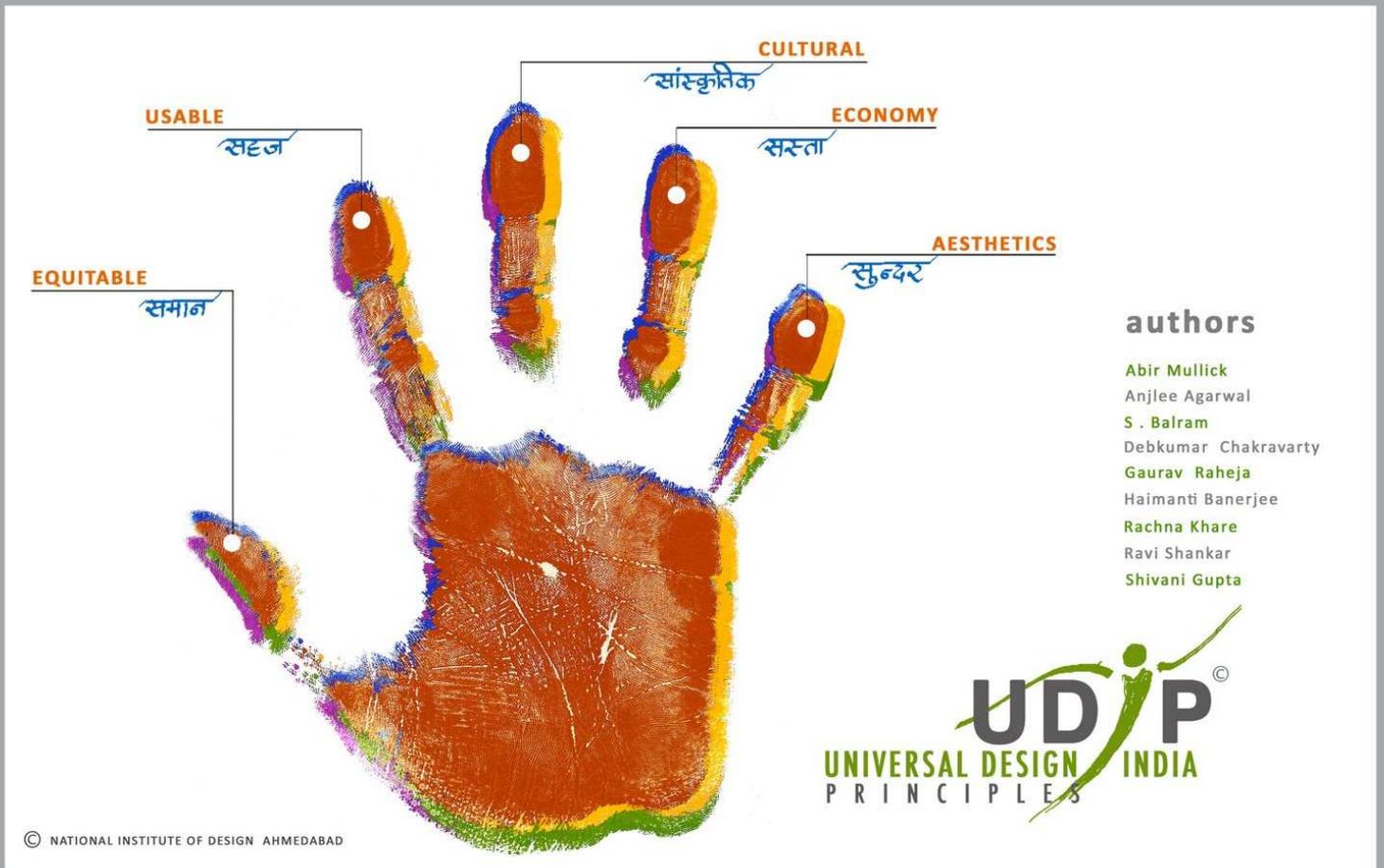


Design for All



Chairman's Desk:



Dr. Sunil Bhatia

When primitive man was living under the shadows & influences of natural environment, he was enjoying certain privileges which a modern man cannot imagine. But latter man has basic character which is plagued with his intense craving to achieve his virtual world just by fantasizing the world of our ancestors and that would be like his imagination and never allowed him to live in peace, contentment and that makes him restless. Modern man believes that his ancestors were placed in much comfortable conditions and were perhaps living better than him though he enjoys the many amenities of today. It is his attitude to imagine the things that of his liking but fails to imagine other's hardships and deprivations. One thing is sure our ancestors were not equipped with advanced technology. He had no proper education but had wisdom and common sense that placed him at higher level which helped him in innovating simple technology for complex problems that had only supported the gradual human progress and never allowed him to be greedy. 'Greed

has no end. Majority of modern men are living under its influence of greed and that is the reason, he is restless, his peace of mind is disturbed and he lives under extreme stress. What an individual is supposed to do he never does because he does not focus his inner strength but look towards others with wet eyes. To cover up his begging expression, he uses artificial objects like educational degrees, experience with big organizations and physical appearances etc.

When I look at the design of pyramid, it brightens my eyes & gives me sense of pride for our ancestors since it reflects a monument of wisdom, calm, peace of mind, gratitude and above all an excellent team work. It is our hypothesis there might be thousands of people worked together over number of years. It serves as on today various social, religious and political purposes. 'King is representative of God; after his death he remains king and should buried with state honor. It is the moral duty of the citizens in return to express their loyalty till their last drop of blood, and utmost sacrifice and sufferings is important for every human being irrespect of their social, political position for serving the humanity. Modern man is drifting from these philosophies and feels these characters have nothing to do for living peaceful life.' Pyramid was built with limestone and hailed as largest structure ever built. Limestone has property to absorb the humidity of air and changes into potable water. It proves means of potable water in desert. Next is to join such huge stone in such a fine cut that it is still mystery for modern man. How did the ancient Egyptians move two million 2.5-ton blocks to build the ancient wonder? A thing like this may be luxury for us; it could have been necessities for our ancestors but sharing of their

thoughts and respects for one another might be another reason they succeeded in overcoming such problems with basic knowhow what modern man shivers simply by thinking.

All the progress was Human centered and directed toward welfare of all living beings that too without disturbing the nature and rest were ancillary activities. It was 'problem driven society' where all were almost under similar conditions and solution was designed solely keeping the human interest at the priority. In those times progress for human development was gradual and was the era of designing human values and avoiding those things which could be more useful but then other consequences could be grave. At that point those were not undertaken .I call that era 'building of platform for values' for future generations and this was the time when common person was living and relishing every moment of his life. He felt as if he was fully breathing. He was living a full life & had no fear of death as such. Later on, some civilizations had dawned into religious influences. Now death was taken up as a serious incident in which God or some supreme power was involved. That had made the man a different creature from that of his past. He came under the influence of death which made him scared. Now he was reasoning out the phenomena of death 'Man turned to selfishness thinking I should survive even at the cost of life of others.' Under this influence he became suspicious and never trusted others around. Whatever success he had achieved he gave credits to his personal talents.

Modesty started disappearing with the success of technology. Gradually he became self-centered, so his lifestyle and his activities also changed. A few were rationalists and interpreted reason of

death was nothing but it was to be experienced by all one day or other and we should thoughtfully design our lives in such a manner that we should gradually understand the reason of death and how to fight it out. That fear made them to explore things around them and acquired the knowledge of the death. Earlier it was declared as Black magic and later on its inevitability was conceded and proved mother of all science and technology. One thing was common among different schools of thought since their goal was same that 'man should live longer and life is most precious thing and no one should die untimely.' That helped him in designing social, political and religious life and it was act of 'human centered to user centered'. Man's struggle was proved failure in unfolding the mystery and more rigorously he attempted in solving the death it appears more complex and made him a few to surrender to his faith and deep inside feels a helpless creature. With the introduction of industrial revolution that has given new lease of life to his struggle for solutions. As development picked up the pace as industrial revolution proved useful for all. Everyone was living in euphoria that this will solve all the human problems what our ancestors could not think. Every development has its own sinister inbuilt character and it surfaces in due course. A natural person of caring, sensitive and passionate person was buried under the noise of machines and he became a mechanical –robotic person without sensitivity and lives for fulfilling his own selfishness. 'God created man in His own form, later on He is in trouble. Man has created the machine in his own form and he is bound to be in trouble sooner or later.' Machines are in central activities and man is slip to ancillary to help for progress of machine worlds. Man is sidelined in race of maximization and in competitive world and entire focus is on machines and those men

who can help in maximization of profits are welcome and make them to feel deemed fits for progress and rest are discarded as garbage. Everyone is treated as potential for tool for maximization of profits. 'More the profits, better the life.' This was the wrong thought that has changed the face of humanity. Some people have managed to prove as specialists and boosting by telling others for their own survival that they can be useful, generate and save significant profits. This race has reduced the world with cut throat competition and taken the ugly turn of humanity. Those who are not fit to perform any job are left to their fate and society takes them as liability for the progress. An elite class is born and this exclusive club was considered responsible for progress of the society and rest was treated as waste. In fact, it is not inclusive growth rather it is exclusive for privileged class. Progress was synonymous with elite club. Everyone aspires to be member of this exclusive class and wishes to enjoy what this class enjoys. To become the member of this club either you should have money or something new in terms of idea that can support their philosophy .This rat race has created huge class of exploits who are damaging the overall interests of the poor & weak. No one trusts anyone. They are suspicious about one another and mistrust was in their heart & minds. Those are no more useful and do not fit into the schemes are left out and are abandoned at the mercy of supreme power. Gradually a major populations is trying to catch the race of progress and in this attempts they disturbed the ecology and whosoever has come on their way mercilessly they have killed. When nature proves stronger than them, they devise dynamite, atomic, nuclear power to win the nature. Our designer's role is not praiseworthy but he works under the gloves in disturbing the ecology in the name of progress. Role of

designers at the time of designing nuclear reactor raises doubts. Plastic packaging for varieties of items have ruined the land, river and choked our sewer of urban areas. Presently people are making major shift from HUMAN CENTERED TO HUMAN LIFE CENTERED. People are plotting against people and atmosphere of greed self-centered and hatred is prevailing all over. We need a fundamental shift in our thought process. It is most difficult task for present generation to make a sensitive & caring person to adopt the present life style. 'I should live at any cost. Let others should die for my sinister goals.' Earlier human life was progressing gradually for overcoming hurdles. Some solutions were known but deliberately these have been kept aside because these were with inbuilt character of inviting graver consequences than what they were facing. That sense of understanding before accepting the project should be cultivated amongst our modern designers by enlightening their mental faculties through meaningful education. Our publication is doing this little task in this direction and likeminded individuals, institutes and organizations are joining us and popularizing their ideals through their works. "You think that because you understand one. You understand two, because one and one makes two, but you must also understand AND" Sufi saying.

With the advent of Industrial revolution the concept of better production was introduced. This was production oriented era where manufactures were thinking 'if I make better product, people have no choice but are bound to purchase my products'. This era of 'imposing solution' lasted for decades and in due course great depression had surfaced; no humans were buying their well-crafted products. In this era, role of designer was limited to manufacturing

and unconcerned into effects of productions on humans. Everyone whosoever has power to buy was treated royally by manufacturer and others were treated a neglected lot. Great depression gave them lesson that inspite of best quality manufacturing alone could make us successful, something was missing. That missing gave them idea that customer is boss and we should not focus what best they could produce rather think about the potential customer's needs. It was an act of imposing their ideas in translating into products for perspective customers. But customers prove slippery and that forced them to think 'not only satisfy their needs and wants but also focus on ease of users also' This originated the philosophy of 'user centered'. In this era, designers have gained prominence in commercial world but they were established as significant tool to be successful in winning the heart of the user when concept of 'delighting the customer' became the reality. Designers should not inject as foreign organisms into the middle or end of the conceptual and engineering process, after the engineers and marketers did the meaningful work. Rather, designers should involve at the outset as equal creative partners. Form did not follow function; it was an integral part of the functional calculus. This was the era of 'human centered design'. Every human is perspective customer and ignoring anyone may cost a lot to the company. He focuses on all sorts of customers like abled, challenged, male and female aged or child. Humanity was surfacing in new form in select minds and those forces us to think 'How long can we ignore humanity in the name of progress?' We need inclusive growth and support the humanity and respect the individual by designing products / services. Throughout in the progress of civilization role of modern designer appears to be

a woefully insignificant as he practices it compared to our traditional craftsmen. Where does exactly the realm of a designer begin?

Every organization those are practicing design has central idea of progress and every action & reaction are interpreted by their own philosophy of 'Universal Design'. It is sometime called Inclusive Design, Design-for-All, accessibility, Barrier free and Lifespan Design. Whatever we may call it but all are working that human life should be bettered by design. We may call it ergonomics, call it human factors, human-centred design or by any name but core value is 'about making things better by design.' I question 'why human-centred design matters?' The human centred designer is a relatively transparent figure who does not impose his or her preferences over a project, but, instead, conveys and translates the will of the people in order to empower them through the final design solution. When Prof Abir Malick declared the Universal Design Principle of India in a press conference, I was little bit apprehensive about his idea. 'What for he is redefining the universal design principle when designer communities are accepting international principal of Universal Design?' Why does everyone trying to interpret in their own language and culture? After reading his background material of UDIP, I'm convinced that every community should retain the international essence but color & flavor should be with local culture. This UDIP attempt is to make those Universal Design Principle popular among our young designers and it establishes instant link with our policy makers in different states and level because is with local context and culture.

When I look at the packaging by plastic and its role in devastating our ecological balance, saddens me. I seriously doubt the role of modern designer as social designer rather they are more or less a commercial designers. Just to transport the item in economical and to remain competitive they have used blindly plastic without thinking of its consequences and designed by devising new technology for making human life easy. Earlier a local peanut seller used to pack peanut by wrapping under the leaf or envelope made of waste newspaper. Both are biodegradable and proved recyclable and do not harm what a small plastic envelope can do. Our modern designer has given importance to economic and convenience for mankind by pretending that their designs are human centered but in fact they are promoting the interest of commercial world at the cost of environments and ultimately human being is suffering and its affects is visible on their business. To make the shelf life of fish better they do not hesitate in using Formalin that is pure poison for human. Design is human centered but it is harming man. Human-Centered Design has become such a dominant theme in design that it is now accepted by interface and application designers automatically, without thought not bother for any criticism. That's a dangerous state – when things are treated as accepted wisdom. It is advice to the designers that they should think that man is at the center but it should not harm him. When designer designs the packaging of ketchup and explain the reason of using the glass bottles, I just couldn't resist following up the design decision to turn the bottles upside-down of Ketchup. In almost his exact words, basically he was narrating that it was designed by the people - their customers, the users. They'd observed and listened, and decided the upside-down bottle would satisfy a key user need. Who has thought

it? Human-centered design in action of Ketchup bottle is really marvelous. Other side of the story is different from human centered design and reason of success of this design astonishes me. I have never come across such a simple design as mousetrap. It has nothing to do with human centered design but designer might have identified the series of activities. What does attract the mouse? Answer might be, it is hunger or high metabolism in mouse makes them restless and forces them to move this way or that. Next, they might have noticed their mouths are busy in destroying edible or non-edible items. It means cheese or bread is ideal for attraction, it serves both purpose hunger and restlessness. This item is central in designing the mousetrap by using series of different activities. They use basic mechanical spring, lever design in cage structure to trap the mouse. It is an 'activity oriented design'. Mouse trap is example of respecting the right to live. Presence of mouse around us is nuisance and killing is not the option. Rather leave to other place where the natural habitat is there. Design of automobile is human oriented design. All the functions are safety, security and ease to drive the automobiles. If we give little thought we realize design of automobile is nothing but activity base design but human is central idea.

Products & technology brings new confidence among masses. When Russia launched the space craft in human history, every American was jittered and it hurt their pride. That event generated doubts in American minds 'Will United States of America lose its super power tag if USSR proves its supremacy in advance technology?' It was the political compulsion for its ruling party to generate confidence by launching Apollo space mission. It was the war of technology and

mastering of concept of products. Technology was space technology and launching of space craft of well-designed products to meet the desired goals. In ancient time, China invented the concept of fireworks and printing proves which changed the concept of human life. That small beginning of concept of fireworks has taken such a devil shape in the form of atomic bomb. The entire civilization is under threat. Printing has of course added a better dimension to humans. Earlier man used to pass on the knowledge to the disciples by forcing them to memorize. This was not very effective because masses were ignored and role of disciple was crucial to passes the knowledge. It was based on individual to filter the information what he feel fit to passes. With the concept of printing the information was available to all and anyone could use as desired. It has therefore catalyzed our human progress.

Modern man is living under the threat of mass destruction and it never allows the natural man to surface any moment. Products create new cultured and creates new emotions in man. We tend to think that technology changes culture, it's more often the other way around. Cultures are very robust and change slowly. It's typical for a new technology to be adapted within a culture and used to support existing patterns of behavior. We imagine centuries old that concept of '0' was thrown up by India & that has proved the reason of birth of modern computer and communication. Farming of cotton and designing of dress for covering the body will introduce the concept of shame, modesty, a means to express respect by covering specific parts of the body and nudity may invite disorder in social life. Design of comb has brought basic change in concept of meaning of attraction and helped in changing the appearance of an individual.

Later on this small but universal design comb is proved the reason of beginning of era of glamorous world and its dominance in every area of common person and sideline the role of man with intellects. Walking barefoot was allowed to move slowly carefully and limited area so that one should not be hurt. Design of slipper, different types of shoes for different purpose have given us new liberty and have gradually changed our culture. Design of Dress has brought significant change in our lives. Invention of wheel has revolutionized the civilization. Every walk of life there is role of wheel in our life whether it is transport or irrigation. Bicycle designed had made the society freed from compulsion from walking and freedom was reflected in their behavior whenever they peddle. Man's face was smiling and felt emotionally attach to bicycle and was spreading happiness because he was peddling with his physical strength and everyone had more or less similar physical strength. Bicycle is related to human happiness. With the advent of automobile the selfishness, less emotional person has surfaced. Automobiles became synonymous with competition, power and role of money. Man of automobile era is different from bicycle era and he is more aggressive .Design of lock gave sense of security. Designs of Condom, contraceptive pills have given new freedom to modern person in alternative selection for child birth. Design of Braille has changed the lifestyle of blinds throughout the world. The biggest invention of so far by anyone is 'Electricity' by Benjamin Franklin. It has proved best in human civilization till today and revolutionized in changing the face of humanity. What our culture used to be and what we are today because of electricity.

One of my philosophers, academician friends once wrote "A paradigm shift from technology driven development to human centered development is under way. The focus is shifting from materialistic and visible values to those, which are mental, intellectual and, possibly, less material. An era of "cultural productivity" has commenced, where the importance attributed to modes of life, values and symbols may be greater than that attributed to physical products. Design thinking stands steadfastly at the center of this continuum. Simultaneously, this development highlights the importance of cultural traditions and the need to revitalize them. Technology and society or technology and culture refer to cyclical co-dependence, co-influence, co-production of technology and society upon the other (technology upon culture, and vice-versa). This synergistic relationship occurred from the dawn of humankind, with the invention of simple tools and continues into modern technologies. Design is a means of creating social, cultural, industrial and economic values by merging humanities, science, technology and the arts. If you favor style over function to make something look like something it is not, you are not a product designer, you are an illusion artist. 'Change in value deserves a change in expression so its culture. Why not develop some rules of the road for the designers? Why not give the world, and our children, a choice?'"

We are highly obliged when Prof Abir Malick of UDIP accepted our invitation of publication of special issue. He is international personality, has vast experience in area of Universal Design and he is founding member of Universal Design principle. His knowledge

and philosophy is reflected in this special issue and our readers will enjoy by learning a lot from this issue.

With regards

Dr. Sunil Bhatia

Design For All Institute of India

www.designforall.in

dr_subha@yahoo.com

91-11-27853470®

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Forthcoming issues:

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-2nd
June 2011 and Guest Editors will be
Lawrence G. Shelton, Ph.D and
Susan W. Edelman, Ed.D.**



January 2012 Vol-7 No-1

**It is special issue for celebration of INDO-
GERMAN friendship year 2012. The Guest Editor
will be Prof Dr. Peter Neumann. Dr. Peter
Neumann has been working in the field of
accessibility and Design for All/Universal
Design for nearly 20 years now.**

**He is also President of the European Network
Design for All Germany (EDAD), the national
member organisation of EIDD – Design for All
Europe.**



February 2012 Vol-7, No-2

Dr Hua Dong will be the Guest Editor and it is special issue focusing role of China's Designers.



March 2012 Vol-7, No-3

Adjunct Prof Ravi Hazra of IDC, Indian Institute of Technology – Mumbai, India will be the Guest Editor and he will invite the author of his choice for contribution of articles for this special issue.



April 2012 Vol-7 No-4



Dr. Sherril York is the Executive Director of the National Center on Accessibility (NCA), a center within the Recreation, Park and Tourism Studies department located at Indiana University in Bloomington, IN. Dr. York brings over thirty years of experience in higher education in personnel preparation, direct service programming, and research with people with disabilities from toddlers in early intervention programs, children/adults in physical activity development, to elite athletes in adapted sport programs. She will be the Guest Editor for our special issue of April 2012



May 2012 Vol-7, No-5

**A special issue on archive articles of EIDD and Guest Editor will be Mr. Pete Kercher
Ambassador/External relations: Pete Kercher, E-mail: [pkercher\(at\)libero.it](mailto:pkercher@libero.it)**



June 2012 Vol-7, No-6

Prof Marcus Ormerod is co-director for the SURFACE Inclusive Design Research Centre with Rita Newton and they will be guest editors for a special edition of getting outdoors.



Editor:

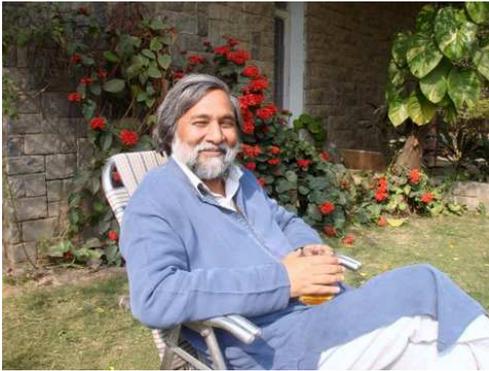


photo courtesy Jim Sandhu

A nation is known and respected by its concern for its people, how happy they are, how equitable are the opportunities offered and how livable is the man made and the natural environment.

It is really wonderful that Prof Abir has taken the initiative to bring together a group that has given a form to Universal Design Principle for India. The principles are well thought out and an excellent starting point. The entire team behind it has years of thought, youth and zeal to take the mission forward. I am sure that the entire community, worldwide will be very happy to help them in whatever capacity they can in catalyzing their enthusiasms forward.

The Government and bureaucracy in India are sensitive to the problems and there are laws in place. There have been significant individual efforts. However, perhaps this is the first time that a collective effort has been made. Prof Abir Mallick and his team's effort is truly commendable. May his group grow both in strength and in recognition among the people in India. May this group effort be characterized with altruistic values towards others peoples feelings thoughts and actions.

With warmest regards and best wishes.

Happy reading. Keep sharing.

Lalit Das

Guest Editor:



Abir Mullick, Professor, Georgia Tech in Atlanta, is a strong proponent of universal design and is internationally known for inclusive designs that deal with social justice, personal empowerment and collective equity. He is the 2011 Mphasis Universal Design Award recipient selected for work towards the cause of accessibility in India, He is one of the coauthors of the Seven Principles of Universal Design, USA. Mullick served as the Jamsetji Tata Chair for Universal Design at the National Institute of Design. Recently, he coauthored the Universal Design India Principles along with eight Indian experts. A recipient of 2010 Fulbright-Nehru Award, he has researched universal access to public toilets in Indian slums; developed India specific research methods, conducted contextual research and designed public toilets for universal access. Mullick has directed many sponsored projects and is a winner of many design awards including the coveted IDEA awards and American Society of Aging award. His designs have been published extensively in national publications, including in the Wall Street Journal, Popular Science and the Business Week.

Universal Design in India

Abir Mullick

"The problem is not how to wipe out all differences, but how to unite with all differences intact." -Rabindranath Tagore

Universal Design

Universal design is often used as a synonym for accessible design, but it is vastly different and in a fundamental way. Universal design is not a euphemism for assistive, adaptable, accessible and lifespan design; they are all different concepts and also different from universal design. While universal design is none of these specialized approaches, it fuses the spirit of all of them. (Steinfeld and Mullick, 1990) Universal design involves a fundamental paradigm shift in thinking about design, particularly with regard to designing for people with disabilities. It is based on the premise that buildings and products must be designed to be usable by all intended users, represent a broader segment of the population, and offer greater independence, safety and usability by everyone. It blurs the distinctions between, "me", "them" and "us" and celebrates the differences between all these groups. As a design approach, universal design is an inclusive and pluralistic model in which design for differences is a key strategy. The use of anthropometric and biomechanical characteristics well as flexibility, adaptability, adjustability and modularity ensures successful universal design.

Originally conceptualized by Late Ronald Mace, universal design was expected to extend beyond the code compliance of the barrier free legislation to the more inclusive focus of good design for all. The Universal design approach seeks to integrate disability accommodation with the basic concept of design. Not a new style, it is a social movement primarily concerned with making products, environments and communication systems usable to the greatest extent possible by the broadest spectrum of users. Since universal design is an utopian concept (as no one thing or place can ever be truly for all people), it aspires to achieve that utopian state, incrementally. Hence universal design is better described as a verb, "universal designing" that is continually striving for utopia.

Universal Design in India

According to the Census 2001, there are 2.19 crore (21.9 million) people with disabilities in India who constitute 2.13 per cent of the total population. This includes persons with visual, hearing, speech, mobility and mental disabilities. Great deal of suspicion has been voiced about the the low percentage Indians with disabilities and many people attribute this to the poor methods of the Census data collection. The unofficial estimate of Indians who have disability, according to United Nations, is over 10%. (Abidi, 2002) Seventy five per cent of persons with disabilities live in rural areas, 49% of disabled population have no schooling and 66% are unemployed. (Census, 2001) Even with the low percentage, India accounts for one-third of the world's disabled population and one-half of the world's blind population. It is estimated that these figures are increasing and in 2020, the total population of persons with

disabilities is projected to be 70 million and majority of them with multiple disability conditions. (Manoj Pandey, 2002).

The elderly population presents yet another challenge for the Indian people. At 77 M in 2001, it is expected to increase to 96 M in 2011, and escalate at a rapid rate over the next four decades – 133 M in 2021, 179 M in 2031, 236 M in 2041 and 301 M in 2051. (Rajan, 2006) This will present serious challenge in service delivery as majority (80%) of them live in the rural areas, more elderly population are women (51% women by 2016), rapid increase in the number of the older-old (persons above 80 years) and higher poverty (30% below poverty). (Times, 2011)

The earlier emphasis on medical rehabilitation has now been replaced by an emphasis on social rehabilitation and environmental intervention. The International Classification of Functioning, Disability and Health, known more commonly as ICF, is a classification of health and health-related domains by the WHO and it includes a list of environmental factors. (ICF, 2001) These domains are classified from body, individual and societal perspectives by means of two lists: a list of body functions and structure, and a list of domains of activity and participation. Since an individual's functioning and disability occurs in a context, the ICF recognizes the impact of the environment on the person's functioning. In India, there is an opportunity to leverage the ICF and demonstrate environmental rehabilitation through access for all. The Indian context of development presents a challenge and opportunity to construct the built environment takes care of the weakest links in the chain. The inclusive design of the built environment will address

the invisible “disability” in India, eliminate environmental barriers and promote social inclusion in India.

Unlike in the USA, Indian disability is ingrained in poverty, rural life and social differences. Hence the traditional role of universal design which is primarily “independence and self-reliant” focused, needs to be social oriented in India and help solve problems associated with disability and human differences. The term universal design in the USA and Design for All in Europe have both come under great criticism. In the USA, the universal aspect of universal design is being questioned as people incorrectly equate universal design to universality, sameness or the promise of “one-size-fits-all”. The Design for All has met the same situation; people are questioning “All”, which should imply “the intended users” though the term fails to present it clearly. For example, driver seat for all would imply everyone though in reality implies only those who drive, which excludes children and non-drivers. In India universal design should be called Inclusive Design to embody an array of disability issues alongside poverty, rural life, low education, historic tradition, language differences, and cultural variations. The term would be in keeping with Tagore’s, “unite with all differences” and reflect Sonia Gandhi’s words, “All-inclusive is no longer the greatest good of the greatest number. It is actually Sarvodaya or the rise of all. This Mahatma Gandhi saw as essential to Satyagraha itself.

Most Indians with disabilities live with families and they are cared for by them. This is different from the living arrangements of people with disabilities in USA and in Europe, where they mostly live independently, though some live in group homes and nursing home

and cared by professional caregivers. To address the Indian living situation, it would be important to focus universal design initiative not only on people with disabilities, but also on their caregivers, the family and the community. For universal design to have an impact in India, it must help caregivers alongside those affected by disability. The model of universal design in India must find a balance between independence and interdependence, those who want to be self-reliant and those caring for others. A metaphoric model of interdependence would be a wheelchair that not only helps a disabled person achieve mobility independence but also helps a caregiver push easily. The universal design concept must be Indianized to include interdependence alongside independence, and know that India needs time to transition from interdependence to independence. It seems that there are two very different Indias for people with disabilities, the rural and urban India. In rural India where people live with families and lead a traditional lifestyle, universal design should focus on interdependence. Those in urban India, from affluent families and want to live independently like in Western countries will benefit from the independence model of universal design. The idea of interdependence and independence should co-exist as an inclusive model of universal design in India.

Universal Design India Principles

The Universal Design India principles emerged from a need to address the Indianness missing in the Seven Principles of Universal Design developed nearly 15 years ago by a team of universal design experts in USA. Though many believe that the Seven UD Principles are dated and need revision, attempts to revise them have not met with success. The authors and universal design proponents have

shyed away from revising the Seven UD Principles as they are well established and offer strong intellectual foundation to universal design concept and practice. Recently, the IDEA Center has come up with a new set of 7 UD Principles that can be applied in design activity, business practice, program or service involving interaction of people with the physical, social or virtual worlds. (UD Principles, 1997) The first principles – Body Fit, Comfort, Awareness and Understanding, address the operational aspects of universal design and the remaining three – Social Integration, Personalization and Appropriateness - deal with social integration. (Steinfeld and Maisel, 2011) These principles reflect the changing sentiments and the need to develop new interpretation of universal design. Developed by a multidisciplinary team of Indian 10 experts, the Universal Design India Principles are developed to address the needs of diverse population of Indian background. (UDIP, 2011) The authors of UDIP (in alphabetical order) Abir Mullick, Anjlee Agarwal, Balaram. S., Debkumar Chakarbarti, Gaurav Raheja, Haimanti Banerji, Rachna Khare and Ravi Shankar. The five principles – Equitable, Usable, Cultural, Aesthetics and Economics – are ingrained in Indian sentiments and way of life. They serve as additional principles which when added to the larger framework of the Seven UD Principles, allow customizing universal design applications, regionalizing universal design contexts and localizing the global idea of universal design for Indian situation. Fundamental to UDIP is the universal design spirit that advocates against 'one design fits all' and they are based on the social and cultural needs of the Indian people. The UDIP acknowledge the global importance of the Seven UD Principles; they are built on their social and equitable agenda universal design.

The National Institute of Design, Ahmadabad supported the development of the UDIP and the principles belong to the Institute.

UNIVERSAL DESIGN INDIA PRINCIPLES

	Principles	Description	Guidelines
1	Equitable/S aman	The design is fair and non-discriminating to diverse users in Indian context	Avoid prejudices against people of all ages, gender, disability, sizes, caste, class and religion. Consider different capabilities of users and build in many levels of engagement. Provide choices in access and use thru flexibility and customization. Allow personalization through inclusion of adjustable and adaptable options. Provide equality in challenge, opportunity and energy requirement.
2	Usable/ Sahaj	The design is operable by all users in Indian context	Provide independence, comfort, safety and support during use. Facilitate access, operation and convenience by diverse users. Include adaptations for those experiencing difficulty in use. Provide clarity in use, operation and maintenance to minimize instruction and avoid confusion and error. Adopt simple means to overcome complex operation. Follow cultural norms to address user expectations. Offer multi-sensory feedback to point in the right direction. Build in intuitive operation and innate understanding of problem. Allow easy adaptation to facilitate use by people with diverse abilities. Prevent costly mistakes and untended consequence from misuse.
3	Cultural/ Sanskritik	The design respects the cultural past and the changing present to assist all users in Indian context	Maintain social and traditional qualities in design. Include Indian idioms to make historic and social connection. Present in many languages for inclusive comprehension. For all castes and society levels. Respond to local context and conditions. Employ appropriate technology to match user expectations.
4	Aesthetic/	The design	Employ aesthetic to enhance universal

	Sundar	employs aesthetic to promote social integration among users in Indian context	appeal and use. Allow personalizing aesthetics through flexibility, adaptability and modularity of color, form, texture and interaction. Employ appearance to inform use and safety. Bridge wide range of meaning and comprehension gaps.
5	Economics/ Sasta	The design respects affordability and cost considerations for diverse users in Indian context	Ensure affordability, durability and maintainability. Use local materials for energy savings and cost effectiveness. Focus on low unit cost through wide distribution. Adopt modular approach to offer choice in features and price range.

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The Articles

Seven articles make up the special issue on Universal Design India Principles. *A peer review publication*, they are written by the authors of UDIP and they underwent a five stage evaluation review and writing process. *First, the Editor assigned article topics to the authors. Second, when they arrived, the articles were sent to two UDIP members for review. The Editor and the two UDIP members reviewed each article and offered feedback. Third, the Editor compiled the feedback in an anonymous format and forwarded the feedback to authors. Fourth, the authors made the recommended changes and sent back the changes to the Editor. Finally, the Editor went over the changes and finalized the articles.*

The article, UDIP: WHAT AND WHY, IT'S BENEFITS AND IMPACT, co-authored by Anjee Agarwal and Nidhi Madan, provides a rational for

universal design, presents it in the Indian context and offers an understanding of the social climate within which universal design in India needs to operate. The article presents an analysis of cultural inclusion, innovation, marketability, cost-effectiveness and equal opportunity - the fundamental aspects of UDIP. It concludes by establishing that UDIP principles will help Indian designers and consumers understand the design context, bring about a paradigm shift in design education and practice, help strategize design activity and move India towards social and economic inclusion.

Khare's article, Universal Design Principles, outlines the collaborative approach to the development Universal Design India Principles. The development process adopted an open, unique and democratic approach of co-creation and everyone in the expert group fully participated in the process and voiced their opinion freely and liberally. Every person's voice was recorded, shared and heard and their contribution honored during the development process. Both process and the UDI principles are excellent examples of universal design theory and practice that celebrates a democratic process of equal opportunity and personal empowerment. The experts plan to take this process further to examine the state of universal design in India, assess its importance for the Indian people and outline a national universal design focus for the country.

Chakrabarti in article, UDIP and Ergonomics Perspectives, compares the five Universal Design India Principles (UDIP) with ergonomics criteria for design and determines that they mutually support each other and serve as an important platform to discuss design for all. While presenting two important positions on innovation and success,

he raises question about local and global aspects of UDIP. He challenges design to fulfill taste, utility and comfort to Indians as well as to others. Chakrabarti concludes that the newly framed UDIP are applicable for India as basic universal design principles intended to offer an inclusive approach to designing for the Indian people.

Ravi Shankar in article, what does Universal Design mean in India, offers a personal understanding and interpretation of universal design in India. Presented in an informal tone, the article responds to the skeptics and asks that universal design be given a chance to develop an inclusive Indian community. It looks at the future scenarios like populous congested spaces, literacy variance, migration, lifespan health, half the population going to live in urban areas, and technology penetration, to offer universal design approach as a way to make the built environment usable, offer design choices and allow mass customization.

Banerji in article, Practical Application of Universal Design Principles, presents an academic explanation to universal design and the impacts that UDIP can have in the field of product design. The article uses mobile phone as an example to explain the scope of application of UDI principles as they apply to a diverse range of people belonging to various socio – economic groups, gender and different physical and mental ability. While evaluating mobile phones against five UDI principles, Equitable, Usable, Cultural Appropriateness, Aesthetics, and Economics, the UDIP is important to the country as it aims to build an equitable environment which will enable all to participate productively in the society and to

ensure usability, to make design democratic, to reflect the country's cultural heritage and to make design economic.

Raheja in article, Universal Design India Envelope, addresses Indian design issues from a perspective of *Inclusion for all*. The article views through the Indian spectacle to discuss and evolve a think tank for implementing the Universal Design India Principles. UDIP, values change in the Indian context and believes in unifying through social inclusion. It serves as a guiding lighthouse to Indian era of transformation into the future through mobilizing greater access, affordable designs with better efficiency and use, appropriateness to the Indian context and preserving the cultural ethos of each individual.

Gupta in article, the role of UDIP in Policy Design, highlights the importance of policies as they determine the quality of the air we breathe, the water we drink and the food we eat, mold the society we live and influence virtually every aspect of our lives. The article employs three UDIP metrics to highlight the importance of equity, culture, aesthetics, economics and usability in policy development and implementation. It concludes with universality as a major issue in policy design and development to ensure acceptance by majority and offer greatest benefits to all.

Conclusion

The Universal Design India Principles is an important step in the direction of achieving the universal design goals in India. An emerging nation, India's economic boom has triggered social

consciousness not seen before. The collective consciousness about the marginalized population and the need to include them in the larger society is very evident though the progress is slow. The Government of India is in the process of establishing the National Institute on Barrier Free Environment and Universal Design, though its structure and objectives are still under discussion. The Institute is expected to establish a national agenda on universal design and develop universal design initiatives.

In India, there is an opportunity to define universal design for the Indian condition and impact the lives of people with disabilities and those caring for them. Accessibility, a step before universal design, is nearly non-existent and the built environment needs to be made accessible before universal. This implies enforcing accessibility building codes for public buildings and a judicial system penalizing those failing to make public buildings accessible and code compliant.

Universal design can be realized if there are trained design teachers to teach universal design. In India, universal design must have a strong educational component and train Indian designers (including architects, industrial designers, interior designers and landscape designers) in universal design to bring about a cultural and environmental change through social inclusion.

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Abir Mullick

abir.mullick@gmail.com



Prof. Rachna Khare

khare_rachna@hotmail.com

Rachna Khare is a Professor in School of Planning and Architecture at Bhopal, a premier institute of Government of India. Prior to this she was Senior Research Fellow with Jamsetji Tata Universal Design Research Chair at National Institute of Design, Ahmedabad and also taught at Birla Institute of Technology, Mesra. Starting her career in early nineties as Exhibition Officer cum Designer in Jawahar Kala Kendra, Jaipur, she practised for nine years in architecture field and then taught architecture for almost nine years.

Professor Khare is a recipient of the prestigious Fulbright Fellowship and was affiliated with Georgia Institute of Technology, Atlanta, USA during her PhD. Her research interests in the field of 'Universal Design' and 'Designing for Special Needs' have earned her grants and awards nationally and internationally. Apart from Fulbright award, she is recipient of IMFAR-2009, Professionals from Developing Country Award, Chicago; Friends of Fulbright India Grant-2008, Lewisburg; and R&D projects from All India Council of Technical Education and University Grants Commission in India.

Professor Khare has lectured extensively on Inclusive Design all over the world and has many papers in various National and International journals and conferences to her credit. Her book 'Designing Inclusive Educational Spaces for Autism' published by Institute of Human Centred Design, Boston, USA was released in 2010 at 'Build Boston', the book received 'Certificate of Merit' in ArchiDesign Award-2010. She has also edited a special issue of an internationally refereed journal called 'ABACUS' on 'Architecture for All' in 2007. Major events organized by her are 'Universal Design Workshop' and 'National Student Design Competition on Universal Design/Design for All' in 2011 and 'National Workshop on Architecture for the Challenged' in 2004 in collaboration with NIOH, Kolkata.

Universal Design India Principles[©] 2011: A Methodical Collaborative Team-Work

Prof Rachna Khare

Background

Universal design (UD) involves a fundamental shift in thinking about design, particularly with regard to designing to address social difference. Developed in USA as a Civil Rights Issue and equal opportunity for those with and without disabilities, the democratic values of universal design are grounded in self-reliance, social empowerment and personal choice. As a design approach, universal design requires incorporating flexibility, adaptability and modularity to achieve best fit and mass customization for everyone. At the Center for Universal Design at North Carolina State University a group of experts developed Seven Principles of Universal Design (UDP) to provide guidance in the design of products and environments (1997). When Universal Design Principles are applied, products and environments meet the needs of potential users with a wide variety of characteristics. Continuing the spirit of Universal Design that advocates against 'one design fits all', the Universal Design India Principles (UDIP) are developed by an interdisciplinary team of Indian experts (2011) to address the needs of diverse population in Indian context. Universal Design India Principles are additional principles which when added to the larger framework of the UDP, allow customizing Universal Design applications, regionalizing Universal Design contexts and localizing the global idea of Universal Design. The UDIP are based on the social and

cultural needs of the Indian people; they acknowledge the UDP and build on their social and equitable agenda. The National Institute of Design, Ahmadabad supported the development of the UDIP and the principles belong to the Institute.

Development Of Universal Design India Principles

'Universal Design India Principles' are developed under 'Universal Design India Project' as a step by step collaborative effort by a group of nine experts in India. There are three major stages identified in UDIP development process:

- *Stage I - Development of Universal Design India Principles*
- *Stage II - Elaboration of Universal Design India Principles*
- *Stage III - Examples of Universal Design India Principles*

At the moment stage-I is complete with the development of Universal Design India Principles©2011, and the experts are pursuing Stage-II & III. The development process of UDIP observed a very similar process as UDP development in USA, except that the latter was done over a week and face-to-face in Raleigh, North Carolina, while the former worked via e-mail and took almost five months.

There are many important aspects of the UDIP development process:

1. *It was developed by a group of nine invited experts whose collective work experience exceeds over 100 years in the field of disability and diversity for the Indian people.*

2. The principals involved a diverse group of Indian experts who represent a wide range of expertise in design disciplines, disability and policy making.

3. Participation in the project was completely voluntary and no expert received any compensation or organizational support. The project was supported by the National Institute of Design under the Jamsetji Tata Chair for Universal Design and administrative work took place at the NID campus.

4. The UDIP was developed over the internet; experts exchanged information via email throughout the development process.

5. One expert served as the facilitator for the development process; this individual collected and presented information while others responded to the information and interacted via email.

6. The development process maintained complete anonymity by concealing expert names associated with ideas. This removed all bias related to personality and ideas, and allowed everyone to openly evaluate other people's information, freely voice opinions and liberally participate in debates and discussions.

7. There were three main stages to the development process best known as First Draft, Second Draft and the Final Principles. The first draft listed 24 UD criteria. The second draft produced 7 UD criteria. The Final draft produced 5 UDI principles.

8. The UDIP reflects the spirit of universal design; not one solution for all people, but one option within a large system for

everyone to personalize. It also reflects the universal design's spirit to customize for the Indian context.

The key steps followed in the development of Universal Design India Principles are as follows (please refer figure 3):

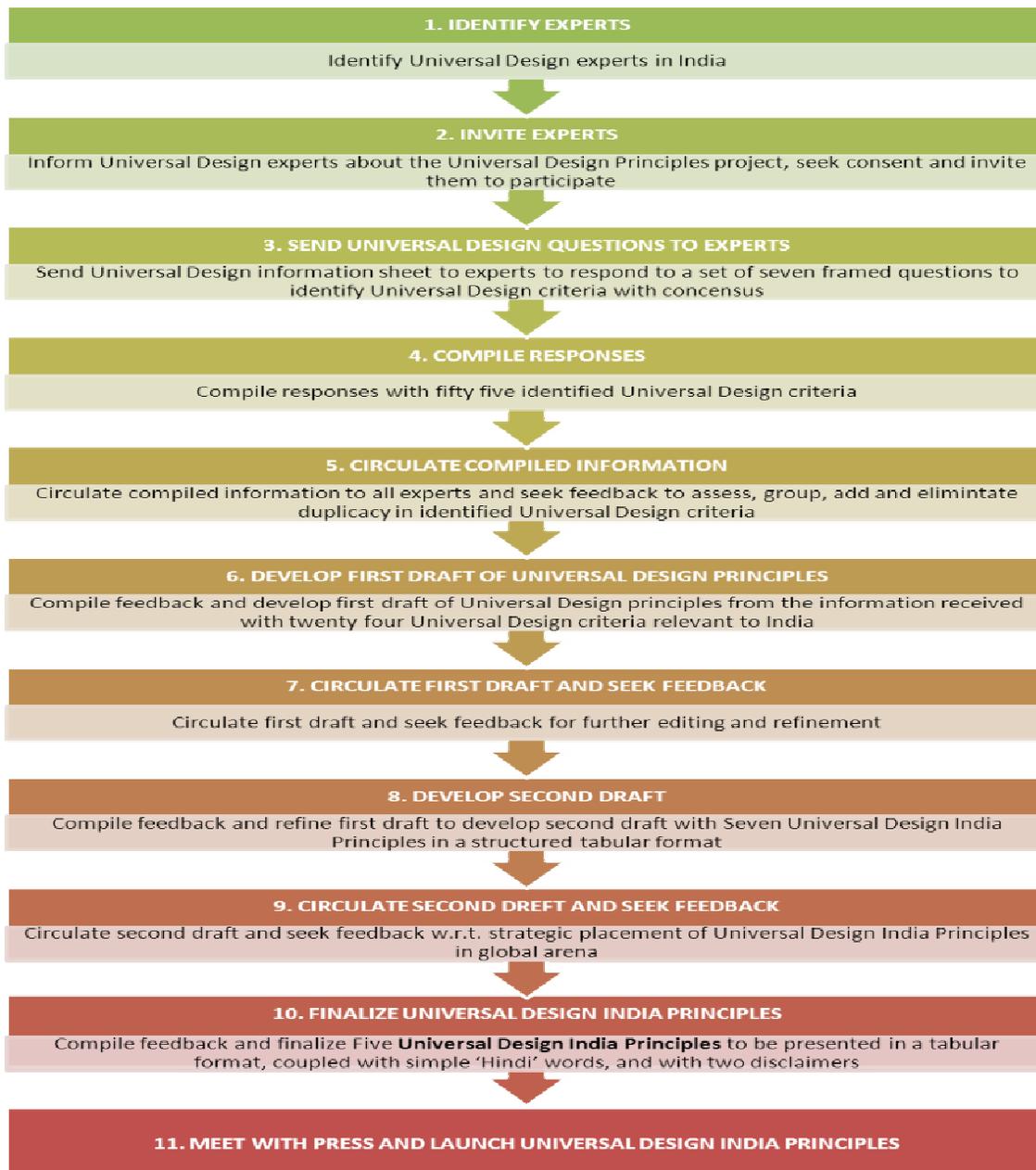


Figure 3-DEVELOPMENT PROCESS: UNIVERSAL DESIGN INDIA PRINCIPLES ©2011

1. Identify Universal Design experts: *The first step in the process was to identify universal design experts in India. Twelve experts were identified from premier academic institutions and non-government organizations across the country, and working in the field of disability, universal design and crossover. It was ensured that the experts represent many design disciplines as well as diverse fields related to universal design.*

2. Invite Universal Design Experts to participate: *The experts were approached and invited to participate through e-mail; they were informed about the project, the process, time schedule and expected outcomes in detail. Out of twelve invited experts nine agreed to take part; there was no selection process and those who opted to participate in the project were accepted to be on the UDIP group. The group of experts who worked on the UDIP represented the disciplines of industrial design, architecture, planning, ergonomics, social sciences and disability. The names of experts in the working group (in alphabetical order):*

i. Abir Mullick, Professor, Industrial Design Programme, Georgia Institute of Technology, USA and Fulbright-Nehru Scholar-in-residence at the National Institute of Design Ahmadabad

ii. Anjlee Agarwal, Executive Director, Samarthyam, New Delhi

iii. Balaram S., Emeritus Professor and Dean, D J Academy of Design, Coimbatore

- iv. Debkumar Chakrabarti, Associate Professor, Department of Design, Indian Institute of Technology, Guwahati**
- v. Gaurav Raheja, Assistant Professor, Department of Architecture & Planning, Indian Institute of Technology, Roorkee**
- vi. Haimanti Banerji, Assistant Professor, Department of Architecture and Regional Planning, Indian Institute of Technology, Kharagpur**
- vii. Rachna Khare, Professor, Department of Architecture and Co-ordinator, Centre for Human Centric Research, School of Planning and Architecture, Bhopal**
- viii. Ravi Shankar, Senior faculty, National Institute of Design, Bangalore**
- ix. Shivani Gupta, Director, AccessAbility, New Delhi**

3. Send Universal Design questions to experts:

Seven questions were sent out to UD experts on an information sheet. The questions were framed to seek expert views on universal design (UD) and accessible design (AD) to establish universal design in Indian context. The questions were kept simple, precise and neutral. A pilot test was done to ascertain clarity of questions and unintended misinterpretations removed before sending it to experts. The seven questions in the universal design information sheet were:

- i. What is Universal Design in India?**
- ii. What is Accessibility in India?**
- iii. How does Universal Design differ from Accessibility in India?**

iv. Identify three excellent examples of Universal Design in India?

v. What are the three excellent examples of Accessible Design in India?

vi. What criteria were used to identify Universal Design examples?

vii. What criteria were used to identify Accessible Design examples?

4. Compile responses: After receiving UD and AD information from experts, the evaluation process began with complete anonymity to maintain unbiased and objective focus on information assessment. Other than the person compiling the information, nobody knew the authors of the information. The anonymity removed the author connection, and helped everyone to focus on the information away from the authors or the information source. In this stage, the experts employed the answers from seven UD/AD questions to collectively identify fifty five UD India (UDI) criteria and fourteen AD India (ADI) criteria. These were then compiled to produce first list UDI criteria, which consisted of rich UD indicators for the Indian context. The list clearly portrayed a great start for Universal Design Principles in India.

5. Circulate compiled information: The UD India criteria and AD India criteria were then circulated to the experts to assess each criterion for Universal Design relevance to India. Experts collectively edited, grouped and checked all UDI and

ADI criteria for appropriateness, redundancies and include missing criteria. The intent was to

- a) Edit the UDI criteria for appropriateness***
- b) Eliminate weak, inappropriate and duplicate criteria***
- c) Group UDI criteria by content, meaning and appropriateness***
- d) Add new UDI criteria***
- e) Transfer appropriate ADI criteria to UDI criteria.***

6. Develop first draft of Universal Design principles: Seemingly simple, the first draft of UDIP was a result of enormous rigor, wrestle, debate, discussion and hard work. This involved the group into editing the UDI and ADI criteria for appropriateness, redundancies and overlap, and collectively distils them to twenty four UD criteria relevant to the Indian context.

7. Circulate first draft and seek feedback: The experts determined that twenty four UDI criteria was still an unmanageable number and opened an email discussion on their relevance to universal design in India. This process required everyone to voice opinion and evaluate universal design aspects of each criteria and vote for inclusion or omission in the UDI list. Experts participated in the development of metrics for inclusion, omission, compilation and refinement, to bring the principles down to a manageable number and they were reminded to not marginalize important issues to reduce the number of principles.

8. Develop second draft: *The second draft resulted from distilling twenty four principles into seven UDI principles. Following guidelines were applied to achieve consensus and distil the UDIP. The group maintained strong focus on a universal design framework to develop a robust, coherent and apparent structure.*

- a) Excluded result oriented principles like 'promote inclusion' or 'allow personalization', as the Universal Design India Principles are expected to bring about inclusion through personalization.*
- b) Eliminated principles that spell out 'safety' and 'privacy' as these principles are fundamental to 'good design' and not exclusive to Universal Design.*
- c) Omitted process oriented statements like 'holistic approach' and 'contextual' as it is difficult to arrive at a clear definition of what makes a process holistic or contextual. In the absence of a clear definition, such principles had the chance to become debatable.*
- d) Omitted principles like 'sustainable' as it has weak connection to Universal Design Principles.*
- e) Attempted to keep global principles like 'Equity', 'Culture' and 'Aesthetics', implying 'what to do' and omitted action oriented principles like 'Flexible' and 'Adaptive' as they spell 'how to do'.*
- f) Omitted terms like 'people with disabilities, able bodied, men, women or children', and replaced with 'users' instead.*

g) Replaced the term 'all users' by disclaimer in Universal Design India Principles 'All users imply people of all ages, gender, disability, caste, class, religion and urban/rural background'

Based on above guidelines, the second draft reduced the twenty four UDIP criteria into seven and structured them into three hierarchical levels 'Principles', 'Description' and 'Guidelines'. 'Principle' named the principle or 'what to do'; 'Description' offered an explanation of the principle; and 'Guidelines' listed the action points or 'how to achieve' the goals of the principles.

9. Circulate second draft and seek feedback: The experts agreed that while all seven Universal Design India Principles (UDIP) indicate strong cultural context, three of them echoed the pre-established Seven Principles of Universal Design (UDP). The second draft was again circulated to all experts for discussion and comments. They were asked to respond to the following questions to address the overlap :

1) Should UDIP focus only on Indian issues and eliminate those principles that echo the UDP?

2) Should UDIP produce a comprehensive list about Indian principles and not eliminate the principles that echo UDP.

Since experts' response to the two questions was going to play a very strategic role in positioning UDIP in the global arena, all comments, questions and discussions on UDIP were

documented and shared between the experts to direct the final outcome.

10. *Finalize Universal Design India Principles:*

Experts consensually decided that UDIP should maintain a strong India focus and be separate from the existing Seven UD Principles. They also decided that the Seven UDP would maintain an overarching position over the UDIP and complement these principles. The role of UDIP was seen to contextualize the UD Principles and address regional requirements so UD is better directed in Indian context. Experts referred to the seven UD Principles as fundamental to universal design theory and practice, and the role of UDIP to promote universal design in the Indian society. They decided the overarching role of UDP should be clearly stated in the disclaimer with Universal Design India Principles.

Finally UDI principles were carefully checked for Indian importance and distilled further down to five UDI principles, 'Equity' being the only common principle between UD Principle and UDI principles. Since the fundamental basis of universal design is social, experts supported the idea of maintaining the 'Equity' principle in common with UDP. They also felt that five UDI Principles would be easy to remember and should be coupled with simple 'Hindi' words to help a larger Indian audience relate to the social aspects of universal design. The five principles and guidelines were ordered, edited, reworded and refined for a 'Final Version' of UDI Principles. The 'Final

Version' has five UDI Principles coupled with Hindi words, all beginning with 'S' to help memorizing, remembering and recall.

11. **Meet with press and launch Universal Design India Principles: The five principles of Universal Design India were release at a press conference held at India Habitat Center, New Delhi, India on 21 June, 2011. A graphic communication was developed to go along with the principles for semantic association of Indianans. The graphic communication employed a Hand as a metaphor, using the five fingers to express unity; diversity and universality (please refer Figure 1).**

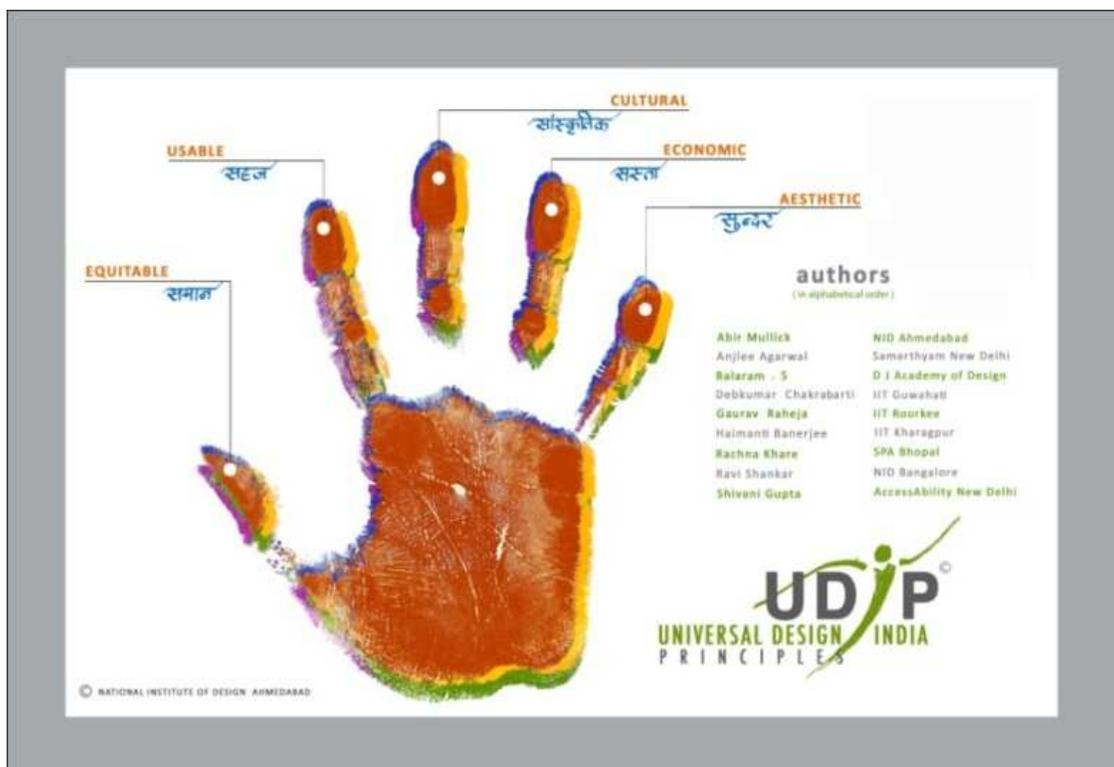


Figure 1-POSTER: UNIVERSAL DESIGN INDIA

Seven out of nine members of the expert group and representatives from National Institute of Design, India were present at the press conference and it was well covered by journalist from the print and digital media (please refer Figure 2).



Figure 2-PRESS RELEASE: UNIVERSAL DESIGN INDIA PRINCIPLES©2011

Co-authored by nine Indian experts, the 'Five Universal Design India Principles' address the needs of diverse population in Indian context and employ equity, usability, culture, economics and aesthetics to further the social and equitable agenda of universal design.

Conclusion

The development of five principles of Universal Design India follows an iterative and sequential process of co creation to address the needs of diverse Indian users across ability, age, socio-economic strata and culture. Developed at the National Institute of Design and

co-authored by nine Indian experts from premier academic institutions and disability organizations, these principles help strategize design activity and move India towards social and economic inclusion.

The Seven Principles of Universal Design (USA) are overarching universal design principles, internationally. But Universal Design India Principles are developed to complement these principles and contextualize them to address the Indian requirements. A combination of the seven principles and the Indian principles offer a larger social framework that help regionalize universal design in the Indian context. Customization is the key to universal design, and the inclusion of the Indian principles allows customizing Universal Design for the Indian region.

The development process of Universal Design India Principles adopted an open, unique and democratic approach of co-creation. Everyone in the expert group fully participated in the process and the anonymity helped to voice opinion freely and liberally. Every person's voice was recorded, shared and heard and their contribution honoured during the development process. Both process and the UDI principles are excellent examples of universal design theory and practice that celebrates a democratic process of equal opportunity and personal empowerment. The experts plan to take this co-creation process further to examine the state of universal design in India, assess its importance for the Indian people and outline a national universal design focus for the country.



Author - Rachna Khare
khare_rachna@hotmail.com



Anjlee Agarwal, Access Consultant and Researcher since 1998, has been promoting Inclusive Environment through Universal Design in public spaces and transportation systems. She has been a catalyst in redesigning the infrastructure set up of Dilli Haat, Delhi & Bangalore Metro Stations, Bus Rapid Transit System Delhi, University of Delhi & Garhwal, IIT Delhi & Kanpur and Commonwealth Games Venues- Stadiums & Games Village, pedestrian infrastructure of Delhi and many more public places to make them universally accessible. She has presented more than 43 papers nationally & internationally, authored several manuals, guidelines and codes and published numerous articles in various publications. As Access Consultant with the Government of India, she is able to bring about policy level changes to make Incredible India = Inclusive India. Furthermore, she is taking up action oriented research projects on building regulations, right of way, inclusive pedestrian facilities and transit systems.

Anjlee is Co-founder and Executive Director of Samarthyam (www.samarthyam.org), a national civil society and research organization, involved in disseminating Accessibility Awareness through a novel model which primarily focuses on enabling inclusion

of persons with disabilities to access education, tourism, transportation and environment, devoid of any hindrance. She has been a recipient of several awards including the "Role Model-National Award", 2003 presented by Hon'ble President Dr. APJ Abdul Kalam; Social Act of Courage: Red & White Bravery Award 2005; Cavinkare Ability Mastery Award, 2005 and Karamveer Purskaar: National Awards for Social Justice and Citizen Action, 2009 for her constant efforts towards promotion of inclusive environments.



Nidhi Madan is a partner at LND studio, a landscape architecture; planning and design practice based in New Delhi, India. Educated at the School of Planning and Architecture, New Delhi and the University of Massachusetts, Amherst, degrees in architecture and landscape architecture have helped her hone her interests in the un-built environment –places and spaces, people and the environment, sustainability and accessibility. She has worked on projects ranging from residences to campus master plans to urban housing developments in the US, South America, Egypt and India. Nidhi is Project Director of Samarthyam, National Centre for Accessible Environments, where she provides design expertise and research guidance towards creating a barrier-free, universally-accessible urban environment. She is also a member of the American Society of Landscape Architects and the Council of Architects, India, has LEED accreditation and has been active in sustainable initiatives and emerging professional groups. Her work has also been published and presented at various forums including EcoCities seminars, TRANSED 2010 and other public planning forums in the US, Hong Kong and India.

UDIP: WHAT AND WHY, IT'S BENEFITS AND IMPACT

Anjlee Agarwal and Nidhi Madan

With over a billion people living in diverse conditions, working in a multitude of occupations across disparate socio-economic conditions, speaking different languages and dialects, following varied religions and customs, India is melting pot of multiplicity. Age and ability add to the diversity that the singular 'Indian' encompasses.

With growth in media influences, travel opportunities, globalized products and standardization of services, it becomes important to design for this diverse audience. Till now, marginalized groups including, but not limited to the disabled, were not catered to. The present reality, however, makes that a short-sighted. It reflects a neglect of basic human rights that our country's constitution entitles everyone to. For example, a wheelchair user requires a safe, continuous, even and direct, obstacle-free path to walk along the road; as does a person using crutches, or a blind person or an elderly one. Yet, most of our sidewalks have high curbs, no curb cuts, multiple hazards such as open drains, parked cars, uneven or broken pavements and sometimes no pavement at all.

A look at the demographics emphasizes this point. India has 21.9 million persons with disabilities (Census 2011) - one-third of the world's disabled population; half its blind population; and, the

second highest elderly population. Further, temporary conditions such as pregnancy, accidental injuries, health related disablements; persons carrying heavy loads and children are 'handicapped' by the built environment.

For example, the conventional round doorknob is difficult to grasp and turn by persons with hand and/or upper body impairments. That includes those with arthritis and persons with their hands full or soapy/dirty/oily. A lever handle on the other hand, can be operated without grasping and merely by applying a little pressure. This kind of handle not only benefits persons with limited dexterity; everyone can open the door with an elbow, forearm or back of the hand. This accessible fixture, commonly used across buildings of all kinds, is a reflection of Universal Design.



A round doorknob is difficult to grasp and turn



A lever handle can be used with limited dexterity

Approach

'Universal Design' is defined as the creation of buildings, products and services that are accessible to people regardless of their age and ability. Simple, intuitive, flexible designs, adaptable and replicable,

for persons of varying abilities, with adequate space are key considerations. The broad spectrum of users it caters to include persons with disabilities, senior citizens, persons with reduced mobility and veterans among others.

The vast disparities in culture, class, caste, religion, socio-economics, education and urban/ rural areas in India reflect greater diversity. In this context, the Universal Design India Principles (UDIP) contextualize and address India's regional requirements. They provide the framework for flexibility in design innovation with simple, effective guides that can be applied across disciplines - Equitable, Usable, Cultural, Economy and Aesthetics. There are two important aspects to UDIP- a strong connection to the Indian psyche and customization.

Universal Design is 'Design for All'

As a design approach, UDIP requires incorporating flexibility, adaptability and modularity to achieve best fit and mass customization for everyone. While all designs have a range of intended users, a universal approach aims to expand the user group to include the widest demographic possible. A case in point is the public toilet where there is a need to accommodate all users, including the disabled.

An accessible toilet stall in a public toilet block is appropriate for a wheelchair user. Its expanded layout, grab bars and supports can easily be used by this population demographic. Widening the user profile to include parents with young children requires facilities such as raised seating/tables. Here, parents may change nappies, keep

their bags/ multiple packages off the floor or seat their children while they use the facilities. For senior citizens, rest spaces are required; these can be used by paraplegics too, to transfer and/or change themselves. Easily reachable hooks, fittings and fixtures make it convenient for all users. Also, the larger space required for wheelchair maneuvering clearance can be used as a changing area- much required in the Indian context, wherein people tend to keep their work clothes separate from their street clothes. A woman who wears a western uniform at work may change into a sari before going home; the sari requires a clear, dry area to drape. Indian toilets tend to remain wet around the WC - in the accessible stall, a significant area is dry, with adequate room to drape the sari without being cramped, or fearful of soiling ones clothes.



Multi-use toilet

Alternatively, instead of providing accessible cubicles in both male and female toilets, there can be a unisex toilet (family toilet room).

This kind of toilet avoids any embarrassment when a man escorts his toddler daughter, a woman takes an older father or a wife escorts her severely disabled husband to the facilities. This washroom could meet the needs of people with a wide range of physical limitations. It also requires less space and expenditure.

Often accessible toilets built for the disabled, are kept locked, to ensure that they are used only by the disabled when required. When required for use, the keys tend to be missing and/or lack of constant use turns it into a storeroom or unusable space. The low frequency use perpetuates the perception that accessible toilets are not needed and this service is an additional cost burden. A multi-use toilet, based on UDIP principles, in its place would be more useful, offer wider benefits and produce a great deal of goodwill.

Expected Results- Benefits & Impact

Cultural Inclusion

Indians are pragmatic people whose needs are grounded in the reality of making things work and making their money go a long way. Our keen interest in durability and affordability makes things work well, last long and bring about cost savings. Culturally our diversity makes us unique, yet our influences are global. Simple, intuitive designs reduce apprehensions and promote familiarity and acceptance. These can go a long way in bridging the rural-urban/ class/ language divide in the use of new technology. Signage is an obvious example. A person unfamiliar with a language, short sighted or illiterate may not be able to identify a toilet, an emergency exit or directions indicated by signage if it is language based or has

colloquial references. A graphic, pictorial symbol on the other hand is universally understood.

Innovation

History has shown that addressing the needs of diverse users brings about design innovation. People experience products using multiple sensory cues. Not only do we see products, but feel them, smell them, hear the sounds they make, and sometimes even taste them. The design of the Indian rupee coins demonstrates how applied UDIP can make an essential commodity a visible success. Issued in 2001, the One Rupee coin, made of stainless steel was made wider and heavier than the 50 paisa coin. In 2002, the cupro-nickel Two Rupee coin with 11 sides was issued, followed by the heavier (double the weight of the One Rupee coin), thicker Five Rupee coin with ridged edges. Each was significantly different in shape, size, color, weight and appearance.

Herein lay the success of these coins- each one could be identified without looking at it based on their shape, weight and material. Not only did it help the visually impaired but others unfamiliar with the currency and in dark/ low light situations as well. This became more obvious with the changed Five and Two rupee coins. Both were made simpler, lighter and without the ridges and multiple sides that made them intuitive earlier. The new Five rupee coin in size, color and weight now resembles the other coins, with a thinner cross-section and light ridges. The new Two rupee coin is virtually indistinguishable from the One rupee coin; the numeric text too of lighter relief with no contrast. As a result, there is very little

difference between the newer One and Two Rupee coins, making them hard to differentiate.



One Rupee

New

**Ferritic Stainless Steel, 4.95 gms, 24.8mm dia
4.85 gm, 25mm dia**



Old

Ferritic Stainless Steel,



Two Rupee

New

**Ferritic Stainless Steel, 5.8gms, 26.75mm dia
26mm dia, eleven-sided**



Old

Cupro-Nickel, 6 gm,



Five Rupee

New

**Ferritic Stainless Steel, 6gms, 23mm dia
23mm dia, ridged sides**

**(Source:www.rbi.org.in/currency/museum/c-rep.html;
www.msymboll.totalh.com/asia_indian_rupee_coins.htm)**



Old

Cupro Nickel, 9 gm,

Besides small innovations that solve every day problems, there have been limited larger innovations in India that could bring about social change. This hinders participation by Indians with and without

disability in public life. In India, unique usage patterns will benefit from Universal Design research and innovation especially in public facilities and transportation.

Marketability

Universal Design India expands the reach of designs to be used in diverse conditions, increasing the marketability of products, environments and systems. A majority of designers implicitly assume users are like themselves - young and able-bodied. In the real world, users have diverse limitations, abilities and may experience a wide range of different circumstances.

An inclusive idea, UDIP will broaden markets through opportunities in social inclusion and gain new markets by reaching out to others. An example is the sari/ dhoti. The six yards of material offers numerous draping possibilities that reflect many cultural and social identities, and depending of body type, size and social practices allows mass customization to address regional and personal needs. At the same time, innovation of material, texture, colour and trends allow for variety and experimentation. New sari designs that allow showing off designs through many draping possibilities will increase marketability and open up new economic opportunities through social inclusion.

Cost -effectiveness

Market enlargement brings down costs through economy of scale. There is less duplication of facilities/service. The sari reflects how this same fabric can be acceptable to a large number of users due to its flexibility- it can also be made into other dress material at a later

stage with no impact to the manufacturer. Similarly, the wider benefit of a multi-use toilet, instead of a regular and disabled toilet separately, not only reduces costs but also the stigma of disability.

Equal Opportunity

Gender, class distinctions, educational background and disabilities greatly determines how one is able to use places, products and services. Lack of access in the built environment and transport infrastructure severely restrict educational opportunities for Persons with disabilities. As a result, they cannot find employment and are therefore dependent on others. Due to the overwhelming costs of care and lack of financial independence, a large majority therefore tends to remain poor. Creating enabling environments will help alleviate this cycle of dependency and create an inclusive space in our society for these persons. Universal Design creates equal opportunity for all users with greater and more equitable access for all. Increased educational and employment opportunities will bring additional people (with disabilities) into the workforce and help promote independence and economic growth among these and other marginalized persons and benefit all.

Conclusion

UDIP principles will help us, particularly the designers, see the Indian consumer (the common man) in his/her own context and determine through a series of investigations the choices they makes and how to create places, products and services to best meet their needs. They will bring about a paradigm shift in design education

and practice, help strategize design activity and move India towards social and economic inclusion.

It is the equal responsibility of all stakeholders to make available Universal Design in the built and external environment thereby providing equal opportunities to everyone in the society. An Inclusive Society, in which everyone can participate, will only happen if everyone is committed and plays their part.



Authors – Anjee Agarwal



Nidhi Madan

samarthyaindia@yahoo.com



Dr. Debkumar Chakrabarti is Professor at the IIT in Guwahati. A leading ergonomist, he has 30 years experience teaching ergonomics and design. Prof. Chakrabarti is the author of Indian Anthropometric dimensions for ergonomic design practice, published by the National Institute of Design, 1997. He has authored over 90 publications in journals, conferences proceedings, reports and books.

A former faculty of NID, he served as the Vice Chairman of Design Services and Research. His sponsored projects and consulting works cover over 20 different private and government sectors. He serves as an Examiner to Indian universities and is an invited speaker to conferences and a member in national committees. He holds administrative positions in professional bodies like the Bureau of Indian Standards, Department of Science and Technology, and Indian Society of Ergonomics.

Prof. Chakrabarti has organized the International Ergonomics Conference, December 2005 as well as three quality improvement programs for technical teachers sponsored by AICTE and MHRD. He

was the keynote speaker at the XXth Annual Conference of Physiological Society of India, and at the Physiology and Design Ergonomics in 2011.

UDIP and Ergonomics Perspective

Debkumar Chakrabarti

Introduction: Ergonomics and Inclusive Indian Design

Ergonomics principles work well with the basic philosophy of better design for people. People's needs mean to cover a specific target group of people (attended through exclusive approaches) as well as, a range of unspecified larger groups with varied levels and degrees of requirements to achieve a barrier free ambience (inclusive attempt to serve many). Five Universal Design India Principles (UDIP) and ergonomics criteria for design, mutually supports each other when concerned India comes as a common together and serves as an important platform to discuss design for all.

Indian design comprises the day-to-day life utility products as well as aesthetically appealing, thought provoking intellectual projections. Contemporary approach focuses on achieving both to meet the utility needs as well as emotional satisfaction of a large population. Today's design practiced in India and the formal design schools engaged in teaching new professionals have a heavy western influence. Recently a trend has emerged to relook into our needs and to find ways to meet these demands; the design thinkers in India are actively involved in making a balance between go-global business expansions and retaining Indian pride and unique identity in the Indian origin designs to suit the Indian requirements. With

India's gradual acceptance in the global market, this has become an important issue in academic, professional and business circles.

In many forums it is being discussed that for any innovation to succeed, it is necessary to meet the local needs, at the same time to accommodate diverse India with inclusive modular add-ons or culminating the required features in-built that would offer accessible to most. Another view is to promote products that fulfil specific requirements of target population, either from India or abroad, and accordingly their specific need design features should be considered. But the question arises how to serve design with the taste of utility comfort for all, to Indians and extended the same to others? UDIP and application of ergonomics offer the basic criteria; Indian designers need to observe and the outcome can be said "design for all". This will satisfy the Indian emotions and perception of newness; and be acceptable to all intended users from diverse background.

In order to cover large population of diverse India, five basic principles recently have been identified and these are (1) Equitable, (2) Usable, (3) Cultural appropriateness, (4) Economic and (5) Aesthetic perception of Indian. These are expected to serve as basic guiding principles for practice as well as to enrich the design education curriculum in India. Carefully framed curriculum gives direction to prospective students on what to follow next in design practice and as a design professional. They are the next generation to take over the lead in society, a society that looks forward to newness, innovation and use comfort for diverse users within its resources.

To make a design appreciable by its specific users groups and by society in general, ergonomics experiences of idea generation for such design concepts is necessary. Relevant context specific human information to be generated from likely to be users and relevant information providers and appropriate application of such information as design elements needs to be considered. To make a design acceptable, issues relevant to aesthetic functionality and trust factors in use are necessary to follow. The designs will be universally accepted and preferred if semiotic and inbuilt features communicate relevant information about its mode of use, ease of identifying and understanding of the product function.

Application of language script free usage of signs and universally (all in common or by a specific group of people) accepted standards are important aspects of cognitive perception. In this case, the design elements are filtered through common issues that relate diverse nature of Indians. Universality in design is also context specific. With add on features on the basic structure exclusive aspects imbibed within inclusive facilities provide scope for universality. Ideologically, it can be said that ergonomic design criteria and the newly conceived five UDIP have a strong matching and offer a promise for social inclusion through design.

UDIP and universality in practice

It is not clear how principles like the UDIP could help the development of timeless objects of great universal quality. This requires recognising their natural existences, utility value and practice that have led to their evolution, incremental development and presentation to be a perfect and time trusted man-made object.

Indian traditional *ghat* (which is also known as *kalas* or *lota*- the multi utility hollow spherical pot with a neck to make it a multipurpose utility item, and shape and size of it is such that to understand what it does, it requires no training or minimum learning effort; and its variations with add on features provide different utility) is an example of a product that has evolved over time and preferred through generation of use and practice.

This is an example of timeless existence of form and function that serves many individual needs and emotional satisfaction. It is not designed by any one. It is not also an outcome of any thoughtful process in practice today. The shape and form has evolved over time and it can be assumed that it has passed many interim steps as well as not-so-effective form explorations in the journey to useful perfection. Inspiration may be gathered with such things and from nature; such things must be identified and studied thoroughly. Design development should go along with the line of probable reasons behind the success and benefits thereby. As presented in UDIP, the universal design issues when applied along with the focus on human basic needs can produce excellent examples of design for all.

Human Centred Design and UDIP

Application of best scientific principles and appropriate technologies may generate a design best to deliver its intended function; still its user (man the prime system component) ultimately has to feel comfort while using it to qualify the same to be a good design. Here, in the present context, the man represents the Indians with all its

diversity. Design looks into aiding and facilitating human natural ability, and the means and methods of application of human information in such endeavour is the area of ergonomics to look after. Basically the product should be universally accepted and preferred; the universal range may be for all interested users irrespective of creed, culture and geographic location specific life style or to a specific group covering most of its requirements. The UDIP's five compiled principles are concerned with collective compatibility and with Indian issues to help with design, development and testing of social inclusive designs for Indian users.

Design Ensuring Newness and Trust Factors

Today we are concerned with fast pace development and the pressure to create products that reflect "newness". It is important to understand that we have assorted body sizes and limited mental capabilities to cope up with the rapid developments. The proportion and shape-size variations in design portray an identity as well as the purpose of utility. Design needs to maintain a balance among content, context and the users' information (facilities and limitations). Design must support the need for safety, accessibility, usability and inclusion of diverse body types and cultures to create a complete trust value.

To keep pace between the needs and future aspirations in design, the five basic universal design principles suitable for India serves as important design anchors. It may be achieved through establishing (1) usability, i.e., reliable, fault-proof and functional efficiency, and (2) pleasure-ability, i.e., looking into aesthetic perception of the users, here covering various sections of the Indian population, as

much as possible. The design should be attractive to appreciate and feel good to possess. It should carry fear-free use mode and be transparent about its usefulness through inbuilt features and specifications. Its appropriate application in design should ensure safe, instinctive operation suitable to all types of users; (minimum specialised features else will be exclusive and require training) and joy in use. The design for Indian masses using the five UDIPs will be inclusive and instil confidence, pride and trust.

Conclusion: UDIP and Inclusiveness

New trends seem to cater items for common use as family requirements, covering male-female, elderly and children. The question arises how to satisfy the variations in a single approach with physical requirement, socio-cultural issues as diverse backgrounds; can products be designed with unisex approach so that the family with all members can use? In this regard aesthetics, functionality and reliability are relevant context specific operational issues and must be considered. Newly framed five principles applicable for India as basic universal design principles intended to offer an inclusive approach to designing for the Indian people.

Design practitioners and design educators and other design relevant domain experts must keep the UDIP principles in mind when talking about design for Indians. These principles provide a concise framework to accommodate diverse Indian needs to satisfy design for all with dignity.



Author - Debkumar Chakrabarti
dc@iitg.ernet.in



Gaurav Raheja

An Assistant Professor in the Department of Architecture & Planning and Institute Architect at the prestigious Indian Institute of Technology Roorkee, Dr. Gaurav Raheja has greatly contributed to design research in the domain of accessibility planning and universal design.

His doctoral research offers insight into designing rural built environments with a Universal Design approach towards making lives more inclusive. As a strong proponent of inclusion, his research work sheds light towards improving performance of Activities of Daily Living by mobility impaired individuals in rural Indian environments through affordable, indigenous and contextual design solutions.

He is a recipient of the UNIVERSAL DESIGN AWARD, 2010 conferred by the National Centre for Promotion and Employment of Disabled People [NCPEDP], New Delhi. Identified as an Expert by the Ministry of Social Justice and Empowerment in the area of Designing Barrier

Free Environments, he has conducted several workshops and lectures at various National forums. He has been nominated by the Ministry of Urban Development in the committee to review Indian accessibility standards and guidelines in addition to being an invited guest speaker and design jury at various national institutions.

Dr. Raheja has authored over 15 research papers in books, journals & conferences and has pioneered design and retrofitting of IIT Roorkee campus buildings to make them accessible for persons with disabilities. He passionately pursues design research, teaching, consulting and photography as his areas of keen interest.

UNIVERSAL DESIGN INDIA ENVELOPE - *The Scope of its Implementation*

Gaurav Raheja

Universal Design India is an emergence of a theory that endeavours to address Indian design issues from a perspective of *Inclusion for all*. The five principles so derived (viz. equity, usability, cultural appropriateness, economic and aesthetics) are aimed at unifying Indian design forms with a core essence to envelope the widest possible range of human diversity that dwells on this subcontinent. At the root of this is the belief that national progress in the new millennium cannot happen without taking the weakest links of the human populace together. This includes persons with disabilities, children/infants, elderly populations and reiterates to be see them as a human resource and make efforts to provide them inclusion in all spheres of life. Universal design India in this context emphasizes to celebrate the meaningful coexistence of diversity.

Design in India is much more than a statement of fashion or a movement of style. Indian designs can be seen from varied perspectives of social layers wherein these designs could become entities of strong social connect beyond their functional use. At the grass root level of rural India, design is a way of life where people design for themselves at one level of fulfillment of their basic needs and at the other level adapt to the available variety of designs/systems which are either indigenously produced or brought from outside. In the urban context, India has been on the upward

consumerist trend of hi-tech products and systems coexisting with some of the past innovations.

UDIP makes a strong case to formally provide a theoretical foundation to this Indian essence which has layers of interpretation and thus diversity of possible applications. This paper focuses on viewing through the Indian spectacle, discuss and evolve a think tank of possible areas of implementing the Universal Design India Principles.

THE INDIAN SPECTACLE / VIEWING INDIA

Essentially a land of pluralism with a rich heritage and eternal talent, India is a land of many faiths linked with a single thread. As viewed from multiple standpoints, it has a freshness of diverse social groups and cultural flavours that weave a unique tapestry of coexistence beyond imagination. The range of life forms here exhibit a very diverse pattern of public engagements. From the rich traditions of agricultural engagements in the villages(rural settlements) to the luxury of aristocracy as evident in hi-tech built forms of the corporate conglomerates, India rests on the shoulders of the economically classified middle class and the cheap labour that toils hard to eke out their livelihoods. Amidst these diverse living patterns of today's open economy and the winds of globalization, India has experienced a shift in the contemporary lifestyles and thinking.

With an available exposure and to achieve competence in the near future, India needs to orient itself to a set of new challenges and

value the greatest human resource as a strong asset that is available. Universal Design India seeks to propagate, support and devise a new vision for the same India to tread into a new epoch taking everyone along.

UNIVERSAL DESIGN INDIA PRINCIPLES

The UDI Principles in conception advance the theory of Universal Design as originated in the US. It raises a series of questions in the Indian context, for eg.

- 1.) *How could design help in inclusion?*
- 2.) *What are the key gaps in the current Indian designs?*
- 3.) *What could be the possible areas of design interventions for inclusion?*
- 4.) *How could design and Indian culture be taken forward together in the new millenium?*
- 5.) *What strategies could be designed to take Indian design towards inclusion?*

Evolved with an insight to address a whole range of questions and to strengthen the existing designs the five UDI principles i.e 1.) equitable (*saman*), 2.) usable (*saral*), 3.) cultural appropriateness (*sanskritik*), 4.) economic (*sasta*), 5.) aesthetics (*sundar*) are a beginning point for the Indian designs to look onward and not be assumed as an end. They have a wide scope of theoretical development and practical implementation tailored to the Indian context.

ACCESS TO BUILT ENVIRONMENTS

Access is a means to reach, to use and to feel safe in a place meant for an intended activity. Equity in participation to life is the purpose that gets fulfilled through accessibility in the physical and social environment. A built environment in its physical sense is a reflection of the socioeconomic, socio cultural and socio political thinking of the space with a range of barriers and facilitators that deny or allow access. Contemporary India needs to address at priority an equitable access to its public institutions and infrastructure in order to provide for an inclusive participation to happen.

Accessibility in an Indian rural or urban slum context becomes critically important especially to persons with disabilities, children, elderly and others who are marginalized by their dependence(temporary or permanent) for carrying out the basic activities of daily living. India is widespread in its physical and social context. Designing for access to include for such a vast expanse of infrastructure is all the more challenging with a large number of built forms requiring a retrofit to be made accessible. The urban and the rural lives further need to be linked through a efficient and accessible transport systems. In the process of their designs and implementations, UDIP could offer a strong backbone to the creation of such inclusive environments.

Realizing the importance of accessibility in an individual and community scope of inclusion, it would be appropriate to also highlight the good exemplars that India has put forth as steps to inclusion through access. Dilli Haat (*Photo 1 &2*) as a public space in

the Indian capital brings an inclusive experience of recreation and shopping through an Indian craft bazaar (market) within an affordable range of Indian society. The development of Delhi Metro Rail system (*Photo 3*) and the Bus Rapid Transit System (BRTS) in Delhi are two other examples of an accessible transport system which includes a wide range of economic and social diversity. The success of the same is revealed through its daily increasing ridership. Universal Design India principles as a deduced form of knowledge/theory finds its relevance in the above examples and should therefore could be used as a meaningful guiding tool for creating more such exemplars of access in the Indian built environments.



Photo 1 Accessible Meeting Room at Dilli



Photo 2 Accessible outdoor eating places at Dilli Haat

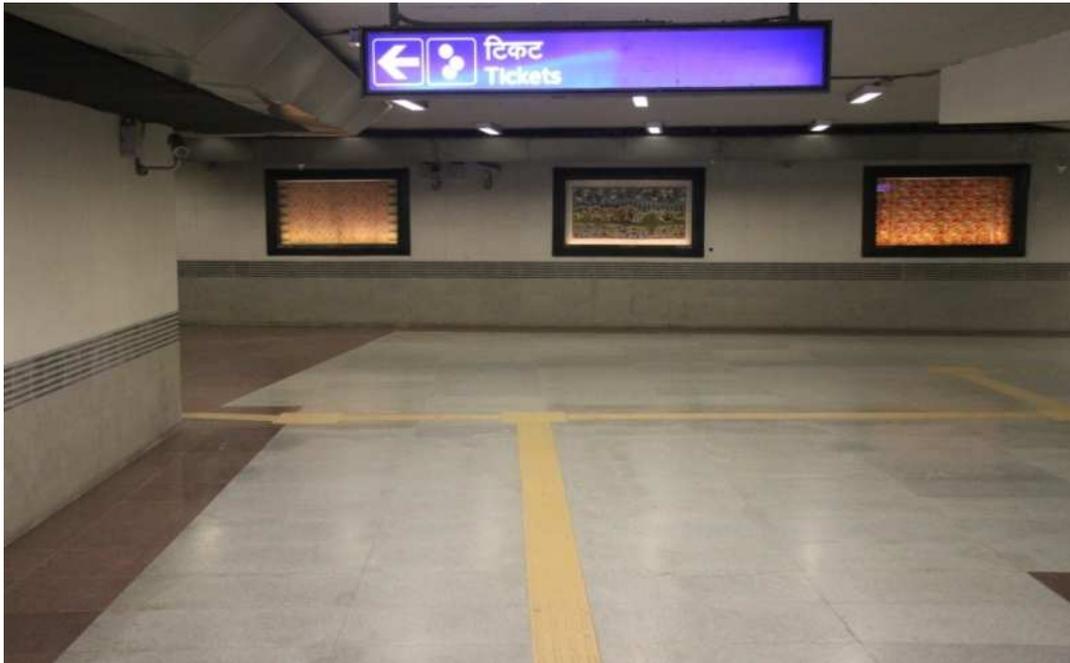


Photo 3 Tactile tiles for guiding the vision impaired at a Delhi Metro Rail Station

Some of the relevant domains of implementing Universal Design India Principles in the built environments could be in

- 1.) *Designing adaptive housing societies with an inbuilt flexibility to accommodate the needs of persons with disabilities, elderly and other forms of human diversity.***
- 2.) *Improving and creating legible designs for Transport Terminals and Streetscapes***
- 3.) *Retrofit the existing public infrastructure to meet the needs of persons with disabilities, elderly and others with restricted body functions.***
- 4.) *Create meaningful, accessible social spaces facilitating inclusion through socialization.***

PRODUCT DESIGNS

The socio cultural order of India is well addressed by an all inclusive example of its dress-forms viz. *Saree* for the females and *Dhoti* for the males. These dress forms are available in a wide range of economic, aesthetic tastes suiting the diverse Indian cultural contexts. These dress forms owe their origins to the traditional roots and yet find a great relevance in the present living forms. Based on the principles of high flexibility and adaptiveness to a wide range of human dimensions, saree and dhoti also present themselves as cultural symbols of the Indian society.

Inspirations from such Indian precedents form the basis of Universal Design Indian Principles, which need to now be extended to other product forms. Be it kitchen utensils to ways of eating, dressing, communicating, expressing and living as a whole, products are the extensions of human society which become a means to the performance of a diverse functions. In the light of an Indian perspective, UDIP could be used as an inception, intervention and an evaluative tool for a variety of product developments in the following domains:

- 1.) Development of appropriate Assistive Technology in the Indian context remains a vastly challenged domain for Indian product developments since most western assistive designs do not appropriately fit into Indian situations within the given socio economic context. One such domain for UDIP would be to develop a suitable mobility device for the lower limb impaired individuals in the rural contexts where wheelchairs remain a huge misfit. (Photo 4)*



Photo 4 Indian Low Floor/Ground Mobility Device developed by NID, Ahmedabad

- 2.) As a tool to evaluate current product designs and help the boundary push to enlarge its domain of reach. For eg. Cycle rickshaw is an indigenously used transit system for covering short travel distances in a daily urban/rural life. While there have been several efforts in improving its ergonomic and mechanical design properties, it would be appropriate to evolve designs to make it widely adaptable to elderly, ladies with children etc. in diverse regional contexts.**
- 3.) Towards identifying new needs and functions in the Indian context through necessary interventions for development of inclusive product forms. For eg. Design of a personal car like Tata Nano or an earlier example of Bajaj scooter were true representative designs of automobile(products) within the reach of an average Indian. Further design interventions are needed to review to look into creating more adaptive options for a wide range of users which still remain excluded from several product domains.**
- 4.) Assistance in extrapolating user needs and creating futuristic design concepts which are efficient in use and semantically contextual. For eg. Development of indigenous**

technology and product forms for ease in transfer to Indian railway coaches or an adaptable toilet design for Indian train coaches or a design of light weight portable sanitation systems for rural environments.

5.) Guide the development of appropriate technology and its use for achieving the goal of inclusion.

Product forms in the traditional Indian context had a great symbolic value beyond their basic function, for eg. *Lota* as a product for storing water is available in a wide range of sizes and materials starting from terracotta to steel to bronze and now in plastic. As a form subjected to various usages, it had strong contextual connections of its use ranging from drinking water, washing hands to offering prayers. to be still continued as a product form. UDIP value this quality of timeless forms and association to the larger context of its use through the principle of cultural appropriateness (*saanskritik*).

The intervention of UDIP in the existing product forms to its directed push in creating new product forms can go a long way in bridging the cultural past with an easy to use technology in the future. UDIP awaits such deliberations while staying as a stable background to newer product evolutions.

COMMUNICATION DESIGN

Communication design has a vital role to play in this information age. As an inseparable field of design, it could not only be strongly used for social awareness programmes but also could empower the idea of reaching down to the widest possible social range with great ease. From the beginning of the day with newspaper to a school text

book and visuals in the built environment, the domain of communication design extends into our living rooms through televisions and now in compact forms of human computer interface through mobiles. While it is difficult to comprehend a large domain of applications of communication design, it is important to understand that by whatever means and to whoever concerned, communication must happen to bridge the widest social extremes.

In the built environments, a well guided signage system with a handy information of accessible spaces in a tourist destination are some of the smallest ventures to improve legibility of Indian contexts. This needs to be further strengthened by the technology support to make greater choices available for inclusion. The role of UDIP in the world of communication design is to value illustrations like the age old Indian art of transferring complex messages through simplified narratives (story telling). UDIP poses a challenge to the creative instincts of those involved in the world of communication design to

- 1.) *Create simpler interfaces of hi-tech products so as to be acceptable and usable by a large segment of Indian demography.***
- 2.) *Provide greater options of linguistic conversions for facilitating better communication in transfer of social messages.***
- 3.) *Enhance wayfinding systems of Railway Stations, Bus shelters/terminus and other public transport systems.***
- 4.) *Document the good exemplars of adaptive designs and strategies and publicize them for wider applications.***

Possibility of booking rail tickets sitting at home, depositing bills through internet, graphically animated communication tools for education, e-governance, development of Unique Identification Number (UID) are some of the examples of already in use and ongoing applications of communication design systems in the Indian context. It is without any doubt that these ideas have gone a long way in breaking social barriers through the use of technology with a sensitized communication design. Development of films in the Indian cinema on social issues, disabilities (*Taare Zameen Par, Black, Paa* etc.) have reached out to masses with a strong social impact. Its relevance and power cannot be ignored in a country on the threshold of social and political changes. UDIP holds the key to push forward these success stories of communication design and also a key to filter out designs that exclude, discriminate and are opposed to the idea of inclusion. Removing social barriers could then come within reach and seem achievable.

CONCLUSION

Traditional wisdom of the Indian roots coupled with advances in the contemporary knowledge, design research must create newer avenues of its contribution and reach to facilitate the idea of inclusion for all. Universal Design India Principles can aid the policy making process wherever inclusion as a goal is expected. Supported by an accessible institutional infrastructure coupled with sensitized individuals, the education sector could possibly be the earliest initiations towards the goal of inclusion.

Universal design entails the idea of celebrating universality of existence without discrimination. When the world today appears to be one (seamless) global village, India also needs to adapt to this

global phenomenon without compromising its own cultural precedents. This may result in the evolution and establishment of new forms, new dialogues, newer possibilities and a new structure. As a result, the new millennium has stretched beyond the needs of sheer existence of human life to living with dignity, equitability. UDIP, through its inception values this change of evolving a rights based society in the Indian context. With its core belief of unifying through inclusion, it submits itself as a guiding lighthouse to this phase of Indian transformation into the future through mobilizing greater access, affordable designs with better efficiency and use, appropriateness to the Indian context and preserving the cultural ethos of each individual. UDIP ideates this linkage which shall form the key to its implementation in the vast range of application areas including built environment, product/systems design, communication designs, education, research and policy matters. UDIP holds the key to empower human life in this land of heritage.



Author - Gaurav Raheja

Email: gr.iitr@gmail.com



Dr. Haimanti Banerji is currently working as Assistant Professor in the Department of Architecture and Regional Planning, Indian Institute of Technology, Kharagpur. She completed her graduation in Architecture from Bengal Engineering College, Shibpur in 2002 and subsequently obtained her Master degree in City Planning and PhD from IIT Kharagpur in 2004 and 2007 respectively. After that she had worked in private housing sector for three years.

Dr. Banerji had completed her PhD dissertation on delineating A Psycho – Stimulating Environment for Physically Disabled People with Impaired Mobility (PDIM). The study area chosen was Indian Railway Stations. During her research, she had worked very closely with patients coming for treatment in National Institute of Orthopedically Handicapped in order to understand their problems and priorities. Her main interest had been to identify and remove the various psychological and attitudinal barriers within the built environment to enable productive inclusion of people with disability in the society.

Presently Dr. Banerji is connected on advisory role with Sruti Disability, a Kolkata based NGO, on attitudinal problems of the staff within the buses in the city.

Her other research interest include Behavioral Architecture, Ergonomics and Product Design, Medicare Planning, Settlement System Planning and Urban Design. She is primarily concerned with the urban design issues for vertical and horizontal urban planes with respect to easy perception and navigation in universal mode.

Dr. Banerji has a number of research papers in national and international journals. As part of her professional consultancy work, Haimanti is involved in the preparation of Zonal development plan for Bhubanewar Development Area along with other members of IIT planning team.

Practical Application of Universal Design India Principles: An Evaluation

Dr. Haimanti Banerji

Introduction

Universal design is a theory that helps design products, system or spaces in such a way that it caters to diverse users, including children, disabled and elderly people equally. Universal Design India Principles (UDIP) not only tries to understand the diversities of Indians but also tries to inform designers about certain design norms. By the word 'principle', it means "what to do"; and a set of Guidelines associated with each principles lists action points or "how to achieve" the goals set in the principles. Now, the question that may arise that is this attempt to "make a difference by inclusion" a realistic approach or not? Can these principles and the associated guidelines which have been developed after thorough research make a difference outside academia? Contrary to many of the views, the answer is yes. The utility of principles can be fully realized if they can be used as an evaluative tool for Indian designs. This paper tries to demonstrate some of the impacts that UDIP can have in the field of product design.

Background of UDIP

Universal design is not really a new style or a movement in design. It is a design approach, which addresses an increasingly felt human need. Universal design is also referred often as "Design for All" or "Inclusive Design" and it is clearly different from "Design for the Disabled" or "Exclusive Design or Design for Special Needs". The

idea of Universal Design has been developed in recent years by a group of architects and designers who believed that people with disabilities and older people should not be segregated from the rest of the society but integrated with it through the physical environment. That is all products and services should be usable by all the groups equally regardless of ability. It advocates that everybody is different and there is no “average” person.

There are seven Universal Design Principles namely (i) equitable use, (ii) flexibility in use, (iii) simple and intuitive use, (iv) perceptible information, (v) tolerance for error, (vi) low physical effort, (vii) size and space for approach and use. These have been formulated by a group of experts including Architects, Engineers and Product Designers and the copy right belong to The Centre for Universal Design, North Carolina South University. It accommodates the specific needs of the elderly, people with obesity, those who are very tall or very short including children, pregnant women and people with various functional limitations, which tend to have been traditionally ignored.

The UDI principles are five in number and these are (i) equitable (*saman*), (ii) usable (*saral*), (iii) cultural appropriateness (*sanskritik*), (iv) economic (*sasta*), (v) aesthetics (*sundar*). These are standalone universal design ideologies that focus in Indianness and inclusivity as they relate to age, gender, disability, caste, class, religion, poverty and urban/rural background. UDI principles neither make any connection nor build on the 7 Universal Design Principles. They recognize the overarching importance 7 Principles in the field of universal design. In India, universal design is often seen synonymous to accessible design, and these principles attempts to

differentiate them clearly and define them well for the Indian context.

Scope of Practical Application of UDIP

The real-world impact of a particular piece of research undoubtedly depends on many factors, of which, some large proportion may lie entirely outside the researcher's control. These principles and guidelines have scope for application in the following ways:

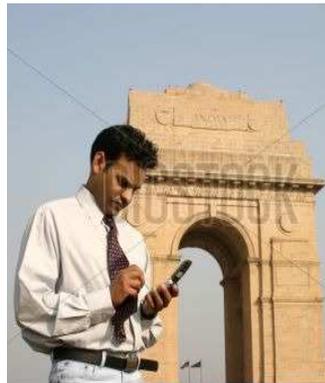
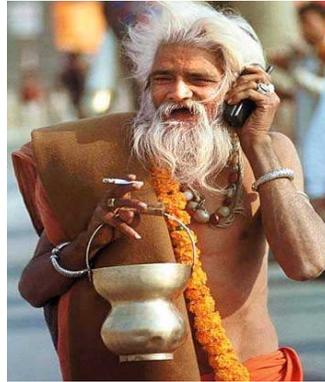
- *As a guideline for new design of products, vehicles and buildings*
- *As a set of evaluative tools for all designers and manufacturers.*

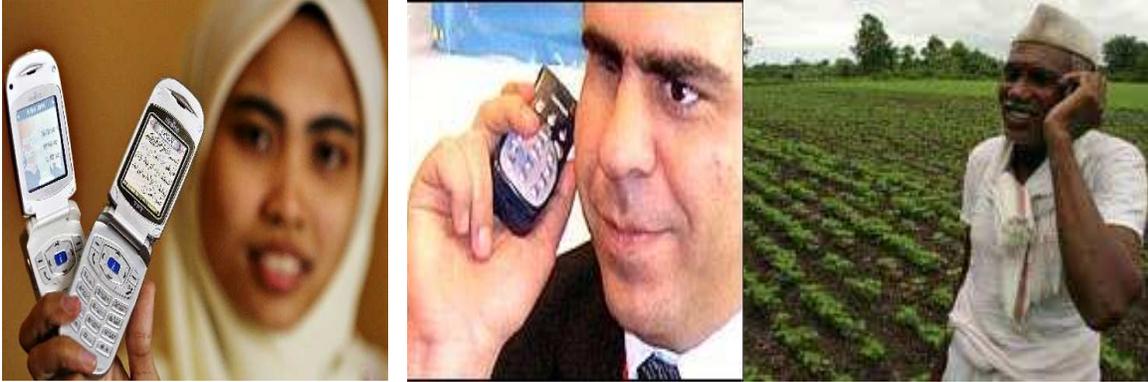
The success of practical application of any research finding is directly correlated to selection of independent variables that decision makers and designers can control and dependent variables that decision makers and designers care about. In the next section, the author tries to demonstrate the utility of these principles taking an example from the field of product design. The benefit or impact of these principles on people will also be discussed.

3.1 Product Design

The author tries to explain the scope of application of these principles with the help of a very common item which is used by a diverse range of people belonging to various socio – economic groups, gender and different physical and mental ability. Mobile phone is a gadget which has a very large user group and the manufacturers need to understand strategies to make their product more user-friendly. This will have a two – fold benefit – (i) make the product

more popular amongst existing users as compared to other competitive brands in the market and (ii) increase the target group and make it reachable to everyone.





In this context, the author would like to refer to some principles of Ergonomics which have profound influence on product design. These are (i) physical aspects of user machine interface like size, shape, colour, texture, methods of operation, display and controls (ii) cognitive aspects of user machine interface like information style whether directive, informative or instructive, (iii) work space layout and design – relationship between different components of equipment and users, (iv) physical environment which includes effect of climate, noise, vibration, illumination etc. and (v) psychological factors i.e. acceptance of a new technology, satisfaction after successful completion of a task or ease of performance of the same.

Following are a set of design guidelines for manufacturers / designers of a mobile phone derived out of the five UDIP.

Equitable (*saman*):

The design is fair and non-discriminating to diverse users in Indian context.

- *To launch sets which will be usable by all users irrespective of their physical and mental abilities like – the key pads may be***

customized to suite both left hand and right hand use, the size of the number pads be made such that it is legible to all.

- *To consider different capabilities of users and build in many levels of engagement. The level of complexity may be controlled so that some features may be activated if required so that first - time users do not get confused and feel comfortable.*
- *To have some scope for customization through inclusion of adjustable and adaptable options. These would include changing the fascia to suit individual sense of aesthetics, the functioning of various buttons according to priority of the specific user, addition of a hearing aid for people with impaired hearing etc.*

Usable (saral):

The design is operable by all users in Indian context.

- *To design the sets ensuring a proper ergonomic grip so that they can be used comfortably.*
- *To have provisions for including adaptations for those experiencing difficulty in use. This may be having scope to add an external key pad with Braille facilities or with larger buttons. This would facilitate access, operation and convenience by diverse users.*
- *To provide clarity in use, operation and maintenance to minimize instruction and avoid confusion and error. This could be achieved by using colour and shape coding while designing various control buttons like a green button for accepting and a red button for rejecting a call.*
- *To adopt simple means to overcome complex operation like speed dials for dialing frequently used numbers.*

- *To follow cultural norms for addressing user expectations. This might require different appearance of sets for rural and urban areas.*
- *To offer multi-sensory feedback to point in the right direction. This may be achieved through linking the control mechanism with display so that if any wrong button is being pressed, there is a spontaneous error message along with instruction to recover from the mistake made.*
- *To innate understanding of problem through error or warning messages along with some noticeable changes like a light may be blinking when the battery is low or when there is no signal.*
- *To prevent costly mistakes and untended consequence from misuse. A good example is the instruction to unplug the charger once the set is fully charged. This not only saves electricity but helps in protecting the battery.*

Cultural Appropriateness (*sanskritik upoyogita*):

The design respects the cultural past and the changing present assist all users in Indian context

- *To maintain social and traditional qualities in design – like some people who might not be very gadget friendly specially aged people may prefer a bigger hand set which would help them to establish some connection in look and usage pattern with the conventional set of a land line and they would feel more comfortable.*
- *To include Indian idioms to make historic and social connection for example the use of a traditional ringing tone of a landline phone as a ringtone.*

- *To provide scope to read and write message in vernacular languages for inclusive comprehension.*
- *To ensure that designers should not reflect any inclination or bias towards any religion while designing or naming a product or a series.*
- *To respond to local context and conditions by providing hardy sets for rural areas, where rough handling is anticipated.*
- *To employ appropriate technology to match user expectations – like in the rural areas, additional features like a FM radio might be more popular than activating some kind of navigational aid or a camera*

Aesthetics (*sundar*):

The design employs aesthetic to promote social integration among users in Indian context

- *To employ aesthetic to enhance universal appeal and use. The sets should offer a choice of colour, choice of shape and also choice of various accessories. This is a process of personalizing aesthetics through flexibility, adaptability and modularity of color, form, texture and interaction.*
- *To bridge the gaps between meaning and comprehension is required.*

Economics (*sasta*):

Design respects affordability and cost considerations for diverse users in Indian context

- *Indian customers believe in value for money and also longer life cycle of products hence, it is important to ensure affordability, durability and maintainability. It is a very common practice that a mobile set which is rejected by a younger member of the family on*

account of being out of fashion, is being gladly accepted by some aged member of the same family.

- *To use local materials for energy savings and cost effectiveness.*
- *To focus on low unit cost through wide distribution.*
- *To adopt modular approach to offer choice in features and price range. The manufacturers should offer schemes like beyond the basic facilities, at the same price people may choose the additional feature they want i.e. camera, or radio or some navigational aid etc.*

Conclusion

As per 2011 census, India has around 2.19 crores of people who are disabled. UDIP is important to the country as it aims to build an equitable environment which will enable all to participate productively in the society. Indian design strategy has changed as an impact of globalization. In earlier times in India, the craftsmen were the designers. But, now it is time to interpret traditional design in the contemporary language to make it distinctive. The UDIP will be quite effective in this regard since these principles primarily focus to ensure usability, to make design equitable and democratic, to reflect the country's cultural heritage and to make design economic.



Author - Haimanti Banerji

haimanti@arp.iitkgp.ernet.in



Prof. V Ravishankar is a senior faculty member with the National Institute of Design, Bangalore Campus. He has over 20 years of professional work experience practicing and teaching design. His present core areas of work, passion and teaching are design fundamentals & thinking, Universal Design related to products & spaces, Retail & Packaging design and design development for the indigenous Indian craft sector. At NID he is presently working on curriculum development of a proposed Post Graduate Program in Universal Design jointly with the University of Applied Sciences, Germany.

What Does Universal Design Mean in India

Prof V Ravishankar

India where there is excess of everything, a mindset of living in the present future, indifferent behaviors, and uncomplaining adaptability to populous man made environment, thinking universal design is complex.

'Birth by accident not by choice' – 10th Standard CBSE, Civics text book begins with this line. Jeffery Archer, the novelist underlined life by titling, 'Prisoner of Birth'. We as Indians live this reality and is ingrained in us the fatalistic ideal. Somewhere we never followed Gandhi, the Pragmatist and went another way.

West is pragmatic. They took up Universal Design as essential for better future, better quality and better performance: America after the Vietnam wars; Germany (Europe) and Japan, growing elderly population, this for a sustainable (economic) need of their societies. West have been there, done that and is now looking at the future.

For Indians, future is destiny, most of interior India lives in the present.

So let us make the present more livable and be pragmatic.

We have always followed the west in design, engineering, management, etc. Never looked at the 'Indian' (mind, behavior,

comfort) really! It was always a marketing driven design development aiming only at aspirations and not really the value.

It is time for design in India to revisit what is important, rediscover important social and human needs and provide solutions for Indian problems in a universal way. Address the immediate issues such as rural migration to urban, differently literate nos., inclusion of the largest disabled population, technology driven product and services penetration in all sectors, increased semi skilled youth population, and affordability.

From inception, the intent of design schools in India has been to train designers to address social and economic needs of Indian people, through awareness in micro and small scale industry. Design education in India, which began with a Western educational model, never develop an India persona. Over the years with changing economic patterns and market trends the deliverables got modified more for the corporate industry which focused more on popular culture driven market discriminators such as form, styling, looks, etc. from the designers.

The initial intent continued though in the traditional sector of crafts and textiles, the much needed user driven design intervention in day to day utilities, communication, work spaces, etc remained less realized. A shift in thinking from a market need to a social need driven business approach in defining product/service design will set in an environment of sustainable future for the Indian. This would make business sense too for global and Indian enterprise as India is the future market.

Today with the IT industry growth, energetic manufacturing sector and India centric global view becoming evident, the business and design stakeholders in industry and the Government are inclined to adopting an Indian approach to especially in information technology products and feel important to contextualize and localize the design of products and services for the Indian people. The localized model is very encouraging and by offering customizable products and services would pave way for universal design thinking in India.

When I talk to people about Universal Design... here are *the questions I have encountered and the answers I have for them:*

Q: It is Idealist

A: It is good to be idealist in inception to achieve a solution which is close to it.

Q: Will it work in India

A: Everything works in India

Q: You cannot bring any change in this country

A: UD is about bringing Incremental Change

Q: Is UD for disabled people

A: : UD is about social inclusion through design. It is as much about people with disabilities as it is about those without

Q: Can it be applied to all products

A: At the moment most products and environments are missing out on 50% of intended users many of them are older people, women, children, tall people, short people and the disabled. Universal design compels questioning the intended users before embarking on the design process.

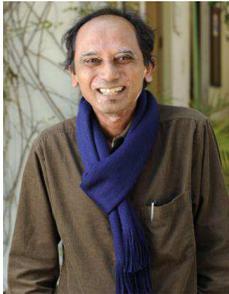
Q: How does Business benefit from UD

A: From meaningful discriminators and value to customers

A human centric approach, universal design as I envisage would broadly cover two aspects: One, the lifespan which covers all the aspects of human biological growth and circumstantial variances in the man-made environment from childhood to youth, middle and old age of gender, and two, the differently born, their engagement with the manmade world. When one examines the adjustments users make to their immediate world, the misfit between them and the activities from objects they interact with, and spaces they reside and move through becomes very clear. This approach to careful observation and identifying inconveniences is the first phase of understanding user diversity and need to focus on universal design way of problem solving for all users.

To give an example, the other day, while driving to work my colleague very simply asked me, what is universal design? We were then at a traffic signal, I pointed her to a middle aged couple on a motor cycle where a slightly heavy built lady in a slippery synthetic sari was sitting side ways, precariously on the bike and said, " This bike design has not considered nearly 40% of its users. The sari guard is an afterthought was considered at conception. This is universal design to put it simply ". The bike was visualized and designed for young men, not considering use in India and by couples and people of all ages. It can still be designed to be desirable and sexy for the young as well as for the missed 40% by addressing the needs of all intended users. This is one of the many common problems in India that can be addressed through universal design.

Today it is 'fitting to the existing', that is people adapting, accommodating, forgiving, uncomplaining about existing environments regardless of the mismatch between people and the environment. Looking at the future, the scenario - populous congested spaces, literacy variance, migration, lifespan health, half the population that is going to live in urban areas, technology penetration, calls for universal design approach and practice towards products, spaces and services to make them comprehensible and usable in a localized cultural context for better 'performance' by all. In design education today, therefore, there is a need to train students in "design in diversity" who will introduce universal design thinking and monitor universal design practices in industry with expertise and sensitivity to user diversity, and design choices.



Prof. V Ravishankar
ravi_s@nid.edu



Author - Shivani Gupta
shivani@accessability.co.in

Shivani Gupta, Director AccessAbility is a pioneer in promoting physical accessibility for all that she became involved with post a UN-ESCAP training in Non Handicapping Environments in 2000. Recognizing the dearth of professional persons working in the field she decided to devote her life to this and educate herself further. She holds a Diploma in Architecture Technology and a MSc in Inclusive Environments from the University of Reading, UK. With a first-hand experience of disability today under Shivani's leadership AccessAbility is the most recognized Access Consultancy in the country, with elite clients such as the ITC Hotels, Park Hotels, Indian School of Business etc. AccessAbility is also partnering with the National Centre for the Promotion of Employment for Disabled People for awarding the NCEPDP-Mphasis Universal Design Award given to individuals and organisations who have done exemplary work in Universal Design

Shivani has co-authored several books published by the Government on the issue that are used by architects and designers. She is regularly invited to be a part of committees setup for promoting accessibility by the Government. She has organized and been invited for numerous training programmes and talks for raising awareness about the issue.

Shivani is a recipient of several prestigious awards such as the National Award, Neerja Bhanot Award for her work just naming a few.

The Role of UDIP in Policy Design

Shivani Gupta

Introduction

The Oxford English Dictionary describes a policy as a 'course of action adopted and pursued by a government, party, rulers, statesman, and so on... any course of action adopted as advantageous or expedient.' Designing a policy would involve the laying down of plan by following logical steps towards planned conclusion.

Policies are extremely important for each of us. They determine the quality of the air we breathe, the water we drink and the food we eat. It affects health and safety, how we travel and where we work. It defines our living conditions. Policy in many ways molds the society we live and influences virtually every aspect of our lives. Therefore social inclusion through universality of policy must be considered as an important aspect for the success of any policy.

UDIP and Policy Design Connections

There may be several steps that are followed while framing a policy. Applying the five Universal Design India Principles to policy designing will ensure that all aspects of stakeholders have been addressed in the design, development and application of the policy.

Here are five important steps from the UDIP to employ when developing policies that will likely to impact diverse users:

- a. ***Deciding on the objective and identifying the appropriate target (Equitable)*** - *The selection of objectives is derived from priorities and necessities set at the political level. These objects may be rooted in the political manifesto, inter-governmental agreements, international directives as well as codes, conventions and regulations.*

It is important that the *principle of Equitability* is considered at the time deciding the objectives. Equality must be at the core of the policy designing process especially while identifying and prioritizing objectives of the policy. It is important that the objectives of the policy must provide equality in challenge and opportunities it provides to its stakeholders and does not discriminate against people of all ages, gender, disability, sizes, caste, class and religion.

The target group may be identified as a result of a legislative or political commitment, international commitment or on the bases of national priorities. The United Nations Convention for the Rights of Persons with Disabilities (UNCRPD) required India to review its existing policies to be equitable to disabled people and address their needs for inclusion. Again while reviewing or formulating new policies for inclusion of disabled people, it is important to ensure that it is equitable across all disability type.

Take for example the *Pedestrian Policy for Delhi*, the policy legislates fining all pedestrians who walk on the road and not the pavement, as the road are presently unsafe walking environment. Considering that the Indian pavement design is *a-contextual (does not take into consideration the needs of the pedestrians, hawkers and bystanders)*, and the current design is never enforced, the pavements are inaccessible for most disabled people. As a result, they have no option but to walk on the side of the road. One can easily deduce that at the time of identifying the target group, the policy makers did not think of pedestrians with disabilities. The policy that was thus formulated was discriminatory towards disabled people as their mobility and safety as pedestrians was jeopardized. The current policy is inequitable towards people with disabilities and puts them in a position of hardship and at a risk that others are not subjected to. Such policies are likely to fail as the fundamental objective of equal treatment to all stakeholders was neither observed nor practiced. Same is the case in railway stations, where people with disability are often forced to cross the tracks, which is illegal, but the over bridge is inaccessible to them.

- b. **Determining the route (Cultural)** –The policy development process is to identify stakeholders and their important social, behavioral and lifestyle characteristics. In the absence of clear understanding of cultural habits, policies will be ineffective and even fail. For example, as a part of Indian

culture, people are used to going to airports and train stations to see people off. In the past, family and friends were allowed to go inside airports and train stations to say their loved ones goodbye. In today's times and in the name of "security" people are no longer allowed to escort their loved ones to the plane or train; they are stopped outside. This causes them a great deal of anxiety as they wait outside crowding pavements and roads, causing inconvenience and even unsafe road condition. Clearly the socio – psychological aspects of Indian travelers and their friends and relatives were overlooked and this creates lots of problem to those following and enforcing the policy.

Also in India where culturally there is a strong underlying setup of recycling waste through the rag pickers and the kabariwala, it may be advisable to take this setup into consideration when developing a recycling policy. Strengthening the traditional practices by including them into the new policy will ensure its application and enforcement, making it more acceptable to everybody.

Though the Government has a policy of Education for All, but historically speaking, children from Dalit families and children with disabilities are often excluded due to social and environmental barriers that are currently in place. For the policy to be effective, the Government needs to understand the cultural mindsets responsible for these attitudinal barriers and attend to the removal of these barriers alongside the enforcement of the Education for All policy. For the Government to succeed, simultaneous effort is required for addressing

cultural issues that limit the implementation and effectiveness of the policy.

- c. *Designing the intervention (Aesthetic)***–*This is where the actual designing of the policy happens and the policy is formulated after discussion with all stakeholders. It is important that the policy document is aesthetically drafted so that it is easy to read and comprehend. Intervention design would look into aspects of how the policy document communicates with the readers and how easy or difficult it is to follow and understand. Taking the example of the UNCRPD, an international convention that applies to India is originally in English language. For it to be read, understood and appreciated by most Indians with disability, it is important to translate the policy document in Hindi and other important regional languages. Care is to be taken while translating, since any misinterpretation of words or use of improper words while language conversion may lead to confusion. The policy needs to reach the stakeholders and appropriate language and aesthetically pleasant mode for representation is required for effective communication. Drafting a policy aesthetically implies addressing communication issues so that the policy is can be read, comprehended and implemented by all stakeholders.*

Aesthetic may also be considered from the point of clarity and simplicity in which the policy is written. For example India's primary legislation for disabled people – the Persons with Disability Act 1995 in its chapter on Non Discrimination states

in section 46(a) 'Ramps in public buildings;' but it may be criticized on the basis that the meaning of a public building is not clearly defined in the Act causing ambiguity and hence poor implementation.

- d. Cost and financing (Economical)** - *Cost is a key element of the policy development process. The design of any policy must be cost effective keeping multiple factors in mind for greatest impact. The designing process must ensure that the policy is Economical from the point of perceived benefits it provides. Unless the policy is cost effective and provides benefits that matches with the stakeholder expectations, it is unlikely to be accepted and implemented.*

Taking the example of the pedestrian and public transport infrastructure in Delhi that was greatly improved because of the Commonwealth games that were hosted in Delhi. The design of the pedestrian environment and the transport system is such that it is difficult for a manual wheelchair user to access it while facilitating use by electric wheelchair users. Having stated this it might have been more economical for the government to provide electric wheelchairs rather than manual wheelchair in the assistive aids policy to the disabled user, rather than redoing the new infrastructure to increase independent mobility of disabled people.

- e. Implementing the measure and assessing its impact (Usability)** - *it is clear that implementation is*

crucial to effectiveness, efficiency and consistency of a policy. A plan that may be excellent on paper could end up being very different from its intent if not properly implemented. Additionally, all policies and programs should assess and correct their course on an ongoing basis. There is also a vital learning component implicit in this work, which leads to better quality practice when lessons are widely shared

To ensure implementation it is therefore important that the policy should be so designed that it is useable to all the stakeholders, which include not only the beneficiaries of the policy but also the administrators, political party, legal system and the industry. If the policy does not facilitate usability, operation and convenience, then there are high chances of the policy proposals getting non-implemented by the stakeholders.

Conclusion

Universality must be an inbuilt component of any policy. It will enable acceptance by majority and be implemented successfully with greatest benefits. Applying the UDIP help in bringing in this universality in the policy formulation process.

Equitability should be at the core of the policy development process. Even if it's aimed at a certain group of people, diversity within the group must be addressed equally.

Policy design must be sensitive to the past and present ***Cultural*** uniqueness of the region. Attempt to fit a successful policy from a

region with different cultural background is bound to have low acceptability. .

Economy is an important factor that must be carefully looked into while designing a policy. A policy that is cost effective and aims to progressively reduce dependence on the system are most likely to be successful and have greatest benefits.

Aesthetics in terms of clarity of the objectives proposed in the policy statement is also an important requirement. The policy document should be clearly written and easily understood by all stakeholders.

Once the policy document is ready and enforced, finally the success of the policy will depend on the *Usability* of it by various stakeholders. The entire implementation, review, evaluation and appraisal process should be easy to do.

India is known for its diversity. But unfortunately, there is segregation made on the basis disabled and non-disabled, poor and rich, rural and urban, old and young, women and men. Therefore today as it marches towards become becoming a strong nation there is an urgent need to have inclusive policies as a way forward.



Author - Shivani Gupta

Obituary:

GAATES Mourns the Loss of One of Their Founding Members, Susan Marie Daniels who died on October 20, 2011



Susan was a GAATES Founder and helped the organization navigate through the birthing process. As GAATES grew and evolved, she brought a finely honed perspective and judgment to all GAATES decisions and challenges. As a member of the Executive, Susan provided carefully considered advice based on her experience

and extraordinary insight. She was a bright star and all who met her remembered her intelligence, wit and sense of humour.

She made a huge effort to attend our GAATES Annual Meeting in New York on September 8, 2011. She was very proud of GAATES' success as she congratulated GAATES at the Annual Meeting in New York for our amazing growth and success. We couldn't have had a greater cheer leader!

Susan had a stellar International career. She worked as Deputy Commissioner for the Social Security Administration, responsible for disability programs during the Clinton era and continued to work as a consultant promoting employment of persons with disabilities. The GAATES family will miss her greatly.

If you would like to make a donation to the GAATES Scholarship Fund in memory of Susan, please contact GAATES Past President Betty Dion at gaates.bettydion@gmail.com

For further information on honoring Susan please go to www.honoringsusanmariedaniels.com

Obituary - Washington Post

Published: October 31

By: Adam Bernstein

Susan M. Daniels, disability rights activist

Susan M. Daniels, 62, whose bout of childhood polio helped inspire her career as a disabilities rights advocate in academia, government and as a private consultant, died of sepsis Oct. 20 at Sibley Memorial Hospital in Washington. She was a District resident.

The death was confirmed by her husband, John Watson.

Starting at age 28, Dr. Daniels spent 10 years as chairwoman of the Louisiana State University medical center's department of rehabilitation counseling. In that role, she helped train people working with the developmentally disabled in community-based settings.

During that period, she lectured around the world on disability issues and co-wrote a handbook on sex and people with disabilities.

She settled in the Washington area in 1988 and became associate commissioner of the U.S. Department of Education's Rehabilitation Services Administration.

During the Clinton administration, Dr. Daniels handled a variety of portfolios involving the disabled.

At the Department of Health and Human Services, she was associate commissioner in the Administration on Developmental Disabilities and launched a program to help those with disabilities become homeowners. Later, at the Social Security Administration, she was deputy commissioner in charge of disability programs. She helped shepherd passage of the Ticket to Work and Work Incentive Improvement Act of 1999, which President Bill Clinton signed into law.

After leaving the government, she started a consulting firm focused on public policy development and advocacy.

Susan Marie Daniels was born in New Orleans. She contracted polio at 6 months and spent much of her early life in rehabilitation institutes and hospitals. Her parents encouraged her to keep up with her education in regular elementary and secondary schools.

In 1970, she graduated summa cum laude from Marquette University in Milwaukee. She received a master's degree in psychology from Mississippi State University in 1972 and a doctorate in psychology from the University of North Carolina at Chapel Hill in 1976.

Dr. Daniels's honors included the prestigious 2003 Henry B. Betts Award, created by the Prince Charitable Trusts and the Rehabilitation Institute of Chicago, to honor her work for the disabled.

Survivors include her husband of 20 years, John Watson of Washington; two stepdaughters, Aurelia Mazarella of Colonia, N.J., and Sarah Waddingham of Los Angeles; a sister; a brother; and four grandchildren.

Design For All Institute of India:

We are sad to inform our members and readers that one of the pioneer and founding members of our collaborator GAATES Ms. Susan passed away and we pray for her grieved family to bear this loss and her soul rest in peace.

Dr. Sunil Bhatia

APPEAL:

Greetings from Indian Architect & Builder magazine,

The February 2011 issue of Indian Architect & Builder magazine will focus on 'Young Designers', bringing into light the new, the emerging and the original ideas, designs and innovations that represent the spirit of things to come. The 'Young Designers' issue will showcase works of fresh practices in the fields of architecture, interior design, urban design, landscape design and product / industrial design.

We at the Indian Architect & Builder magazine invite entries from DesignIndia group for this endeavor. The projects submitted will be evaluated by a jury for publication and will be published in the February 2012 Issue of IA&B. Format: 4 - 10 Pages PDF containing: Product Name, Designer / Design Firm's Profile. Product Images (Sketches, Renders, Photographs) and a brief (100 - 200 words) text explaining the product. The files can be forwarded to raturaj.parikh@gmail.com / raturaj_parikh@jasubhai.com.

Regards,

Raturaj Parikh,

Asst. Editor,

Indian Architect & Builder.

NEWS:

1.

Happier, Healthier Quality of Living

Thoughtful design can accommodate disabilities



An automated door opener makes it easier for Adam Kisielewski to get in and out of his home, whether he's walking or in a wheelchair.

Adam Kisielewski loves walking around his brand-new Frederick, Md., home, partly because of its open floor plan, custom-built cabinetry

and thick crown molding, but mostly just because he can.

The former Marine sergeant lost his left arm at the shoulder and his right leg below the knee on Aug. 21, 2005, when a 97-pound artillery round exploded as he and his fellow servicemen opened a door to a school outside Fallujah, Iraq. After undergoing more surgeries than he can count, the 28-year-old moves easily with a prosthetic leg. To rest it, he uses a wheelchair.

But that made navigating his last house, a three-story place in Thurmont, Md., difficult. "It was a beautiful house, but it made the use of a wheelchair pretty much impossible," says Kisielewski, the vice president of Operation Second Chance, which supports veterans and their families while they recover in military hospitals. "I had to wear my prosthetic leg 18 hours a day, pretty much whenever I was awake. It didn't give my body a chance to recover at the end of the day."

Many single-family homes present navigational problems for people with disabilities, especially if they're multilevel and have narrow doorways, says Greg Olavarria, owner of Bethesda-based Get a Grip (240-372-0770), a contracting company that specializes in helping people with physical challenges move safely in their homes. Doorways are typically 24 to 28 inches wide, he says. "Unfortunately, when you [have] a 24-inch door, once you get the doorjamb in there and you have a door hung, you end up with a 22-inch opening, and a lot of wheelchairs and walkers are much wider than that."

Sometimes walls need to be cut to enlarge doorways, but easier fixes are also possible, such as removing stripping, making a door swing in the opposite direction or replacing hinges with offset ones that set the door back past the jamb, buying 1½ to 2 inches, he says.

Bathrooms also top the list of areas that need adjustment, says Vince Butler, president of Butler Brothers Corp. (703-878-3300) in Clifton, Va., and a developer of the National Association of Home Builders' Certified Aging-in-Place Specialist program, which trains builders on universal design. Common challenges include climbing over tubs, accessing sinks and standing in showers.

The fixes can "be something as inexpensive as a few hundred dollars for grab bars or a shower seat or handheld shower or lever handles — things that would make fixtures and appliances and hardware within a house more easy to use," Butler says. For a total renovation — including installing a roll-in shower, a roll-under sink and toilet transfer benches, which enable users to slide from a wheel chair to the toilet — costs may rise to as much as \$50,000.

Stairways are another problem. When Judi Hasson's multiple sclerosis made walking up the steps to her McLean, Va., home too difficult, she hired Olavarria to remove them by raising the sidewalk to be level with the threshold. And when she could no longer climb the steps to the main floor of her split-level house, she hired Manassas, Va.-based mobility specialists Area Access (Areaaccess.com) to install a stair climber, a motorized chair on a track. "The stair lift made my life easier and safer," Hasson says.

The ultimate stairway fix is an elevator. "It's the easiest way to take a multistory house ... and make it live like a one-story house," Butler

says. His company charges between \$25,000 and \$70,000 for the equipment and installation; prices vary depending on how much work is needed to make room for the shaft, he says. "When you compare the cost of it with the cost of moving and all the associated costs that go on with that ... it usually becomes something worth considering, and it adds value to the house."



Adam Kisielewski, a former Marine sergeant who lost his arm and part of a leg in Iraq, stands in his kitchen, which was designed to accommodate his disabilities.

Rather than revamping his home, Kisielewski applied last year for a new one through Hmes for our Troops, a nonprofit group that provides accessible housing to severely injured veterans for free. Bethesda-based Case

Desiugn/Remodeling Inc. (800-513-2250) handled the general contracting work; other local companies donated materials and time.

The result is a one-level hilltop home with four bedrooms and 2,616 square feet of living space that has changed life for Kisielewski; his wife, Carrie; and their 1-year-old, Evan, since they moved in in July. It features an automated front door opener, 36-inch-wide doorways, pull-down shelving in the kitchen, a motion-sensor-rigged toilet seat that lifts automatically, and toe kicks (the space for your feet under a cabinet) twice the height of the standard 4.5 inches to accommodate Kisielewski's foot in a wheelchair.

"One issue was just enjoyment of home and what kind of home they liked, but another thing it had to meet was accessibility, as part of that open design is for him to get around, not just today but also in 30 years," says Bruce Case, the president of Case Design. "Layered on top of that are the unique things like the automatic door openers, like the motion-sensor toilet."

With accessibility requirements met, enjoyment is apparent. Kisielewski glances out the window of his home office at horses

running in the field nearby and says, "I never in a million years thought I'd have something like this."

Renovation Pointers

The Fair Housing Act requires that multi-family dwellings meet the disability-friendly specifications of universal design, but no such law exists for single-family homes. Homeowners with special needs often make renovations by themselves. Vince Butler, a developer of the National Association of Home Builders' Certified Aging-in-Place Specialist program, shares these tips to ensure you get your money's worth when renovating for better accessibility.

- 1. Hire a contractor based on a good referral from somebody you trust.**
- 2. Be wary of listings or online databases that people can buy a spot in, Butler says, because they're a form of advertising rather than a referral.**
- 3. Look for affiliations and certifications such as the National Association of Home Builders' Certified Aging-in-Place Specialist, which indicates that someone at the company has been trained in universal design techniques.**
- 4. Check a builder's licensing with your state or city licensing group to ensure it is up-to-date and legitimate.**
- 5. Ask the contractor for hard proof, not just a copy, of the certificate of insurance to validate its authenticity.**
- 6. Ask for references regarding and examples of the specific job you want to do.**
- 7. Make sure the contractors, not you, secure the building permit. That makes them legally responsible for the work in case something goes wrong or is not up to code or inspected, and gives the county the power and information it needs to follow up with the contractor.**

Photo Credit: Eric Kemp



The Inclusive design toolkit is now available in Chinese. The toolkit was originally developed by the University of Cambridge, Engineering Design Centre (EDC) and sponsored by the British Telecom. The Inclusive Design Research Group has collaborated with the EDC to translate the toolkit website (www.inclusivedesigntoolkit.com) from English into Chinese.



The inclusive design toolkit is structured around three critical questions:

- What is inclusive design?
- Why do inclusive design?
- How to get started?

It also introduces user capabilities and a range of inclusive design tools (including a unique Vision and Hearing Impairment Simulator and an Exclusion Calculator). The toolkit has been used and referenced by many design students in the UK in their major projects or research projects.

Design, in its various forms, is taught in more than 200 universities and colleges (over 800 departments/schools) in China. According to the Chinese Ministry of Education, in 2010, there were 1.13 million students studying art and design at a higher-education level. We envisage that the translated website will help promote inclusive design education in China through removing the language barrier.

The Chinese website will be tested for a few months before its formal launch. The postgraduate students of the College of Design and Innovation, Tongji University will be invited to test the website as part of their inclusive design course exercises.

Design educators interested in testing the Chinese website may send an email (with the subject 'toolkit') to inclusivedesignresearch@gmail.com to get the username and password.



MEMBER PROFILE: MS TING ZHANG

Ting Zhang trained in Industrial design at Shanghai Jiaotong University and graphic design at Tongji University. She joined the Inclusive Design Research Group in 2008 when she conducted a one-year PhD visiting study at Brunel University. Her PhD research focused on the history and theory of human-centred design. Ting has four years of design experience and won many design competitions in China. She now works at Tongji University, promoting good teaching practice. Ting designed the first version of website for the Inclusive Design Research Group and she helped translating the Inclusive design toolkit into Chinese.

INCLUSIVE DESIGN RESEARCH CHINA
 JONGDEI COLLEGE, COLLEGE OF DESIGN AND INNOVATION, TONGJI UNIVERSITY, 1256 SPRING ROAD,
 SHANGHAI 200042, P.R. CHINA | TEL: 86-21-55550776 | EMAIL: [INCLUSIVEDESIGNRESEARCH@SJTU.COM](mailto:inclusivedesignresearch@sjtu.com)

UPDATES

Dr Hue Dong has been recently elected Council Member of the Design Research Society. She is submitting a special interesting group (SIG) proposal to the Society, focusing on Inclusive and open design. If you would like to become a member of the SIG or have any suggestions for the SIG, please get in touch with her: donghueho@gmail.com

Key members of the Inclusive Design Research Group introduced 'user research' to final year design students and helped develop ethics templates for the School of Engineering and Design at Brunel University.

If you would like to be added to our subscription list, please email inclusivedesignresearch@gmail.com

We are also now on Facebook, to join our group click [here](#).



EVENTS

DRS 2012: CALL FOR PROPOSALS FOR WORKSHOPS
 CHULALONGKORN UNIVERSITY, BANGKOK
 JULY 1-4 2012

JANUARY 18 2012: DEADLINE FOR THE SUBMISSION OF WORKSHOP PROPOSAL.

CINEBUS 2012: TOWARDS OPEN AND PARTICIPATIVE CITIES
 24-26 MAY 2012 AALTO UNIVERSITY SCHOOL OF ART AND DESIGN, HELSINKI FINLAND
 CALL FOR ABSTRACTS/PROPOSALS:
 DEADLINE: 15TH NOVEMBER 2011

INCLUSIVE DESIGN RESEARCH UK (IIRIG),
 SCHOOL OF ENGINEERING AND DESIGN,
 BRUNEL UNIVERSITY, UXTED ROAD UXP 3PH

IDR: MHIRROR

WWW.INCLUSIVEDESIGNRESEARCH.ORG

NOV 11TH 2011

ISSUE 22

NEVER DOUBT THAT A SMALL GROUP OF COMMITTED PEOPLE CAN CHANGE THE WORLD. INDEED, IT IS THE ONLY THING THAT EVER HAS.

—MARGARET BEAD

MHIRROR (Means of Human Information Retrieval, Representation, Organisation and Reflection) – a web-based resource for supporting people-centred design approaches has received positive feedback from professional designers. The resource was developed as part of Chris McGinley's PhD study, sponsored by the UK's Engineering and Physical Sciences Research Council (EPSRC)



The resource provides human information in the following categories:

- Profile: People's basic biographic details (images and text)
- Information: Basic physical measurements of people (scaled images and text)
- Environment: People's home environments (images)
- Conversation: People's responses to life and lifestyle questions (video and text)
- Activity: People performing an everyday task (video and text)

The beta-version of the working prototype was evaluated with six experienced designers from the Helen Hamlyn Centre for Design in October 2011. The evaluation workshop took the form of a pre-evaluation task, informal guided brainstorming, post-evaluation questionnaire and a 'desirability card' exercise.

All participants believed the MHIRROR resource could help bridge the gap between existing prior knowledge and intuition, and actually interacting with the intended end users. The resource is one of the outcomes of the three-year project (EP/F032145/1) sponsored by the EPSRC. For more information about MHIRROR, please contact Chris.Mcginley@brunel.ac.uk; for more information about the EPSRC project, please contact Hus.Dong@brunel.ac.uk.

MEMBER PROFILE: DR HUA DONG



Dr Hua Dong established the Inclusive Design Research Group in 2008, together with Abdusselem Selem Ofter, Farnaz Nickpour, and Chris McGinley at Brunel University. In 2010, she established the Inclusive Design Research group at the College of Design and Innovation, Tongji University, China. She lectures on Design Process, Inclusive Design, and Design Research at both undergraduate and postgraduate levels. She obtains her BEng (Industrial Design) and MA (Architectural Design and Theory) from Tongji University, and her PhD from the University of Cambridge. Her post-doctoral research was conducted at the Cambridge Engineering Design Centre in collaboration with the Royal College of Art.

INCLUSIVE DESIGN RESEARCH CHINA
JONGQI LOU 1802 COLLEGE OF DESIGN AND INNOVATION, TONGJI UNIVERSITY, 1239 SPING ROAD,
SHANGHAI 200092, CHINA | TEL: 866-21-65931716 | EMAIL: INCLUSIVEDESIGNRESEARCH@SMAIL.SJTU.CN



UPDATES

- Dr Abdusselem Selem Ofter received the 'Reviewer's Favourite' paper award at the 4th Conference of the International Association of Societies of Design Research (IASDR) at the TU Delft.
- Dr Eujin Pei who contributed to the development of the ErgoCIES tool for the EPSRC project (EP/F032145/1) has recently taken a senior lectureship at De Montfort University.

Many congratulations to both!

If you would like to be added to our subscription list, please email inclusiveDesignResearch@gmail.com

We are also now on Facebook, to join our group click [here](#).



EVENTS

"BROKEN OLD BY AGE AND SEX: GROWING OLD IN THE TWENTY FIRST CENTURY" - INAUGURAL LECTURE
PROFESSOR CHRISTINA VICTOR, SCHOOL OF HEALTH SCIENCES AND SOCIAL CARE, BRUNEL UNIVERSITY FOR AGING STUDIES
5:30PM-7:30PM, 13TH NOVEMBER 2011, HAMILTON CENTRE, BRUNEL UNIVERSITY

MADE IN BRUNEL INDUSTRIAL REVIEW EVENTS
5:30PM-8:00PM, 15-17TH NOVEMBER 2011
MICHAEL STERLING ATTREUM, BRUNEL UNIVERSITY

INCLUSIVE DESIGN RESEARCH UK (TJ2118),
SCHOOL OF ENGINEERING AND DESIGN,
BRUNEL UNIVERSITY, UXTWICK UDE 3PH

4.

Homes for 'Wounded Warriors' Designed with Help of UB Architect

Danise Levine has designed two houses in Fort Belvoir, Va., that will help meet the needs of wounded veterans and their families.

'Patriot Home' is one of two houses designed with features that address a variety of physical and emotional challenges a veteran might face.

Architect Danise Levine of the University at Buffalo has completed design work with the Wounded Warrior Home Project, which will finish construction on two houses for wounded veterans today (Nov. 11) in Fort Belvoir, Va. Levine is assistant director of UB's Center for Inclusive Design and Environmental Access (IDeA Center). As an architect with experience in universal design and accessible design, she is part of the expert team that designed the homes for veterans and their families.

The houses will fit the unique physical and emotional needs of the soldiers who will move in. The dwellings are universally designed to be accessible to people of diverse abilities and ages.

Sliding interior doors and wider hallways reduce obstructions and optimize maneuverability within the home. The sink, stove and table are equipped with automatic lifts that adjust their height to fit different users at the touch of a switch. Designers even took the appearance of the floor into account; contrasting floor patterns make it easy for residents with reduced vision to identify where one floor space ends and the next begins.

"The collaborative nature of the project allowed all members of the design team to contribute in their area of expertise, which I think shows in the strength of the final product," Levine says.

Both new homes -- the Freedom Home and the Patriot Home -- address a variety of challenges that veterans might face. Exterior lights at entry points provide enhanced security and comfort for people suffering from post-traumatic stress disorder (PTSD), traumatic brain injuries and vision loss. Glass doors provide visual access to the outside. Automatic entry doors that are wider than usual provide unobstructed accessibility for someone with a limb amputation or to a person who uses a wheelchair.

Levine has been working with the Wounded Warrior Home Project since it began to take shape in February of 2010. Her expertise in universal and accessible design guided the layout of the two homes that the builders are finishing this week.

"Danise's feedback throughout the design stage has helped shape the homes that we see today," says Adam Owens, project manager of the Wounded Warrior Home Project with Clark Realty Capital.

The Wounded Warrior Home Project aims to create a model for soldier housing that employs human-centered design, which focuses on the role housing plays in making a person's life more dignified, healthy and rich.

The IDeA Center will partner with the Wounded Warrior Home Project to study the usability of the homes after their completion. The goal is to improve future projects.

"We are excited to be a part of the UB IDeA Center's research project to test the usability and effectiveness of the universally designed components of the homes to help improve the design and usability of future homes," Owens says.

Levine, a registered architect, holds a master's degree in architecture from UB. With more than 17 years of architectural practice experience, she has experience with architectural design for residential and commercial buildings, accessibility assessments and post-occupancy evaluations.

Her work has included designing close to 500 renovations to help people with unique needs in Western New York and beyond live comfortably in their homes.

Most of her clients are families whose children have disabilities. But others who have sought her help include veterans, individuals who have lost their mobility as a result of an accident, and older adults hoping to remain in their homes as they age.

Levine will attend the Nov. 30 ribbon cutting ceremony for the Wounded Warrior Home Project houses.

The University at Buffalo is a premier research-intensive public university, a flagship institution in the State University of New York system and its largest and most comprehensive campus. UB's more than 28,000 students pursue their academic interests through more than 300 undergraduate, graduate and professional degree programs. Founded in 1846, the University at Buffalo is a member of the Association of American Universities.

PROGRAM & EVENTS:

1.



2.



About us | [The Contest](#) | [Drishti 2011](#) | [The Jury](#) | [The Team](#) | [Eye Donation](#) | [Download](#) | [Support Us](#) | [Contact us](#)

The Contest



Entries can be submitted by any Indian. One individual can send entries in multiple categories i.e. Short Film, Audio Jingle, Poster and Design. Only individuals are allowed in contest and no group or organizational entries will be entertained. All entries will be submitted as per the details given below.

[Short Film](#) | [Audio Jingles](#) | [Poster](#) | [Design](#)

2

12

Awards

One major (**Golden Eye**) and one minor (**Silver Eye**) awards will be given out in each category at the end of the festival, carrying a cash component as well as a trophy. All entries selected for contest will get a Certificate of Participation.



Alert:entry submission dead line is coming closer

Drishti 2011



Saturday November 05, 2011

Those who are participating in the contest, please fill the [Pre-registration form](http://drishti.org.in/?page_id=397) (http://drishti.org.in/?page_id=397)



Drishti 2011 an initiative by Antardrishti to exploit creative communication tools will certainly bring considerable

alert:Date Announcement

We are delighted to confirm the dates for Drishti 2011

3.

Welcome to the red dot award: product design 2012!

The red dot design award dates back to 1955 and is now one of the world's largest and most distinguished product competitions. More than 14,000 participations from over 70 nations document the relevance of the internationally sought-after red dot.

The "red dot award: product design" is the perfect opportunity to prove your design ability in an international comparison with renowned designers and up-and-coming talents. At present, large companies and independent designers from all over the world submit their creative work and compete for the red dot in one of 19 categories.

With growing competitive pressure on the international markets, it is now more important than ever for manufacturers to set themselves apart from the competition by proving quality rather than simply pursuing an aggressive pricing policy. More and more designers are also benefiting from the award. They are using the red dot to present themselves to their clients and as a visual aid that emphasises their own strength.



Murty Classical Library of India

Sheldon Pollock, General Editor

DESIGN CONTEST

Harvard University Press invites submissions of designs for The Murty Classical Library of India, a publication series slated to debut in 2013 that will bring the classical literature of India to a global audience. The designer of the winning series logo, logotype, and jacket design will receive 10,000 USD and jacket credit on all books in the series.

The Murty Classical Library of India (MCLI), established through an endowment gift from Rohan Narayana Murty and the Murty family, will provide new English-language translations of works written in Bangla, Hindi, Pali, Panjabi, Persian, Sanskrit, Tamil, and other Indic languages, with the original text on the facing page.

Harvard University Press Executive Editor-at-Large Sharmila Sen noted, "Because the Murty family founded the MCLI in order to bring the rich literary heritage of India to the entire world, it is especially fitting that we issue an open invitation to generate a design for this landmark series."

Designs may be submitted between September 1 and December 1, 2011. Residents of, and design firms based in, the United States of America, the United Kingdom, and India are eligible to enter.



BUSINESS OF DESIGN WEEK 2011

ASIA'S LEADING ANNUAL EVENT ON DESIGN, INNOVATION AND BRANDS

28 NOV - 3 DEC

HONG KONG CONVENTION AND EXHIBITION CENTRE



Hong Kong Design Centre
香港設計中心



Other concurrent events include:

- ▶ 25/11-11/12 DETOUR
- ▶ 28/11 InnoDesign Asia Conference
- ▶ 29-30/11 DesignEd Asia
- ▶ 30/11 Shenzhen Industrial Design Forum
- ▶ 30/11 Brand Asia
- ▶ 30/11 Global Design Network
- ▶ 1-3/12 BODW Forum
- ▶ 1-3/12 HKTDC Inno Design Tech Expo
- ▶ 2/12 BIP Asia
- ▶ 2/12 HKDC Annual Awards Gala Dinner
- ▶ 3-5/12 Tsinghua DM Conference

Internationally renowned design masters include:

Shigeru Ban / Shigeru Ban Architects, JAPAN
 Antonio Citterio / Antonio Citterio Architetto, ITALY
 Stefan Diez, GERMANY
 Fritz Frenkler / ffp design gmbh, GERMANY
 He Jian-ping / Heagin, GERMANY
 John Hignson / 100 Hus Project, SWEDEN
 Oliver Holy / ClassCon GmbH, GERMANY
 Louisa Hutton / Schwanhuth Hutton Architects, GERMANY
 Bjarke Ingels / Bjarke Ingels Group, DENMARK
 Annemarie Jaeggi / The Bauhaus Archive, GERMANY
 Piero Lissoni / Lissoni Associati/ Milano Design Architettura, ITALY
 Freeman Lau / HONG KONG
 Lo Kai-sin / HONG KONG
 Jürgen Mayer H / J. Mayer H Architects, GERMANY
 Nosiigner / Project Olive, JAPAN
 Dieter Rams, GERMANY
 Richard Sapper, GERMANY
 Joachim Sauter / ART-COM, GERMANY
 Ole Scheeren / Büro Ole Scheeren, GERMANY
 Jeff Shi / Dragon Fly, TAIWAN
 Werner Sobek / Werner Sobek Stuttgart, GERMANY
 Erik Spiekermann / EdenSpiekermann, GERMANY
(by alphabetical order)

And world's top brand experts from:

Adidas / Dirk Schoenberger
 Audi / Stefan Sielaff
 Hugo Boss / Gerrit Runtzel
 Phoenix Design / Manfred Darm
 Porsche Design / Roland Heller
 Renault / Anthony Lo
 Volkswagen / Thomas Ingenlath
 ... and more world class masters.

Simultaneous interpretation in English, Japanese, Mandarin and Cantonese is available.
 Programme details are tentative as of 18 Sept 2011 and are subject to change without prior notice.

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12+ Major Programmes
100+ International Speakers
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Early Bird discount:
www.bodw.com



Advancing research & development in the area of accessible and assistive ICT

CARDIAC-EU.ORG

Home Seminar

About us **Priorities for Standardisation of Accessible User Interfaces**

Advisory Group area

Consortium area 19th January 2012
BSI, 389 Chiswick High Road, London W4 4AL

Publications This seminar will concentrate on user interfaces for public terminals such as cash dispensers, ticket selling machines, access control systems, check-in terminals at medical centres, information kiosks and voting terminals in polling stations. The output from this seminar will help to formulate a workplan for future work for CEN TC224 WG6 "User Interfaces".

ICT projects

Guidelines **Provisional Agenda**

10:00	10:15	Introduction by the chairman (Julian Jones)
10:15	10:45	Lessons from the Snapi Project (Mark Davies , LASSeO)
10:45	11:15	The APSIS4all Implementations of EN 1332 Standards (Jane Matthews , Technosite)
11:15	11:30	Coffee break
11:30	12:00	The Cardiac Roadmap on Future Research on Accessible User Interfaces (Julie Manning , University of the Basque Country)
12:00	12:30	Future User Interface Issues for Biometric Systems (Julian Jones)
12:30	1:30	Lunch (can be purchased in the BSI restaurant)
1:30	2:00	Accessibility of Future Mobile Interfaces (Mike Shaw , Telefonica Europe, tbc)
2:00	2:30	Privacy Issues of User Interfaces (Alan Lindhead , Maplehurst Consulting, tbc)
2:30	2:45	Tea break
2:45	3:45	Group working
3:45	4:00	Report back

Standards

News & events

Links

COST 219 Archive

Contact us

The venue is wheelchair accessible, and a hearing aid loop facility will be provided for the main presentations.

The seminar is organised by CEN TC224 WG6 in collaboration with the Cardiac project.

The seminar is free of charge but registration is essential, and places will be allocated on a 'first come, first served' basis. To apply for a place, please send your name, the organisation you represent, and address to info@cardiac-eu.org

7.



Human Factors International
Design for the BIG
Bangalore – November 23-25, 2011

Design for the BIG
User-Centric Innovation & Strategy Course



Are you really
INNOVATING or
shooting in the dark?

- Are your "Innovative" ideas actually just your gut feeling or your boss's opinion?
- Do you only rely on surveys and focus groups to ascertain user needs?
- Are you developing "Innovative" ideas without validating if they are the RIGHT ideas?
- Have you seen several "Innovation" initiatives lead to expensive failures?

8. Conférence sur la Conception Universelle (Universal Design Conference)



Date: 9 December 2011

Location: Rue Henri Farman, Paris, 12ème arrondissement

Liberté • Égalité • Fraternité

RÉPUBLIQUE FRANÇAISE **Organiser: L'Observatoire interministériel de l'accessibilité et de la conception universelle, Ministère de l'Écologie, du Développement Durable, des Transports et du Logement, Government of France**

Website: [Conférence sur la Conception Universelle](#)

Event type: International conference

Additional information:

This conference is designed to provide a more profound appreciation of the concept of universal design in order to facilitate its dissemination among different stakeholders and its take-up by society in general. The main themes will be:

- **The concept of universal design: its origins, its principles and its dissemination.**
- **The contribution of universal design to the industrial sector.**
- **The take-up of universal design by French society.**

Among those giving presentations will be Valerie Fletcher, Executive Director of the [Institute for Human Centered Design](#) in Boston, Francesc Aragall, President of the [Design for all Foundation](#), and Florent Orsoni, Chief Executive of [Tuttimobi](#). The conference will be translated into French and English, and French Sign Language (LSF), and transcribed into palantype. Entry is free; however, due to the limited capacity of the venue, those interested in attending should register by writing to: dma.sg@developpement-durable.gouv.fr.

9.

Respected Sir/ Madam,

Please find enclosed the attachments (containing our Invitation for Roundtable Conference on "Disability, Barrier- Free Campus and Higher Education" being held at Kunzru Conference Room, 2nd Floor, School of International Studies, Jawaharlal Nehru University, New Delhi on 3rd December 2011 on the occasion of International Day of Disabled Persons). Your gracious presence and active participation will give a new impetus to our cause for empowering the persons with disabilities.

An early response will be highly appreciated; as we are left with little time.

Look forward to getting your early and positive response.

With warmest personal regards,

Yours sincerely

G. N. Karna, PhD (JNU)

#235, HURITER, SIS, JNU, New Delhi &

Adviser, Equal Opportunity Office, JNU, New Delhi &

Member, Committee on Barrier- Free Campus, JNU, New Delhi &

Honorary President, Society for Disability and Rehabilitation Studies

Tel.: 011-26738870 (O)

Mob.: 09810161358

10.

The screenshot shows the TASH website with the following elements:

- Header:** TASH logo and tagline "Equity, Opportunity and Inclusion for People with Disa".
- Navigation:** Home, About Us, Advocacy & Issues, Conferences & Events.
- Breadcrumbs:** Home > Conferences & Events > 2011 TASH Conference > Pre-Conference Workshops
- Left Sidebar:**
 - 2011 TASH Conference** (highlighted)
 - Registration
 - Conference Schedule
 - Pre-Conference Workshops
 - Attending the TASH Conference
 - Hotel & Travel Information
 - Keynote Speakers
 - Sponsors
 - Exhibitors
 - Awards
 - Presenter Information
 - Webinars
 - Other Events

- Main Content Area:**
- Pre-Conference Workshops**

Through in-depth discussions and trainings led by experts in the field, our pre-conference workshops are a unique way to intensively address emerging issues in the disability community during a one-day format. With more than 200 content hours available throughout the 2011 TASH Conference, our pre-conference workshops allow you to get to the heart of a particular issue and connect with others who have a vested interest in these topics before the full conference begins. Don't miss out on this chance to jumpstart your experience at the 2011 TASH Conference!
- Registering for Pre-Conference Workshops**

Registration Rates:
TASH Member – \$85
Non-Member – \$100

I've already registered for the TASH Conference! Is it too late to register for a pre-conference workshop?

Of course not! Log into the [TASH member services site](#) and pull up your TASH Conference registration by selecting **My Events** in the left-hand column. Click **Add Sessions**, which is listed to the right of 2011 TASH Conference and proceed with registration for the sessions.

11.



Participate now!

Join in the world's largest product design award and present yourself globally.



reddot design award

red dot call for entries

The call for entries for the red dot award: product design 2012 was announced at the 2011 Taiwan World Design Expo this week.



A high-profile red dot exhibition is currently showcasing the red dot best of the best as part of the 2011 Taiwan World Design Expo.

With a history spanning more than 50 years, the red dot award: product design is one of the most important international product design competitions.

The red dot award: product design winners for 2012 will be announced

at the red dot gala presentation night on 2 July 2012 in Essen, Germany. Finalists are published in the red dot design yearbook each year, an international reference work for excellence in product design.

Prof Dr Peter Zec, founder and CEO of the red dot, explains how stable values are hugely significant, especially in uncertain economic times, “Reliable indicators to set oneself apart from the competition are particularly valuable in phases of weak economic development.

“The red dot has been a globally recognised seal for excellent design quality for decades now. Consumers immediately recognise the distinctive logo – and it aids their decision in favour of a certain product.

“This is because the red dot stands not only for excellent design achievements but also for continuity and reliability. For companies, it is now more important than ever to win over undecided consumers for their products.”

The early bird registration period runs until 9 December, 2011

Regular registration period - 10 December to 20 January, 2012

Late entries are accepted until 8 February, 2012

For more information go to www.red-dot.de/pd

JOB OPENINGS:

1.

MudPie, a young brand design and communication firm is expanding its base and looking for:

_ Sr.Visualizer : 2-3 years experience of working in a design/advertising

**Firm ability to develop & execute ideas and concepts as a team member
expertise in Photoshop/Illustrator/InDesign/Flash**

_ Graphic Designer : 3-4 years experience of working in a design/advertising

**Firm ability to understand and execute briefs independently expertise in
Photoshop/Illustrator/InDesign/Flash impressive folio**

**Job would involve working on brand communication, above & below the line
advertising, packaging, digital, etc. on a host of leading national and
multinational brands.**

Location : Gurgaon

Salary : At par with the best in the industry

If you're interested, kindly apply with full resume and work folio to:

start@mudpieindia.com

Director

MudPie India Communications P.Ltd.

2.

About Sokrati:

Sokrati is only a start-up in terms of members but are no start-up in terms of the reach of our technology. We are small as we have the most talented individuals in the industry. We are one of the leaders in India in Digital Advertising. Based out of Pune we enjoy powering Digital Advertising across the globe. Sokrati is a sophisticated digital advertising solution that eases efficient management of Search and Social campaigns. The platform deals with 10M+ impressions per day, real-time optimization algorithms, a scalable & intuitive analytics platform and more.

Web Developer

Come join Sokrati if you have the passion developing dynamic, interactive web pages for our online tools. You'll work with our UX design team, marketing, and IT teams on rebuilding the UI within our online support suite.

Responsibilities:

- * Convert design prototypes, mockups and templates into web pages using xHTML, css, javascript.**
- * Master Standards Based Web Development, which will involve an understanding of W3C Standards for XHTML, CSS**
- * Work with the design team to execute complex interactions and front-end**
- * Write Java Script, use existing code or libraries based on the requirement of a project.**
- * Conduct cross-browser tests to ensure that you have developed a consistent experience**
- * Researching and use emerging Front-End Technologies like AJAX, Rich Internet Applications using Flex, Flash /XML Integration, Silverlight.**
- * Keep abreast of evolving methodologies and current trends within your domain and share this knowledge with the team**
- * Be responsible to manage content and update websites.**

Required skills:

- * A minimum of 2 years successful experience of web development**
- * Strong JavaScript, CSS3 and xHTML, html5**
- * Experience with JQuery**
- * Experience in developing apps for social tools such as facebook, google+**
- * Knowledge of Web 2.0 and current industry trends**

Desirable background:

- * Relevant bachelors degree and significant industry experience.**
- * Certification and/or training (or other comparable experience)**

If you are interested then please send your resume and portfolio at careers@sokrati.com

Location: Pune

3.

USA based company needs designer manufacturer in Jaipur for their chic hand block printed home furnishings. Products would be designer so candidate must be having strong aesthetic sensibility with an ability to transform ideas into products

coupled with a sound technical understanding of different fabric and hand block printing.

Designers from NID, NIFT and reputed college are preferred.

Please send me your CV at nisha@aadiglobal.com with your company detail along with your portfolio.

4.

India's leading Branding consulting firm is looking for Graphic Designers

Group Head

Candidates with a BFA degree from leading applied arts schools with 5- 9 years experience in a design/ branding agency as a team leader or a Senior Creative. Experience in Corporate Branding, Packaging designs, Retail Spaces etc is a must.

People skills, Creative Excellencies, understanding of the newest trends, substrates, printing, technology is needed

Salary: The best in the Industry.

Please send your updated CV to dcosta.francis@gmail.com with details of current compensation and notice period.

5.

MAEER's MIT Institute of Design would like to invite all the

design professionals to get associated with our institute and share

their rich knowledge and experience with our UG/PG students. We have

both Jr. & Sr. Faculty positions at our institute. Following are

the disciplines in which we wish to invite applications:

- * PRODUCT DESIGN**
- * TRANSPORTATION DESIGN**
- * INTERIOR SPACE & EQUIPMENT DESIGN**
- * GRAPHIC DESIGN**
- * RETAIL & EXHIBITION DESIGN**
- * ANIMATION DESIGN**
- * FILM & VIDEO DESIGN**
- * USER EXPERIENCE DESIGN**

For further details about the courses you can visit our website:

www.mitid.edu.in <<http://www.mitid.edu.in/>>

Other than full time faculty positions you can get associated with our institute as:

1.

Adjunct Faculty: Wherein there will be a commitment of spending some fixed number of days every month as per your convenience.

2.

Visiting faculty: This will be based on course of the students. As and when the respective course is going on the faculty will be invited to conduct the sessions.

3.

Guest Faculty: Workshops/Seminars/Lectures can be given on any design related topics.

If you are interested in getting associated with us in any of the above ways please contact:

Supriya Michael (HR Manager)

hr@mitid.edu.in <<mailto:hr@mitid.edu.in>>

t: 020 30693607

6.

This requirement in Symantec, Pune center. Let me know if you can refer suitable candidate "Shyam Sundar" shyamsundarv@gmail.com

7.

Paradigm Creatives(Hyderabad) is looking for UX Designers and Web developers.

UX Designer:

- 1 Yr Exp.
- Formal design education background.
- Conceptualize, design and deliver UI solutions for various platforms such as web, mobile, and tablet platforms.
- Should be able to handle throughout the project life cycle, starting from the requirement-gathering phase.

Web developer:

- **A minimum of 3 years successful experience of web development**
- **Strong JavaScript, HTML5 and CSS3**
- **Experience with JQuery**
- **Knowledge of Web 2.0 and current industry trends**

**Interested people can send their RESUMES and PORTFOLIOS to
naveen.krishnamasetti@paradigminfotech.com (040 – 4478 1119)**

8.

1.0 DESIGNER WITH BACKGROUND IN ARCHITECTURE / EXHIBITION DESIGN

OUTLOOK Passion for retail and exhibition design, understanding of utility services and building construction. Should be enthusiastic, proactive, willing to learn and adapt.

BACKGROUND The applicant must have completed at least one similar assignment in professional capacity in the past either with a company or as a freelancer.

EXPERIENCE 1-2 Years of experience.

SKILL SET The applicant must have good system level thinking, free-hand sketching capability and physical model-making skills. Software skills should include AutoCAD, Adobe Suite/ Coral and at least one 3D modeling software with rendering capability.

ROLE The role would include design development and detailing of Interiors and Exhibition Spaces, Consultant/Vendor Handling, Execution Drawings, Specifications, Bill of Quantities and On-Site Coordination.

LOCATION Figments Studio, Pune. The applicant should be willing to travel pan-India for short assignments.

***2.0 DESIGNER WITH BACKGROUND IN PRODUCT DESIGN/ LIFESTYLE & ACCESSORY**

DESIGN / RETAIL DESIGN*

OUTLOOK In-Depth understanding of components of retail, Brand Identity Integration, Display Strategies, Packaging. Should be enthusiastic, proactive, willing to learn and adapt.

BACKGROUND The applicant should have had some exposure working for the Retail Sector.

EXPERIENCE 0-1 Years of experience.

SKILL SET The candidate should have good Visualization and Presentation Skills. Software skills should include Adobe Suite/ Coral and at least one 3D modelling software with rendering capability.

ROLE The role would include design development and detailing of Retail Spaces in various formats, Consultant/Vendor Handling, Execution Drawings, Specifications, On-Site Coordination.

LOCATION *3.0 Operations Manager:*

OUTLOOK Good Managerial and Organization Skills. Long-Term commitment to the studio, proactive, willing to learn and adapt.

BACKGROUND The applicant should have some background in accounting and management.

EXPERIENCE 0-2 Years in a similar role.

SKILL SET The candidate should have excellent communication skills and good command over language. Software skills should include MS Office suite and Tally.

ROLE The candidate shall handle overall studio management, data entries and provide operations support to the design team. The role shall include handling of general administration, accounts, Handling Vendors and Payments, Coordination with C.A. and government agencies.

LOCATION Figments Studio, Pune. Extensive local travel in Pune.

All candidates should apply with a detailed CV (to rujuta@figments.in) and three references one each from a person who has known the applicant in Professional (employee/intern), Academic and Personal capacity.

***203, 2nd floor, Mont Vert Arcade, Sus Road, Pune 411021 ** ***

***Tel:+91 20 25870256 |**

***Email: jasleen**@figments.in <shipra@figments.in>** ***

Website: **www.figments.in*

<http://www.facebook.com/Figments.Inc>

9.

Paradigm Creatives(Hyderabad) is looking for UX Designers and Web developers.

UX Designer:

- **1 Yr Exp.**
- **Formal design education background.**
- **Conceptualize, design and deliver UI solutions for various platforms such as web, mobile, and tablet platforms.**

- Should be able to handle throughout the project life cycle, starting from the requirement-gathering phase.

Web developer:

- A minimum of 3 years successful experience of web development
- Strong JavaScript, HTML5 and CSS3
- Experience with JQuery
- Knowledge of Web 2.0 and current industry trends

Interested people can send their RESUMES and PORTFOLIOS to
naveen.krishnamasetti@paradigminfotech.com (040 – 4478 1119)

10.

Centre for Knowledge Societies, CKS Consulting Pvt. Ltd. (www.cks.in) is an innovation consulting firm, specializing in user-centered research and design in multiple domains, such as healthcare, m-commerce and finance, telecom, amongst others.

This posting is regarding an immediate job opportunity with CKS regarding a healthcare project based in Bihar. The aim of the project would be to conduct usability testing and ethnographic research in order to propose design refinements for existing prototypes of mobile based solutions.

Job Title: *Design Researcher*

***Project Start Date* : November 21st ,2011**

***Project Duration*: 2-3 months**

Project Requirements

Must have prior experience in conducting market/field research/ethnography and/ or usability testing.

Should be willing to travel to Bihar and conduct research in rural areas.

Must be well versed in Hindi. Familiarity with local context (Bihar, Western UP) would be a plus.

Must have good writing skills in order to effectively articulate field insights

Interested candidates, please share your resumes and/or portfolios/writing samples with Carmel

e- carmel@cks.in)

ph-+91-9945467257

CKS Consulting Pvt. Ltd.

11.

About YUJ Designs

YUJ Designs' consulting services has enabled organizations to gain competitive advantage by implementing thought-through user experience (UX) strategies that had direct impact on their product and business success.

Our staff trained in various disciplines- human factors engineering, product design and visual communication - provide end-to-end user experience design consulting services. With an average 10+ years of global consulting experience, our consultants provide value worldwide.

Be it conducting quantitative or qualitative user research, informing design strategy or executing effective detailed design we make sure to drive the design thinking for our customers.

Ideal candidate get to work in a highly collaborative, fast-paced environment. Applicants must have substantial experience creating or redesigning scalable visual systems for websites, mobile, and handheld systems like ipad and tab.

Position: Senior User Experience Designer

Location: Bay area, San Francisco

Job Profile

- Work independently with the client (multiple stakeholders) to diagnose business needs
- Partner with user researchers to drive research to find user needs
- Create interaction design wireframes: Provide insightful UI solutions to business challenges and design robust UI structures based on business and user insights.
- Work as a project lead and manage all design activities including co-ordination of visual design and UI front end.
- Team with the backend dev team to ensure your design gets translated well – as a final product
- Manage communication at all levels and project deliverables

Must have

- Hands-on experience of all usability processes
- Proven ability to plan and conduct all UX Design activities independently
- Eye for details with strong knowledge of visual design principles
- Experience designing types of UI (Website, GUI, Web, Mobile applications) using wire-framing tools.
- Familiarity with various UI technologies
- Must possess excellent interpersonal communication, management, negotiation and client relations skills
- 5 to 8 years of solid industry experience

Send your latest resume and short but strong portfolio to talent@yujdesigns.com

12.

Logitech India, Digital Home group, Chennai is looking for a Senior User Experience Engineer with 6-12 years of experience who would be responsible for creating a UI Framework and designing interactive prototypes for various smartphone, tablets and cloud based applications for Logitech's suite of digital home products which includes Universal Remotes, home security systems, digital video based devices and several other next generation digital home products. The ideal candidate should have expertise RIA technologies like AS3, HTML5 or Silverlight, and other UI frameworks like JQuery, Dojo etc. He should be capable of

working closely with the interaction designers, and develop high fidelity prototypes based on wireframes. He should also have good attention to details, and in-depth understanding of visual design, interaction design and usability. Please note this is not an Interaction Designer or Visual designer role. Person who have hands on experience of developing highly interactive applications for smart phone, tablets and cloud services using Silverlight, AS3, or AJAX should only apply for this position. Experience of developing applications for Iphone or Android devices is a definite plus.

Interested candidates can forward their resume directly to me at skarmakar@logitech.com or pkumar1@logitech.com.

13.

Intellitots Learning is a professionally managed organisation in the sphere of education. We are based at Gurgaon, Delhi NCR. Intellitots promotes excellence in early childhood education by bringing together innovative learning oriented programs and products for the early years i.e. 6 months – 6 years. As part of our fast-track growth, we now have opportunities for interns in the area of design.

Organization: Intellitots Learning Pvt Ltd (A detailed profile is attached)

Location: Gurgaon, India

Website: www.intellitots.in / www.facebook.com/intellitots

Contact Details: Seema Varma

Ph: +91-98181 82835

Email: info@intellitots.in

Project Overview: Intellitots is launching a range of learning oriented toys for the early years (6 months- 6 years). The 4 areas of focus will be music and movement, Art enrichment, Role-play and drama and learning aids for children. The intern will be responsible for developing concepts for toys and games and work with the team at Intellitots to develop a prototype. We would look to work with the intern to complete the cycle of designing all the way from concepts to end product to packaging. Some key project goals would be

- **Research to identify compelling toy and game concepts for early years**
- **Develop a cost effective design for one of the toy concepts in every category from prototype development to packaging**
- **Provide input to the branding team to ensure premium learning oriented toy and game positioning.**

Please let us know if any of your students would like to work on this extremely interesting live project.

14.

Zynga India is looking for a User Interface Designer to join their growing team! The UI Designer will work closely with Producers, Product Managers, and Engineers to design and implement UI features.

This position is located in Zynga's India(Bangalore) office.

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:

- **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**

15.

Logitech India, Digital Home Group, Chennai is looking for User Research and Interaction Design Interns (3-6months). The candidate should be responsible for conducting qualitative user research in the consumer electronics domain, primarily focusing on digital home and entertainment products (tablets, smart phones, home security devices, next generation remote controls) and come up with product concepts for future digital home products.

He or she will also be responsible for building low and hi fidelity prototypes for new product concepts. The ideal candidate should have good understanding of UCD process, familiar with different types of user research methods, and should have the ability to translate research findings into tangible product concepts using various prototyping methods and tools. He should be a creative thinker, a quick learner, and must have can do attitude.

Please note this is an internship program. This is applicable only for those candidates who are still in their Under Graduate or Post Graduate programs,

preferably from NID or IDC and are interested in this internship program please send your portfolio and resume directly to me at skarmakar@logitech.com or subhasish.karmakar@google.com

16.

iGatePatni User Experience group has been dealing with experience design patterns of hardware devices as well as software experience design including handhelds.

If you are looking for joining team of passionate UX professionals, we have openings at Chennai, Bangalore, Pune and Mumbai.

a. Usability Specialist

Candidates with 3-5 years of good experience in Usability Methodologies like User Research, Heuristic Analysis, Card Sorting, Information Architecture, Wireframing, Usability Testing & Accessibility. Candidate should be well versed in designing interfaces & adept in verbal & written communication. Candidate should be ready to travel in India & abroad. US H1 ready candidates will be preferred.

Required Skill sets:

- **UCD Methodology**
- **Wireframing tools: Balsamiq, visio etc**
- **Photoshop**
- **Techsmith Morae**

b. XHTML/HTML Developer

Candidate having 4-5 years of solid experience converting given application wireframes/visual concepts into pixel perfect XHTML/HTML prototypes with emphasis on clean and clear semantic code, should have knowledge of accessibility guidelines, should be well versed in solving cross browser compatibility issues and clearly understand the client requirement documents. Candidate should ready to travel

Required Skillsets as given below

- **XHTML/HTML/HTML5**
- **CSS/CSS3**
- **Dreamweaver**
- **Javascript**
- **Jquery/Dojo/Mootools/ExtJS**
- **Image cropping**

c. Interaction Designer

Candidate with 3-4 years of experience in designing visually appealing concepts for different media like desktop application, website, mobile screens and applications, tablet PC etc. Candidate should be able to convert the client requirements into creative and quality visual interfaces. Candidate should be ready to travel

Required Skill sets

- **Photoshop**
- **Fireworks**
- **InDesign**
- **Illustrator**
- **Wireframing tools: Balsamiq, Visio etc**
- **Usability concepts**

Interested candidates please forward your cvs with portfolio to reshma.gaikwad@igatepatni.com



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request kindly submit your latest articles,
research findings , news and events with us for
publication in our newsletter.*

*With regards
Dr. Sunil Bhatia
Design For All Institute of India
www.designforall.in
dr_subha@yahoo.com
Tel:91-11-27853470(R)*

Forthcoming Events and Programs:

Editor@designforall.in

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Chief-Editor:



**Dr .Sunil Kumar Bhatia Faculty Member,
13, Lodhi Institutional Area, Lodhi Road, New
Delhi-110003(INDIA)**

Editor:



**Shri L.K. Das
Former Head Industrial Design Center, Indian
Institute of Technology (Delhi), India**

Associate Editor:

**Shri. Amitav Bhowmick Industrial Designer
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Editorial Board:

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Special Correspondent:

**Ms Nemisha Sharma ,Mumbai, India
Nemisha.17@hotmail.com**

Contributors:



Abir Mullick
abir.mullick@gmail.com



Dr Gaurav Raheja



Dr. Haimanti Banerji



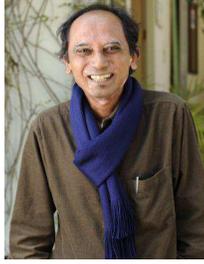
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Shivani Gupta



Dr. Debkumar Chakrabarti



Prof. V Ravishankar



Ms Anjlee Agarwal



Ms Nidhi Madan

**Address for Correspondence:
13, Lodhi Institutional Area,
Lodhi Road, New Delhi-110 003India.**

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