# Sthala

A JOURNAL OF ARCHITECTURE, INTERIOR DESIGN, URBAN DESIGN AND PLANNING, e-ISSN no 2582-9491

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It is indeed a moment of pride for "STHALA", having recently acquired e-ISSN no 2582-9491 for online publication.

We take the pleasure to invite research papers manuscript for the second issue of "STHALA", a journal publication of SJB School of Architecture and Planning, Bengaluru. This journal is theme based, with the upcoming issue dedicated to "SUSTAINABILITY CONCEPTS IN URBAN PLANNING & BUILT ENVIRONMENT.". Main theme have been sub categorized under seven sub-themes correlating to the main theme of the issue supporting the focused writing of the manuscript. Manuscripts must include unpublished research papers and other technical writings. We look forward to receiving your valuable contribution.

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It has often been recognized that various approaches of sustainability concepts can play a significant role in rethinking of the planning, design, development of cities & built environment for future. However, problems still exist with regards to clear understanding of sustainability in the built environment. As such, there is a need for various means of evaluating sustainability within the context of urban planning and design as per the need of the hour.

The paradigm of the sustainability assessment tools are changing from the building scale to the urban and the city scale. Hence, main theme of the journal has been framed under seven sub-themes suggesting approaches, that are useful for evaluating smart and sustainable urban planning, from individual building level to city level. Important implications of the main findings of these research papers under every sub-themes are being aimed to set out together with suggestions for future research & implementation.

This theme is basically formulated to encourage research scholars, practitioners, academicians from various domains to contribute research papers to our journal "STHALA" and help in addressing these issues with the real-time, implementable solutions for today & tomorrow.

## THEME:

### SUSTAINABILITY CONCEPTS IN URBAN PLANNING & BUILT ENVIRONMENT

#### **SUB-THEMES**

- 1) Climate change policy and action
- 2) Climate change education and outreach, especially in cities
- 3) Smart Cities and Artificial Intelligence
- 4) (In)formal Public Space
- 5) Sustainable Building solutions
- 6) BIM & Sustainable Design
- 7) Sustainable Construction Management

#### NOTE TO AUTHORS

- Submission of a manuscript is considered subject to the understanding that the manuscript is original and has not been published before in any form and is not being considered for publication elsewhere. Author/s is/are solely responsible for originality of content and views expressed in the paper. Author/s should submit full length paper by stated submission date.
- We invite authors across the world and from a wide range of disciplines, to submit research articles that may be connected with the theme & sub themes.
- Download our debut Journal from 2021 on this link - https://sjbsap.edu.in/sthalavolume-1-january-2021/

### **SUBMISSION FORMAT**

Authors are required to prepare full length paper as per the prescribed manuscript template. Full length paper should be restricted to FIVE pages only including references

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## **IMPORTANT DATES**

Submission of Abstract: 30 Nov 2021 (not more than 75 words) Approval of Abstract: 10 December 2021 Submission of full length paper: 5 January

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BGS Health & Education City, Dr. Vishnuvardhana Main Road, Kengeri, Bengaluru - 560060 Website: www.sjbsap.edu.in

#### **SUB-THEME DISCRIPTION**

# 1) CLIMATE CHANGE POLICY AND ACTION

Climate change gives the largest hazard to sustainable development and it's vast, extraordinary influences disproportionately burden the built environment and vulnerable communities. As the planet warms, extreme weather events such as heat waves, floods, and droughts become more frequent and intense. Unfortunately, those who have contributed the least to climate change are affected the most. Without immediate actions, the climate crisis could lead to widespread poverty, hunger and migration. Neglectful design that has no regard for the natural environment and the people, its sustenance is no longer a viable option to ensure a livable habitable spaces. At a local and central scale, collaboration, activism, and a complete overhaul of stringent policies is required in order to bring the change to combat the Climate change. Immediate changes require new green bye-laws and policy planning that rigorously implement sustainable concepts.

## 2) CLIMATE CHANGE EDUCATION AND OUTREACH, ESPECIALLY IN CITIES

Architectural reform to fight the climate crisis majorly involves three crucial steps: prevention, mitigation, and protection. Such a reform requires cross and interdisciplinary approaches with students and faculty, local institutions, government officials, professionals, non-profit organizations, and community groups. Thoughtful Architecture, Urban Planning can contribute with the help of capacity building as a tool amongst students, researchers & professionals.

# 3) SMART CITIES AND ARTIFICIAL INTELLIGENCE

A city with the set of policies and strategies that involve technology and data to drive efficiency and improved decision making for cities to create transparent, efficient and competitive environment to provide inclusive and good quality of life in terms of social, economical, environmental stable life for citizens. "100 Smart Cities" mission's agenda like smart living, smart people,

smart environment, smart economy and smart governance etc. To integrate advanced technology in data science and urban planning principles is required to develop a better settlement for the people. Artificial *Intelligence(AI)*- Integrating AI technology in various aspects of built environment like urban mobility with intelligent transport system, Internet of Things for buildings, sensor based energy networks and meters for various utility services. AI based leak detectors and billing systems. AI based Land Information system in collaboration with real time GIS based property records, plans and sanctions and integrated environmental measures.

### 4) (IN)FORMAL PUBLIC SPACE

2021 Pandemic highlighted a new term called social distancing and provided individuals with more time to spend In their homes. With this saved enough time and an added distance between individual space the fundamental of design and sustainability aspects of public space needs to be redefined.

# 5) SUSTAINABLE BUILDING SOLUTIONS

Building solutions to create a healthy environment based on ecological principles. New advancement in materials, technology and practices in building construction that enables environment friendly process for the overall efficiency of the building. To use sustainable development practices in terms of design, process, materials and technology which aims at "Reduce waste, conserve energy, create nontoxic and high quality buildings". Use of sustainable alternate buildings materials which is renewable in nature to replace materials which is non – renewable in nature in the construction process. Reuse of construction and demolition waste and other scrap materials in the construction. Technology to generate renewable energy and hybrid grid systems to conserve energy. Adoption of green building technologies to reduce carbon foot prints in day to day life. Grey water reuse systems . Use of automated building systems with sensor based adjustments in ventilation and lighting levels based on weather and carbon-di-oxide readings.

### 6) BIM & SUSTAINABLE DESIGN

Building Information Modeling (BIM) is an advanced computer technology that provides building performance to be simulated digitally so that design and construction Project management issues can be identified to be resolved upfront, in order to avoid unsustainable work from the beginning of the design & construction stage.

At present, it is largely accepted as a vital tool for built environment professionals to improve their efficiency in buildability and sustainability, right from the design stage to the construction stages with reliable result outcome. Accordingly, BIM represents a privileged environment to enable the green building requirements, automatic evaluation and to suggest sustainable strategies during the entire building life cycle.

# 7) SUSTAINABLE CONSTRUCTION MANAGEMENT

With the climate change crisis, depletion of natural resources and a visible satellite imagery of a patch of debris on the surface of the earth, now is the time to work towards rectifying human over-exploitation. Construction management, today is seeing a huge leap forward in integrating 'sustainability' in its practices, not only in the management processes, but also in the use of materials and development of renewable resources. Sustainable construction management is beyond 'Green building Constriction' or 'LEED Rating' and has numerous advantages over the construction management conventional processes. It is an emerging field of Earth-Conscious management with a well-managed scheduling, lifecycle costing, use of modern efficient machineries and devices for the right output in less time and less wastage. It also means waste management during construction or while demolition. Sustainable construction engages in eco-friendly management construction, green solutions, pollution control techniques, surrounding community's health protection, reducing adverse environmental impact, adaptive reuse, on-site productivity, resource-efficient building design and therefore a responsible management practice overall.

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