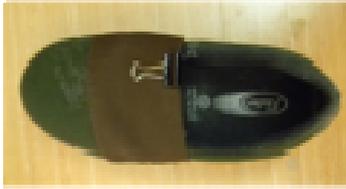
**So, eventually this mock up was up to the mark. It was easy to put on and take off required no sideways ankle movements at all and the wearing time period was minimized significantly. But it had a small problem that the elastic got a small fold every time we wore it. But it got solved as we looked into how the fold was initiated? It was clear that the elastic edge could not follow the slope of the mid-foot top, so we made that portion of the edge of the elastic band to follow the slope without compromising the overall elasticity of the elastic band by addition of a small stiffener at the place where the fold started and this became the fourth design element in the design. The first,**

**second and third design interventions being the spacious toe box and hard heel counter and elastic band respectively.**

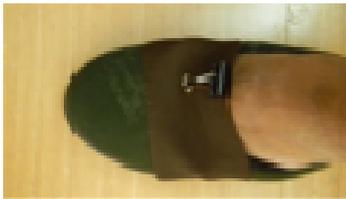


***The elastic band open edge finds the steep slope of the foot and cannot follow and rather starts to fold inside.***

**Experimentation with a paper clip at the fold initiation point to helped improve the performance better. As the final amendments were done, the body-storming exercise was repeated for the fourth time and the mock up worked to expectations. It was easy to put on the shoe with minimum ankle movements and required no hand or finger assistance.**



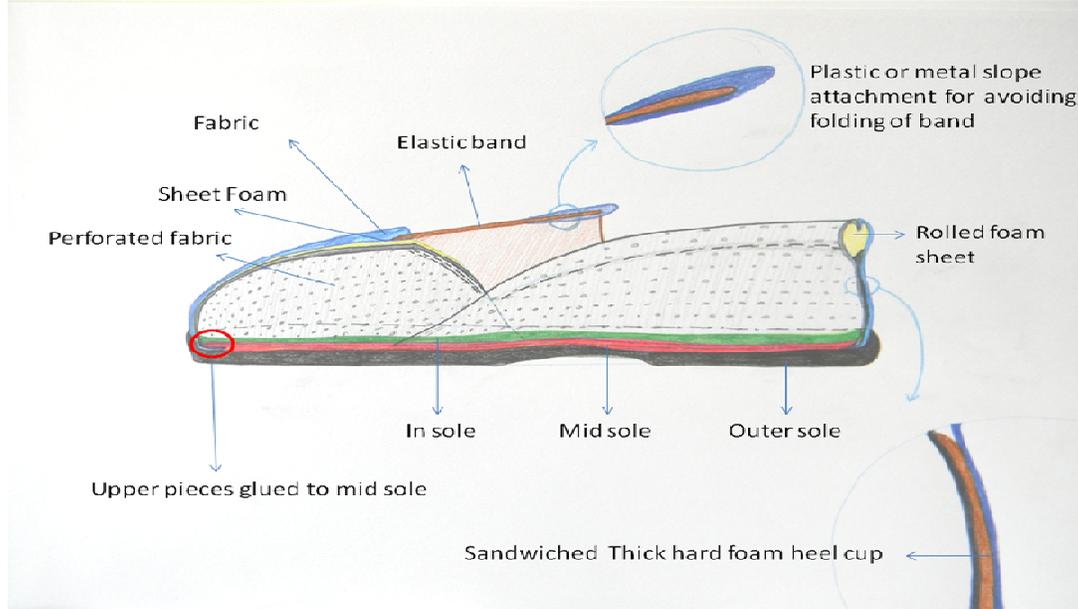
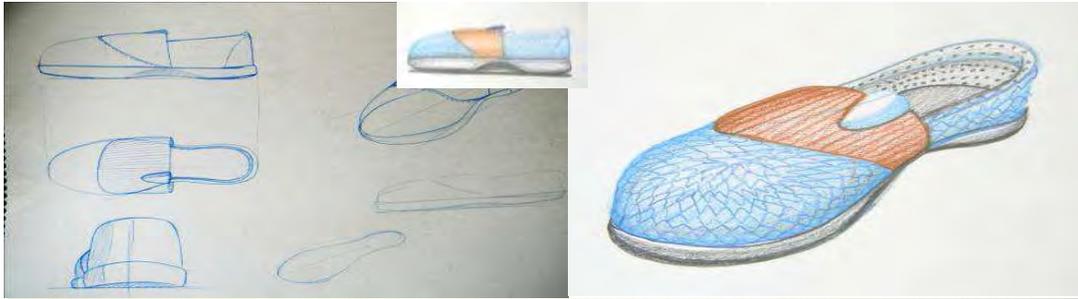
Less foot dragging required



Unnecessary folding of elastic band avoided

***Final body storming exercise done on the final mock up of selected concept 5***

**So, as we got our functional aspect of our design working we decided on the materials from the comfort and strength viewpoint. Along with it was necessary integrating the aesthetics with the culture of jutis. So, we studied the various designs of jutis and found out some distinct features of it like border lining, two piece make, thin flat sole, and embroidery work in front and tried to incorporate those in my design to bring in the cultural style look. Then the final concept was sketched, rendered and modeled in CAD.**



***Final concept sketch, configuration and material***



## **Software modeled footwear**

**Then the paper templates are made for the footwear upper pieces.**



*Paper templates for developing prototypes*

**Based on those templates the prototypes are made. Thus, different prototypes of the design are made and evaluated for its ability to function better each time trying out a different pattern to analyze and find out a better from the viewpoint of the user, industry and culture. Three such prototypes were made and analyzed thoroughly to eventually develop the final prototype of the designed footwear.**



**Prototype no: 1**



**Prototype no: 2**



**Final Prototype**

**Note: This project was supported under the Department of Science and Technology scheme on Technology Interventions for the Elderly (TIE) , project SSD/NI/033/2007-TIE 'Creating awareness among the students and their strategic involvement in product concept development'. The second author was the academic project coordinator / project supervisor for the first author.**



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# **CYCLE RICKSHAW FOR ELDERLY**

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## **Abstract:**

*In India, Rickshaws are one of the most important means of transportation. In the past years, the changes that took place in the design of the vehicle have not been very prominent. The initial framing structure is still being followed where the seats are at a higher level creating ingress and egress problem especially for the elderly. No head cover for the rickshaw puller and no place to keep the luggage. The faults or disadvantages of this design made it necessary for it to be re-designed, keeping in mind the elderly along with the needs of the rickshaw puller who also may be aging.*

*In the past years, the changes that took place in the design of the vehicle have not been very prominent. Effort was largely made to improve efficiency, reducing the driving effort, powering it with an engine, etc. The basic purpose of this re-design was to develop some easy mode of public transportation for the elderly. Taking into consideration the infirmity of old age, the first alternative proposed was a low floor and a low seating with proper framing structure to hold. This solved the ingress and egress problem. The next proposal was a head cover for the rickshaw puller for which the cover for the passengers was extended till the rickshaw pullers head. This is an*

***important change required for safeguard the driver from the extremely hot tropical summer sun. To reduce the effort of the puller a small helping electric motor was installed in the front wheel. A safeguard was provided near both the parallel wheels to save the clothes of the passengers from getting entangled in the wheels while the rickshaw is in motion. The safety of the elderly was the most important requirement and for this the framing structure was designed in such a way that the head of the passenger does not hit the frame or the bar under any circumstance. Some other design alterations were also done like the backrest of the seat was made movable so that when not used for carrying passengers, it could be used for carrying goods.***

***With the improved technology in the modern world making every aspect of life faster, easier and more accessible, the development of the most primary form of transportation for the aged people was only to be expected. Hence, it is to be hoped that it actualizes all the uses that were envisaged during its invention.***

## **Introduction:**

**The word rickshaw came from Asia where they were mainly used as means of transportation for the social elite. *Rickshaws* are a mode of human-powered transport. Rickshaws were first seen in Japan around 1868. A cycle rickshaw, also known as a pedicab, Cycle rickshaws are often hailed as environmentally-friendly, inexpensive modes of transport. Many cities in developing countries are highly polluted. The main reasons are the air and noise pollution caused by**

transport vehicles, especially petrol-powered two and three wheelers. Since it is considered as Indian traditional ride they are almost used in each and every parts of India, Villages, Small towns, Metros, Heritage sites etc. In metros these are used inside institutional areas, market areas and also in narrow and crowded lanes where there is accessibility problem for vehicles.

### **Field survey:**

Observations were made on how an elderly would climb up and down from the rickshaw. Lot of people faced the same problem the ingress and egress problem. Since the footboard of the rickshaw is too high, it creates problem for access. No proper support for holding while climbing up on the rickshaw. Most of the time when there are no passengers the rickshaw can be used as goods carrier. They start carrying goods due to non availability of passengers. But the frame structure of the passenger carrying rickshaw does not fit for this configuration, which becomes more difficult.

### **Interview with Rickshaw puller:**

*Friendly talk with few of the rickshaw pullers provides more insights concerning them. These are the following points which they mentioned are:*

- *"Get very tired very soon under the hot sun"*
- *Very difficult for the puller when he is sick*
- *No roof cover for the puller (rainy season is a nightmare)*
- *No back rest for the puller gets backache frequently*
- *Maintenance is costly and is frequent*

- ***Seat cannot hold more than two comfortably***
- ***No proper storage space for the rickshaw puller***
- ***No proper resting space***

## **DESIGN BRIEF**

**Aim:** The aim of the project is to redesign the cycle rickshaw considering the needs of elderly and rickshaw puller.

**Target user:** Elderly along with rickshaw puller who also may be aging.

**Situation where design is to operate:**

**Elderly having trouble of climbing**

**Need to decrease the effort of the rickshaw puller**

**Design considerations:**

- ***Ingress/ egress made easy***
- ***Luggage space***
- ***Protection from rain & sun***
- ***Configuring the design to include passenger carrier/ goods carrier***

**Concept evolution:**

From the basic concept of pulling rickshaw by hand till the present one, the designs have not undergone any major change in its design concept except for changing it into a tri-wheeler. They have focused basically on the common people (without considering any particular

age group) as their passengers. They have never created anything in particular for the elderly. This very thing became the idea for my project.-A RICKSHAW FOR THE ELDERLY. Hence the concept for the project evolved around this theme.

### **Concept development and design consideration:**

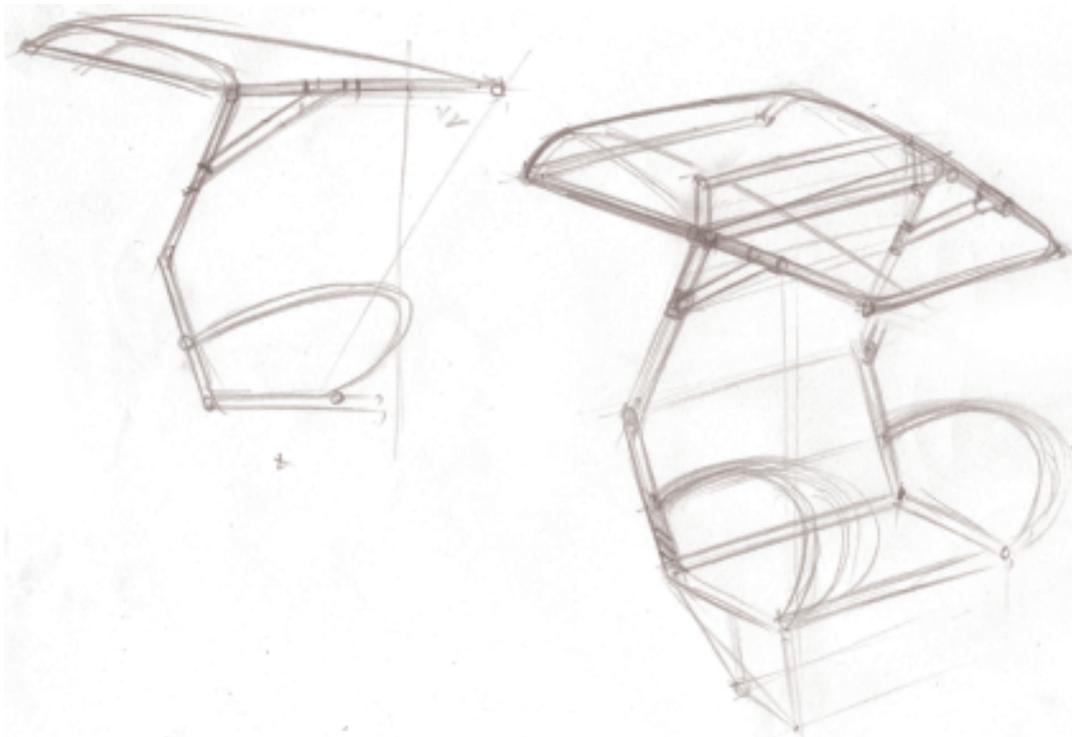
For making something for the elderly, one had to consider their movement, their psychology, their behavior, their mentality, their likes and dislikes and many more things. So studying the elderly was the first step taken. For a rickshaw, we had to consider two groups or categories of elderly people- one who is a passenger and the other if the elderly is a rickshaw puller. So, the rickshaw to be designed had to consider both the groups and provide facilities for both of them.

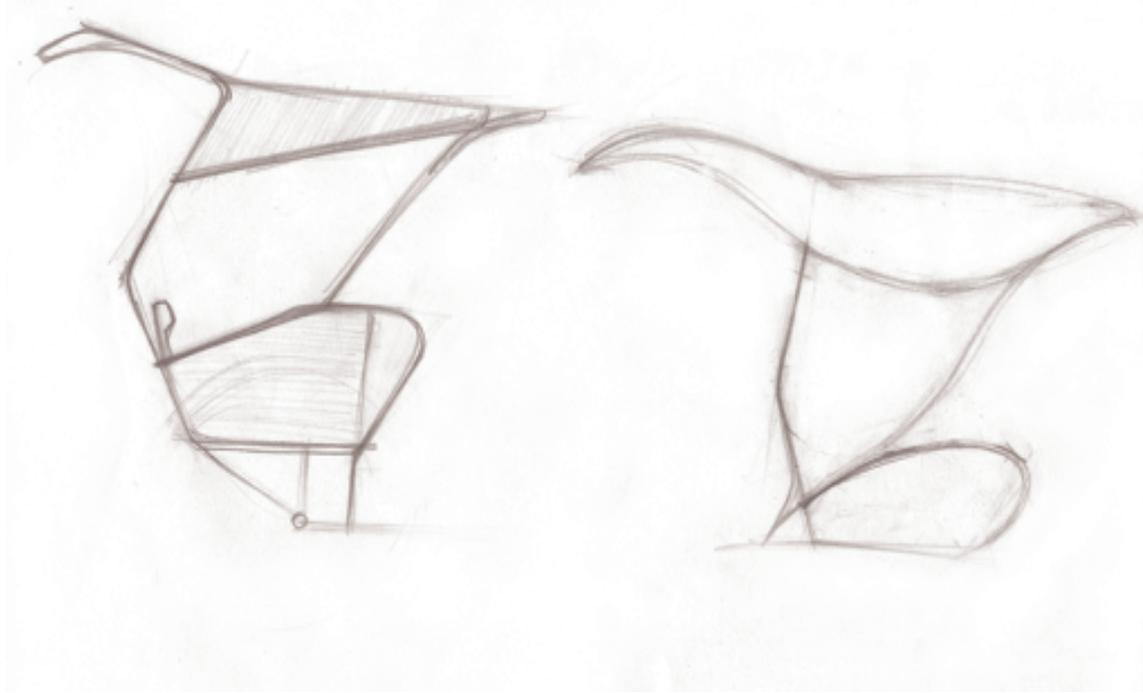
Considering the first group viz the elderly passengers, the things that needed to be considered were their ingress and egress problem which included the seating height and the floor height of the rickshaw, their holding position, some provision that can help their garments not to get entangled in the wheel etc. For these things the design considerations that were made where the seating height to be made low along with the floor height so that the passenger can climb up and move down easily. This required a proper frame to hold and support, a proper safety guard that can keep their garments (saree or dupatta) from getting entangled.

Then moving on to the second group of elderly- the rickshaw puller (if he is elderly), certain provision to be made that can reduce their

**effort. This led to the provision of providing a motor in the front wheel which will help reduce their effort. This is also an added advantage if the puller (elderly or middle aged) is not well but still needs money to make end meet. Other than this some consideration is to be made to provide a top covering for them which can prevent them from the scorching sun and other unpleasant weather. Hence for this the covering provided for the passengers could be extended till the puller.**

**The concept was also developed taking into consideration the previously designed rickshaw. The positive points were taken into consideration and were kept constant. The negative points were studied and provision was made to convert them into positive points by changing the design.**





### **Concept to final design:**

**The final design thus had a low seating and a low floor, a proper frame for holding and supporting, a safety guard to protect the garments, a top covering for both passengers and rickshaw puller and a motor in the front wheel to reduce the effort. Adding to this more space is provided for keeping luggage of the passengers.**

**Though we began initially by making a rickshaw for elderly, it was also considered for carrying goods when not carrying passengers. For this the backrest of the seat was made movable so that it can be put down or made straight. This increased the space (seat + backrest) for keeping goods.**

## Detail design:

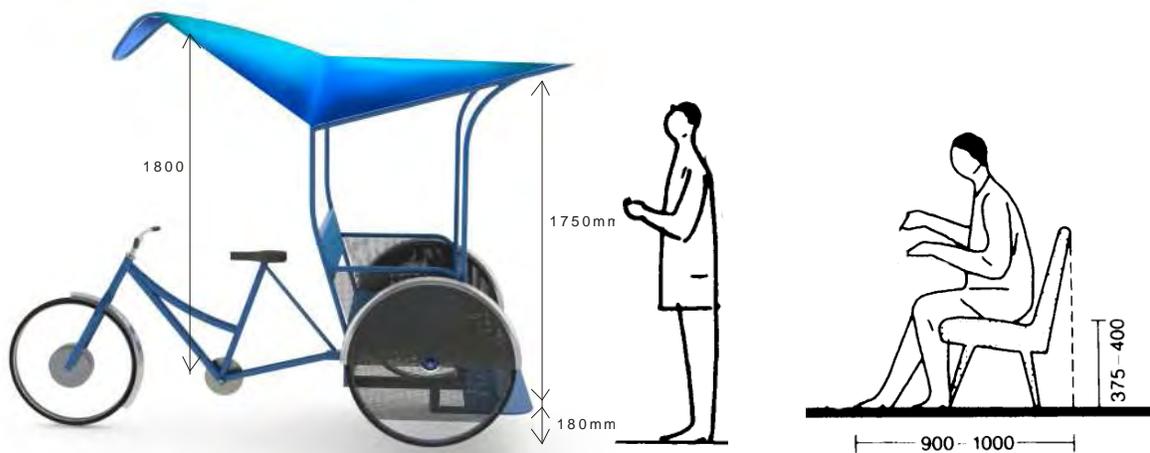
Rickshaw consists of mainly three parts:

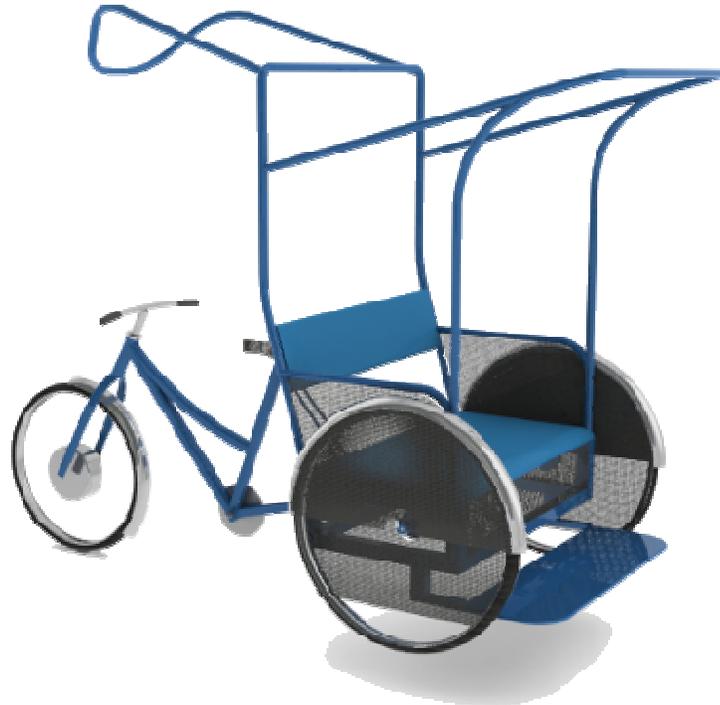
- the front frame,
- the chassis,
- seating and hood

The front frame and the chassis remains the same as that of existing rickshaw. Only the passenger compartment was designed considering all the ergonomics and the anthropometry specifications. Elderly safety and comfort was the foremost consideration. The foot board is brought to lower height while providing sufficient ground clearance. The seat and the back is designed using proper anthropometry data.

Below the hand rest and near the leg space, a guard has been provided for safety purpose.

Back rest of the seating is kept away from the frame of the rickshaw to avoid head injury





**Initial front framing:** The frame design was made to minimize material, thereby reducing weight while providing for sufficient strength. The material used was iron as used in the present cycle rickshaws. A triangular frame supports the seat which is connected to the back seating and the two wheels. Then two frames are connected to the triangular frame which tapers at the place which is connected to the handle.

### **Frame for holding and supporting:**

A proper frame using less material has been designed for supporting purpose. This frame is attached to the back seating which is helpful for holding when an elderly passenger climbs up or climbs down from the rickshaw. This frame also supports the backrest of the seat. This frame is also designed keeping in mind the aesthetics.

## **Seating:**

***- For rickshaw puller: The seating is made like any other cycle rickshaw considering the proper heights as per ergonomics.***

***- For passengers: The seating for the passengers faces opposite to the rickshaw puller. The seating heights have been made low along with the floor height so that there is no ingress and egress problem. The seating height has been referred from the anthropometry of the human sitting posture and thus is kept at a height of 400 mm. The floor height has been taken from the standard dimension of a single step of a staircase which is thus kept at 180 mm from the ground.***

## **Wheels:**

***- Front wheel: The front wheel is made a little smaller as compared to the other two wheels. The motor is attached to this wheel to reduce the effort of the rickshaw pullers. The wheel is not fatter in size but is of usual thickness as of the other two back wheels. This wheel forms the tapering end of the triangle formed by the three wheels and is exactly at the centerline of the rickshaw. The wheel has proper mudguards.***

***- Two back wheels: These two wheels form the two opposite ends of the triangle formed by the three wheels. The design of these two wheels has been kept constant as is used in the present rickshaws also keeping the position the same. These wheels also have proper mudguards.***

### ***Top cover:***

***The top cover is made such that it covers both the passengers and the rickshaw puller. The design is made taking into consideration the direction of wind flow. The front covering is kept at such an angle that it saves the puller from the sun and rain. Though it does not completely saves him from the rain (depends on the intensity and angle of rain) but his head and face do get covered or saved due to the cover. The cover is kept at such height that it is at a good distance above the passengers head and also the rickshaw pullers head. Even if the puller stands up while riding the rickshaw it does not touches his head.***

### ***What remains the same***

***There is no other major change in the design. Like for example the paddles are kept the same way as they cannot be modified further. The design of paddle is appropriate as per the current design and hence they are kept at the same place and at the same height convenient for the rickshaw pullers. The height of the handle is also kept at the same level as is in the present design. The present height is convenient for the puller to ride the rickshaw.***



## **Comparison and analysis:**

**The designed rickshaw for elderly was made after analysis and considerations of disadvantages of the earlier designs. The main aim was to make a prototype especially for the elderly people so that there can be a convenient mode of traveling for them. It is suitable for other population segment also.**

***Note: This project was supported under the Department of Science and Technology scheme on Technology Interventions for the Elderly (TIE) , project SSD/NI/033/2007-TIE 'Creating awareness among the students and their strategic involvement in product concept development'. The second author was the academic project coordinator / project supervisor for the first author.***



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# **Design of Trolley suitcase for the Elderly**

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## **Abstract:**

*A suitcase is no longer a box with handles, but has evolved to ease the way one carries his/her luggage. Innovations starting from giving it wheels, to varied types of handles, storage segmentations, expandability and different styles of lugging, to materials used to provide durability and strength, have improved the way we use and changed the way we perceive a suitcase.*

*Travel with baggage becomes difficult, especially for an elderly passenger who may also be battling with limited strength, eyesight, stamina or dexterity. Elderly need special type of luggage that can make them self dependent.*

*This project aims at solving some problems as studied, and designing a trolley for the elderly to help them carry more, easily by themselves.*

## **The design of the suitcase:**

**The present design shifts the boundary of the suitcase.**

**The design concept takes the best of the duffle bag and a wheeler trolley suitcase, to create a new type of suitcase.**

**A duffle bag can fit in a lot of items into them and they are very easy to carry around. They are much unstructured and typically made out**

of fabric. The wheeled duffle bags have a disadvantage in them that they can't be put upright. Thus, if one needs the bag to rest by itself, it cannot, and it will fall down on to the ground and the user would have to bend down to lift up the telescopic handle that is used to maneuver the duffle bag on the wheels. But when encountering crowds or staircases, where the user needs to take the baggage into his hands and cannot pull/ push it anymore, duffle bag gives the best comfort, in that it is lighter than a suitcase, is easy to maneuver around and has the maximum dimension of itself, in the direction parallel to the ground when held up in the hand, thus doesn't become an impediment to walking. A suitcase on the other hand would extend to the knee and thus make it uncomfortable for the user to carry it around. The handles in the duffle bag are soft and fabric made unlike the ones in suitcases, which are made of plastic and are hard, inflexible, painful and heavy by themselves.

The suitcases have their advantages,

- They take clothes without spoiling the creases, i.e., the clothes do not get crumpled up in a journey,
- Have a boxy structure thus giving the maximum space for the available dimensions,
- Are better at handling on a floor by dragging,
- Most suitcases are upright ones and thus are easy to move with wheels

The disadvantages of a suitcase are that they are heavier than a duffle bag, and difficult to maneuver while carrying them rather than pulling or pushing by the wheels. Most suitcases are hard cased and are heavy.

**Thus this design concept aims at taking the best of the two...the duffle bag and the trolley suitcase to make a new product, that is**

- **Light in weight**
- **Easily maneuverable**
- **Has well placed and special handles**
- **Keeps clothes clean and well packaged**
- **Has easily accessible pockets**
- **Is colour contrasted**
- **Is of appropriate size for a week's travel for the elderly**
- **Easy to operate zippers**
- **Has Spinner wheels**

**The telescopic handle made is shaped like a grip handle similar to that of a walking stick. This enables easier pushing with natural posture of the hand in pushing that is in the stretched position like that of holding a walking stick rather than resting on a handle that is vertical where the arm bent at 90 degrees. The whole of the handle is at an angle that allows comfortable maneuvering of the suitcase on the floor.**



## **The design features:**

### **Shape:**

**Since the suitcase takes the best of a duffle bag and an upright spinner trolley suitcase, the maneuverability had to be good and also handling must be good.**

**The shape is thus given so that when used like a duffle bag, that is when the user senses that there is too much crowd and wheeling the suitcase may not be possible, or when he needs to encounter a staircase, he can easily grab the soft flexible handles given at the curvature and lift the suitcase and move. Since the design is thus made that the minimum dimension comes in the direction perpendicular to movement and in parallel, the longer dimension is given, the suitcase doesn't bump into the user. This holds good even when using the suitcase as a trolley, where in the user can comfortably walk besides the suitcase.**

**So, when the user lifts the suitcase with the flexible handles, the line of action passes through the corner of lift, the centre of mass and the opposite corner. This restricts the suitcase from wobbling or swinging in the air when lifted from a corner. Lifting from a corner was found to be important since it was easy and quick to reach a corner than bend and grab a handle from a face.**

**Design of the telescopic boom handle: the handle is made in the shape of a simple projecting walking stick handle. When pushing the suitcase and walking by the side of it, the wrist need not be strained and the handle can be held very freely without strain. The handle is rotatable 360 degrees, with locks at every 90 degrees. Thus the handle can be turned away or placed sideward and held comfortably**

when the handle position is perpendicular to the direction of motion.  
Thus the handle offers a lot of variable options and flexibility.

The dimensions are as follows:

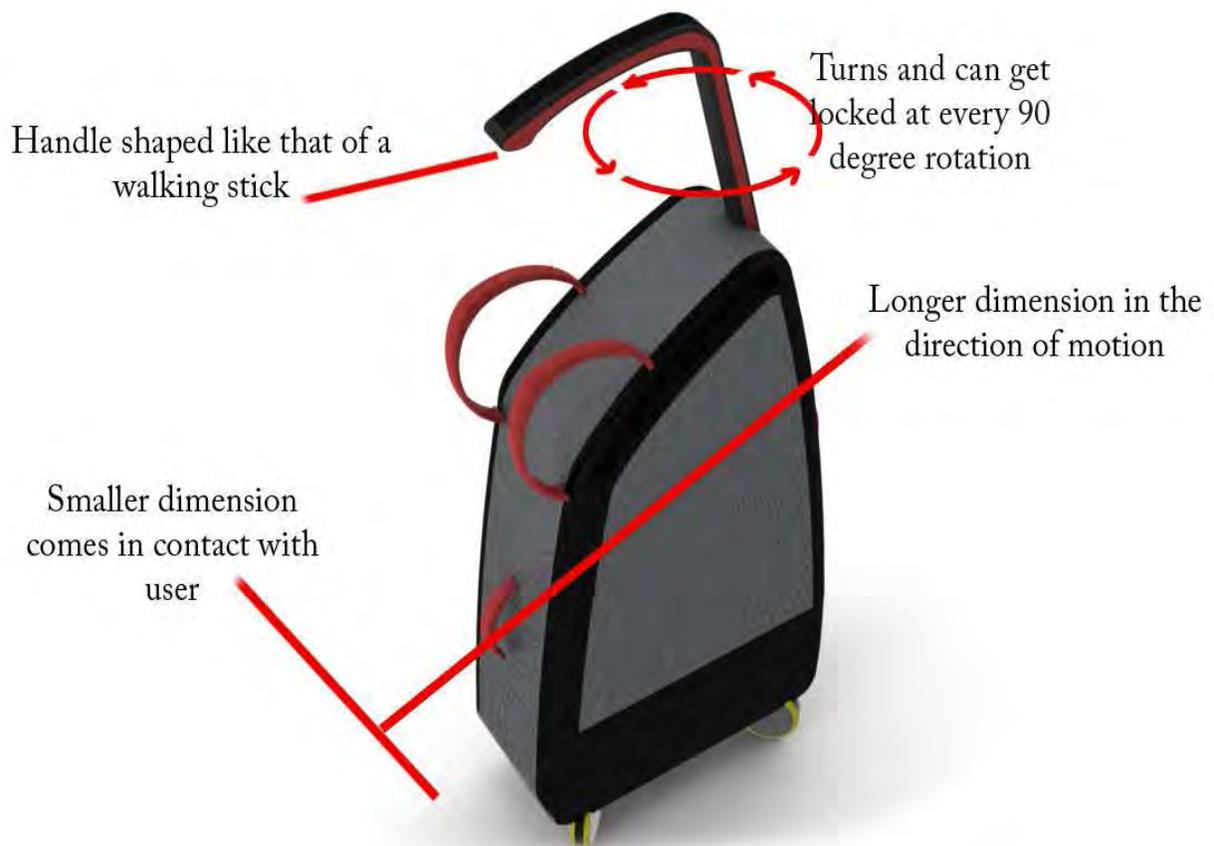
**Maximum height at curvature: 22 inches**

**Height at shorter curvature: 17 inches**

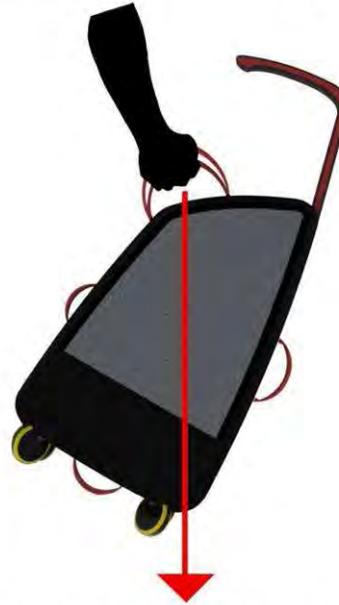
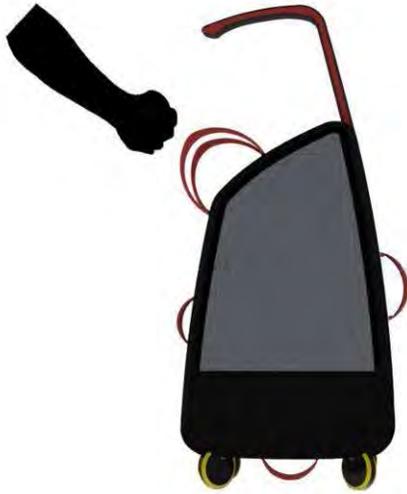
**Width of the case: 15 inches**

**Depth of the case: 8 inches**

**The volume of the case is 28 litres.**

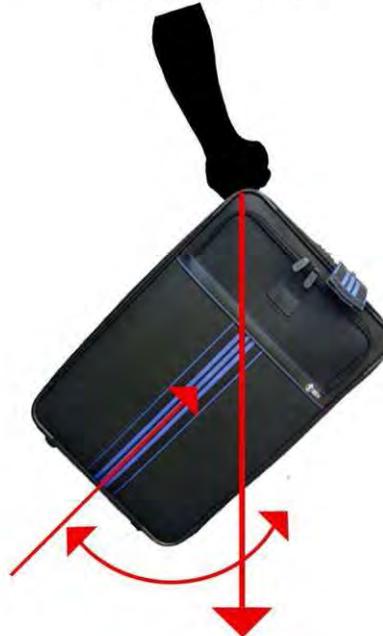


The line of action passes through the opposite corners and through the centre of mass too



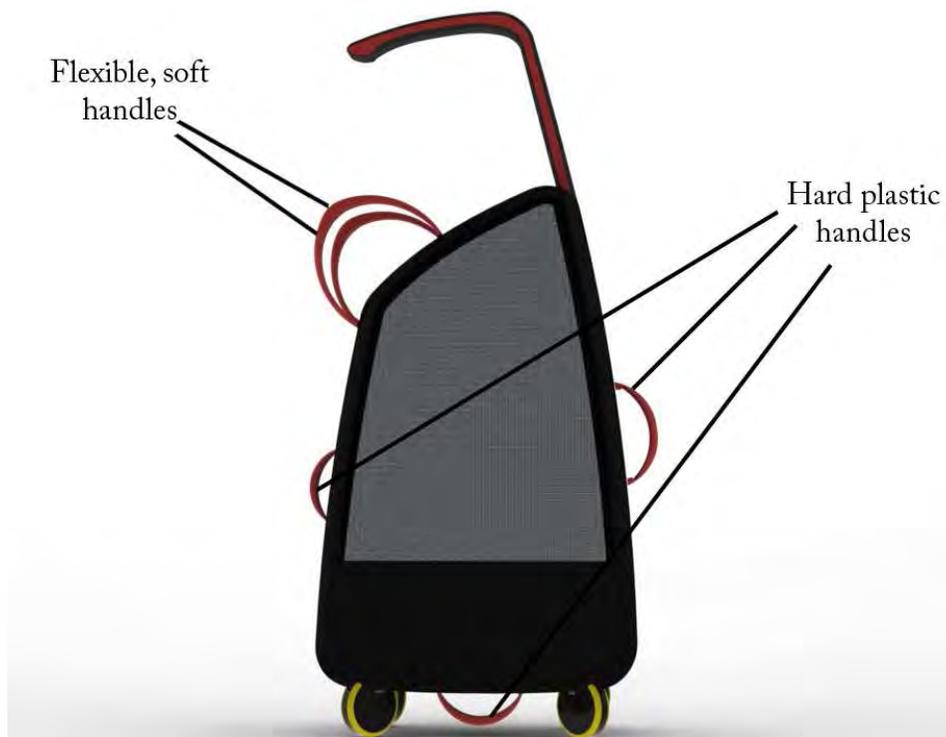
Strain and injury possibility seen when such holding postures come when climbing staircases

The line of action doesn't pass through the Centre of mass or the corner. Thus, the suitcase wobbles when held thus



## Handles' placement:

Handles have been provided on every face of the suitcase. This allows holding from any side in case the suitcase slips. In the airports, at the carousel belt when the baggage arrives, none can predict what side of the suitcase would be facing the owner. When the side of the wheels or the bottom is facing the owner, he finds it difficult to pull the suitcase towards him and tends to pull it using wheels, but this is just a discomfort. Thus a handle has been provided at the bottom of the suitcase.



***At the curvature, flexible soft handles have been provided.***

**Final design mock up:**





**Note: This project was supported under the Department of Science and Technology scheme on Technology Interventions for the Elderly (TIE) , project SSD/NI/033/2007-TIE 'Creating awareness among the students and their strategic involvement in product concept development'. The second author was the academic project coordinator / project supervisor for the first author.**



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***Born on August 4***



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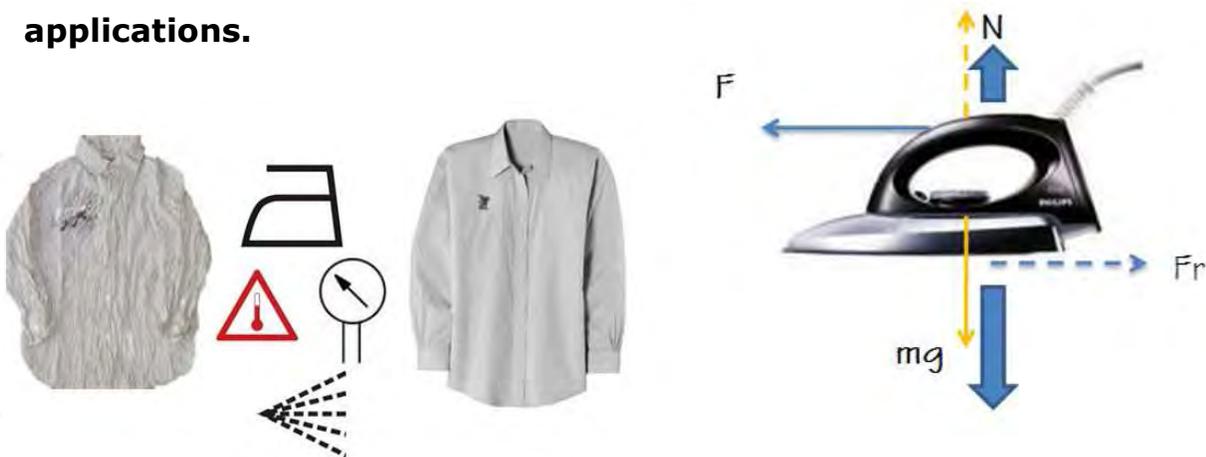
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# Design of Commercial Ironing System for neighborhood service shops in the India

*Vibin MV, M Des, IIT Delhi*

*Lalit Kumar Das, IIT Delhi*

'Ironing' or 'pressing' is the term commonly used for the process of removal of wrinkles from clothes and adding creases along desired locations on it. This is achieved using a variety of methods, the most common being use of an 'iron'. The process involves the application of temperature and moisture (depending on the fabric type) and dynamic pressure on the fabric using the hot soleplate that is maneuvered manually by the ironing person. A high level of automation is achieved in cleaning the clothes, but the process of removal of wrinkles, is hardly automated, especially for domestic applications.

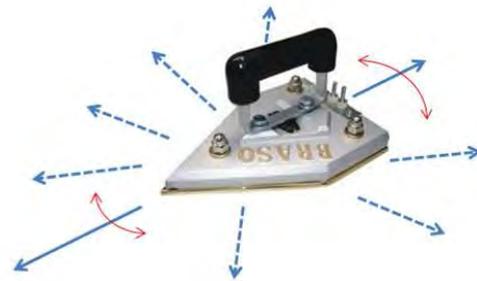


The figure shows the free body diagram of the iron during operation. The force  $F$  for guiding the iron as well as down force is provided by

the user's hand and the corresponding reaction force is experienced by user while ironing. During lifting the iron only the weight of iron is felt by user.

In the Indian scenario, with the busy schedule for people, especially in urban region, ironing is one common household chore that is being increasingly outsourced. Laundries and Ironing centres are becoming more and more popular. The objective of the study was to understand the present scenario at ironing centres in the Indian context and explore possibilities of improvement of the process through design intervention.

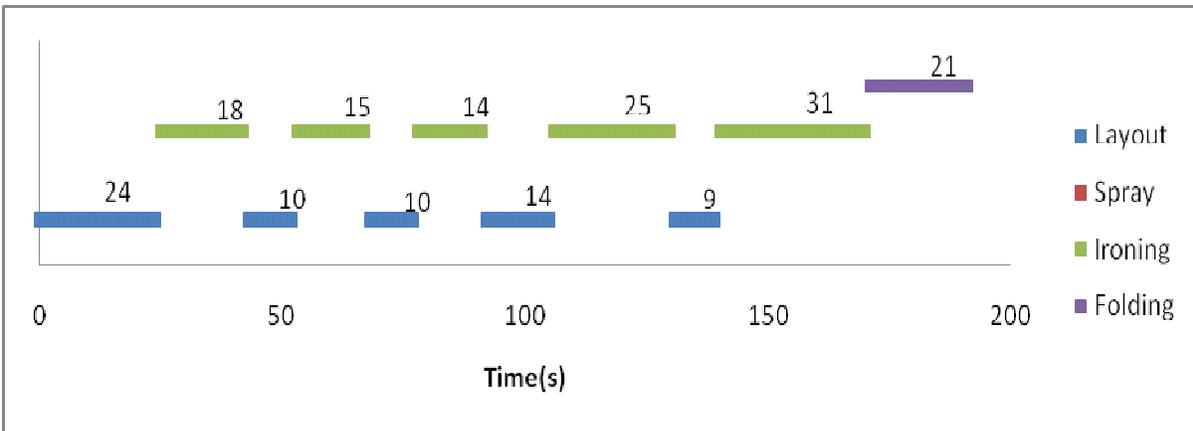
Literature survey and field study at ironing centres were carried out. Study revealed that the commercial irons are heavier than domestic irons, with some weighing upto 8 kgs, and having a larger soleplate. The irons are mostly made up of aluminum alloy, cast iron or brass. These irons due to their weight are never turned upright while idling as done with domestic irons, instead are rested horizontally on an insulator pad such as marble slab, wooden block, tile or rubber pad.



**It is observed that the iron predominantly has a planar motion while ironing and undergoes occasional lifting for repositioning. During ironing, the iron is not only moved in the longitudinal direction – forward and rear, but in various transverse directions. Even the return stroke is effective, though some irons do not have a streamlined design of soleplate that apparently causes difficulty during these other motions. The sharp corner in the front helps reaching awkward corners of the dress. Commercial irons mostly have a straight handle made up of Bakelite or wood (for coal irons). The user uses both hands interchangeably while ironing though each person has a dominant hand and the insulator slab is placed near to the dominant hand. In case of electric irons, the cable is tied above so that it does not fall on the clothes while ironing.**

**The study also sheds light on the areas where ergonomics can be improved. Handle is an important component of the iron. The study has revealed that the straight handles that are currently used in irons, especially commercial irons have the wrist fairly deviated from the neutral position during usage. Continuous, long time usage of such irons would lead to stress injuries for the person.**

**Also, ironing is an intermittent process, with the interaction of iron and the cloth being ironed not continuous. This break in ironing may be layout of clothes for ironing, spraying water on clothes, folding clothes after ironing etc. It can be considered that a break of at least 5 seconds happens during continuous ironing for 60-70 seconds, depending on the type of the cloth like saree, shirt, trousers, shorts etc, material being ironed, speed of person ironing etc.**



*A typical event time graph for ironing shirt using electric iron*

**It was observed that energy is being wasted through unwanted heating of iron even during idling, as the thermostat control is only concerned with the temperature setting and not with the duty cycle. If we can have a fast means of heating that can compensate the heat dissipated during ironing and maintain temperature within the zone set, the unwanted heating during idling can be avoided without hampering the ironing. Even marginal saving made on energy consumption on a daily basis makes economic sense for commercial ironing centres in longer timeframe.**

**Induction heating is a non contact type of heating which has high efficiency, above 95%. It gives rapid heating that can be well managed and controlled. It works based on the principle of electromagnetic induction and resistive heating. The heating of soleplate through induction heating is analogous to the heating of the pot on an induction cooker. According to the principle of induction, when an alternating emf is applied to a primary coil, it induces an alternating emf in the associated secondary coil in the vicinity, thus generating a current called as 'eddy current' in the**

secondary coil. In case of induction cooker, the pot acts as a secondary coil with single turn. If the material is a moderate conductor, then the resistance to current flow will generate heat  $Q = i^2 \times R \times t$ ,  $i$  being the induced current,  $R$  being the surface resistance of material and  $t$  being the time. The amount of current induced is mainly governed by the input to the primary. The resistance is a material property and is also affected by the thickness of the plate. If the material is ferromagnetic, then additional heating by hysteresis is also generated, however the magnitude is low compared to eddy current based heating. Iron, stainless steel etc are very effectively heated using induction heating, industrially.

This project attempts to integrate an induction based heating system with the ironing system, combining the best of both. The principle is refined by conducting experiments on an induction cooker and accordingly the soleplate design is finalized. With the proposed system, the heating element is taken out from the iron. This makes the iron less bulky as all the other components of induction heating is housed in the separate heating unit. The heating unit is attached to the ironing table, by the side of the user, depending on whether his preferred hand is left or right. The iron is rested on the insulator pad on the top plate of this unit while idling and this time is utilized for heating. A microprocessor based system manages the entire unit by controlling the heating based on the user setting chosen depending on the type of cloth being ironed. The temperature sensor on the surface of the insulator pad senses the temperature of the soleplate in real time and gives feedback to pause and restart heating. With no heating system within the iron, it is made cordless and hence no cord related hassles. The streamlined

**soleplate design also suits ironing in forward stroke, return stroke and any arbitrary transverse direction.**

**For realizing a functional model and testing, a mild steel soleplate is manufactured and the aluminum alloy soleplate of a domestic iron is replaced with this. The induction heating system with additional electronics for temperature and heating control is fitted on a base. The top cover is fitted with the temperature sensor. For the iron, only the bottom face of soleplate is exposed and other face is thermally insulated. By minimizing the dissipation of energy and by elimination of unwanted heating it is possible to save energy.**



**An experimental setup was made up to study the grip parameters. The set up comprised of an iron with an adjustable hinged handle in vertical plane to study effect of handle inclination, an iron with a handle connected to main body with a spherical joint to study azimuthal plane deviations and threaded joints for handles to allow axial rotations and for changing of handles with different curvatures.**

**The handle is redesigned based on principles of power grip design and insight derived from the experiments conducted on ironing system handle. The handle is inclined so that the wrist need not be**

bent awkwardly during ironing, thus avoiding wrist strain. Also, the perpendicular attachment on the end of handle allows the use of both hands simultaneously and allows changing over from one hand to other smoothly during the stroke. The new handle enhances stroke length by 10 % without the need for stretching the torso.



The heating unit is provided with a LCD screen to display the present settings. Control buttons are provided on both sides for accessibility when the unit is positioned on the left side or right side of the person ironing. The stand is adjustable for height, for attaching the unit to the ironing table, maintaining the top in level with the table top. It also has semi rigid members for hanging clothes that are to be ironed.

The concept is proved through functional model and the system is now undergoing ergonomic evaluation and optimization of components for energy efficiency.



**Note: This project was supported under the Department of Science and Technology scheme on Technology Interventions for the Elderly (TIE) , project SSD/NI/033/2007-TIE `Creating awareness among the students and their strategic involvement in product concept development`. The second author was the academic project coordinator / project supervisor for the first author.**



***Vibin Manalimukkil Velayudhan***



***Lalit Kumar Das***

**Dear Sir/ Madam,**

***We the Batch of 2011(Masters of Design), IIT Delhi are celebrating our Completion of Course by conducting the Design Degree show from 10th-12th June 2011 which showcases our works.***

***Adhvaan, the journey is a depiction of our learning curve and this is what we are representing ourselves with. It would be our esteemed pleasure if you could grace our small celebration and give in your valuable insights***

***Our journey will never be the same without your blessings, critics and support. So please oblige yourselves and join in the fun, excitement and learning.***

***Looking forward to your interaction.***



***Class of 2011, Masters of Design***

***Industrial Design, IIT Delhi***

***Thanks & Regards,***

***Student Coordinator***

***Vriti Bhargava***





**Objective:**

To design convertible furniture, which will provide greater flexibility in use and improve quality of living for user.

The Convertible Furniture is multi-purpose furniture system, which helps the user to transform it in various permutations and combinations in sync with the need and comfort of the user and in response to the available space and convenience.



The furniture system provides a different viewpoint to the need. here there is a single unit which can be altered to obtain different solutions like sofa, Bed, shelf, storage unit and a showcase.



This furniture system will also provide a revealing nature to the product which would entice the user to spend more time in enjoying the number of options he can have.



The effort spent in finding and appreciating the furniture system is made as a beautiful and pleasurable.



Guide: Prof. L. K. DAS  
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CONVERTIBLE FURNITURE

adhyaan  
DDS 2011 IIT DELHI



**Objective:**

To Design a Masala Maker/ Grinder for Indian Kitchen, which will retain the taste of traditional masala making with stone grinding process and reduce the inconvenience of masala grinding for Urban house hold.

**Design guidelines:**

- Traditional to Modern Kitchen
- Floor to table top
- Food habits are changed
- Working womens



**Modern**



**Traditional**



DESIGN OF MASALA MAKER

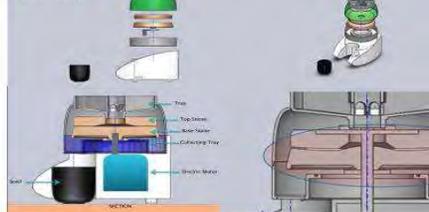
**Concept**



**Activity Matrix**

Process	St. Blends	Human Data	Chakki/ Jala	EC. Grinder	Finalized Product
Masala	●	●	●	●	●
Human Post	●	●	●	●	●
Chakki	●	●	●	●	●
Final	●	●	●	●	●
EC. Data	●	●	●	●	●
Grinding	●	●	●	●	●
blending	●	●	●	●	●

**Details**



**Advantages:**

- widening the consumer market
- savouring the taste
- reducing efforts required
- Time saving per Activity
- to meet variety of needs



Masala maker

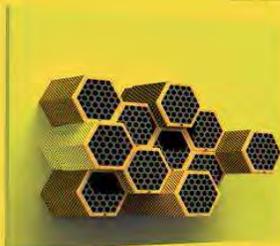
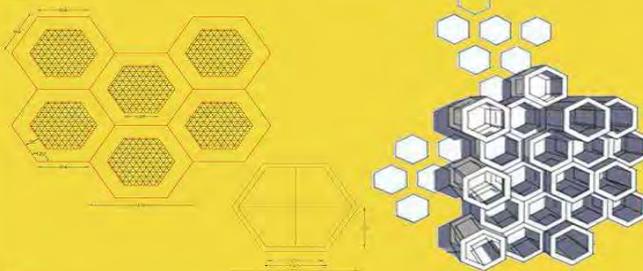


design degree show 2011  
IIT Delhi

# SHOE STORAGE UNIT FOR INDIAN TEMPLES



In the Indian culture, places of worship are considered to be sacred. Any impurity such as shoes being the primary, are to be removed before entering any such sacred place. Lots of people visit temples daily and hence the management of footwear of the devotees becomes a big challenge. The shoe storage systems that prevail these days have some loop holes as found out through a lot of user research. This project has analyzed the user behavior while taking off shoes, storing them and putting them back on. This project has looked into the gaps in existing solution in fulfilling users' needs.



The concept was inspired by nature's very simple product that is honey comb. Honey bee always tries to keep his honey safe in hive similarly this product also aims to keep the shoes of the user safe. The blocks are hexagonal in shape and are installed vertically in the wall. The entire thing thus has uniformity and is more appealing. Moreover with this concept less space is occupied in accommodating more number of shoes which adds to its advantage in a public place. The individual units can be used by a single person or by group of person. If visited in groups then the storage units can be extended longitudinally which can accommodate more four pair of shoes and hence they can be safe and kept together.



Guide: Dr Jyoti Kumar  
Assistant Professor

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adhvaan  
DDS 2011 IIT DELHI

## REDESIGNING CYCLE RICKSHAW FOR ELDERLY

### Aim

The aim of the project is to re design the cycle rickshaw considering the needs of elderly and rickshaw puller.

### Conceptual sketches



### Design includes

- Easy access for elderly - making it low rise and barrier free.
- Providing proper handle for holding
- Protection from rain for both passengers and puller.
- Addition of 250W hubless motor-acts as helping motor reduces effort of rickshaw puller.
- Providing comfortable seating space.
- Combination of goods carrier and passenger carrier



### Safety

- Sheet-metal guard below the hand rail and near the foot board.
- Placement of back rest is away from the frame, which avoids the head injury.



design degree show 2011  
IIT Delhi

## Design Objective



Employment in blue collar trades like plumbers, electricians, welders, etc. takes place mostly through social contacts. As a result, due to lack of equal information, many times there is great disparity in income levels, amongst people with similar skills. The objective of the project was to provide an equal and easily accessible platform with an interface designed to suit the needs of these workers an employment information.

## Research and User Study



**Methodology:**  
Open-ended interviews, User task analysis, were conducted with a sample of students from Industrial Training Institute to understand their needs and cognition. Competitive products and solutions existing in the market were also analysed.

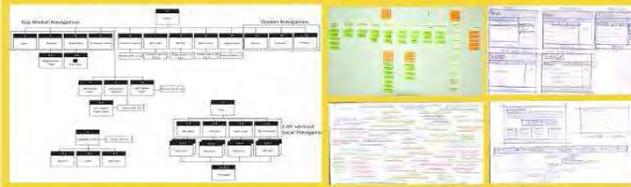
## Target User and Design Requirements



Based on research, a typical sample persona was created.

- The critical design requirements were identified as:
- Content should provide a number of relevant options to the user, so that not much input/processing is required from the users end.
  - Clean and simple layout of information.
  - Less navigation and minimum typing requirement.
  - Design for use in conditions of low data transfer speeds.
  - Design for use in average PC desktop.

## Site Content and Information Architecture



## Final Design Prototype



Mobile version simulated in adobe device central.



Guide : Prof. S. K. Atreya  
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# JOB PORTAL FOR BLUE COLLAR WORKERS

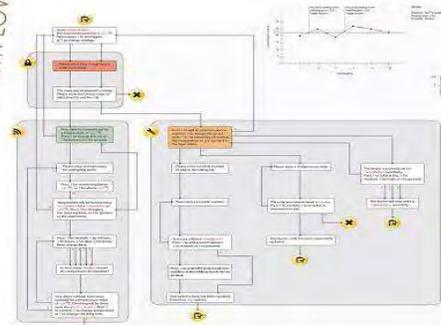
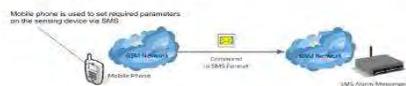
adhyaan  
IDS 2011 IIT DELHI  
Internship: Mediachala (NDB), Ahmedabad



## concept

Many small scale and unorganised industries in India resort to frugal engineering methods or improvisation to meet the needs of quality standards in their processes. This project was an exploratory exercise to see how low cost sensing technology could be interfaced with mobile phones to empower the user to have a simple tool by which he can maintain the quality standards of industry processes.

## How the system would work-basics



Framework of Interaction for an IVRS based system

## PRODUCT DESIGN

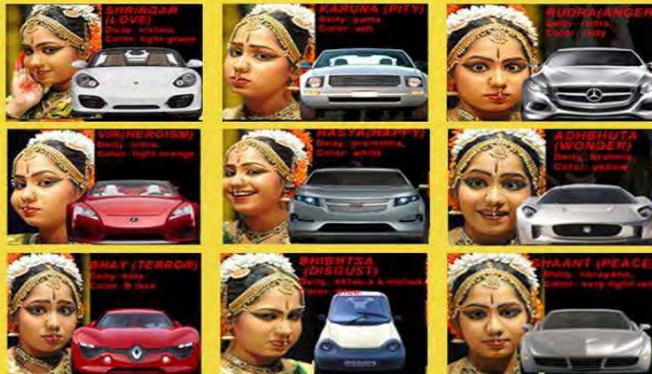


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**EMOTIONS IN CAR**

Design Brief: This project is car's exterior form research based project. Every car has a emotion. Even we can say every car has a personification of cars, the semantics of car design, where we can relate a car's features with human figure. Headlights= eyes, Bonnet= nose, and forehead area, Grills/Air intakes= nostrils and mouth, sometimes grills form teeth.

Emotion in car comes through form, color and material. but here i have considered only exterior form of a car. for study of cars emotion i have taken navraas from natyashastra and compared with car. Natyashastra has categorized all emotions in different nine bhav(mood). Here categorization of emotion done by natyashastra based on Indian cultural and tradition.



Aggressive car



Guide: Dr. Jyoti Kumar  
Assistant Professor  
**YASHWANT SUTHAR**  
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DDS 2011 IIT DELHI

Concept



Design Brief

Redesigning of Bajaj scooter is more concerned with style and form exercise. The scooter is redesigned for youth segment with new futuristic form and style.



PUFF MODEL OF SCOOTER



Final design



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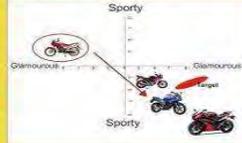
## Project Brief

Restyling of Hero Honda Glamour for Indian Youth of age 18- 25 yrs.

### MOOD BOARD



### MAPPING



### CONCEPT



**Keyword**  
**Sporty**  
*Glamorous*  
*Youthful*

### Design development



Guide: Prof. S. K. Atreya  
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RESTYLING OF GLAMOUR

adhyaan  
DDS 2011 IIT DELHI



### Concept

AIRAMID : A service -Faster and Safer with all medical emergency equipments and trained medical attendee. Small, collapsable and eco-friendly air service which picks up the patient from the building itself as the traffic on road and the vertical building is increasing.



This is our Present  
 And so  
**The future**



**AIRAMID**  
 Emergency Service

Unmanned vehicle for emergency with Aero traffic route available on the GPRS monitor with 2D and 3D area images. It can be controlled from the service center in case of emergency by the trained pilots.

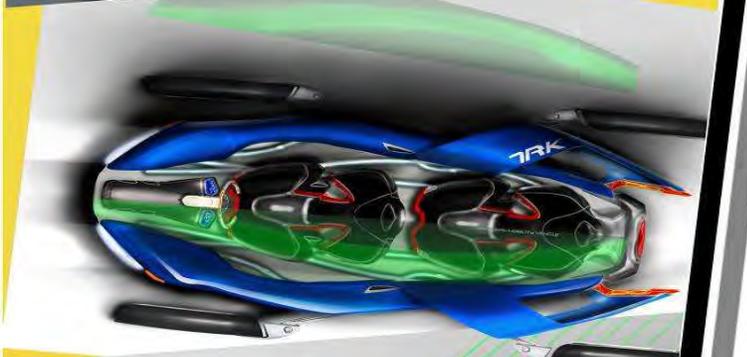
AIRAMID- EMERGENCY SERVICE 2020



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 IIT Delhi

4S

FOR US  
FOR SPEED  
FOR SUNDAYS  
FOR SAFETY  
FOR 2011



Design of a Personal Mobility Vehicle

4S

is a 2 seater personal mobility vehicle. It can be used for commuting within and outside the city. It can be used in 2 modes. It is a fusion between the car and bike.



Guide: Prof Sumer Singh  
Assistant Professor

T.R.KARTHIK  
B.E. (Mechanical Engg.)  
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Adhvaan  
DDS 2011 IIT DELHI



Design of a Multiutility Heavyduty Vehicle



Aim  
To ease the truck movement in heavy road traffic  
Improve the aesthetics of the vehicle  
Innovative use of the vehicle



design degree show 2011  
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Project 4th semester  
 "STYLING OF 350cc SPORTY BIKE FOR INDIAN YOUTH"

AIM: To develop a new form for the sporty segment category by understanding and following the design methodology used in automobile industry.  
 Target user: Indian Urban Youth (23-28)  
 Concept: VION 350cc "Virus on Road".  
 Segment: Sporty commuter bike.

Inspiration & Analogy:

MUSCULAR

SPORTY

AGGRESSIVE

ROBUST



Form Exploration:



Final Rendering of the concept VION:



Guide: Mr. Sumer Singh  
 Assistant Professor

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adhvaan  
 DDS 2011 IIT DELHI



Project 3rd semester  
 2nd Runner up winner

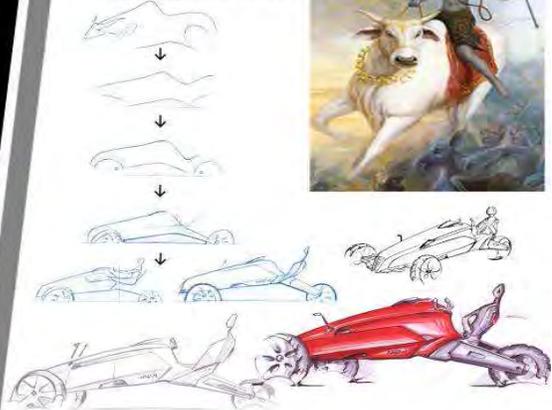
"PERSONAL MOBILITY VEHICLE FOR URBAN INDIA-2016"



AIM: To develop a creative concept of a PMV for Indian urban youth of 2016 & beyond.

Concept: Neo-M "New Evolution On Mobility"  
 Class : Personal mobility vehicle.  
 Segment: Single seater city commuter.

Inspiration & Analogy:  
 This concept is inspired from Nandi, the Bull, the loyal mount of shiva.



Final 1:5 Scale down model Neo-M

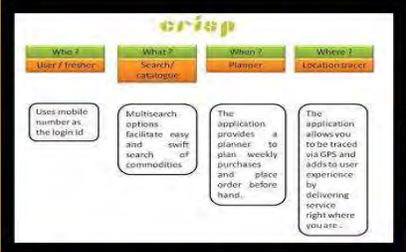
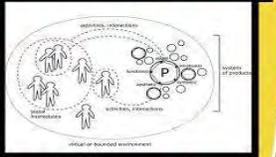
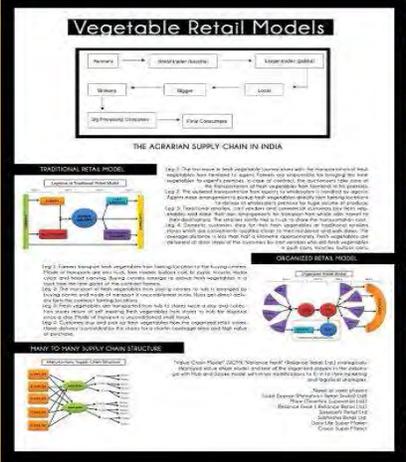


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# MOBILE APPLICATION for INDIAN VEGETABLE MARKET

adhyaan  
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CLASS NAME	OBJECTS/VEHICLE	VEHICLE	TYPE OF SERVICE	Displaying/Navigation
Vegetable Catalogue				
Search Options				
Planner	Planner	Planner	Planner	Planner
Location Tracker				



Guide: Prof. S. K. Atreya  
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## ASSISTIVE TOOL FOR BEAD MAKING IN WOOD



WORKING CONDITIONS

### Concept



The form is inspired and mechanism is inspired from the pencil sharpener and coconut scraper.



### Different views

Tool consists of two parts:  
(i) the outer shell and  
(ii) the cutting tool.



Different radius of curvature of the cutting blade for different shapes.

Rake angle of 7 to 9 degrees to remove material.

### Advantages

- hand held
- light weight
- uses no electric power



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The project is to design food delivery accessories for Zaiqa chain of restaurants for the Hero Honda Splendor plus motorcycle

### Concept

It was found that a 14" high box was sufficient for daily deliveries. In case of a bulk order, the present boxes fail to take the load, as stacking is not possible for Indian food, and defined packaging isn't available.

A second box thus mounted on the lower creates more carry space, allowing one bike to carry as much needed.

The design allows easy mounting. The boxes can be swivelled aside, creating space for mounting.



### Graphics and Branding



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# DESIGN OF FOOD DELIVERY ACCESSORIES

adhvaan

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### aim

To design a trolley suitcase for The elderly considering the problems of lugging about, manoeuvring and handling.



Turns and gets locked at every 90 degree

Natural holding walking stick like handle



Smaller dimension of the box comes in contact with user  
longer dimension in direction of motion

### concept

Design takes the best of the duffle bag & the wheeler trolley suitcase. Improvements are made in the shape of the suitcase & the handles & handles are provided on all faces. The main handle is shaped like a walking stick, the design of corner handle is explained below.

Quick and easy to switch from boom handle to box handle when needed to lift

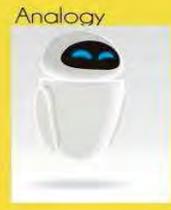


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Portable Personal Mobility Device



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Battery LiFePo4  
Nominal Voltage= 3.2  
Amp/Hour Rating=40  
Dimensions: H =185mm  
W=116mm T=46mm  
Weight =1.5kg

Hub motor=24 Volt  
250 W  
dia.=16 cm  
thickness=6cm  
weight=7-4 kg  
torque =7-25 Nm



The idea was to design a compact, easy to handle, economic, light weighed and eco friendly portable mobility device which can be carried like a bag pack and used like an electric scooter.



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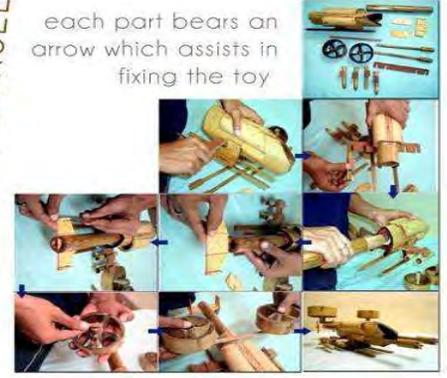


User:  
Age Group : 5-10 yrs  
creative, enthusiastic and one  
who is always interested in  
finding -how it works.



The toy kit consists of 15 parts  
which can be arranged as shown  
below.

each part bears an  
arrow which assists in  
fixing the toy



BUILD IT YOURSELF TOY - HELICOPTER IN BAMBOO

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**Attributes-Lifestyle Furniture**  
 Welcoming Forms , Interactive , Defines Status  
 Target User : High Class  
 Inspirational Image



**KEYWORDS**

Delicate  
 Metallic  
 Goddess like

The furniture piece form has been inspired by the wings and curves of a fairy purely covered with metallic shades. **Final**



**Prototype**  
 # Continuous & lustrous copper pipe adds dynamism to the form.  
 # Support less back provides delicacy to the structure

# Metal Pieces of variable size & designs dangling in form of fairy wings, making user to interact with the furniture.



# Copper, Brass, Bronze and gems are adding goddess value and status.

# Designs cut out in metal pieces are inspired by inspirational image of fairy



# Upholstry enhances the richness of a piece & maroon colour cushion strikes the sitting area.

**Why Waterjet Technology?**

- \*Any design can be cut.
- \*Any material can be cut.
- \*Extreme finished quality.



**Dr. JYOTI KUMAR**  
 project guide

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**LIFESTYLE FURNITURE**  
 THROUGH WATERJET TECHNOLOGY

**adhvaan**



**problem** :Cleaning Coweb around the ceiling and the corners of walls has always been the tough problem in homes .



**WEB EATER - A FUTURISTIC HOUSEHOLD DEVICE**

**solution**

Kids spend their most of the time in playing ,hence the WEB EATER, a solution which inherits the properties of a vacuum cleaner and joy of a remote control toys.



**features and technology**

1. Vacuum cleaner and remote sensing device.
2. Vacuum suction rubber foots
3. Flexible Rubber body to move around the corners.
4. Timer can be set
5. Direction can be changed
6. Automatically stops when Obstructed for long.
7. Induction charged battery and variable speed and strength.



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**TICKETING SOLUTION FOR INDIAN RAILWAYS GENERAL TICKETING SYSTEM**



**adhyaan**  
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Still general class (3 -tier) passenger has to buy and follow the same general ticketing system which is working still on the older modules.

- User has to buy the ticket only from the platform.
- has to face the large queue, wastage of time and energy.
- Struggle with fellow passengers and ticketing staff.
- Large no. of queue delay the whole process.
- They even miss there trains because of heavy rush and ticketing procedures

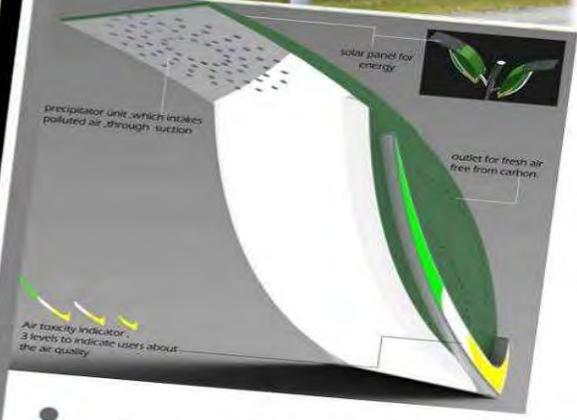


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PURELUMIN-LG CUBES DESIGN INNOVATION SILVER AWARD 2010

**PURE LUMIN**  
is concept street light which purifies air by coagulating the dust and other carbon particles from the air by the process of precipitation hence releases fresh air by using sunlight for its power source.



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Sponsor:



KENSTAR



## Design Objective

To revamp old range and bring in some excitement and ease of usage in the Juicer Mixer Grinder (JMG) segment

## Design Strategy

- # Better Juicing : Both Hard and Citrus Fruits (Currently LMG's can only juice Hard fruits)
- # New Look: Going beyond the Conventional zone in order to appeal to the user's visual sense
- # USP's should be based on usage patterns and specific requirements to address customer needs like Coconut Shredding, Grating, Shredding.



## Form Explorations



CAD Models

FOAM Models



## Final Concept



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JUICER MIXER GRINDER

adhyaan

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## Need

- # Tremendous advancements in communications field especially in the case of Cell phones.
- # Advancements & Attitude of design are not reciprocated towards the accessories
- # Chargers are not just accessories but something which adds value

## Concepts: Product Range

- # Based on the research 3 different charger concept were developed
  - # Dual Charging
  - # Slim and handy
  - # Charger as Accessory

- # Concepts Developed for the following Brands

- # Sony Ericsson ; Walkman series
- # Nokia
- # Apple



Sony Ericsson:Walkman Series



NOKIA



APPLE

MOBILE PHONE CHARGERS



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## concept of ironing



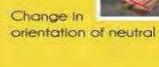
- \* Ironing is the process of removing wrinkles and adding creases on clothes using 'iron'
- \* Today, more people are depending on ironing centres, especially in urban areas. Any savings in energy in this sector will make impact.
- \* Ironing is an intermittent process, with layout of clothes, spraying water, holding clothes etc also occurring
- \* Presently, useful heat is being wasted through unwanted heating and low process efficiency.
- \* Proposed system uses 'Induction heating', to heat the soleplate of iron during breaks in ironing.

## advantages

- Fast and efficient heating
- Improved handle ergonomics
- Suited for left and right handed users
- Cordless iron
- Digital control



Change in elbow joint angle



Change in orientation of neutral axis



Power Grip



Inclined handle with Power Grip - Planing tool



Straight handles of irons resulting in awkward wrist posture



Planar motion of iron on table



Forward and return stroke of Iron from centre using both hands. Figure shows grips for a right handed person. Wrist is in neutral position for most of the time.

Proposed system can be attached to the ironing table so that the iron can slide from system to table and back. During idling, the iron is kept back at heating zone. The system detects iron's presence, senses temperature and then heats.

- Iron unit
- Induction heater
- Control panel with display
- Temperature control
- End clamp to table
- Cloth stand
- Adjustable stand



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# COMMERCIAL IRONING SYSTEM

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## concept



\*A duty station for the guard that will help maintain vigil and keep him active, especially at odd duty hours

# DUTY STATION FOR GUARD



Storage Space  
 Battery Pack  
 Pedal for Human Powered Generator  
 Height adjustable ergonomic Saddle Seat



Generated power can be used for equipments at post



360° bearing mount

\*Active Duty Station

# NAVAL COMMUNICATION EQUIPMENT



\*Redesign of an existing naval communication system



Layout of components



Form Inspiration

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Ergonomics



Adjustable display console

Air intake ducts

Adjustable keyboard

Adjustable Footrest

\*configurability to suite varied user population.  
 \*Space utilization  
 \* Form exploration

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Target User :  
An Average Indian Car user

Life style of an average Indian family

Mostly a single car is used by one whole family (3-5 individuals).  
A Typical family would consist of parents ,children, and grand parents living together.  
Car is used a lot for small distance travelling carrying a family together.

Cars have special utility at the occasions of marriages and other functions.

People are very fond of eating out at various popular eating joints and roads "Dhabas and take way" (eating joints).

Cars are long term investments and hold a lot emotional values.

Mood Board



Details

adjustable AC vent for rear passenger



mobile and laptop charge point

Navigator in the mid of desk



Tray for food and snacks

Glove box



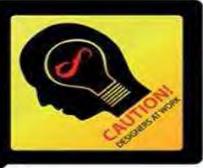
Cup holder



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Car Dashboard

adhyaan  
DDS 2011 IIT DELHI



Need

Saag Cookery is those people who loves SARSON DA SAAG and didn't get that taste of punjabi culture

The preparation of Sarson da saag is tedious & its requires much labour & if somehow they mangoe to prepare it , they didn't get that taste of punjabi culture in it.

Blades and Blender Working

Mustard leaves are fed from top.  
# blades start rotating clockwise.  
# centrifugal force acting on the leaves and leaves disperse them outward from central axis .  
# Blades start moving inwards to chop the leaves



Technology inspired from Traditional Style of cooking

Space around the Chamber filled with oil for slow heating (chulha is used for cooking saag to give the slow heat and taste).



Chopping Technology  
Blades starts rotating clockwise with Centrifugal force acting on the leaves, disperse them outwards from the central axis. Blades starts moving inwards to chop the leaves.

lower portion of cooking chamber rotate slowly in clockwise direction (while cooking , ladies stir the saag slowly for taste and for proper heating)



SARSON DA SAAG  
TE  
MAKKI DI ROTI



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## What is Camping?

Camping is all about enjoying life in the great outdoors, simple living and excitement. That does not mean however that most people want to spend the duration of their camping trip eating sandwiches and cold baked beans out of a can. And to drive to a restaurant would be cheating. So that is were camping cooking equipment comes in.

### concept

The concept serves a complete package of basic cooking elements, compact arrangement, portability, friendly usage, etc. along with the option for alternate fuel (charcoal, wood) as a source of energy.



The design product serves all the necessary functions that a cooking traveler is required. Considering its portability, compact arrangement and storage facility this cooking traveler kit forms an ideal product during camping, trekking etc.



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COOKING GEAR FOR TRAVELLERS

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DDS 2011 IIT DELHI



concept

Now days due to hectic schedule and busy lifestyle, there are so many things to remember,

Therefore if we talk about daily medical intake of a patient, it's likely that people tend to forget few medicines among some dosages.

Therefore the product RX-TAG would help in reminding medicines on time, by just simply tagging the medicine sachet or a bottle.

### features

- Sets the time & date and no. of pills/ quantity.
- Gives information about remaining medicine.
- Indicates with Light, Beeps & Alarm
- Minimal power required- Li-ion button cell battery / solar energy



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## **Chairman's Desk:**



***Dr. Sunil Bhatia***

**Man till date has lived with uneasiness on this earth under known and unknown limitations and his struggle to live free continue. Removal of shackle of limitations and desire to enjoy absolute freedom prove nothing but his utopia and most complex foolish act. Limitations set the boundaries in an individual and allow in a few areas where his limitations permit and he never does what his mind is forcing him. Limitations are nothing but our unknown side of knowledge. These exist along with every knowledge and complementary to enlighten and helps us in our journey of progress. Our minds are not that mature in unfolding all mysteries and we cannot help keeping busy in looking at what is visible and cannot give attention to that side which is unknown. Intelligent peoples are those who are looking at visible as well invisible and try to synthesize to reach the fresh reality. Majority of the people attempt to simplify their lives with their limited knowledge and resources. In return they fail to make mark & feel frustrated and get surrounded**

**with all kinds of problems. Salvation appears as a mirage to them. We find ourselves under the trap of never ending solutions and its associated problems and ultimately we die carrying numerous unsolved issues of our lives. A common man dies feeling as bundle of failures and his heart aches with the feeling that he could not achieve any meaningful successes in his life. His eyes are moist as he never tasted success and tears flows from his eyes as he is repenting for his numerous failures.**

**We forget failure is our inbuilt character of human life. A common man's life is a long struggle swinging between rare successes and many failures. Failure and successes are certain but common person wishes to live in uncertainty because he is aware both neither success nor the failure is precious for him and presence of anyone in his life will disturb and rob his peace of mind. Rarest are those who never tasted failure .A fear of failure grips an individual to such a degree that either it makes him to work hard to overcome his compound fears or he lives with anxiety because of profound fears or in extreme cases become insane under the pressure of these fears or it instigates to that level so that he dares to eliminate those are responsible for these fears or surrender to fear or resigns to fate when he feels fear is more powerful than beyond his imagination. He fails to defend himself and swept away by these failures and he ends nowhere. He feels he is destined to settle in the valleys of failures & defeats.**

**When he tries to solve the problems with his own way he learns a lot in this process and more he tries more experience he gains and we**

call him man with great experiences. Our knowledge coupled into experiences raises our levels of understanding. That builds our maturity in due course of time which keeps us to improve our judgments for attempting for solving the problem or allow us to leave aside the problem as it is because consequences are more horrifying after solving. This judgment comes from long history of civilizations. Those civilizations are ancient have developed instinct for understanding of nature of problem, its consequences in tackling and failures never made them impatience. Everyone has to pass with these same phases because certain characters never alter with time & space and what our young generation is facing the same might have faced by earlier generations while attempting for solution. Situations remain same for everyone but players are changed and so their style of thinking and level of knowledge. Only difference with ancient civilization was that they had attempted but their wisdom guided about their mistake of touching certain problems that made them kept aside these problems under the shadow of fate and by this technique they have forbidden common person not to attempt in solving these problems. They were so particular in this method that it never allowed the concept of fate to influence their thought process. A great idea to rest upon in India and China, where we have one of the oldest civilizations, we know the nature of problems, its solution and associated problems contrary to west, where modern civilization is young and everyone is in hurry to solve as quick they can without looking into the consequences associated with next level of problem if we solve it. The hurriedness is because their mindsets are trained what commercial world does need for cut throat competitions not what clarion call of social need. Social

problems need different treatment from these of commercial one. Our ancestors were capable for solving for their problems but their guiding instinct of judgments never allows them to even attempt for solving these problems. They may be categorized as failed generation but they were wise and there was no sign of demoralization in their face. Our young designer should know the nature of problem and its treatment also. Youngman's character is bursting with bubbling energy, impatience and jumps to the conclusion as he knows the solution of every problem. We must invent a device to channelize our untapped overflowing energy and allow them to learn how to use the darker side of knowledge along with known knowledge for unfolding the mystery for the benefits of mankind. What is unknown has inbuilt character of storing a few do's & don'ts guidelines which are to be explored continuously. This side of knowledge is to be attended cautiously It is none a casual affairs and everyone has to move blindfolded in this groping dark. Every encounter with these situations will improve our experience and later on this almost mystical knowledge would prove as milestone and help in cultivating intuitions. We can further say that these are beyond our imagination or knowledge or fail in achieving that level what others have set achievable mark and it is unknown knowledge till we achieve. In spite of these limitations man keep on progressing. He works hard to overcome his limitations with whatever knowledge and available resources at his disposal. Trial and error method is usually the prime means of solving life's problems. Yet many people are afraid to undertake the trial because they're too afraid of confronting the failure. They err in believing that every mistake is wrong and harmful but it is not. It is rather helpful and important.

**Failure provides the feedback that points are the way to future success. Only failures pushes people to put together a new and better trial, leading through yet more errors and trials until they can ultimately find a more viable and creative solution. To meet with a failure is not to feel humble rather to take one more step on the path to capture the level of success. No failures mean no great enjoyment of taste of success either. Man has profound wishes to convert his dream into reality but few dare to accept challenge and exceptional people succeed and other die unnoticed. Majority of the people are satisfied in what they are allowed to live and they never struggle to escape from existing conditions or for improving lifestyle. They once wished to run fast but couldn't run. They wished to see beyond what their naked eye couldn't see that far or minutest particle close to them. Their wish to fly like bird but couldn't. They designed the automobiles to keep themselves run as fast they couldn't and striving hard to match the thinking of what their hearts and minds were wising and that made them occupied with some ideas of improving their performances by inventing new technologies. Similarly he designed the microscope to see minutest particle and binocular for seeing the objects at long distance what his naked eye cannot see. Wright brothers ventured into dark knowledge through trial & error method they succeeded in designing airplane. Their attempts were to give wings to their thought. Real wings were designed to fly. Modern Designers should learn the basic design concept by looking at historical developments. A humble beginning by unknown inventor of designing a brass strip with tiny hole to see the object in magnified manner gradually improved the magnification by using dark side of light for magnification. This had**

**revolutionized the concept of microscope. No one imagined that such a humble beginning will lead to concept of Nano technology and revolutionized the medical sciences. The concept of invention of binocular has taken the mankind to see beyond his space and made the journey possible to land in unknown planets. It has helped in designing astronomy and space technology.**

**Once in my inaugural lecture to my students, I explained them about style of evaluating performance in my own way and reason of awarding marks. It is an attempt to represent reality more closely; however it may hurt the few and would suit the mindset of a rest and delight them. Those who are fortunate will experience the worst and every failure will crumble their false pride and ego. They will never build their castle in air. You should be rest assured that if you perform in such a way that it will give me impression that is reflecting your sincerity and honesty I will give you not less than 60% marks. I give more weightage to your learning process and how will you behave in future in certain circumstances is more important than memorizing without understanding and explaining that to me. Majority of the people give more attention to their physical appearances and concentrate on their health but they forget that health is not something that excludes death. Death is inevitable. We should know the method how defy death that is important. If we cannot defy at least we can attempt to design for simple lives. Our young designer should take care for aesthetic value not at the cost of the functional values. Reason is I do not want you to be rejected by clerical staff because nowadays every organization is demanding candidates with minimum first division at the time of**

applying for job or higher studies. Marks more than 60% will give you opportunity to move to next level of selection and that can prove your mettle as candidate. Second advantage is when you receive 60% marks it gives you feeling of some kind of sense of achievement but it should keep you reminding my 40% failure is moving along with my successes .That will make you to live with ground realities and you will never feel yourselves as you are perfect and out of different world. Remember life in general embraces failure and in rarest of rare we enjoy success. That's why we celebrate success. 'Man learns from his failure and no one has ever planned for failure or misfortune. When it strikes he simply accept with heavy heart.' Not awarding 100% gives you courage to accept the failure gracefully and 100% will give you artificial confidence on false notion and will lead to destructive philosophy 'How come I fail? I have scored 100% in my all past examinations and I am perfect. Whatever I do I have capability to finish it with complete perfection. You will miss the art of appreciation of failure and value of understanding & experiencing .After all we are human and no one can be absolute perfect and escape failure. Another reason is 100% marks will give the impression to others that you have perfect knowledge of this specific subject and if someone questions anytime you are supposed to give 100% correct answers. In my opinion it is impossible because knowledge is dynamic and it is progressing every moment and to keep track on latest knowledge is not easy task. Life moves along with failure and success works as milestone what we have done in past. Successes can be guiding force but cannot be motivational force. Motivation encourages us in performing better what we did in past and success takes us to next

**level and stop us not to attempt for betterment. Failure is associated with unhappiness but makes the person more vigilant and it appears to us as more intelligent than who have tasted success in one go. Success deprives the person to learn more and he doesn't strive for better experiences and he appears as a hollow person with no substances. Experiences drive our emotions and so it makes the failed person a sensitive human. Failed person knows the value of each parameter those made him an unsuccessful. Other side successes allows to be careful and keep us busy in focusing on those parameters those are reason for his success Situations are unavoidable and simply resigning to our fate destiny is not a solution rather we should act intelligently, pessimistically for accepting the conditions and consider it as an opportunity for us to turn into a smart solution and it will prove these process of becoming intelligent and sensitive person. We should mentally prepare to embrace failure as well as success as designer and it should not disturb our future course. Failure is not the option. "Weren't there times when everybody, or at least a few people, just panicked?" My answer was "No, when bad things happened, we just calmly laid out all the options, and failure was not one of them. We never panicked, and we never gave up on finding a solution." Failure is an event, not person.**

**What happen when designers do not get their due inspite of all the qualities to be successful? Recognition is one kind of success and rejection is failure. It is my experiences that by a large majority of the person are less corrupt and wish to lead their lives with peace of mind & calm if system allows them to engross emotionally, mentally in their works. Corrupt practices will come to their mind when they**

are not true to themselves and aware that they do not deserve and will never succeed in what they wish. Corruption comes to the existence when undeserving person becomes over ambitious inspite of various limitations. I felt pity for those who indulge in unfair practices and never try by fair means after failure. "The only real failure in life is the failure to try." I call when you do not succeed in your endeavor and renounce the world for no reason is "pure failure". There are many type of failure. One is when person is successful and to glamorize their personality they highlight their success story with series of failure. In my opinion what may be little deprivation in their overflowing resources terms as their struggle of overcoming failure. Another category of failure, where person is trying with genuine intentions but he/she does not have that talent to overcome his/her coming failure and he faces mountains of failure. I have come across many person specially women they narrate their failure but in reality they have never faced any failure in their life but while narrating they enjoy hallucination and that gives them immense pleasure. I call this type of failure as artificial and purpose is nothing but to highlight their failure for personal gains. A natural failure where problem is genuine and person attempts to solve with genuine true feelings for humanity. When in recent tsunami and nuclear calamities, a few genuine persons offer their services to save the humanity sufferings inspite of knowing death is sure for them sooner or later. The Socrates view of philosophy of life is lifelong preparation of death testifies to sometimes hidden obsession with the knowledge and given to us eventually fail.

**Designers cannot be classified as engineering designer or other designer. Some institutes are out rightly rejecting the works of other who has background of Engineering by saying 'It is engineering design' or industrial designer will reject others contribution by saying 'what they know about engineering'. This tug of war is clearly visible in their works and they are busy in running down one another. Industrial design is a combination of applied art and applied science, whereby the aesthetics, ergonomics and usability of products may be improved for marketability and production. The role of an industrial designer is to create and execute design solutions towards problems of form, usability, physical ergonomics, marketing, brand development and sales. Conflict is inevitable to take place in collaborative design, and conflict resolution plays an important part in complex product collaborative design systems. Before you can execute the design, you've got to live the design problem. I say every living being is born designer and every moment he is working to make his life easy and in this attempt his actions are changing the world. I call it 'experience -driven design'. When I am described as Industrial designer or craftsman or artisan in contexts that tokenize or exoticise me I challenged the term and the generalization implicit in it. Disintegration by design is not our philosophy rather we all are striving to integrate old, child, young man and woman by one concept that is concept of universal/ Design For All. When someone compare with other or tries to prove they are superior or tries to run down others are symptoms where they are constantly living with their failures and they cannot justify their failure so they adopts such means to demean others. Why these institutes do not look at their failures and reasons rather busy in**

**blame game? Overcome your limitations and that is best course of actions.**

**Transcending our limitations, we become concentrated in our endeavor and channel our energy toward ends we elect. If we attain the end our venture is crowned .Successes entails not only the energy of pursuits, the excitement of search itself; it also points to the satisfaction of purpose attained. Successes gives purposeful meaningful to our desire acts. Success evokes our stock images in our society. One might count economic successes as spiritual failure. 'Does success take away spiritual life?' Success is not simple; it is an end, not a beginning. Success takes away our sense of struggle and sufferings. Successes are something gives the feeling of won as we feel in wrestling. A barrier rises before us and we may succumb to its obduracy Failure is only a temporary change in direction to set you straight for your next success. Impact of failure on his personality is that he will understand other's failure, make him composed person, hungry for more experience and generally these persons are sensitive human beings. In simple word a journey from failure to successes is natural and he encounters pure failures (reason of failure because of associated inbuilt pitfalls whosoever attempts to solve). When a person journey begins with born with silver spoon and boost his successes by emphasizing failures because of what he is expecting about associated ingredients like resources, time, manpower etc. are not turning out passing an order appears as torture and treat it as failure. I call that man a hollow person and living with impure failures and describing as pure failure. These types of person are mostly manipulators and twist every**

possible circumstance for their gains. 'Living like Saint is difficult path but praising the saint and describing as saint is easy.' True failure invites such a consequences that a weak person cannot bear its impact and sacrifice his life and a few who dare to meet the challenges and sometime they create value for society and work as benchmark that shows it is achievable and prove as icons. Society always progress by looking at their icons. In India our designer community fails to produce any icons to which our young designer can take as inspirational source. Most designers are associated with government institutes and enjoy all the benefits till their service. As they retire from job they slip into oblivion and no one even remember their names. Why this is happening to designers? Reason is no one is willing to sacrifice their official benefits and embrace failures. To embrace failure you should keep experimenting with new ideas and new ideas only strikes to those who are with healthy mind, soul and body. Running down and treating others as laughing stock is not healthy mind. Failure generates compassion and kindness and it is missing in their personality. Majority of professionally trained designers hold into design directions on projects that seem to be going poorly, hoping they might turn around. To stop and scrap it all would be admitting that you, as a professional, made a mistake and wasted the client's money. Starting over is hard after a loss. So we build up boundaries to avoid it. Time is a precious commodity and we can't risk losing time by taking our design too far into that unknown place. We find ourselves sticking with what is doable, acceptable, and that works every time. This may be the reason of colossal disaster where we keep working on avoiding disaster in design and in this attempt we are successful

**up to some extent but never consider the role of unknown forces and its degree of impacts. If we learned from our avoiding design technique to that is our direct attempt of lowering the margin by introducing the number of safety measures to look into the failure face to face and their remotest possibilities may lead to greater safety margin.**

**We forget that poison of the snake is controlled by giving antidote. We have designed the doses of vaccination by giving controlled failure of virus into the body for stimulating the natural body defense and alert them to be vigilant for such attacks. We are moving forward because anti force that is friction is allowing us to move. Newton's third law says "Every action has equal and opposite reaction." How can our designer ignore the role of failure if they wish to be successful? Impact of failure is same irrespective to what you design whether it is a big or small project. It is like falling substance experiencing the same irrespective of whether it is feather or stone or pebble all reaches the ground in same time because of uniform forces of failure. Similarly if our designers consider designing error irrespective of small or big product/ services is nothing and busy in damage control of hiding. Their all efforts while controlling is commercial losses consideration. If they wish to console by saying our failure has not made any huge commercial losses that designer is not fit for calling himself as designer. In my opinion losses are significant in terms of commercial world but pricking of failure for an individual should be more in his mind or heart so that next time he/she should not repeat the same mistakes. When a person walks or climbs up or board or alight there**

are chances of failure and his every moment may lead to failure inspite of that he progress. We should be cautious but not afraid with failure like our Adam & Eve. Were repentances of failure an option for Adam & Eve? We fail. Sometimes, we fail miserably. Adam and Eve also failed miserably. The record of all mankind is a demonstration of man's failure but we have history of progress and successes. Adam & Eve have left the world for us hoping we will carry their passion by ignoring failures and will not affected by failures and will not to be dishearten and gradually we will progress by inching toward developing our own paradise garden .That paradise what Adam & Eve has dreamed- where everyone will be treated equal and no one will allow anyone to throw out of their paradise. I believe Universal Design is one way to make this world a paradise. This special issue is showcasing the work of students of Master degree of Industrial design of Indian Institute of Technology – Delhi, India and it is their own way of attempting to make this world a paradise. Their design can be categorized as they feel there is need of improvement or a new attempt is required.

With regards

**Dr. Sunil Bhatia**

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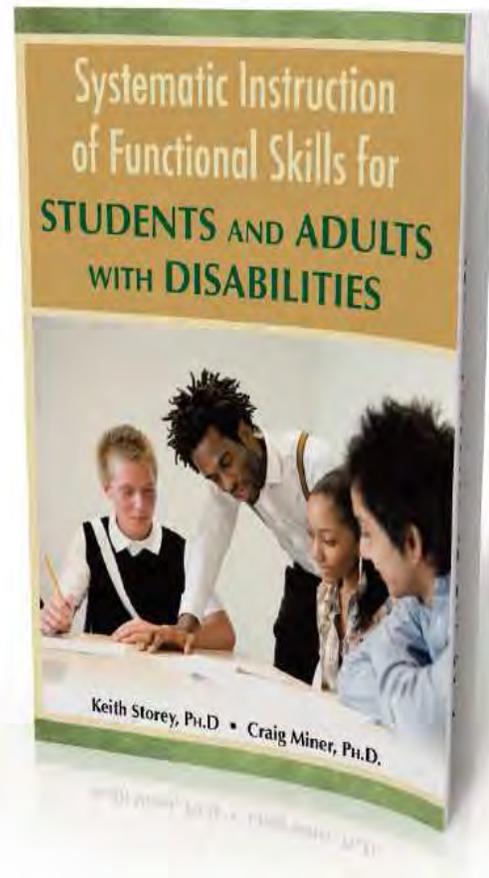


# Systematic Instruction of Functional Skills for STUDENTS AND ADULTS WITH DISABILITIES

*by*

**Keith Storey, PH.D.  
& Craig Miner, PH.D.**

2011, 250 pp. (7 x 10), 14 il., 31 tables  
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## **APPEAL:**

### **Hanley Wood University Offers NARI Universal Design Certified Professional Training Program**

**Hanley Wood University announces that it has just launched the online version of the NARI Universal Design Certified Professional Training Program. The National Association of the Remodeling Industry (NARI) developed the Universal Design Certified Professionals (UDCP) designation to promote standards of universal design and remodeling through credentialing of design and remodeling professionals. Home Improvement pros will learn the 7 Principles of Universal Design, and how to interview clients with an understanding and consideration of their special needs. This course will be offered now, exclusively on Hanley Wood University.**

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**“We are excited to partner with NARI and be able to offer this course exclusively online at [hanleywooduniversity.com](http://hanleywooduniversity.com). Universal Design Remodeling Projects are attractive not only to those who wish to age in place, but also for families with special needs, and families who are forward thinking,” said James Bohi, Hanley Wood University’s managing director. “Hanley Wood is proud to partner with NARI to deliver quality, educational programming that advances the industry. Our reach and expertise across the remodeling community provide an ideal platform for spotlighting this critical content.”**

**NARI's core purpose is to advance and promote the remodeling industry's professionalism, product and vital public purpose. To enroll, you must meet the following criteria: be employed by or own a firm engaged in commercial or residential universal design or a remodeling firm that is supporting the universal design and remodeling industry; have a minimum of five years continuous full time experience in the remodeling industry; and have completed 8 hours of education addressing universal design or universal remodeling principles in the last 5 years. NARI reserves the right to deny participation if and applicant does not meet these requirements.**

**This course provides remodelers and home improvement pros with the tools to sell and conduct remodeling projects that are based on Universal Design principles. The cost of the online program is \$399 for NARI Members and \$499 for Non-members.**

#### **About Hanley Wood University**

**Hanley Wood University, a service of Hanley Wood, LLC, is the premier destination for building construction professionals seeking training programs and continuing education. It offers a robust platform of courses that serve multiple professions, fulfill association requirements, and cover a wide array of topics vital topics across the residential and commercial construction industries. Hanley Wood University serves the information needs of audiovisual professionals, builders, concrete contractors, interior designers, lighting designers, masonry contractors, remodelers and other industry professionals with a dynamic learning platform. <http://www.hanleywooduniversity.com>.**

#### **About Hanley Wood, LLC**

**Hanley Wood is a leading business-to-business media company focused on the residential and commercial construction and design industries. Its diverse portfolio includes magazines, websites, e-**

**newsletters, exhibitions and conferences, custom marketing and data services.**

**Hanley Wood is comprised of four operating platforms: Business Media, which publishes more than 30 magazines, featuring BUILDER and ARCHITECT magazine, along with related websites, e-newsletters, and conferences; Exhibitions, which produces marquee events such as World of Concrete, bringing residential and commercial construction professionals face-to-face with manufacturers, suppliers, distributors, and service providers; Market Intelligence, which collects and aggregates proprietary data sets that capture hundreds of pieces of profile and material information about housing developments in more than 75 housing markets; and Marketing, which plans, creates, and executes strategic and integrated marketing solutions for its clients. <http://www.hanleywood.com>.**

## NEWS:

### 1.



Source: Jason International, Inc.

#### **Jason International Creates Barrier-Free Elegance**

#### **Zero Threshold Base Features Slip-Resistant Texture, Comfortable Seating**

NORTH LITTLE ROCK, Ark., June 28, 2011 (GLOBE NEWSWIRE) -- Jason International, Inc. has announced the launch of its new Zero Threshold (TZ3260) Shower Base, a product crafted to meet the universal design needs of millions of Americans as they decide to age in place.

A photo accompanying this release is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=9915>

The TZ3260 is sized 60 inches by 32 inches and is ideal for retrofit installation for clients who desire a barrier-free entry to their shower to reduce the risk of slips or falls.

"With its graceful design, tasteful lines and luxurious appointments, our Zero Threshold (TZ3260) Shower Base provides an elegant barrier-free option for individuals as they adapt their homes," said Jason International President Remo Jacuzzi.

The TZ3260 has a high-strength, stainless steel linear drain recessed into the front of the base to provide easy access. The shower floor features slip-resistant texture. The integral seat provides a comfortable seat from which to enjoy the flow. The unit is designed to accommodate a high flow of water through a standard 2-inch connection. And a built-in tile lip assures a watertight installation.

The TZ3260 comes standard with Jason's patented level-form™ base that reduces installation time and expense. The TZ3260 may be ordered with a right-hand or left-hand seat or without a seat.

About 35 million Americans today are age 65 or older. The first of America's 77 million Baby Boomers turned 65 at the beginning of 2011. Jason International is pleased to add the TZ3260 shower base to its portfolio of aging-in-place products as the number of Americans living active lifestyles well past traditional retirement age continues to rise.

**Jason International Inc.** is a manufacturer of luxury hydrotherapy products. Founded in 1982 by Remo Jacuzzi and his immediate family (Jason is an acronym for Jacuzzi-Son), Jason today produces a complete line of Luxury-Class hydrotherapy baths that incorporate Jason proprietary Quiet Design™ engineering and Sani-Design™ technology.

The Jason International, Inc. logo is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=9566>

For additional information about Zero Threshold – TZ3260 Shower Base, please contact Sandra Bunn, [sandrab@jasonint.com](mailto:sandrab@jasonint.com) or visit the Jason International website at [www.jasoninternational.com](http://www.jasoninternational.com).

CONTACT: Sandra Bunn  
[sandrab@jasonint.com](mailto:sandrab@jasonint.com)

2.

## Famous Industrial Designs Honored On New Stamp Set

by The Associated Press



This handout image provided by the US Postal Service shows the 12 the Pioneers of American Industrial Design postage stamps, honoring 12 of the nations most important and influential industrial designers. The stamps will go on sale nationwide on June 29. There will be a dedication ceremony at the Cooper-Hewitt National Design Museum, in New York City.

Remember that colorful Fiesta dinnerware on your mom's or grandma's dinner table? How about the Baby Brownie camera she took snapshots with? Or that heavy, black telephone to chat on?

**Those and several other classics of American design are featured on a new set of postage stamps being issued Wednesday. The stamps are designated "forever" and will sell for the first-class rate, currently 44 cents. First-day ceremonies for the stamps will be held at the Cooper-Hewitt National Design Museum in New York City on Wednesday, the same day the stamps go on sale nationwide.**

**The set honors a dozen pioneers of American industrial design, with one of their works on each stamp.**

**Included are:**

**– Frederick Hurten Rhead for the sleek and brightly colored Fiesta dinnerware introduced in 1936.**

**– Walter Dorwin Teague, known as the "dean of industrial design," who created several popular cameras, including the 1934 "Baby Brownie."**

**– Norman Bel Geddes, a founding member of the American Society of Industrial Designers and a champion of streamlining. He created new looks for cars, trains, planes, buildings, typewriters, stoves, household furnishings and the portable radio shown on the stamp.**

**– Raymond Loewy, who helped define the look of modern America. He believed products should be simple, functional, and appealing. He designed everything from trains and cars to household appliances, corporate logos and even office tools like the pencil sharpener prototype shown on the stamp.**

**– Donald Deskey is best known for the lavish art deco interiors he designed in 1932 for Radio City Music Hall in New York City. He was also an innovative industrial designer of furniture and lighting, like the table lamp shown on the stamp.**

**– Gilbert Rohde was an influential and innovative furniture designer in the 1930s and 1940s. His work included modular and sectional furniture made of wood, chrome, Bakelite, Plexiglass, and other new materials, as well as clocks such as the one shown on the stamp.**

- Greta von Nessen specialized in lighting, and none of her designs is better known than the "Anywhere" lamp shown on the stamp.
- Russel Wright focused on household products, creating affordable modern furniture and tableware characterized by minimal but elegant forms. Each stainless-steel piece of Highlight/Pinch flatware, pictured on the stamp, featured an organically shaped handle and no applied ornament.
- Henry Dreyfuss considered the user to be the center and focus of his industrial design work. He designed products that touched all corners of American life, from household appliances like clocks, sewing machines and vacuum cleaners to tractors and the interiors of trains and planes. Dreyfuss also set the standard for telephone design with the 1937 Model 302 Bell telephone shown on the stamp.
- Peter Mueller-Munk is best remembered for the sleek "Normandie" pitcher featured on the stamp. It was introduced by the Revere Copper and Brass Company in 1935.
- Dave Chapman is probably best known for his innovative designs for classroom furniture. He also designed household appliances like refrigerators, hairdryers, radios and electric heaters and the streamlined sewing machines shown on the stamp.
- Eliot Noyes bridged the gap between business and art. Rather than continue changing a product's design every year, Noyes persuaded his corporate clients to adopt long-lasting design principles instead. He is best remembered for his long working relationship with IBM, for whom he designed buildings, interiors and a range of office equipment, like the iconic 1961 "Selectric" typewriter pictured on the stamp.

3.

### **2011 IDEA GOLD AWARD:**

**We broke down our favorite projects from this year's 2011 IDEA Awards winners: ten Bronze and six Silver award projects. Drumroll**

**please...Below is our five picks amongst the Gold winners of this year's 2011 IDSA IDEA winners. Congrats to all the winners!**



**Scott Summit of Bespoke Innovations flips mass production on its side, using RP to produce highly individualized prosthetics for amputees. In a world of one-size-fits-all, Summit stands out by providing machined goods that will only fit you. Our interview with Summit was one of the highest-rated posts we produced in all of 2010.**



**With the Life on Record Audio Line, TDK and Ziba Design brought the boombox back from the dead, and struck that perfect balance between a form that pays homage to the original and an object that's undeniably new and fresh. This isn't a design re-hash; it's a design evolution, and one that seems to have skipped a few generations ahead.**

***Check out the case study for TDK's Life on Record project from Paul O'Connor and Carl Alviani.***

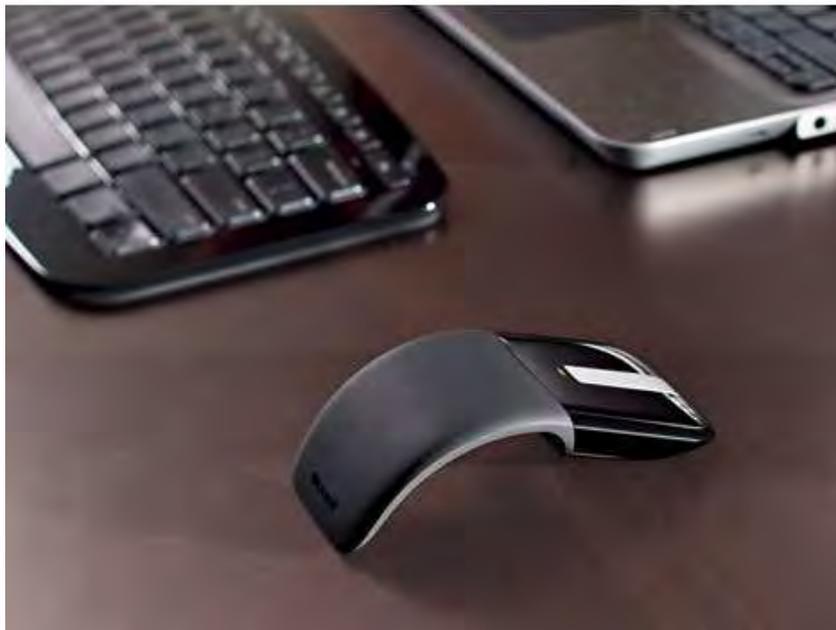


**The Yves-Behar-designed Clever Little Bag for Puma shows the pure and simple power of design. A cardboard sheet holds the shoes and nests into a box structure that slides into a perfectly-fitting bag, making a tidy package that uses 65% less paper, requires 60% less fuel to ship, and oh yeah, the entire thing is recyclable.**



**Huge, dimmable windows, LED lighting that dynamically replicates day/night lighting patterns, larger passenger bins. The interior design of the 787 Dreamliner aims to make flying pleasant again. It won't get you there any faster, but airlines are clearly betting the**

**improved design will lure passengers: The Dreamliner has more than 800 orders, making it a blockbuster in terms of airplane launches.**



**The designers of Microsoft's Arc Touch Mouse acknowledged that an arched shape is more comfortable to use, but bulkier to stow; they also recognized that all of that space under the arch is dead space. Their clever solution was to take advantage of materials science to create a mouse that stores flat, but takes its curvaceous shape when it's time to work.**

**4.**

## **Municipalities taking accessibility seriously**

**I visited Andre Gravelle in the County of Brant offices located at 66 Grand River St. N. in downtown Paris. He is the deputy chief building official and property standards officer.**

**He explains that Brant 's accessibility advisory committee is proactive and welcomes others to join. The committee has done simulations of various disabilities to gain first-hand knowledge of mobility issues.**

**Brant includes many small towns and villages spread over a large area. Gravelle says that Brant has no public transportation but Paris does have two taxi companies with vehicles to accommodate wheelchairs and persons with disabilities.**

**Asked how Brant determines a need for a traffic signal or crosswalk, Gravelle says the municipal criteria doesn't hinge on the number of vehicles through an intersection. Instead, they have taken an attitude: "What do we want to provide for our citizens?"**

**With that in mind, Brant County has audible crosswalks that chirp with the traffic signal in Paris, St. George and Burford. Gravelle says he thinks that, once the transportation standard comes into effect, there will be more audible crosswalks.**

**Brant works effectively with its accessibility advisory committee and has upgraded parks and recreation facilities with about 80% completed.**

**One of the municipality's biggest challenges has been in locating accessible playground equipment with a fully inclusive design.**

### **CITY OF BRANTFORD**

**Jenny Sawicki, as Brantford's municipal accessibility plan coordinator, prepared an extensive resource in the 2009-10 municipal accessibility plan, which includes appendices with The Principles of Universal Design, originating from North Carolina State University. These seven principles of design offer guidance through: equitable use, flexibility, simple and intuitive use, perceptible**

**information, tolerance of error, low physical effort and the seventh principle of size and space for approach and use.**

**Sawicki and the city's staff used a variety of resources, including that of the City of London, to develop Brantford's facility accessibility design standards, which give specific measurements and details in design. Architects are given copies for their work in the city.**

**For example, consistent, specified measurements of a washroom provide space enough for the person with a disability, their assistive device and a support person, without stumbling over each other.**

**Information about decorating with specific colour contrasts in rooms and hallways assist people with visual impairment.**

**In Brantford's accessibility plan, which is available online, there is an extensive list of accommodations, as well as projects under review or acceptance.**

## **NORFOLK COUNTY**

**Early last spring, I met Margit Wamsley who was the AODA compliance officer for Norfolk County. She has provided on-going consultation to various levels of municipal government as well as training sessions for the Customer Service Standard. There were seven sessions of training for firefighters as well as training for over fifty students who were starting jobs at various indoor and outdoor public sites in the county.**

**Wamsley worked closely with Norfolk accessibility advisory committee and its chair, Irene Ramey**

**Some recent Norfolk projects include extensive renovations to the change rooms and washrooms at the recreation centre pools in Simcoe and Delhi. Some of the ongoing projects include upgrading parks facilities and installing computer software for easier print accessibility in all five libraries.**

**Wilma Mitchell, who lives near Windham Centre, has aphasia, which affects her ability to speak, as well as a right-side disability. Both were caused by a stroke a number of years ago. She hopes that wheelchair accessibility to more places and services such as affordable transportation continue to be part of Norfolk's accessibility plan.**

**Wamsley's two-year term is now complete, and county manager, Keith Robicheau, will be the AODA contact person.**

**When I spoke with Gravelle, Sawicki and Wamsley, I was impressed with the sincere dedication of each person.**

**They are committed to working with their accessibility advisory committees and municipal councils to bring the best possible solutions for people with disabilities living within their counties or city. Each praised the dedication and hours spent by staff to research and evaluate changes and costs within budgets to accomplish small and large projects.**

**"The hard part is in trying to figure what accommodations are needed," says Sawicki.**

**Sawicki and Gravelle point out that just because people are not clamouring for a particular accommodation doesn't mean it isn't needed. In other words: "Build it and they will come."**

**That can be verified by Barb and Brian Anstead of Simcoe. They chose a home that was already designed and built for a person in a wheelchair. The house's extra-wide doors, main floor laundry, low counters and an oven with a door opening to the side all appealed to the able-bodied couple.**

**They realize that their aging parents and their own grandchildren benefit from the house's many adaptations. The Ansteads recognize that their home will suit their needs as they age.**

**It's this forward thinking that shows it's time to move ahead to change attitudes and physical barriers for persons with disabilities.**

After all, it's a minority group to which any one of us could belong one day.

5.

## **Winners of the 2nd NCPEDP - MphasiS Universal Design Awards Announced**

**Awards to honour organisations and individuals who are doing exemplary work towards promoting the cause of Accessibility for persons with disabilities**

**National Centre for Promotion of Employment for Disabled People (NCPEDP), in association with AccessAbility and BarrierBreak Technologies, recently announced the awardees of The NCPEDP - MphasiS Universal Design Awards 2011. The awards which received an overwhelming response in its introductory year (2010) will be given away on the eve of Independence Day i.e. 14th August.**

**The winners of the NCPEDP - MphasiS Universal Design Awards are as follows:**

### **CATEGORY A (Persons with Disabilities):**

**Mr. Arvind Ramesh Prabhoo, Proprietor, Access4all, Mumbai**

**Mr. Prasant Ranjan Verma, Freelance Access Consultant and ICT Trainer for people with visual impairment, New Delhi**

**Mr. Shrirang Prakash Sahasrabudhe, Accessibility Specialist, Product Technical Lead, Infosys Limited, Pune**

### **CATEGORY B (Working Professionals):**

**Prof. Abir Mullick, Fulbright Nehru Scholar in Residence, National Institute of Design, Ahmedabad and Professor, Georgia Institute of Technology, USA**

**Mr. Anupam Basu, Professor, Department of Computer Science and Engineering, IIT Kharagpur**

**Mr. P.J. Mathew Martin, Extension Service Asst. (Mass Media), Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai**

**CATEGORY C (Companies & Organisations):**

**Accessible Systems, Mumbai**

**Lemon Tree Hotels Pvt. Ltd.**

**Select Citywalk (Select Infrastructure Pvt. Ltd.), New Delhi**

**TBox Apps (Therapy Box), U.K. & UniqMove, Indore**

**The members of the jury who announced the awards here today included-**

- Mr. Som Mittal, President, NASSCOM**
- Dr. Govind, Senior Director, Department of Information Technology, Government of India**
- Ms. Papiya Sarkar, Senior Architect, CPWD, Delhi**
- Mr. Vinnie Mehta, Executive Director, Automotive Component Manufacturers Association of India (ACMA)**
- Ms. Rema Nagarajan, Assistant Editor, The Times of India, Delhi**
- Dr. Meenu Bhambhani, Global Head of Corporate Social Responsibility, Mphasis**

**"There were no such awards in the country to promote 'Access' which symbolizes 'freedom from barriers' as far as persons with disabilities are concerned. Through these awards we are not only encouraging organisations and individuals promoting Accessibility, but are also showcasing some innovative and unique examples that can revolutionise the lives of persons with disabilities," said Mr. Javed Abidi, Honorary Director, NCPEDP.**

**Accessibility not only means access to physical spaces but also means access to information, technology, transport, services, aids and appliances, etc. The NCPEDP - Mphasis Universal Design Awards**

are instituted to recognise & acknowledge organizations and individuals who are playing a pivotal role in making life more accessible for people with disabilities. The awards which propagate the need for universal accessibility also aim to create examples and inspiration for other organisations and individuals alike.

An effort has been made to make the logo of the awards resemble the true spirit of freedom & celebration for people with disabilities. The rationale behind the logo of the NCPEDP - Mphasis Universal Design Awards is:

- The figurine form is more evolved, suggesting the aspect of having succeeded in one's pursuits

- Suggests freedom

- Brings out celebration

- Has a dynamic quality about it

- Suggests a forward motion

In time, these Awards will gain tremendous recognition and credibility and will encourage more and more people to work in the field of promoting access and Universal Design.

The awards are given under three categories:

**CATEGORY A: PERSONS WITH DISABILITIES** Awards in this category are given to people with disabilities who have created an impact in accessibility and Universal Design in any of the areas such as built environment, transport infrastructure, service provision, information and communication technology (ICT), universally designed consumer products, mobility & independent living aids, or assistive technology in their personal/professional capacity. The work that the person has done can be in policy framework, grass-root level implementation, design and development, access audits, or even the rights movement/advocacy.

**CATEGORY B: WORKING PROFESSIONALS** Awards in this category are given to people who work for the cause of accessibility and

**Universal Design in any of the areas such as built environment, transport infrastructure, service provision, information and communication technology (ICT), universally designed consumer products, mobility & independent living aids, or assistive technology. She/he may be an employee of an education institute / NGO / corporate / government body that has taken up the cause, or may be a consultant or freelancer who has devoted her/his time for the cause. Her/his individual contribution to the cause is a major reason for the success achieved by the organisation/firm/movement. She/he may also be an individual who is involved in the cause independent of any organisational support and has achieved significant success in the core objective of gaining accessibility for disabled people. Awards in this category will be given out to ensure that many dedicated people who have involved themselves in the cause get due recognition. This will not only help in sensitising the rest of the non-disabled community, but will also encourage young minds to join the cause as a career option.**

**CATEGORY C: COMPANIES/ ORGANISATIONS Awards in this category are given to those companies or organisations who have taken up the cause of accessibility and Universal Design in any of the areas such as built environment, transport infrastructure, service provision, information and communication technology (ICT), universally designed consumer products, mobility & independent living aids, or assistive technology. Companies/ organisations that have implemented either/ all of these within their organisations, which has led to them to recruiting or serving people with disabilities and providing them equal opportunities to participate to the best of their abilities. These companies/organisations can be a role model for the rest of the society, and recognizing their efforts and giving them the encouragement will help the cause to reach out to many more. These can be any type of an education institute / NGO / corporate / government body - private sector, public sector, joint sector, SME or even proprietorship/partnership firms. The selection criteria will not only be for adopting accessibility policies, but also for implementing them at the workplace.**

## 6. India gets it's I-mark



### **I-mark logo by Vasant Mehar**

The India Design Council (IDC) announced the winning entry of the relaunched India Design Mark competition on Tuesday. The I-mark logo designed by Pune-based designer, Vasant Mehar, an IIT-Mumbai alumnus, bagged the prize. A jury led by Dr Naushad Forbes selected the winning logo out of 210 other design entries.

Vociferous protests from the Indian design community forced IDC to relaunch the competition on May 16 for the design certification mark. The announcement for relaunch was made in an open letter by NID Director and IDC secretary Pradyumna Vyas.

7.

## **LGU Opol is 2010 Int'l Asso. for Universal Design Awardee**

**OPOL, Misamis Oriental, July 19 (PIA) -- The local government unit (LGU) of Opol has been awarded the prestigious International Association for Universal Design Award 2010 in Hamamatsu, Shizouka Prefecture, Japan.**

**Opol received the award, last November, for its outstanding achievement and contribution to the development, delivery and dissemination of Universal Design.**

**It was also recognized for its accomplishments in the creation of a Non-Handicapping Environment (NHE) for Persons With Disabilities (PWD's) in its determination to establish a community free of physical and social barriers.**

**These accomplishments included: the conduct of a weekly radio program on NHE and Community-Based Rehabilitation (CBR) hosted by a PWD and regular forum and assemblies, as well, as participation of the PWD's in local activities and development. Further, the Issuance of Executive Order 2009-18, for the inclusion of PWD's in the Local Development Council, organization of PWD and parent groups, and coming up with budget allocation for PWD's in all department offices, rehabilitation of public facilities to be accessible to PWD's in the Municipal Hall, comfort room at the Personnel's Office, Municipal Library, Teen Health Quarters, Fire Station, Seablings Restaurant and Opol Public Market.**

**The NHE project aims at promoting physical accessibility on built-environment and social accessibility on regulation, system, and people's attitude in the community.**

**It implements activities based on a series of components/outputs that include the following: Implementing mechanism to define the implementing and monitoring mechanisms, and profiling to grasp/assess the situation of PWD's and physical accessibility.**

**Capacity development to enhance capacity of counterparts/stakeholders, empowerment of PWD's and their organizations and promoting their participation.**

**Advocacy to promote the removal of barriers in society and networking to disseminate/ share project experiences on NHE with international/national stakeholders.**

**Opol and New Lucena, in Iloilo, were chosen as the country's pilot areas of the NHE project and willing to share its good practices and other relevant experiences to interested LGU's to facilitate the adoption/replication of such project.**

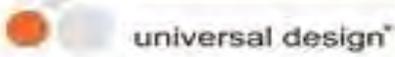
**Meanwhile, the Regional Development Council, region 10 (RDC-X) has enjoined all LGU's in the region, in close coordination with the concerned agencies and private sector entities, organizations to adopt and implement the NHE project in their localities to promote the welfare of the PWD's.**

**The rights of PWD's in the Philippines have been covered by the enactment of the Philippine Republic Constitution in 1987, the promulgation of the Republic Act No. 7277, Magna Carta for PWD's in 1992 and the promulgation of RA 9442, articles of amendment on the Magna Carta in 2007.**

**The National Council on Disability Affairs (NCDA) and the Japan International Cooperation Agency implemented the Partnership Project on the Creation of an NHE for PWD's in the rural areas from Oct. 2008 to Sept. 2012. (PIA-10)**

# PROGRAM & EVENTS:

## 1.



universal design™



universal design award 2012



universal design consumer favorite 2012

**universal design award 2012 – More than just another design competition!**

- We are committed to making sure that all the winners get the attention they deserve
- We are actively involved in the development of universal design in research projects and in cooperation with universities, institutions and enterprises
- We make sure that the main focus is on your products, concepts and visions
- We offer you a wide, international network
- We make sure that the relevant media are informed of your success
- We offer an Online Exhibition with a guaranteed run of at least five years
- All the winning entries are presented in documentation in English and German
- All the winning entries will be on display in an exclusive presentation at the international HANNOVER FAIR 2012
- The Awards Ceremony is held during the HANNOVER FAIR

Every year, we organize some 20 workshops, in-house training courses, specialist and consumer tradeshows using your innovative ideas. In 2012, we will be organizing exhibitions and/or workshops in the Hafencity (harbor district) in Hamburg and in the cities of Munich and Freiburg, among other places.

The universal design award is unique. This is the only award competition in which the judges are not only experts in their fields, in this case in design; a representative cross-section of 100 consumers also evaluates your products and concepts and you have an opportunity of winning not one, but two awards: the universal design award 2012 and/or the universal design consumer favorite 2012

universal design is more than just a competition as far as we are concerned.

We look forward to seeing you there!

2.



3.



## **JOB OPENINGS:**

### **1. Company Profile:**

Vizury is a leading internet marketing company committed to delivering substantial and measurable ROI to advertisers. Vizury delivers value through its proprietary, behavioral targeting engine. Vizury's services have delivered an incremental ROI of up to 1500%, making it one of the most sought out partners' in the Internet advertising world.

One of Vizury's path-breaking products - Visitor Relationship Management (VRM), empowers advertisers to engage their website drop-off users in a 1:1 marketing conversation, resulting in both measurable and tangible value, as well as contributing to intangible branding impact. The 1:1 marketing conversation is enabled through thousands of highly personalized rich media ads that are powered by statistical modeling of user behavior, dynamic message generation module and response optimization system.

Vizury is the preferred partner of some of world's leading advertisers in the e-commerce, travel & leisure, financial services, banking, consumer durables, Hi-Tech and Web 2.0 verticals amongst others. Vizury is aggressively expanding its foot-print globally and is on a continuous lookout for smart and talented folks who are ready to take on the challenge and to join its A-team.

**Title - Creative Designer lead**

#### **Candidate Profile:**

- Degree/diploma/training in multimedia/graphics/fine arts
- At least 4 yrs of hands on experience in creative designing
- Excellent skills in story board, copy, layouts, animation, etc
- Extensive hands on experience in Flash, Photoshop (or any other photo editing tool), Illustrator, DreamWeaver and other tools
- Understanding of Flash scripting/action scripting , JavaScript, HTML/DHTML/CSS, XML
- Ability to work independently and turn around work quickly
- Ability to lead a team

#### **Job description:**

- Conceptualize and design display banner ads of various sizes in rich media, flash, gif, jpg, etc

- Continuously come up with logical and fresh ideas that stand apart**
- Conceptualize and design engaging web pages based on the specs provided by operations team**
- Designing of the Vizury technology platform internal and external interfaces, reports, etc.**
- lead the creative team for the company, act as single point of contact for anything creative and actively contribute on building the creative team**
- Work closely with the implementation team to generate the final deliverable**
- Work closely with operations team to make tweaks on the creatives to improve performance and try different experiments**
- Work closely with the business dev team to share creative ideas/requirements and get client feedback on the creative work**

**Title - Creative Developer**

**Candidate Profile:**

- Degree/diploma/training in multimedia/graphics/fine arts/engineering**
- 2 to 4 yrs of experience**
- Proficient in Flash animation, Flash scripting/action scripting, Photoshop (or any other photo editing tool), JavaScript, HTML/DHTML/CSS, XML**
- Ability to work independently and turn around work quickly**
- Knowledge of PHP, AJAX would be a plus**
- Strong inclination towards scripting/programming**

**Job description:**

- Design/Implement display banner ads of various sizes in rich media, flash, gif, jpg, html, etc**
- Design/Implement engaging web pages based on the finalized design**
- Designing/Implementation of the Vizury technology platform internal and external user interfaces, reports, etc.**
- Work closely with the technology team to integrate the creative work with the backend**

-- Work closely with operations team to make tweaks on the creative to improve performance and try different experiments

-- Work closely with the business dev team to share creative ideas/requirements and get client feedback on the creative work

## **2. Senior UxD | Nokia . Bangalore**

### **Job Description**

#### **Concept Developer-USE00000028**

#### **Description**

**The Identity Management Team in Platform Services in Nokia Mobile Solutions is seeking a highly motivated and talented concept designer.**

**If you are a strong, creative, and collaborative designer who wears many hats, thinks conceptually and strategically about design and is passionate about the mobile and software industries, this is the role for you! You'll work closely with other concept designers, user experience designers on service and platform teams, design leads and managers, key stakeholders, service product management, and developers in the Nokia organization to ensure that we create exceptional and unified solutions.**

**Candidates are required to demonstrate applied industry experience of employing new technologies to deliver compelling visual design systems for entire suites of rich client and web applications.**

#### **Responsibilities of the role include:**

- Lead by concept: Deliver easy-to-use, industry-leading concepts that delight the user.**
- Communicate, document, and represent concepts to team members, senior management and key stakeholders.**
- Expertly craft documentation to represent the team's vision around concept design, including: storyboards, schematics, style guides, movies, PPTs and prototypes.**
- Develop information architecture, interaction design, wire frames and software UI around a well-defined nucleus of user needs, tasks, marketing and business requirements as defined by user experience specialists**
- Ensure consistency in product design, approach, and methodology, according to guidelines, branding direction, etc, working with other concept teams, user research teams, and Nokia-wide organizations.**

- Partner closely and collaborate with Product and Program Management, Development, Service Lines, Product Marketing, Portfolio Mgmt, Business Development, Architecture and User Experience in order to drive product requirements and consistent product design approach for the assigned solution.
- Influence product management and product development on best practices and concept approaches, according to the common needs of the full product line and Nokia overall direction.
- Work on multiple projects in parallel and appropriately organize and manage own assignments from concept to delivery.
- Work closely with colleagues on our team and across Nokia to create a successful and collaborative work environment.

### **Qualifications**

**Experience concepting for cutting-edge consumer services and products through several full product development cycles.**

- **4+ years experience in concept design (software, mobile, web, other media), with an emphasis on conceptual and strategic thinking.**
- **Experience concepting for and/or enthusiastically using smartphones, mobile devices, or small screen interfaces is a plus.**
- **Excellent communication, presentation and organizational skills, with attention to detail.**
- **Experience in defining, documenting, and communicating end-to-end concepts through specifications, use cases, prototypes, storyboards, screen mockups, and interactive demos.**
- **Strong visual design sense and graphical/illustration skills, along with prototyping skills on interactive visualization technologies such as Adobe Creative Suite, Flash, DHTML, CSS, AJAX, QML, etc.**
- **Ability to influence others to support decisions. Comfortable working with engineering and product management to define and implement concepts.**
- **Experience working in a rapid application development environment using appropriate tools and techniques. Experience with agile development is a plus.**
- **Ability to collaborate with a cross-functional team and produce quick concept designs & prototypes. Flexibility to iterate frequently, with a passion and drive for building world-class solutions.**

- **Must be a highly collaborative team player who will thrive in a fast-paced, rapidly growing environment. Our team is friendly, professional, and passionate about everything we do!**
- **Ability to brainstorm well with other concept designers, creative directors, design managers, senior product managers and executives, and give and take constructive feedback.**
- **BA/BS degree in Interface Design, Interaction Design, Communication Design, Human Computer Interaction, Software Product Design, Architecture, or equivalent.**

**Job Research & Development**

**Primary Location : IN-Bangalore**

**Organization : Horizontal Units**

**Schedule : Full-time**

**Job Level : Individual Contributor**

**Education Level : Bachelor's Degree (±16 years)**

**Job Type : Experienced**

**Employee Status : Regular**

**Travel : Yes, 10% of the time**

**3.**

**If you are.....**

- **Working on same design project for long time now and looking for interesting design projects**
- **Want to work on variety of design project across domains and mediums (Web, Mobile , Tablets,.....)**
- **Looking for a learning environment in company of good designers**
- **Want to face clients, selling your design ideas**
- **Looking for a change.....for better :)**

**We have 2 UX positions in our design team at GlobalLogic, Noida**

**GlobalLogic, Leaders in Software R&D Services, partners with technology companies providing full product development life-cycle services to start-up, emerging technology companies and Enterprises.**

**<http://www.globallogic.com/>**

**Design Team at Globallogic:**

**PUDG (Product User Experience and Design Group) consults variety of design projects of GlobalLogic Clients and in-house products for User experience design and Usability.**

**Duration of a design project may vary from 2-4 months.**

**Designers get to work on a new project almost every quarter, quite refreshing and a better learning environment for a designer.**

**User Experience Designers are involved on Design Projects for:**

- Conceptualizing and visualizing the product from scratch following design process**
- Evaluating user experience and usability of existing products and Re-design**

**Our expectation from User Experience Designer:**

- Conducting usability evaluations including expert reviews, competitive analysis, usability tests, etc.**
- Create personas, profiles, and usage scenarios based on user research**
- Create wireframes (varying degrees of fidelity)**
- Interest in thinking and implementing innovative solutions**
- Awareness about current Design and usability developments and new methodologies.**
- Collaborate with Visual designers to create Visual design prototypes**
- Interact with development teams to rapidly come up with designs/redesigns in an agile environment**
- Good Communication skills that help elaborate and sell design to stakeholders**

**Qualifications:**

**3-5 years of experience in User Experience Design, Usability**

**Bachelors or Masters Degree in Human Factors, Industrial Design, HCI, or other related disciplines.**

**Please send in your resume to [S.Choudhary@globallogic.com](mailto:S.Choudhary@globallogic.com)**

**If you want to know more about work and place, ping your friends who are part of our design team.**

**You can also reach me at +91 9910225243**

**4**

**Visual Designer**

**@ Endeavour Software Technologies Pvt Ltd @ Bangalore**

**If you are driven to take user interface design to the next level in the field of Mobility, it's time you join the team at Endeavour UX lab.**

**We offer a challenging environment that fosters creativity and rewards excellence.**

**Position Summary (Total Position: 2)**

- The successful candidate will be responsible for creating innovative and beautiful User Interface design for handheld devices.**
- The candidate must have a solid user interface background or equivalent experience from digital design, a great interest in the newest technologies and gadgets.**
- The person we are looking for should be able to explore and create new look and feels and work with innovative idea and concept generation.**
- In addition, the person we are looking for understands that it is very important to be able to think about animation and transition effects.**
- The successful candidate must be self-driven and be able to lead other designers as well as a strong communicator and feel very comfortable interfacing regularly with other teams. The person we are looking for is a team player that is responsible, unpretentious and a good sense of humor.**

**The candidate will be part of our talented UX design team and we offer a fun-filled and open minded atmosphere.**

**0-5 yrs of experience from UX / UI / Digital design / Any other relevant field**

**Strong visual design skills**

**Proficiency in Adobe Creative Suite, especially Adobe Photoshop, Illustrator**

**Preferable also working in a 2D / 3D tools (added advantage)**

**Demonstrated ability to take initiative and responsibility in a team environment**

**Excellent verbal and written communication skills**

**Ability to travel**

**Think you are the right one for the job?**

**Send your CV + Portfolio to [hitesh.ruwala@techendeavour.com](mailto:hitesh.ruwala@techendeavour.com) before 15th of July, 2011, however the process is ongoing and we review applications on a regular basis.**

**5.**

**This opening is with 2 hot startups in eCommerce area.**

**Openings are in Mumbai and one in Bangalore and one in Hyderabad**

**3 to 10 yrs exp in Solid UX/HCI/Interaction Design.**

**Should be IIT/NID institutes.**

**Send your resumes/contacts to [darshan@wengerwatson.com](mailto:darshan@wengerwatson.com) to know more details.**

**6.**

**Looking for Web Developer & Graphic Designer for a US HQ web based prod dev firm Bangalore R&D center**

**About the company:-**

**A start up firm(Started in 2007).Already their products are using by Iphone & sify.**

**Stock options also offered.**

**Kindly revert**

**Exp:- 4-8 Years**

**JD for Graphics Designer position**

**Responsibilities**

**Responsible for the creation of all online visual design, including typography, visual concept, logo and icon design for the Internet and interactive platforms.**

## **Infographics and marketing kit designing**

### **Requirements**

**Substantial experience designing interactive online products, with strong portfolio**

**Extraordinary product, interaction, and visual design talent**

**An obsession with nailing the details**

**Ability to create superior, original designs for the Web**

**Excellent communication skills and ability to explain your design decisions**

**Knowledge of Web site structure and functionality.**

**Understanding of and experience in corporate branding, layout, colour theory and typography in both print and digital media**

### **Web Developer:-**

**JD for RIA developer. Let me know if you have any queries**

**- 3-4 years of Rich internet Application development experience with strong HTML, CSS3 and JavaScript development skills**

**- Strong development skills using JQuery.**

**- Strong in AJAX, good knowledge in integrating services using REST, JSONP and web services**

**- Developing applications using Flex or for Mobile would be real advantage**

**- Thorough in cross browser compatibility, W3C standards and issues**

**- Understanding of Usability concepts would be advantage too..**

**- Hands on PHP(intermediate)**

**- Good communication and inter personal skills are required**

**Kindly contact Sreekanth@99860-10281**

**send your CV's to [sreekanth@estrella.co.in](mailto:sreekanth@estrella.co.in)**

**7.**

**No of Openings: 3**

**Location- Hyderabad**

**Interested candidates may apply by sending CV and Portfolio to rama [ @ ] thinkdesign [ . ] in**

**Requirements from the Designer:**

**Strong design aptitude with flair for working in a diverse workplace.**

**Ability to analyze product, gather user feedback through methodologies like task analysis, usability audit and usability methods.**

**Designing mock-ups and developing prototypes while integrating feedback from the product teams and end-users.**

**Developing detailed interaction and visual design specifications and work closely with the development teams to implement them.**

**Candidate should be willing to travel for on-site project executions for short durations.**

**What Think Design Collaborative is offering:**

**Challenging and exciting projects**

**Creative work environment**

**Good remuneration**

**About Think Design:**

**Think Design is a Global Research, Design and Innovation consultancy with focus on User Experience Design and Industrial Design. We work across a broad spectrum of industries, including Appliances, Telecommunications, Automobiles, Education, Retail, Software Products, Enterprise & Web Application, Mobile Interfaces and Embedded Applications.**

**Established in 2004, Think Design operates from New Delhi and Hyderabad, with partners across the globe.**

**Think Design Collaborative Pvt. Ltd.**

**6-3-252/1/7/1, APM Square, Adjacent to Taj Deccan,**

**Off Road No. 1, Banjara Hills, Hyderabad - 500016.**

**Ph: +91 40 64555114, M: +91 9849449014,**

**[www.thinkdesign.in](http://www.thinkdesign.in)**

**8.**

**There is a job opening for a UK based fmcg company, for their office in pune.**

**-a product designers will 5-7 years of work experience.**

**some experience in fmcg will be a bonus.**

**-NID/IDC other premier design institute alumni. -willing to work UK shfts, relocation to Pune.-out of the box thinker, innovative, original, technically sound**

**-remuneration better than industry standards.**

**if interested please send resume/portfolio to sachinrkshirsagar@gmail.com**

**9.**

**Our client is the UK's leading digital agency. They require a Lead Interaction Designer to join their impressive creative team to help them to show their clients how to unlock the full value of their potential. As the Lead Interaction Designer you will create beautiful user experiences for some of the world's leading brands. You will help the client services team to develop and implement design for projects as well as support and contribute to the creative and interactive process. This role requires a person who is constructive, collaborative, and committed to creative vision and design excellence. You will have an opportunity to work on a mixture of leading brands from top travel companies to leading financial institutions to lead electronics/device developers.**

#### **Key Responsibilities**

- **Develop mood boards, concepts, design language & guidelines to effectively communicate interaction and visual designs**
- **Deliver mock-ups to the web development team**
- **Contribute well developed ideas during brainstorming and conceptual meetings**

#### **About You**

- **Extensive web and interactive design experience**
- **Extraordinary interaction and visual design insight. A passion for simple, elegant, intuitive ID.**
- **Comprehensive understanding of tools, current technology, trends and design principles and how they apply to the interactive space**

- **A diverse and engaging body of design work that shows your ability to problem solve and work on a variety of different size and kinds of projects (Flash, Large Sites, e-commerce and mobile)**
- **The ability to turn functional requirements and wireframes into amazing IDs**
- **Strong working knowledge of CSS, XHTML, JavaScript, HTML5, DHTML and XML.**
- **Strong verbal and written communication and problem solving skills**
- **A solid understanding of user behaviour as it relates to design**
- **Experience in developing high level user experience concepts**

#### **Salary**

- **Up to £60,000 basic**
- **Great Bonus**
- **Pension, PHI, Share Scheme... and much much more**

#### **Location**

- **Central London**

**If you would like to work for an innovative exciting agency in a creative and compelling environment, please call David@abrs.com on 07909223518.**

**10.**

**Samsung Design Lab(SDD) is hiring Graphic Designers(1-3 year experience)**

**for its Noida Center. Please share your updated profile & portfolio for review.**

#### **PURPOSE OF POSITION:**

**-Conceptualize and develop new graphic ranging from the current line-up to advanced**

**Graphic strategy concepts for packaging design.**

**-To develop several design projects concurrently as assigned.**

**-To bring fresh and innovative ideas at each phase of design development.**

**-The position should be able to communicate with other disciplines**

**within the design studio and other business functions for appropriate execution of the projects.**

**-To support design managers to manage the design process for Indian**

**product design development within agreed time, cost and other allocated parameters.**

**ESSENTIAL DUTIES & RESPONSIBILITIES: State the major activities and job**

**results for which the position responsible.**

**Duties and Responsibilities Performance**

**Standards (Job results)**

**-Plan and execute design projects based on given briefs and schedules.**

**-Implement design identity characteristics for SWA (South West Asia)**

**market**

**-Demonstrate high aptitude of information gathering and analysis**

**-Communicate with internal and external functions in related to the projects.**

**-Support all the additional work for operating design office based on given order by design managers**

**-Deliver the project on time and budget.**

**-Ensure the results satisfy the given briefs in aspects of form, aesthetics, physical and psychological interfaces between users and graphic languages, and branding systems**

**-Determine appropriate content, communication, typography, color, graphics, finishes, construction, manufacturing process in cooperation with related business functions involved in the projects.**

**-Create the documentation necessary to convey the design solutions through renderings, models, mechanical drawings.**

**-Ensure the `look and feel' of the design solutions satisfy the identity guidelines.**

**-Provide meaningful clues to enhance overall quality of the projects**

**-Build a Trust through appropriate and persuasive design presentation at each phase of the design process.**

**-Resolve the project related issues with professional and logical manner.**

**REQUIRED KNOWLEDGE, EDUCATION AND/OR EXPERIENCE: List the special**

**skills, technical Knowledge, certification, experience or education a person would need to assume this position.**

**-Post Graduate / Graduate . in Graphic Design from a premium Design Institute .**

**-At minimum 1 ~ 3 years hands-on graphic design experience from scratch to final production.**

**-Knowledge of key Communication design processes starting from design brief, all the way through conceptualization, visualization, detailing, mockup building, validation and execution.**

**-Excellent design sense and passion for design with a very good understanding of trends and open to listening and learning.**

**- Require excellent knowledge of typography, colour, form, composition and a very strong sense of aesthetics.**

**- Proficiency in Adobe Photoshop, Illustrator, InDesign and Flash is important.**

**- Must demonstrate creative innovative approach to design.**

**- Excellent sketching skills and ability to communicate new ideas using sketches and illustrations.**

**- Excellent oral and written communication and Presentation skills.**

**Job location for all the positions is Noida.**

**Please go through the details and mail your portfolio at**

**amarjeet.kr@samsung.com <<mailto:amarjeet.kr@samsung.com>> if interested.**

**11.**

**Samsung Design Delhi is looking for interns/ contractors to work with its mobile user experience team for a period of 1-2 months.**

**Specifically, this position would require the designers to understand the existing UX concepts and come up with detailed interactions and interfaces for the same.**

**Proficiency in MS visio and MS powerpoint is a must.**

**Interested candidates can mail their resume and portfolios to**

**<ananya.v@samsung.com>**

**12.**

**Apalya Technologies is looking for a UI & Graphic Designer (1-3 years of experience).**

**Position: UI & Graphic Designer**

**Location: Hyderabad**

**Job Profile:**

- **Support development teams with design requests**
- **Come up with ground-breaking designs for entertainment (television, video, music etc.) on mobile phones**
- **Creating new concepts and strategies for upcoming products**
- **Bring fresh and innovative ideas to the table**
- **Improve on existing products and their related designs**
- **Followup on the designs to development to ensure that the implementation is as per the specifications**

**Qualifications/Skillsets:**

- **Being able to work on multiple projects at the same time**
- **Well versed with mobile domain and its design constraints/opportunities**
- **Being able to work in a diverse team and communicate with other business units**
- **Good grounding on design concepts**
- **Strong visual design and aesthetic sense**

- Being able to work with provided branding guidelines to create innovative concepts/ideas
- Good hands-on experience in various design tools including Photoshop and Illustrator
- Being able to come up with design options under tight deadlines
- Being able to document the ideas well for implementation
- Open to listening and learning
- 1 – 2 years of relevant experience preferable

#### **About Apalya:**

- Apalya Technologies is India's leading white-label content aggregation, provisioning and distribution platform in the Mobile Video Delivery space. Apalya's Mobile Video Delivery Platform seamlessly streams video content to Consumers, integrating Mobile Operators, Content owners and Mobile advertisers, creating new revenue streams across the New Media value chain.
- Apalya Technologies was formed to take advantage of the growing demand for media and entertainment related Download in the mobile space.
- Apalya aggregates premium entertainment content from many different content providers, and then optimizes the content to be suitable for small screen or mobile viewing. Apalya's unique technology works on delivering the best possible mobile entertainment experience based on the type of the device and the type of network being used.

Interested candidates can send in their updated resume and portfolio to [devesh.j@apalya.com](mailto:devesh.j@apalya.com) or [pradnya.g@apalya.com](mailto:pradnya.g@apalya.com).

13.

#### **Sr. User Experience Designer**

**Relevant Experience: 3-5 Years**

**Number of Positions: 2**

#### **Description**

As a senior member of Oracle's EPM/BI UX team, you will be responsible for applying a deep understanding of user-centered design principles to the design of EPM and BI software applications.

#### **Qualifications**

**Possess Bachelors, Masters or Ph.D. in Design (Visual Communication, Product Design, Interaction Design, Human Computer Interaction)**

**Possess 3-5 yrs of professional user-centered design experience as an individual contributor in software industry**

#### **Required Skills**

**Possess great user interface design skills**

**Possess great analytical skills**

**Possess great visualization skills**

**Posses great communication skills to communicate ideas and concepts clearly**

**Ability to work in a team as well as work independently**

**Possess experimental design knowledge sufficient to plan usability experiments**

**Possess knowledge of data analysis tools and techniques**

#### **Required Design Skills**

**Ability to lead user-centered design projects under the guidance of manager or principle project lead**

**Ability to plan, coordinate, and facilitate usability evaluations and report findings to product development team**

**Ability to engage with Oracle's end-users, understand their tasks and expectations, and deliver a user driven user experience**

**Ability to follow established practices and guidelines for designing user interfaces and usability evaluation test plans**

**Ability to foster relationships with product managers and developers to maximize effectiveness of design recommendations**

**Ability to mentor user experience designers in all aspects of the design process**

**Ability to maintain project plan, schedule, and report status independently**

**Ability to construct surveys, checklists, and other related tools**

**Ability to conduct expert design reviews independently**

#### **Tools and Technology**

**Expert in using prototyping tools such as Photoshop, Dreamweaver, Flash, Flex, Visio, Illustrator etc.**

**Experienced in using HTML, CSS and Javascript**

**Expected to learn Oracle technology stack and product lines**

**Send your resume and Portfolio to -**

**Achappa Bheemaiah, Senior Recruiter [achappa.bheemaiah@oracle.com](mailto:achappa.bheemaiah@oracle.com)**

**14.**

**We need candidates who can join us immediately or maximum by 2 weeks**

**Job Title : Sr. Web Developer (PHP and Drupal)**

**Location : Bangalore**

**Openings: 1**

**Description**

**About Replicon**

**Replicon Inc. is the industry leader in time and expense management web-based software and the innovator in productivity solutions. With over 1.5 million users in more than 7,000 companies in 70 countries worldwide; Replicon has been recognized as one of the fastest growing companies in the province of Alberta by Alberta Venture consecutively for the last 5 years. We have dedicated teams in research and development, sales, and support who ensure that we continue to exceed the expectations of our customers year after year.**

**Position Overview**

**The online marketing team is seeking a Sr. Web Developer with good knowledge in PHP, Javascript/Jquery, XML, SOAP and MySQL. This role requires a responsible individual who needs to implement Drupal into our existing website & balance multiple projects that involve working with marketing team for executing on online marketing initiatives. The ideal candidate will be a strong problem solver and a team player who has a passion for delivering business results.**

**Desired Candidate Profile**

**-4+ years experience in full life-cycles of hands on Drupal & implementing on high-volume visitors website.**

**- Good understanding the architecture and design of Drupal based websites.**

·Familiar with the installation/configuration of PHP, MySQL, Apache server & comfortable in HTML/XHTML, CSS.

· Good at creating custom modules.

· Integrating Drupal/PHP based content pages with third party integration such as Facebook, AJAX, Flash, Maps API, SalesForce, Eloqa, Google Analytics etc.

·Serve as main point of contact for technical requirements for marketing initiatives (e.g., campaign tracking, web analytics implementation, CMS)

· Familiar with contexts & features modules.

· Have good knowledge of custom modules with AJAX components.

· Build, maintain and optimize web pages on [www.replicon.com](http://www.replicon.com) with drupal.

Work closely with marketing and web team members to determine best course of action for marketing project execution

·Be responsible for driving or recommending website related infrastructure server, Forum, Blogs.

· Work together with rest of web team to QA website

· Follow ALL drupal coding standards and best practices

·Mentoring existing team members in Drupal CMS programming and administration.

· Excellent communication Skills.

Please share your resume along with the following details to [sridharan.gv@replicon.com](mailto:sridharan.gv@replicon.com)

**Total Years of experience**

**Relevant years of experience**

**Current company**

**Current CTC**

**Expected CTC**

**Notice Period**

**Contact Number**

**Any offers in Hand**

## **Reason for change**

**Sridharan G.V |HR - Recruitment | Phone +91 80 -4013 -0444 (ext. 433) | Fax +91-80-4013-0444**

**15.**

**Job Title : Sr. Web Developer (PHP and Drupal)**

**Location : Bangalore**

**Openings: 2**

## **Description**

### **About Replicon**

**Replicon Inc. is the industry leader in time and expense management web-based software and the innovator in productivity solutions. With over 1.5 million users in more than 7,000 companies in 70 countries worldwide; Replicon has been recognized as one of the fastest growing companies in the province of Alberta by Alberta Venture consecutively for the last 5 years. We have dedicated teams in research and development, sales, and support who ensure that we continue to exceed the expectations of our customers year after year.**

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### **Desired Candidate Profile**

- 4+ years experience in full life-cycles of hands on Drupal & implementing on high-volume visitors website.**
- Good understanding the architecture and design of Drupal based websites.**
- Familiar with the installation/configuration of PHP, MySql, Apache server & comfortable in HTML/XHTML, CSS.**
- Good at creating custom modules.**

**Integrating Drupal/PHP based content pages with third party integration such as Facebook, AJAX, Flash, Maps API, Salesforce, Eloqa, Google Analytics etc.**

- Serve as main point of contact for technical requirements for marketing initiatives (e.g., campaign tracking, web analytics implementation, CMS)
- Familiar with contexts & features modules.
- Have good knowledge of custom modules with AJAX components.
- Build, maintain and optimize web pages on [www.replicon.com](http://www.replicon.com) with drupal.
- Work closely with marketing and web team members to determine best course of action for marketing project execution
- Be responsible for driving or recommending website related infrastructure server, Forum, Blogs.
- Work together with rest of web team to QA website
- Follow ALL drupal coding standards and best practices
- Mentoring existing team members in Drupal CMS programming and administration.
- Excellent communication Skills.

Please share your resume along with the following details to [sridharan.gv@replicon.com](mailto:sridharan.gv@replicon.com)

Total Years of experience, Relevant years of experience, Current company

Current CTC ,Expected CTC ,Notice Period, Contact Number ,Any offers in Hand

Reason for change

Sridharan G.V |HR - Recruitment | Phone +91 80 -4013 -0444 (ext. 433) | Fax +91-80-4013-0444

16.

Forbes Marshall is a group of companies with diversified business interests and joint ventures with some of the world's most renowned names. Today we comprise several business divisions, each one partnering the world technology leader in its respective field, manufacturing products that cover the entire spectrum of energy conservation, energy efficiency, control and instrumentation for the process industry. With rapid expansion on the

**anvil the company is looking for dynamic professionals driven by challenge and enterprise.**

**We have 2 vacancies for the post of \* Jr. Industrial Designer\***

**\*The responsibilities for this post are as follows\*:**

- 1. A designer should be proactive in following the design process in course of the product development which involves need finding, user surveys, concept generation through sketching and implementation.**
- 2. To be able to work on various aspects of design like aesthetics, problem solving, usability issues, ergonomics and manufacturability.**
- 3. To make multiple mockups and prototypes to get the physical feel of the product.**
- 4. To coordinate with the other departments like marketing, engineering, production etc for product design and manufacturing.**

**\*The requirements for this post are as follows\*:**

- 1. Should have \*passion\* \*and experience\* in designing \*Industrial products\*.**
- 2. Should be well versed with softwares like CorelDraw, Photoshop, Rhinoceros, or similar 3-D software for modeling and rendering etc.**
- 3. Should be able to actively work in teams and to drive the project at times.**
- 4. Should be able to effectively communicate with cross functional members during the course of the project.**
- 5. Should be enthusiastic in creative problem solving and in spreading design across the organization.**

**\*Qualification:\* M.Des. Industrial / Product design preferably from IIT's/ NID or other reputed design schools.**

**\*Prior Qualification:\* BE / BTech any stream is must.**

**\*Experience:\* 0-1 years**

**\*No. of Vacancies\*: 02**

**\*Location:\* Pune**

**If interested do send your resume to**

**kghate@forbesmarshall.com**

**kindly refer any of your friends for this vacancy.**

**\*\*\* Candidates who have already applied, need not apply again.**

**For any Company information please visit [\\*www.forbesmarshall.com\\*](http://www.forbesmarshall.com).**

**17.**

**Zynga is looking for a User Interface Designer**

**Responsibilities:**

**Work closely with producers and PM's to create simple creative solutions to complicated design needs**

**Mock up and prototype features according to UI spec, Provide variety of solutions to design needs**

**Work closely with engineers to implement UI features**

**Requirements:**

**At least 2 - 3 years of UI experience**

**Excellent graphic design skills**

**Expert user in Photoshop and Flash (Illustrator not required, but is a plus)**

**Understanding of web and interactive design fundamentals**

**Ability to create art assets (especially icons) matching existing art styles**

**Ability to provide creative yet simple solution to complicated design**

**Portfolio must illustrate strong UI skills, and graphic design skills**

**Location: Bangalore**

**Contact: [mkumar@zynga.com](mailto:mkumar@zynga.com)**

## **IMPORTANT ANNOUNCEMENT:**

***We have released a video film of approximately 40 minutes on concept of Universal/ Design For All/ Inclusive Design in the Month of June 2009 and speakers are***

**Prof Peter Zec of Red Dot, Germany,**

**Prof Jim Sandhu, U.k**

**Mr Mike Brucks , ICDRI**

**Prof Lalit Das, India**

**Mr John Salmen of Universal Designers & Consultants, Inc. USA**

**Mr Pete Kercher, Ambassdor EIDD ( 2<sup>nd</sup> Volume)**

**Prof Ricard Duncan, USA,( 2<sup>nd</sup> Volume)**

**Ms Onny Eiklong, Norweign Design Council( 2<sup>nd</sup> Volume)**



**Those who are interseted in free DVD kindly write to us along with their postal address or you can download from our website**

[www.designforall.in](http://www.designforall.in) or download from below links for single clipping

If you wish to download the film kindly click the below link of your choice

**Prof Peter Zec of Red Dot Min -8**

<http://www.youtube.com/watch?v=3JML2EbzxDM>

**Mr. Mike Brucks of ICDRI Min 1.5**

[http://www.youtube.com/watch?v=4\\_7CbKLOkWc](http://www.youtube.com/watch?v=4_7CbKLOkWc)

**Prof Jim Sandhu, UK Min-8**

<http://www.youtube.com/watch?v=Std4PuK4CmM>

**Index of the film Min-1.2**

<http://www.youtube.com/watch?v=kFyCLPuQgXk>

**John Salmen of UD Min-3**

**Universal Designers & Consultants, Inc**

<http://www.youtube.com/watch?v=bU770Vqu19o>

**Indian Example of Sari (female dress)**

**and Dhoti( Male dress) Min-4**

[http://www.youtube.com/watch?v=\\_vmAmRUFptE](http://www.youtube.com/watch?v=_vmAmRUFptE)

**Mr. Francisc Aragall Min- 5**

[http://www.youtube.com/watch?v=d-D3JH\\_JGpA](http://www.youtube.com/watch?v=d-D3JH_JGpA)

**Welcome note of Design For All**

**Institute of India Min-1.3**

<http://www.youtube.com/watch?v=yqW2vR-3kRg>

**We solicit your cooperation and looking for feedback at [Dr\\_subha@yahoo.com](mailto:Dr_subha@yahoo.com)**



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**Forthcoming Events and Programs:**

[Editor@designforall.in](mailto:Editor@designforall.in)

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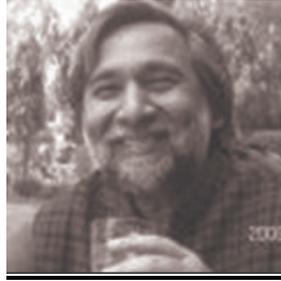
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