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

• Paper / Proposal Title:
Green Interventions to Mitigate the Effect of Urban Heat Island

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• Abstract (300 words):
Due to undergoing urbanization trend worldwide, distance between city inhabitants and nature is increasing. Urban areas being economically diversified attract ample of migrants making for a burgeoning population. This is more prevalent in the developing countries such as India. Gurugram, a city in the Indian state of Haryana and a part of National Capital Region(NCR) of India has been gone through rapid urbanization in the past decade. The paper is concerned about the notorious effect of urbanization, that is the heating of the local climate in comparison to the surrounding rural areas, creating a phenomenon known as the ‘Urban Heat Island’ (UHI). Physical Characteristics of city and the increasing graph of population are the major causes of UHI, which in turn is increasing energy demand and making the cities more vulnerable.

The aim of study is to integrate green interventions as remedial measures to mitigate impact of UHI. Green interventions are proving themselves factual in maintaining urban energy balance by dissipating the extra amount of heat and in making urban
environment resilient. A case study methodology is adopted for the study. This study includes understanding the role of green interventions in mitigating the effect of UHI and to compare the executed interventions in two of the cases of Munich and Stuttgart, two major cities in Germany. The focus of the study is to find out the best possible interventions to implement in specific region of Study (Gurugram). Urban space is more than a collection of buildings and incorporate the factors responsible for causing UHI. Therefore, there is necessity of generating urban spaces in a manner which are themselves sufficiently resilient. The idea of the study is to integrate green space in urban space to make the cities more sustainable and resilient.

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

Ar. Jagrati Sehgal is a Master’s student in Indian Institute of Technology Roorkee, India. She is currently working on her Master’s Thesis as a DAAD Scholar (Exchange International Programme) from Technical University Munich, Germany under the chair of Green technologies in Landscape Architecture. She has completed her Bachelor’s Degree in Architecture and Planning from Maulana Azad National Institute of Technology Bhopal, India. During her study period she has participated in National Architecture competition (Group of 5) and has been awarded a citation for GRIHA (Green Rating for Integrated Habitat Assessment) during 56th Annual NASA (National Association of Students of Architecture) India. Ar. Jagrati wants to peruse her career as a Researcher and wants to contribute her work in making urban areas sustainable.