

SYMPOSIUM OVERVIEW

Regenerative Cities: Infrastructure, Landscape, Buildings, and Technologies **November 18-19, 2022**

Regenerative cities use a design approach in which the built environment, its inhabitants, and its surroundings, natural or manufactured, contribute positively toward better living conditions. The concept of regenerative design not only addresses sustainability but explores beyond as it strives to counterbalance the resource consumption and impact of the built environment on natural systems while improving the sociocultural conditions of the built environment. Understanding the processes and elements that form an urban environment is crucial to achieving regenerative cities. Regenerative cities leverage design elements on three levels: 1. Macroscale elements, such as planning of resilient landscape and infrastructure, urban resource efficiency, and community engagement; 2. Mesoscale elements, such as zoning policies, current design trends, issues related to built form and the urban streetscape; and 3. Microscale elements, such as building performance, methods of construction, and advances in material innovations, in a holistic way of planning and designing for a climate-positive built environment.

We seek to gather answers to questions related to regenerative design approach and explore opportunities for contemporary cities through the 2022 International Graduate Student Symposium in its 6th year, organized by the Doctoral students at College of Architecture, IIT. The conference ideates to bring together researchers and professionals across multiple disciplines ranging from architecture, design, landscape, urbanism, engineering, and environmental and social sciences to brainstorm the issues related to infrastructure, landscape, buildings, and technologies of the contemporary cities.

FRIDAY, NOVEMBER 18

Welcome and Remarks

Welcome by Professor Michelangelo Sabatino, Director of PhD Program in Architecture *IIT*
Remarks by Kenneth T. Christensen, Provost, and Reed Kroloff, Dean and The Rowe Family College of Architecture Endowed Chair *IIT*

Introduction by Organizers

Alejandro Saldaña Perales, PhD Candidate
Alexis Arias Betancourt, PhD Candidate
Amjad Alkoud, PhD
Piyush Khairnar, PhD

Keynote

Maurice D. Cox *Commissioner of the Department of Planning and Development, City of Chicago*

Panel Discussion: Regenerative Cities: Current Challenges and Opportunities

Jordi Barri, Owner *Barri Studio*
Peng Du, Director, Master of Urban Design — Future Cities *Thomas Jefferson University*
Ron Henderson, Director of Landscape Architecture + Urbanism Program *IIT*
Vedran Mimica, Director of M.S. Architecture Program *IIT*
Maria Villalobos, Assistant Professor *IIT*

Networking Reception

SATURDAY, NOVEMBER 19

Introduction by Organizers

Amjad Alkoud, Alexis Arias Betancourt, and Piyush Khairnar *IIT*

Virtual Keynote

Gail Fenske PhD, Professor of Architecture *Roger Williams University*

PAPER SESSION 1 – MODERATED BY PIYUSH KHAIRNAR

Sustainable Regionalism in Architecture: A Framework of Principles and Components (Virtual)

Elahe Zoghi Hosseini, Mahsa Hashemi, and Saeed Hajikazemi *Islamic Azad University of Mashhad*

Regenerate Cities Through Unfolded Theory: Holistic Approach to the Urban Landscape (Virtual)

Diana Almeida and Henrique Fabiao *Lusiada University of North-Oporto*

Changing Dynamics of the Inner Core City of Varanasi: The Relationship Between Water and Morphology of the Urban Settlement (Virtual)

Ritu G. Deshmukh *Thomas Jefferson University*

Q&A with Audience

The Driverless City: The Urban Possibilities of Autonomous Vehicles and Navigation Safety

Alexis Arias Betancourt, Kana Nagai, and Yihe Chen *Illinois Institute of Technology*

Cities on the Move: Envisioning Cityscape in the Autonomous Vehicle Era

Hyoeun Lee *Illinois Institute of Technology*

Green Infrastructure in the Public Realm: Reimagining Stormwater and the Urban Fabric of Falls Church, Virginia

Michelle Mary Dsouza *Virginia Tech*

Q&A with Audience

PAPER SESSION 2 – MODERATED BY ALEXIS ARIAS BETANCOURT

Reimagining an American City Where People Without a House Can Subsist

Mohammad Sabbir Hussain *Virginia Tech*

Reconditioning Dharavi: A Toolkit of Strategies for Incremental Development

Saylee Bhogle *Illinois Institute of Technology*

Lafayette Park & The Canopysphere: Natural Landscape as Urban Design Framework for Public Spaces in Large-Scale Private Developments

Alejandro Saldaña Perales *Illinois Institute of Technology*

Q&A with Audience

General, Mental, and Physical Health Benefits of Tree Canopy Cover and Recreational Park in 77 Communities of Chicago, U.S.

Liwen Kang *Illinois Institute of Technology*

Street Smarts and School Catchments: A Walkability Analysis of Chicago Public Schools

Henry Heligas *Illinois Institute of Technology*

Q&A with Audience

Investigating The Impact of Building Ordinances and Zoning Codes on The Future of Major Cities: Supertall Buildings; Chicago and Dubai

Amjad Alkoud *Illinois Institute of Technology*

Circular Design Potential of Bio-Based Carbon Fiber Composites in Structural Systems of Tall Buildings

Piyush Khairnar *Illinois Institute of Technology*

Q&A with Audience

Prometheus Publication Workshop

Yohan Kim, Editor of *Prometheus* Issue 05 *Illinois Institute of Technology*

Concluding Remarks

Professor Michelangelo Sabatino *Illinois Institute of Technology*

Closing Reception and Best Paper Presentation Awards

Private Reception at Wrightwood 659 Art Gallery for Paper Presenters and Invited Guests

Nota bene: Presentation information, titles, and affiliations are reproduced as they appeared in the symposium program in 2022. To facilitate inclusion of participants across multiple countries, a number of presentations were delivered virtually.