UN ACADEMIC IMPACT AT BNCA

BNCA

MAHARSHI KARVE STREE SHIKSHAN SAMSTHA'S
DR. BHANUBEN NANAVATI
COLLEGE OF ARCHITECTURE
FOR WOMEN

UN ACADEMIC IMPACT AT BNCA

MKSSS's Dr. B. N. College of Architecture, Pune, India | October 2016 |

At the 2nd UN Academic Impact forum, Seoul.

Team

Dr. Anurag Kashyap, Principal, BNCA

**Prof. Asmita Joshi, Director, UNAI Hub, BNCA
email: asmita.divekar@bnca.ac.in**

Prof. Shruti Joshi, International Cell, BNCA

Web: http://bnca.ac.in/about-unai/
mail@bnca.ac.in

Editors
Asmita Joshi
Ar. Shubhashweti Sinha

Cover Photo: BNCA Student, Sustainable housing unit in construction, Shinyanga, Tanzania

About MKSSS

Maharshi Karve Stree Shikshan Samstha (MKSSS), Pune, India :

The 120-years-old parent body has been committed to "**Empowerment of women through education**". The Institution has a century long history of dedicated work towards making women educated and self-reliant. MKSSS, Pune was established in 1896 by the great visionary and social worker Bharat Ratna Maharshi Dhondo Keshav Karve to provide shelter to destitute women.

Prof. Karve founded this Institution with the objectives of upliftment, emancipation and education of women who formed a major section of the socially downtrodden. He dedicated his whole life for this humanitarian cause with great determination and courage. For his sacrifice and dedicated social work and his contribution to the noble cause he was awarded "Bharat Ratna" the highest national civilian award.

Maharshi Karve Stree Shikshan Samstha, Pune has diversified branches all over Maharashtra in India and about 25,000 girl students are learning in these institutions. Dr. B. N. College of Architecture is a sister concern of MKSSS.
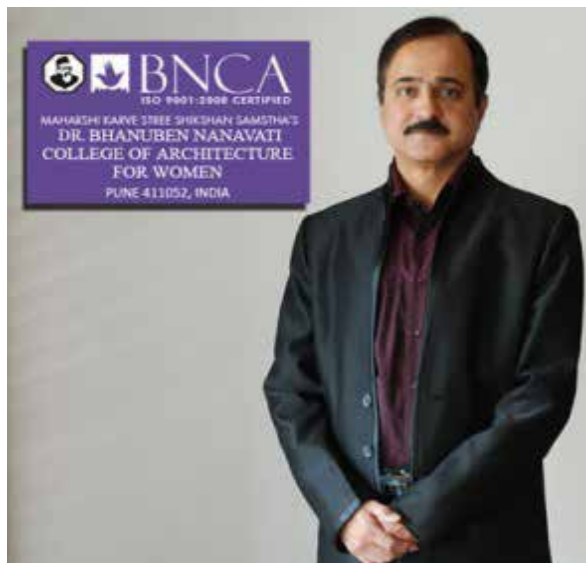
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*Bharat Ratna Maharshi Dhondo Keshav Karve (1858-1962)
(Founder, MKSSS Maharshi Karve Institutes of Education for Women)*

Maharshi Keshav Karve Awarded Bharat Ratna by the former President of India Dr. Rajendra Prasad

Source: MKSSS web http://maharshikarve.ac.in/

"We at BNCA have strived to establish a culture of learning that is unconventional, cognitive and empowering. We academicians should further the understanding and purpose of education and strive **to go beyond the acquisition of knowledge and cognitive skills, to transform the way people think and act individually and collectively.** This I believe will lead us to towards the goal of transformative education that will benefit the society.

BNCA serves a platform for architectural education for aspired talents from all backgrounds and regions which dates back to two decades now and continues to enable a cohesive and friendly environment for students."

Dr. Anurag Kashyap, Principal, BNCA

"Education is privileged field which has the unique opportunity to contribute to social issues and addressing poverty. We believe the UNAI hub at BNCA will strive to work closely with fellow universities on programs and projects aligned with the sustainable development goals." Dr. Anurag Kashyap, BNCA

Ban Ki-moon is the eighth Secretary-General of the United Nations. Before becoming Secretary-General, Ban was a career diplomat in South Korea's Ministry of Foreign Affairs and in the United Nations. He entered diplomatic service the year he graduated from university, accepting his first post in New Delhi, India. His priorities have been to mobilize world leaders around a set of new global challenges, from climate change and economic upheaval to pandemics and increasing pressures involving food, energy and water. He has sought to be a bridge-builder, to give voice to the world's poorest and most vulnerable people, and to strengthen the Organization itself.

Ban Ki-moon
Secretary-General of the United Nations

In the words of United Nations Secretary-General Ban Ki-moon: "The Academic Impact aims to generate a global movement of minds to promote a new culture of intellectual social responsibility. It is animated by a commitment to certain bedrock principles."

"At UNAI hub we provide a platform to work towards international associations with universities and global networks as partners for knowledge exchange. We follow Ban Ki Moon's vision and importance given for the need for ideas and breakthroughs which essentially brings life at United Nations.

We at BNCA as an architectural fraternity use this platform to generate action oriented projects with multidisciplinary approach sharing ideas across borders to find solutions for interconnected or common problems. We aspire to build a better world inspiring students with dynamism, energy and commitment with an enhanced learning experience with live projects. We hope these various aspects continue to evolve and become valuable contributions, may it be studying new theories, perspectives or developing new modules and designs thus creating an impact."

Prof Asmita Joshi, Director, UNAI Hub, BNCA

Ramu Damodaran is Deputy Director for Partnerships and Public Engagement in the United Nations Department of Public Information's Outreach Division. He was earlier Chief of its Civil Society Service from November 2002. His responsibilities focus particularly on outreach to, and partnerships with, the non-governmental, academic and private sector constituencies, as well as to the general public.

Mr. Damodaran is chief of the United Nations Academic Impact initiative, which aligns institutions of higher learning and research with the objectives of the United Nations and the States and peoples who constitute it.

He was a member of the Indian Foreign Service and was promoted to the rank of Ambassador. Mr. Damodaran served as Executive Assistant to the Prime Minister of India and served in diplomatic missions in Moscow and to the United Nations.

About BNCA

MKSSS's Dr. Bhanuben Nanavati College of Architecture for Women, founded in 1994 under the able leadership of Mr. Avinash Wardekar and Principal Anurag Kashyap, with the generous donation by Late Mr. Mahendrabhai Nanavati has a glorious historical background of Maharshi Karve Stree Shikshan Sanstha, Pune, founded in 1896, with the main mission of uplifting the social, educational, financial and spiritual conditions of women and widows, making them confident and self reliant.

The institute is conceived as a multidisciplinary center of learning where architectural education is considered as a total personality development program. It offers Bachelor of Architecture – B.Arch., Master of Architecture - M.Arch. in Digital, Landscape and Environment architecture as well as Doctorate programs under Savitribai Phule Pune University, and autonomous diploma programs. It was evolved in essence to ensure quality education and it has maintained this agenda to the present day. This institute has been established with a futuristic approach and idealism towards architectural education.

BNCA has always been on the fore front and in pace with the latest technological development. Its motif here is to educate and prepare students to be creative and technically skilled professionals, qualified for productive careers in the field of architecture.

Further information on: www.bnca.ac.in

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About UNAI

The United Nations Academic Impact (UNAI) is a global initiative that aligns institutions of higher education with the United Nations in furthering the realization of the purposes and mandate of the Organization through activities and research in a shared culture of intellectual social responsibility. The UN secretary general Ban-Ki-Moon launched the initiative in 2010. The chief of UN Academic Imapct Initiative is Mr. Ramu Damodaran.

Academic Impact is informed by a commitment to support and advance ten basic principles:

1. A commitment to the principles inherent in the United Nations Charter as values that education seeks to promote and help fulfil;

2. A commitment to human rights, among them freedom of inquiry, opinion, and speech;

3. A commitment to educational opportunity for all people regardless of gender, race, religion or

ethnicity;

4. A commitment to the opportunity for every interested individual to acquire the skills and knowledge necessary for the pursuit of higher education;

5. A commitment to building capacity in higher education systems across the world;

6. A commitment to encouraging global citizenship through education;

7. A commitment to advancing peace and conflict resolution through education;

8. A commitment to addressing issues of poverty through education;

9. A commitment to promoting sustainability through education;

10. A commitment to promoting inter-cultural dialogue and understanding, and the "unlearning" of intolerance, through education.

Last year the international community adopted the Sustainable Development Goals (SDG's), an important step in achieving the 2030 Development Agenda.

Eradicating poverty is one of the greatest global challenges facing the world. The first of the 17 Sustainable Development Goals is 'No Poverty'. While the number of people living in extreme poverty has dropped by more than half from 1.9 billion in 1990, to 836 million in 2015, too many are still struggling for the most basic human needs.

Globally, around 800 million people are still living on less than $1.25 a day with many lacking access to adequate food, clean drinking water and sanitation. Rapid economic growth in countries like China and India has lifted millions out of poverty, but progress has also been uneven. Women are disproportionately more likely to live in poverty than men due to unequal access to paid work, education and property.

Source: www.undp.org

1 NO POVERTY — End poverty in all its forms everywhere

Building dry compost toilet in Zambia

World and regional poverty Estimates, 2013

Region	Headcount ratio (%)	Poverty gap (%)	Squared poverty gap (%)	Poor (millions)
East Asia and Pacific	3.5	0.7	0.2	71.0
Eastern Europe and Central Asia	2.3	0.6	0.3	10.8
Latin America and the Caribbean	5.4	2.6	1.8	33.6
Middle East and North Africa[a]	—	—	—	—
South Asia	15.1	2.8	0.8	256.2
Sub-Saharan Africa	41.0	15.9	8.4	388.7
Total, six regions	12.6	3.8	1.8	766.6
World	10.7	3.2	1.5	766.6

Source: Latest estimates based on 2013 data using Poverty.Net (Online analysis tool). World Bank, Washington DC.

UNAI Hub

The UNAI is built around ten principles, and there are ten institutions across the world that serve as UNAI's global hub on each of the ten principles. Dr. B. N. College of Architecture serves as UNAI's global hub on "Addressing poverty " (Principle #8). The central idea of the hub is to serve as a platform where students and educators from the parent institute and from other UNAI member institutes come together to share ideas and discuss action plans which aims at addressing poverty.

BNCA is a member of UNAI since 2012 and a UNAI hub since 2014. It has been enabling various programs addressing poverty through education.

As architects and planners the material outcomes of any development can be realized and the process itself becomes a catalyst for bringing together communities and patrons. BNCA took forward this idea and looked upon how concrete actions and projects can inspire its students.

It began defining these approaches at various levels and the UNAI hub provided great impetus to generate collaborative projects and with a multidisciplinary approach.

BNCA has been active both academically and in extra curricular to inculcate such principles in students through different processes. It takes up various programs each year to enable and inspire its students promoting universal values.

Objectives

BNCA aims to bring together educators in higher education across the globe to identify a common core of strategies to be shared among countries which will help mitigate crucial issues related to poverty. Its objectives are

- To work with people and **communities** experiencing poverty and to enable them to address the same through innovative approaches.
- To work on **collaborative** live projects and workshops.
- To help spread **awareness** regarding SDGs, UNAI principles and role of academics.
- To work on **Knowledge exchange** through research and development.

The institute thus invites various partnerships among actors and educators to join hands and build further towards its aligned goals.

BNCA - UNAI aims and outreach

More than half of the world's population now live in urban areas. By 2050, that figure will have risen to 6.5 billion people – two-thirds of all humanity. Sustainable development cannot be achieved without significantly transforming the way we build and manage our urban spaces. Extreme poverty is often concentrated in urban spaces, and national and city governments struggle to accommodate the rising population in these areas.

Goal #11 'Sustainable Cities and Communities' will be crucial in equipping the cities of the future by making them safe, sustainable and abundant with access to affordable housing. It involves initiatives to be taken for public transport, creating green public spaces, and improving urban planning and management in a way that is participatory and inclusive. (UNDP, undp.org, 2016)

Translating Goals into Action: UNAI at BNCA

In regards to providing access to affordable and adequate housing BNCA took up various design programs in academics collaborating for knowledge exchange. The department of Digital Architecture of BNCA conducted social housing design as part of its academic curriculum. 'How can density and social housing integrate a wider array of functions and spatial economies' were some of the design queries put forth along with contextual mapping of slums. Students worked on digitization of spaces and modules and further developed distinctive designs. Thus using newer technologies the unique and only digital architecture facility in India has been contributing towards innovation in the Asian context.

Design programs conducted at 4th year level seek to address sustainable urban development. It insists to have at least one distinctive component of energy efficient, green building in conception and can be exhibited in the built and the un-built. A RURBAN housing design brief aimed at planning 'smart villages' while preserving local architectural characters, lifestyles and local economies. Another design brief took up the up-cycling of containers to create modular, eco-friendly and cost effective container housing.

Recently in order to deal with rivers and riverfront development of Pune a workshop was conducted under the guidance of Prof. Shruti Joshi and Dr. Johannes Widodo of National University of Singapore. The proposals were presented with the municipal council members and political activists.

Mr. Hassan, Mr. Vikas Sharma,

Ms. Elsie, Prof Asmita Joshi (BNCA), Mr. Ramu Damodaran (Chief UNAI), Mr. Koshy.

The UNAI –BNCA Team (Top)

Programs
&
Projects

Sustainable Housing Unit
Service learning program, Tanzania

A sustainable initiative giving impetus to learning through community service and its development was taken under the UNAI program with BNCA. It focused on building a sustainable housing unit in Shinyanga, Tanzania and providing environmental education. In this project Green contributors & Savannah Plains International School of Shinyanga, partnered with the institute towards community development & Environmental Education.

The program was divided into three distinct programs which included constructing a sustainable house for a family of a Widow, visit to Lake Victoria and providing Environmental education to the students of Savannah Plains International School.

BNCA students worked towards capacity building with the community and came up with a prototype design for a housing unit for communities with low income, which contributed in promoting local skills and craftsmanship and add to innovations in the same. As this project was a prototype it will serve many in the long run.

The "Sustainable Housing Unit" for a family of 7 people located near Savannah Plains International School was built in two weeks. The house was built for minimum necessities, addressing the needs of a family of only women, low on maintenance and yet appropriate in its spatial proportions. The design took shape from how the family would spend a typical day out on the field working, coming back home to cook, and resting till the next day.

The materials opted were those that cost next to nothing, and wouldn't harm the natural environment as much as a conventional RCC apartment block would. The most sustainable material we used on site were the Interlocking bricks, which were made with red murrum, cement and water. The bricks did not require baking and were cast manually.

With Tutors of Savanna Plains International school.

Community and students

Low cost Materials used : Stones; Interlocking Bricks; Minimum amount of Cement ; Timber for the roof Truss and GI sheets for roof and Glass bottles of different Shape and size to build a feature wall.

Red mud blocks cast on site

Students and faculty along with the town planning authority of Shinyanga

Service learning program, Tanzania

VISIT TO LAKE VICTORIA

Trip to Lake Victoria, was organized on 15th -16th of June 2012, to allow students to understand the surroundings of the lake and its problems, to interact with the local people and understand their lifestyle and culture. Students were divided in groups and were provided with an assignment to field study and interview the local fishermen to understand their economic and ecological problems they face in day to day life.

At the end of this trip it was concluded, that people earn very little wages, as life is very difficult; due to illegal fishing, the ecology is getting disturbed and there is a decline in fishes that are caught every day. Students were also provided with information on how Illegal fishing is done and what are its effects on both man and environment by members of Environmental Department, Mwanza.

ENVIRONMENTAL EDUCATION

This part of the program included teaching students about environment. Various presentations were made for the students to understand ecology and its importance along with viewing documentaries. One of the assignments taken up with the Environmental Club of the school was the Tyre Project. Since, it is very difficult to procure any of the scrap material in Tanzania; the tyres were donated by the in house teachers. Students then painted those tyres in groups and then planted saplings in them.

The project aimed to work towards capacity building with the community and come up with a prototype design for a housing unit for communities with low income. Hence the process would benefit many members of the community in the long run.

Public Event of inauguration of demonstrated prototype

Student building a feature wall by recycling bottles

During construction, workers and community

Community learning center
Kapila Village, Zambia

A Program was conducted in Kapila village Lusaka in June 2013 which was a unique opportunity to have a hands on community development and service experience. It helped to transform Katuba & Kapila Villages in a rural region near Lusaka with no access to electricity. The design programs were to empower the community to become self-sustainable.

The role of BNCA under UNAI program was to design and help construct multi-use community blocks in village Kapila which will also be a learning center and entrepreneurship place. One of the challenges at Kapila basic school and its community were lack of accommodation for teachers due to which very few teachers could teach there. The design aimed to develop a 'Sustainable Multi use Community Block' at Kapila for the use of schools, students, teachers, youths and community around the nearby villages that surround this place. Multi-functional use of the space as a learning center with open spaces, entrepreneurship training facility, and accommodation for teachers and visitors was to be enabled.

Construction of first multi-use block was undertaken with an architectural plan developed by students which addressed the context and was climate responsive. It was to be initiated as the first phase of the developmental activities. This was built using sustainable materials which were locally made interlocking mud bricks and were constructed by locals where laborers from the village contributed and joined in this activity voluntarily.

This unit has a self-contained kitchen and a washroom and toilet facility. Some of the highlights were walls made up of used glass bottles of various shapes and colors along with mortar allowing light to filter in the unit and add to the aesthetics of the unit. The central courtyard acted as a community space that can be used for various activities.

Address at the Pestalozzi Education Centre, Lusaka

With Hon.Rodgers Mwewa, Deputy Minister -Ministry of Agriculture and Livestock at Fountain of Hope

Sun Dried mud block modules on site

Honourable minister of education with students

Community learning center
Initiating dry compost toilets

Introduction of dry compost toilet technique for sanitation and hygiene of community concerned was taken up. Initially the students Meenakshi Dravid and Anisha Patel from BNCA visited the village Darevadi, Purandar to study the construction and functioning of the UDDTs by the Ecosan Services Foundation. According to EcoSan Foundation, the most difficult part of such project is to convince the people to use the technology. The awareness generation exercise after the construction was key as the success of this system and depends on the correct use of the toilet. Apart from being very effective water saving technique the other benefits of using dry compost is the urine stored that can be used as a fertilizer and the manure generated at the end of the 6 month anaerobic decomposition period.

After studying a few other systems it was realized that this was the most appropriate one for the project at Kapila, Zambia and that with the right awareness exercise, it would be ideal for the context.

Thus a dry compost toilet was built was the help of local resources and inaugurated by local and community development leaders.

Introduction of dry compost toilet technique for sanitation and hygiene of community concerned.

With community development ministers

Inauguration of dry compost toilet

BNCA at UWI university of West Indies

Revamping Ship Containers
Montego Bay, Jamaica

As a part of the program, students of BNCA worked on designs for revamping of Ship containers for school utility as classrooms, library and reading rooms for Barrack Road primary school at Montego Bay, Jamaica. The solutions were innovative, creative and viable and can be replicated in other schools in Jamaica.

The BNCA team also studied the Eco - tourism in Jamaica and after study and analysis, the team proposed a "Heritage Trail for Montego Bay" for the next phase of the project. The trail would help and promote the local Architecture and local community. A brief proposal of the same was submitted to Jamaica Tourism Board during the visit.

BNCA Team met Representatives from the Ministry of Education, member of the parliament, and representatives from Tourism Ministry at Jamaica and presented the proposals. The proposals were endorsed and a funding of 2000$ was immediately bestowed to the team for purchase of Container. The refurbishment work was completed in a month before the starting of the school session.

"The Program in Jamaica has been a great success and our students and our faculty have made BNCA proud. This endeavor has led to set an example to be followed for sustainable initiatives and community development programs preceding the earlier Programs in Tanzania and Zambia." (Dr. Anurag Kashyap, Principal BNCA).

At the member of Parliaments Office, Montego Bay

At the fisherman's village, Motego Bay.

Ship containers designed for school utility

Spaces for library, reading rooms and classrooms

Student Experience

"To be part of an academic program under the umbrella of the UN itself was a very great opportunity. Building alongside with the communities of Kapila and Katuba along with my peers, was an experience I will treasure for long. **The Impact program helped me to bridge the gap between the academic intent of sustainable architecture and building and put it into practice.**"

Meenakshi Dravid, Alumni, BNCA
Studying at Southern California Institute of Architecture (SCI_Arc) with specific interest in digital, analog and robotics), Received the Thom Mayne Scholarship for 2016-17

"I lead a team of students that researched on and designed a multi Utility center along with dry toilets for the town of Kapila near Lusaka, the capital of Zambia. We had the opportunity of collaborating with Green Contributors Canada and Ecosan Services Foundation on designing and understanding the technology involved. The experience of working on site for three weeks on this project helped me understand the importance of stakeholder involvement in the project, which is in line with the Sustainable Development goals. This experience has expanded my understanding of vernacular and encouraged me to enroll for the World heritage Studies program at the Brandenburg University of Technology, Cottbus, Germany."

Anisha Patel, Alumni, BNCA

"In June 2014, I participated in the UNAI program at Motego Bay where we used shipping containers and submitted a design proposal of school classrooms and library to the Chamber of Commerce. We studied the Eco-tourism aspects of Jamaica and also presented a management plan for the same.

It was a very good learning experience and a platform where we were able to showcase our ideas and views about important issues which needed attention. The program really helped us get that confidence to speak up and express our ideas on an international platform among delegates of United Nations at its headquarters in New York."

Karishma Kalbhor, Alumni
Pursuing M. Arch in Landscape Architecture, BNCA

"One of the biggest highlights of my architectural education was visiting Jamaica and working on a live site for a community development program. It happened to be my first international visit so I was really excited. We met and interacted with local authorities, teachers, students and many people from different cultural backgrounds. We incorporated this knowledge with our research and analysis and came up with best possible solutions to create sustainable spaces using ship containers. It was a great learning experience to use our academic knowledge and research skills in addressing genuine community needs."

Suhruda Karekar, Alumni, BNCA

"Building a Sustainable Housing Unit at Shinyanga, Tanzania for a family of 7 people has been a wonderful experience at fieldwork; as working with new people, in a complete new environment & culture and having a language barrier had not been an obstacle anywhere in the entire project and has resulted in successful completion of the house in mere two weeks. As the project was a prototype it will serve many in long run."

Ketaki Randive, Alumni, M.Arch (L.A),
Achievements & Awards Special Mention for Landscape Design Proposal for an Industrial Project, Atlas Copco, 2013; Best Outgoing Student, M.arch, L.A, (2012-2014)

"UNAI is a platform that allowed students willing to contribute really explore and manifest their ideas into something useful and probably life changing; at a scale only a few can imagine. The amount of exposure that I received in the 1 month that we worked on the project, including the 10 days of presenting, discussing and and deriving the final product contributed to how I approached any project thereafter. It was because, there was no one else involved in the design process but us the designers along with our guides and the client, the students of barrack roads primary school, that is the freedom this program gave us.

Visiting the students at Barrack Road primary school and interacting with them was almost liberating, because it made us more aware of the change we can bring about as architects and affect peoples lives.

It was that opportunity that we as students could not miss, to provide children with a study space, to help them attain education."

Ruchi Pahuja
Graduated – June 2016
Attended the UNAI program in Jamaica

Urban Landscapes
for a better tomorrow, Maribor, Slovenia

A workshop was organised in Maribor with the aim to generate innovative urban design approaches for developing participatory viable urban landscapes. This workshop was an initiative for a global collaboration between BNCA, DEMOLA Slovenia, RAZUM and Green Contributor Inc. Canada. The objectives of the workshop were introduction to design thinking process in the context of green building in the botanical garden. It was followed by developing a design brief taking into considerations the functions on the given site. This stage was followed by further developing an action plan using informed planning and design methods. Research in design was carried out with a rapid concept design technique using paper and collage to produce multiple design ideas.

BNCA architecture students were accompanied by students from several other countries. The students had also gathered at a local watering hole called 'Tkalka', which is famous for providing people a sitting area to come and work, whether solo or in groups. People from all walks of life choose this location to get together and work.

There was a brief speech by Dr. Andrej Duh, the head of DEMOLA, followed by Dr. Tanja SimoničKorošak. She gave a brief introduction of DEMOLA and all the work that they do in Slovenia, followed by a presentation of the botanical gardens.

A presentation was also done by BNCA students about a rooftop gardens project in Peru, which is a prospective trip in the future. After that, two people from each group presented ideas for ideal rooftop garden sustenance for areas with dry and arid climate. The ideas that the students came up with were really well thought out and innovative.

Students pointed out that the botanical park was not conducive to visitors who were specially-abled, for example, the visually impaired or people using wheelchairs. The idea of using a universal design was suggested, while some student thought that special designs could be made at specific locations.

Design thinking and exploring varied processes with students of Maribor.

Sessions in different groups

Emergency Shelter design
Collaborative prototype building, Pune and Budapest

With the advent of natural disasters, climate change and humanitarian crises the need for appropriate emergency shelters has increased. In this regard BNCA conducted a workshop with the help of DEMOLA to explore various design possibilities and interventions for emergency shelters.

Phase I : Design workshop in Pune

The aim of this workshop was to design a small scalable shelter covering as many human needs as possible, which could be made of any materials or a "sandwich" made from several materials including recycled products.

Students came up with designs where the idea was to ensure that the shelter could be put up on the go, easily transportable, readily assembled, and could be used in different types of emergencies.

This workshop was done with the user-perspective & feasibility in mind. During the workshop the students experienced an inventive thinking process having a modular and global approach. While as part of the UNAI initiative this is ultimately meant to help people in times of disaster, students would get to initiate work where the plans and mock-up models made by students will be introduced to the manufacturers.
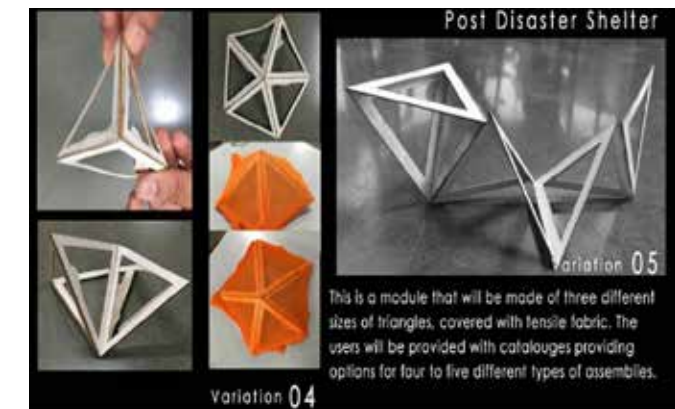

Emergency shelter models
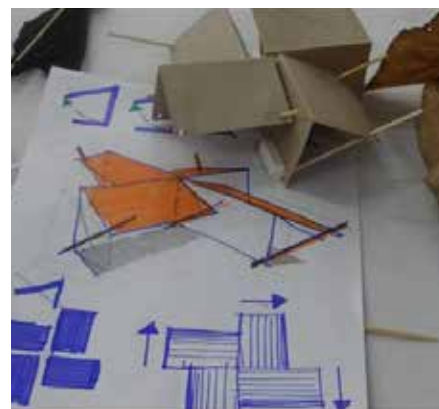
Exploring varied materials

Obejective of design was to make a unit shelter which could address and mitigate different disaster scenarios eg. – Flood, Tsunami, Earthquake, Heavy rains and snow, Landslides, windstorms etc.

Presenting designs to different scenarios

Design modules made by groups

Emergency Shelter design

Collaborative prototype building, Pune and Budapest

Phase II : Building prototype in Budapest

The initial design phase conducted in Pune was brought further to be implemented by building actual scale prototypes with the help of MEGAPLAST in Budapest.

The project was done partnering with DEMOLA is an award-winning Finnish innovation ecosystem for students, companies and universities. It is a collaborative open innovation platform where talented university students co-create new solutions to real-life problems with companies and other project partners .

The event was a success with built modules and students had hands on experience with the help of machines provided by the company and hosting partners. There was knowledge exchange among students from different cultures and BNCA received further positive response with the interests of students involved with research to visit and learn at BNCA campus in Pune.

Building prototypes

One of the designed shelter modules

Design development sessions

At the Megaplast factory centre in Budapest

Student Experience

"In the year 2015 I got an opportunity to attend a workshop in Maribor, Slovenia under the UNAI program. We worked together with students of University of Maribor under Demola, which gave an idea of their working techniques and design abilities and by combining brains of all of us as a part of the workshop we could come up with basic yet creative solutions for redevelopment of Botanical garden of Maribor as well as for encouraging green architecture."

Anagha Patil, B.Arch 4th year, BNCA

"UNAI demola was a very creative platform for budding students like us to build hands on experience as to designing with materials. We learnt to work with the local students and faced practical difficulties and found alternative solutions to the same."- **Neha Oswal, B.Arch. 3rd year, BNCA**

"Our project consisted of finding design solutions for sustainable roof top gardens for families in Peru . The roof top garden would help sustain a family of 6 people along with reducing their expenses on vegetables , fruits , etc. To understand this, we visited the botanical garden of Maribore with students from Maribore University.

The first assignment was to express and sketch our findings regarding the botanical garden. In the next sessions we worked on solutions understanding the needs of the families in Peru and accordingly each group presented atleast 3 proposals."

Riddhi Kulkarni, 4th year, BNCA

Attended UNAI program in Slovenia

Ritika Mantri, Student, BNCA

"My experience at UNAI program in Budapest was truely mesmerising. I was introduced to a new design concept in the emergency shelter design workshop. We worked continously for days and came up with a design of shell structure which can be used as a shelter in earthquake or flood prone areas .

The faculty and organisers at Demola were also helful and led us to explore new ideas."

"It was a very good experience under UNAI where we worked with engineers and understood the architect and engineer relationship. We also learnt about emergency shelter design, how with use of cost effective and minimal materials strong disaster sustaining designs could be created. This helped me get introduced to various new materials available and exploring arrangements to get least bending and max bending moment.

Thanks to UNAI and giving us this opportunity where we learnt many things and had good experience to cherish for lifetime."

Alisha Sanjay Bothara, Student, BNCA

Holistic Villages Initiative

Holistic Villages Initiative

Master planning & holistic design with BUSArchitektur

In emerging economies like India a city is considered as an aggregation of several villages. Villages and cities coalesce together with their inter-dependencies till the later gets subsumed by the ever-expanding city. In such cases there are township developments that are envisaged by developers as insulated islands that are initiatives in development of self-sufficiencies. There is however a need to develop a holistic perspective towards development of townships and master plans of large developments. This holistic vision should be developed considering all the aspects that impact a city under single frame work. This development of Holistic Villages could factor in the inter dependencies of villages and due care during the design phase should solve issues of unplanned growth.

'Holistic village' is a master planning concept that includes planning principles to consider includes the desire for well-designed urban areas easily serviced with efficient infrastructure, mobility for both goods and people.

MKSSS's BNCA, Pune under its UN Academic Impact Initiative hosted an International workshop from 14th to 18th June, 2016.

This five days intensive workshop titled 'HOLISTIC VILLAGES' conducted at BNCA campus was guided by Dr Laura Spinadel and her team of professional associates from Vienna along with a specialised team of BNCA professors. The mission of the Holistic Villages is to create a critical mass of freethinkers who decide with self-determination to qualify the environment where they co-exist.

This unique opportunity was to help the students to gain a different perspective towards shaping and planning holistic societies.

"This international collaboration will encourage the young minds to achieve change of paradigms which require holistic education. Dr. Laura is very spirited woman. Conversing with her takes you to a different level of understanding of the new approaches towards sustainable designs." quoted Dr. Kashyap in regards to the mentor and master planner Laura P Spinadel.

Students while presenting at the final Jury

Panel Jury from various fields of experience

Ar. Jean Pierre Bolivar, Dr.Mag.Arch.Arq. Laura P Spinadel, and Juan Sebastian Gomez of Vienna

At the second United Nations Academic Impact forum, Seoul

Students of 'emergency shelter workshop' in Budapest

At the second United Nations Academic Impact forum, Seoul

Students at BNCA campus on conclusion of Holistic Villages Initiative

UNAI India Members

1. Acharya N.G. Ranga Agricultural University Asia and the Pacific
2. Amity University Asia and the Pacific
3. Amrita University Asia and the Pacific
4. Annamalai University Asia and the Pacific
5. Ashoka Business School Asia and the Pacific
6. Asian Institute of Management and Technology Asia and the Pacific
7. Assam Don Bosco University Asia and the Pacific
8. Assam University Asia and the Pacific
9. Bangalore University Asia and the Pacific
10. Bareilly College Asia and the Pacific
11. CCLP Worldwide Asia and the Pacific
12. Central Institute of Business Management Research & Development Asia and the Pacific
13. Central University of Jammu Asia and the Pacific
14. Centre for Management, Mumbai Asia and the Pacific
15. CEPT University Americas
16. Chanakya National Law University Asia and the Pacific
17. Deen Dayal Upadhyay Gorakhpur University, Gorakhpur Asia and the Pacific
18. Deviprasad Goenka Management College of Media Studies Asia and the Pacific
19. Dibrugarh University Asia and the Pacific
20. Dr. D. Y. Patil Vidyapeeth, Pune Asia and the Pacific
21. Dr. Ntr University of Health Sciences, A.P. Asia and the Pacific
22. eSchool Kerala Asia and the Pacific
23. Evan Business School Asia and the Pacific
24. Gandhi Institute For Technology, Bhubaneswar Asia and the Pacific
25. Gandhigram Rural University Asia and the Pacific
26. Gujarat National Law University Asia and the Pacific
27. Gujarat Technological University Asia and the Pacific
28. Guru Gobind Singh Indraprastha University Asia and the Pacific
29. Guru Kashi University Asia and the Pacific
30. Indian Education Society's College of Architecture Asia and the Pacific
31. Indian Institute of Technology, Kanpur Asia and the Pacific
32. Institute of International Trade Asia and the Pacific
33. International Human Rights Council in Delhi Asia and the Pacific
34. International Institute for Population Sciences Asia and the Pacific
35. International Institute of Information Technology Hyderabad Asia and the Pacific
36. Jawaharlal Nehru Architecture and Fine Arts University Asia and the Pacific
37. Jawaharlal Nehru Technological University (JNTU), Anantapur Asia and the Pacific
38. Jawaharlal Nehru Technological University (JNTU), Hyderabad Asia and the Pacific
39. Jawaharlal Nehru Technological University (JNTU), Kakinada Asia and the Pacific
40. JIS University Asia and the Pacific
41. Kakatiya University Asia and the Pacific
42. Kalinga Institute of Industrial Technology (KIIT) University Asia and the Pacific
43. Karnatak University Asia and the Pacific
44. Kristu Jyoti College of Management and Technology Asia and the Pacific
45. Lalaji Memorial Omega International School (High School ASPIRE Chapter) Asia and the Pacific
46. Maharshi Dayanand University Asia and the Pacific
47. Mahatma Gandhi University Asia and the Pacific
48. Malankara Social Service Society Asia and the Pacific
49. Mar Thoma College Asia and the Pacific
50. MKSSS's Dr.Bhanuben Nanavati College of Architecture Asia and the Pacific
51. MTC Global Asia and the Pacific
52. Musaliar College of Arts and Science Asia and the Pacific
53. Nalanda Open University Asia and the Pacific
54. National Institute of Technology, Hamirpur (HP) Asia and the Pacific
55. National Law School of India University Asia and the Pacific
56. National Law University, Odisha Asia and the Pacific
57. New International Christian University Asia and the Pacific
58. Newman College Asia and the Pacific
59. Nowgong College Asia and the Pacific
60. Osmania University Asia and the Pacific
61. Panjab University Asia and the Pacific
62. Pondicherry University Asia and the Pacific
63. Providence College of Engineering Asia and the Pacific
64. Punjabi University, Patiala Asia and the Pacific
65. Raindancer Asia and the Pacific
66. Sai College Asia and the Pacific
67. Saurashtra University Asia and the Pacific
68. SCMS School of Architecture Asia and the Pacific
69. Shree Paramhans Swami Madhavanand College Asia and the Pacific
70. Sonti Soft Educational Society Asia and the Pacific
71. South Asian University Asia and the Pacific
72. Sree Buddha College of Engineering Asia and the Pacific
73. Sree Narayana Institute of Technology: SNIT Adoor Asia and the Pacific
74. Sri Samatha Educational Society Asia and the Pacific
75. St.Paul's Degree and P.G. College Asia and the Pacific
76. Tagore Group of Colleges Asia and the Pacific
77. Tata Institute of Social Sciences Asia and the Pacific
78. Tezpur University Asia and the Pacific
79. Thapar University Asia and the Pacific
80. The English and Foreign Languages University Asia and the Pacific
81. The Lighthouse Project Asia and the Pacific
82. University of Calcutta Asia and the Pacific
83. University of Hyderabad Asia and the Pacific
84. V.B.S. Purvanchal University Asia and the Pacific
85. Vidya Pratishthan's School of Biotechnology Asia and the Pacific
86. Vidyasagar University Asia and the Pacific
87. Vijayalakshmi Educational Society Asia and the Pacific
88. Vinoba Bhave University Asia and the Pacific
89. World Center for Academic Excellence and Research Asia and the Pacific
90. Yashwantrao Chavan Maharashtra Open University

PARTNERS

- GREEN CONTRIBUTORS CANADA
- SAVANNAH PLAINS INTERNATIONAL SCHOOL, SHINYANGA TANZANIA
- KAPILA SCHOOL, LUSAKA
- COMMUNITUY DEVELOPMENT MINISTRY LUSAKA
- BARRACK SCHOOL MONTEGO BAY
- JAMAICA TOURISM BOARD
- UNIVERSITY OF WEST INDIES
- DEMOLA SLOVENIA
- MARIBOR UNIVERSITY

- DEMOLA TAMPERE
- DEMOLA BUDAPEST
- BME UNIVERSITY BUDAPEST
- MEGAPLAST BUDAPEST
- BUS ARCHITECKTUR VIENNA
- NYATI GROUP
- WIENERBERGER
- AUSTRIAN CULTURAL FORUM
- NATIONAL UNIVERSITY SINGAPORE
- AA VISITING SCHOOL, LONDON

STUDENTS

I   TANZANIA 2012
KETAKI RANDIVE
TANVI BHAGWAT

II   ZAMBIA   2013
ANISHA PATEL
MEENAXHI DRAVID
TANVI YENGUL
ABOLI PRADHAN
KARISHMA MISHRA
ADITI LAWATE

III   JAMAICA   2014
KALPITA DESHMUKH
ISHANI NAWALE
ROSHNI GHATGE
RENUKA PATIL
SURHUDA KAREKAR
MINNA BANSAL
RUCHI PAHUJA
RIDDHI KULKARNI

IV   SLOVENIA   2015
ANAGHA PATIL
AKSHATA SHINDE
POOJA TOSHNIWAL
DISHA MOGAL
KOMAL DOIPHODE
KALPITA DESHMUKH

REETI NARAYAN
RIDDHI KULKARNI
SHRUTI SAHARIYA
ANJALI ATHAVALE
TANUSHRITAMHANE
VARSHALI MUNOT
VILEE WAGH
KRUTI PHADKE
RUCHA RATHKANTHIWAR
PRIYANKA
GUNJAN HIRANI
ASHWINI KADU

V EMERGENCY SHELTER I
ANKITA WANI
SHREYA BHAVE
SHIPRA SHETTY
SIDDHI SULE
SALONI CHATURVEDI
TAHA MOHAMMAD
RIDDHI KULKARNI
AISHWARYA PAWAR
SHREE GHADGE
KIRUTHIKA DEVI
NEHA CHANDEL
SHREYA DUBEY
NAYAN SARDA

NAYANIKA GOUD
SHRADDHA KEMASE
AINDRILA SENGUPTA
SWAPNALI BHADALE
YOGITA JUNDRE
NAMASWI PATEL
NIDHI RATHI
SALONI CHAMADIA
AASHANA AGRAWAL
SHIVANI SONAWANE
GAURAV SAWANT
ARYA TUPE
RADHA
ADITYA DHAMANGAONKAR
RISHITA NATHANI
AYUSHI DUBEY
VISHAKHA PATIL
MANASI CHAUDHARI
CHANDANA MAHALE
TATINEE DEY
TANUSHREE SALUJA
AISHWARYA JASWAL
APARNA VARMA

VI   HOLISTIC VILLAGES
AISHWARYA PAWAR
CHAITRALI HOTE
SNEHA JADHAV
SALONI CHATURVEDI
KIRUTHIKA DEVI
NIKITA PATIL
NABHA BELSAVE
KIMAYA LABADE
RUCHA RATHKANTHIWAN
SONALI MALLAPUR
RIDDHI KULKARNI
SUMITA GANGWANI
RADHA MALLAWAT
ANAGHA PATIL
POOJA TOSHNIWAL
PRATIKSHA ASAWA
KOMAL DOIPHADE
RITIKA INGAWALE
SHALAKA SHINDE
HARSHA WAIKAR
PHALGUNI PHAYDE
VAIBHAVI JADHAV
ASHWINI KADU
ARADHANA JOSHI

SANCHITA SAPKAL
MRUNMAYEE ACHAREKAR
KSHITIJA INGAWALE
VARSHALI MUNOT
GOURI VIPRADAS
RUTUJA KATKAR
DIGANTA GUJARAN
SHREYA KALE
RATI CHAUDHARI
GAUTAMI ACHARYA
MANASI AGARWAL
SUJATA RAUT
TIRTHA KUNKOLOL
ADITI MUJUMDAR
BHAGYESHREE PATIL
ZEEL SHAH
ADITI KOLHE
PRITI CHINNAPATTAN
SONIA BHAMRA
SNEHAL GADE
MUKTA PANDIT
MRUNAL BHOSKAR
RAJESHWAR PAWAR
ANJALI KOTEKAR
TAHA MOHAMMAD

VINITA WAGH
SNEHA YERUNKAR
DONA THOMAS

VII EMERGENCY SHELTER II
BUDAPEST 2016
ADITI RAJKUMAR ARALI
AISHWARYA DEOSTHALI
ANJALI YOGESH PATIL
MIHIRA VIDHYADAR JOSHI
NAMRATA RAVINDRA SINGH
NEHA OSWAL
POORVI MEHROTRA
PRANJAL PRAMOD PATIL
PRIYANKA HEMANT KULKARNI
PRIYANKA KISHOR RATHI
RITIKA RAMCHANDRA MANTRI
SAEE ROHIT SAWALIKAR
SAMRUDHI BARAOKAR
ALISHA SANJAY BOTHARA
SEJAL KISHORE KUNJEER
SRUSHTI SANJAY DHOLEPATIL
VAISHNAVI SHRIKRISHNA DEO
DALIKA VIRESH BORAWAKE
SAYEE DIVEKAR

Team BNCA

DR. ANURAG KASHYAP, PRINCIPAL, BNCA

PROF ASMITA JOSHI, UNAI HUB, BNCA

SHRUTI JOSHI, INTERNATIONAL CELL, BNCA

DHANASHREE SARDESHPANDE

SHARVEY DHONGDE

SWAPNIL GAWANDE

DEVA PRASAD

VAISHALI ANAGAL

POORVA KULKARNI

MAHESH BANGAD

DHRUV CHANDVANI

SHUBHASHWETI SINHA

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11-sustainable-cities-and-communities.html