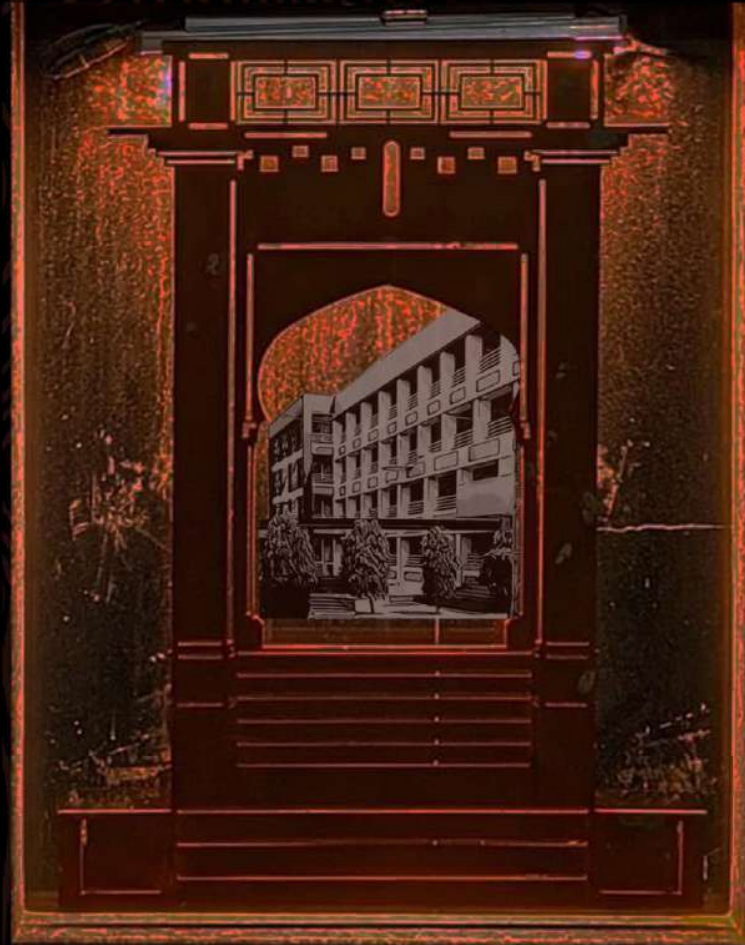


DHAROHAR

tying knots between the past and the future



Alumni
association
Government
college of
architecture

2023

Faculty of Architecture & Planning
Dr. APJ Abdul Kalam Technical University
Lucknow, Uttar Pradesh



Executive Committee 2022-2024



PATRON
Prof. (Dr.) Vandana Sehgal
+91 9415305000
dean.foa@aktu.ac.in



PRESIDENT
Ar. (Dr.) Atul Gupta
9811623694
architectatul@gmail.com



VICE PRESIDENT
Ar. Anupam Mittal
94150 10301
ar.anupammittal@gmail.com



GENERAL SECRETARY
Ar. Vishal Gulati
94150 25946
sakaar10@yahoo.co.in



TREASURER
Ar. Avanish Gangwar
94150 89038
avanisharchi@gmail.com



JOINT SECRETARY
Ar. Shashank Misra
8588869222
shashankmisra222@gmail.com



ELECTED MEMBERS
Ar. (Dr.) Arun Rana
9454994522
arunrana_kumar@yahoo.com



Ar. Pawan Bhat
9837059454
bhappawan00@yahoo.co.in



Ar. Shipra Singh
9611346452
shipra@studio0522.com



Ar. (Dr.) Anjaneya Sharma
7007589953
sharma.anjaneya@foaaktu.ac.in



Ar. Anupam
9721373056
anupam0688@gmail.com



CONVENOR, GBM - 2023
Prof. (Dr.) Ritu Gulati
+91 9839025946
rtu.gulati@gmail.com



NOMINATED MEMBERS
Ar. (Dr.) Harish Tripathi
9811045628
htji@gmail.com



Ar. Anurag Khandelwal
9927092009
anuragkhandelwal@yahoo.com



Ar. Prashant Pal Singh
9838805222
abhikarms@gmail.com



Ar. Vishal Mittal
9811070399
vishal@spacedi.com



Ar. (Dr.) Mohit Agarwal
8090091487
agarwalmohitk@gmail.com



Ar. Devesh M. Tripathi
93352 10024
thinkdevesh@gmail.com

MASS TIMBER

An Insight into Sustainable Option for Building Construction with Examples of Multi-Storey and Large format Public Buildings in WOOD.

Ar. Anurag Khandelwal- GCA 1995



The construction industry is increasingly embracing sustainable practices, and mass timber has emerged as a front runner in this movement. Mass timber, a versatile and environmentally friendly building material, has gained popularity for constructing multi-storey and large public buildings. In this article, we will explore ten key points highlighting the sustainability of mass timber in building construction and showcase examples of its application in such structures.

RENEWABLE AND SUSTAINABLE:



Mass timber is primarily composed of wood, a renewable and sustainable resource. Responsible forestry practices ensure a continuous supply of wood, making mass timber a responsible choice for long-term construction.

CARBON SEQUESTRATION:



One of the most significant advantages of mass timber is its ability to sequester carbon. The process of growing and harvesting wood captures and stores carbon dioxide, making mass timber a carbon-neutral or even carbon-negative building material.

REDUCED ENERGY CONSUMPTION:



The production of mass timber requires less energy compared to traditional materials like concrete and steel. This translates to lower carbon emissions and a reduced environmental impact.

FASTER CONSTRUCTION:



Mass timber components, such as cross-laminated timber (CLT) panels, can be prefabricated off-site and quickly assembled on-site. This results in shorter construction times, reduced energy consumption, and minimal disruption to the surrounding environment.



EXCEPTIONAL STRENGTH:

Mass timber offers remarkable structural strength, making it a viable choice for multi-storey and large public buildings. It can support heavy loads and provides enhanced stability and durability.



AESTHETIC VERSATILITY:

Mass timber structures have a natural and warm aesthetic that connects with the environment. This aesthetic versatility allows architects and designers to create visually appealing and sustainable buildings.



ENHANCED THERMAL PERFORMANCE:

Mass timber boasts excellent thermal insulation properties, reducing energy consumption for heating and cooling. This lowers operational costs and decreases the overall carbon footprint during the building's life cycle.



SEISMIC RESILIENCE:

Mass timber buildings have demonstrated remarkable seismic resilience. This makes them a suitable choice for large public buildings and areas prone to earthquakes, enhancing safety and sustainability.



REDUCED WASTE:

Precision manufacturing of mass timber results in minimal on-site waste. The off-cuts and residues can often be recycled or repurposed, promoting sustainable construction practices.

Notable examples Projects in mass timber

Brock commons- pre fab mass timber

Brock Commons is comprised of 17 storeys of five-ply cross laminated timber (CLT) floor panels and glue laminated columns, a concrete transfer slab at level two and a steel framed roof. The CLT panels are point supported on Glulam columns at a 2.85m X 4.0m grid. Beams were eliminated from the design by utilizing CLT's two-way spanning capabilities and two full-height concrete cores provide lateral stability.



Portland International Airport Redevelopment Project Sustainable and Cost-Effective Mass Timber Roof

The Terminal Core of the Portland International Airport (PDX) is currently undergoing a \$2 billion redevelopment project to transform the facility, making it sustainable and resilient to natural disasters, like earthquakes. The centerpiece of this project is the terminal's new 400,000-square-foot mass timber roof, which is being manufactured by Timberlab, a full-service mass timber systems provider. To execute this project and avoid disruption to the surrounding communities, Timberlab built the new roof in a manufacturing facility and will assemble segments above the existing roof over the course of one year – aided by the technological innovations of Manufacton.



FACULTY OF ARCHITECTURE AND PLANNING
DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY,
TAGORE MARG, LUCKNOW - 226007

TALK TITLE :

DEFINING SUSTAINABILITY

FROM A PIONEER IN
BRINGING WOODEN HOUSES INTO
THE COUNTRY



WITH

AR. ANURAG KHADELWAL

Arch. Anurag Khandelwal -An Alumni of GCA from 1995 batch and a Masters in Project Management from CEPT. To him being an Architect is not only Passion and Profession but a responsibility towards environment, well-being and mother earth.

A successful practicing architect since last two and half decades has delivered many projects all across the country retaining , endorsing and spreading the principles of sustainability and environment friendly and green buildings. He is working relentlessly to break the concrete mindset and be the change maker . He is the pioneer of wooden structures in country . This is further endorsed by around 200 wooden structures that are already standing across nationally and internationally in resort , outhouses , farms and residential across the country . He has been conferred as Green Architect by Confederation of Indian Industries , Dhool Dhooop Dhakka , an Amazon best selling book on Entrepreneurship has hailed his efforts . His persistence and entrepreneurship abilities has been featured as a case study by IIMA and featured by Harvard Business Review . The pursuit continues. He is propagating and taking this mission to many through his talks and webinars.

PATRONS



DR. VANDANA SEHGAL
Dean and Principal



AR. RAJIV KACKER
Head of Department



AR. ATUL GUPTA
President,
GCA Alumni
Association

CO-ORDINATOR



DR. ANJANEYA SHARMA
Assistant Professor &
Associate Dean



JOIN IN HERE

FOLLOW US AT

foap.aktu_official
fb.com/foap.aktu
www.foap.aktu.ac.in

10th
SEPTEMBER '22

AT

12 noon
IST

VIA

GOOGLE MEET
<https://meet.google.com/nog-ndzd-eyq>

JOIN US FOR THE
ALUMNI
LECTURE
SERIES
LECTURE 01



FACULTY OF ARCHITECTURE AND PLANNING
DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY,
TAGORE MARG, LUCKNOW - 226007

TALK TITLE :

CONNECTING SPACES OR USERS?

PARADIGMS OF USER EXPERIENCE,
DESIGN & RESEARCH



WITH

AR. SAURABH SRIVASTAVA

Saurabh Srivastava is a seasoned User-Centered Innovation Manager, Design Strategist and Mixed Method Researcher. He presently works as Staff Researcher & Research Manager in Google, where he leads the Research team for Google Commerce. He earlier led the research teams for Google Pay and Google Station projects.

Over the length of his professional career, Saurabh has played a key role in over 15 user-centered innovation technologies, authored 40+ peer-reviewed research publications and holds 15+ filed/granted Patents. Saurabh's research work spans across three continents APAC (India, Japan, The Philippines, Thailand), Americas (United States, Mexico) and Africa (Nigeria, Kenya). Prior to joining Google, Saurabh worked in two famed technology corporations (IBM Research & Xerox Research) as Research Scientist. Saurabh graduated from Government College of Architecture, Lucknow and holds a postgraduate degree in Interaction Design from IDC, Indian Institute of Technology, Bombay.

He has been acknowledged as a "Leader of Tomorrow" by St. Gallen Symposium, Switzerland, serving as an advisor and mentor for the youth talent pool. Furthermore, he has also been named as "Innovators under 35" by Massachusetts Institute of Technology (MIT) Tech Review for the year 2015.

PATRONS



DR. VANDANA SEHGAL
Dean and Principal



AR. RAJIV KACKER
Head of Department



AR. ATUL GUPTA
President,
GCA Alumni
Association

CO-ORDINATOR



DR. ANJANEYA SHARMA
Assistant Professor &
Associate Dean

JOIN IN HERE



FOLLOW US AT

foap.aktu_official
fb.com/foap.aktu
www.foap.aktu.ac.in

04th
OCTOBER '22

AT

1:30 PM
IST

VIA

GOOGLE MEET
<https://meet.google.com/pto-rbvq-rkp>

JOIN US FOR THE
ALUMNI
LECTURE
SERIES
LECTURE 02