Constructing an Urban Future: The sustainability and resilience of cities – infrastructures, communities, buildings and housing.

• Paper / Proposal Title:

Opportunities towards a sustainable future: The case of an Indian City

• Format(s):

In-person presentation / Written paper

• Author(s) Name:

Himanshu Poptani 1, Anusha Devi 2

• University or Company Affiliation:

1. Assistant Professor, Department of Architecture, National Institute of Technology Raipur (An Institute of National Importance), Raipur (C.G) 492010, India
2. Undergraduate B. Arch Student, Department of Architecture, National Institute of Technology Raipur (An Institute of National Importance), Raipur (C.G) 492010, India

• Abstract (300 words):

City is man’s greatest invention. It is a product of constant adaptations and updates to existing lifestyle. Beginning from a family, man’s social peripheries have grown from neighborhoods and villages to cities and megacities. Globally more people have started to live in urban areas than in rural areas, indicating a change in the paradigm of lifestyle, occupation and architecture. With these changing trends in the population, the global solutions for housing and living have been developing in ways unique to their context.
From living in single storied buildings and visualizing cities in horizontal growth, the world has now turned attention to buildings of higher densities, and vertical expansion in compact areas.

This paper views sustainability of a city as the careful amalgamation of three points of view- Economic, Environmental and Social. The possible solutions are underlined in the Indian context. This paper discusses the people and culture, interaction with the elements of a city and the waste generated in the country as the three areas of opportunity towards sustainability and better future.

Better waste management on a large scale can bring about innovations turning the inevitable evil into a promising resource. This comes from understanding sustainability as optimizing energy and resource consumption in all phases of the lifecycle of any built-form. The solutions discussed are in accordance with the systems that the people can easily adapt to. Addressing the soft(social) technologies, possibilities are explored in ways that fit a larger group of population. The paper gives an insight to how sophisticated systems of buildings with simple and comprehensive interface can bring change in people’s interaction with the city. In this process, the elements of a city are re-imagined to include greener and environmentally responsive spaces. Greenery is sought after in open and public spaces and detailed elements like facades and rooftops.

Key words: Social technologies, Sustainability, Solid Waste Management

• Author(s) Biography (200 words each):

Himanshu Poptani

Mr. Himanshu Poptani is an architect by education and he has done Master of Architecture from prestigious Indian Institute of Technology Roorkee (IIT Roorkee) in the year 2006. His major inclination is on Urban Design, Energy Efficiency in Buildings, Accessibility in built environment and Sustainable Settlements.

Before coming to teaching he has worked as an architect at various places, the most important being the Project Architect for Perspective Plan Phase-II, Greater Noida with Professor R. Shankar under IIT Roorkee in which he majorly worked for development of sector architecture and building byelaws.

He is an active member of Department of Architecture’s consultancy cell at NIT Raipur.
He has also presented research papers in international conferences and visited Prague, Czech Technical University, Czech Republic for the same. He has more than 12 years of teaching and professional experience.

**Anusha Devi**

Ms. Anusha Devi is an undergraduate student of B. Arch. Her research area is flexible architecture and she is working on designing a recreational bridge as her thesis project. Her interests are towards transformable architecture and she had actively participated in such workshops conducted by various international experts.