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# **JOURNAL OF THE NIGERIAN INSTITUTE OF ARCHITECTS (NIAJ)**

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## **About NIAJ**

Journal of the Nigerian Institute of Architects (NIAJ) is an academic journal, which is coordinated by the Library and Publications Committee of the Nigerian Institute of Architects. The first issue of NIAJ was published in 1981. Before 2023 all copies of the journal were printed with ISSN 2315-8913, however since 2023, the journal is printed digitally.

The Journal of the Nigerian Institute of Architects, NIAJ publishes peer-reviewed, original and review articles on architecture and the built environment in an open access format. NIAJ is a comprehensive journal, accepting articles that span the full extent of the social, behavioural and environmental sciences as well as the humanities. NIAJ aims to be the leading journal in architectural

Research and practice matters. Through a rigorous review of relevant literature and evaluation of valid research methods in articles, the journal aims to be a publishing reference in the architecture field. While this journal is the flagship publication for The Nigerian Institute of Architects, papers are not restricted to the profession, rather multidisciplinary research is encouraged in line with global best practices.

NIAJ is calling for papers! All the manuscripts in architecture and civil engineering are welcome and appreciated. NIAJ publishes original research papers with high quality, and the submitted manuscript will go through peer-review process.

Editor-in Chief

**Prof Erekpitan O. Ola-Adisa, PhD MNIA**

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## From the Chair, Library and Publications Committee

It is with great enthusiasm and a deep sense of responsibility that I present Volume 1 of the June 2025 edition of the Nigerian Institute of Architects Journal (NIAJ), themed “Responding to Changing Climate: Architecture of New Urbanisms.” This edition represents a pivotal advancement in our continuing exploration of sustainable built environments, building directly upon the 2024 issue’s focus on foundational sustainability principles. Whilst last year’s volume established essential frameworks for environmental stewardship and resource efficiency, this publication ventures further into the sophisticated domain of climate-responsive design, delivering innovative, practical, and contextually relevant solutions.

Central to this volume is the strategic integration of nature-based solutions—approaches that leverage natural systems to combat urban heat, restore ecosystems, and improve water management. We highlight groundbreaking construction techniques, including modular prefabrication to reduce material waste, and the adoption of low-carbon alternatives such as cross-laminated timber, hempcrete, and recycled aggregates. Community engagement remains a cornerstone, affirming that truly resilient urbanism must be co-created with local stakeholders, respecting cultural identities, traditional practices, and socio-economic dynamics. Carrying forward the impetus of 2024, we confront critical imperatives: environmental regeneration, energy optimisation, and intelligent

Technological integration. From passive solar design and natural ventilation strategies that minimise energy demand to the application of digital twins for predictive urban planning, this edition demonstrates how architecture can transition from sustainability to regeneration—actively healing ecological systems whilst enhancing quality of life.

Our digital ISSN continues to extend our reach globally, connecting Nigerian architectural discourse with international peers, academics, and policymakers. This expanded platform ensures that our insights contribute meaningfully to worldwide efforts in climate adaptation and urban resilience.

None of this would be achievable without the exceptional contributions of our authors, whose original research and visionary projects propel the profession; our peer reviewers, whose meticulous evaluations maintain rigorous standards; and the Editorial Board, whose foresight steers our editorial vision.

To our readers, institutional partners, and supporters across Nigeria and beyond, I offer sincere thanks. Your engagement sustains this essential forum for ideas. As climate challenges intensify, let us renew our collective commitment to architectural innovation that not only responds to change but shapes a just, vibrant, and enduring urban future

**Arc Afolabi Adedeji, FNIA**

Chair, Library and Publications Committee

## Editorial: Crafting Resilient Urban Spaces

I am delighted to present Volume 1 of the Journal of the Nigerian Institute of Architects for June 2025, themed “Responding to Changing Climate: Architecture of New Urbanisms.” This edition marks a significant evolution, building on the 2024 focus on sustainable architectural practices by addressing the urgent need to adapt our built environment to the realities of a changing climate. The content within these pages reflects a forward-thinking approach, weaving together innovative design strategies that prioritise environmental harmony, technological advancement, and community well-being. Our goal is to inspire architects and urban planners to rethink how we construct and inhabit spaces in the face of rising global challenges.

This volume explores a multifaceted response to climate change, emphasising designs that restore ecosystems through natural integration, enhance energy efficiency with cutting-edge materials, and strengthen urban resilience against extreme weather patterns. It delves into the potential of technology to revolutionise architectural processes, offering tools that optimise resource use and promote adaptive urban forms. Additionally, the issue highlights the importance of inclusive planning that engages communities, ensuring that our cities evolve to meet diverse needs while mitigating environmental impact. These themes collectively underscore a commitment to creating spaces that not only withstand climate pressures but also contribute positively to the planet's health.

The transition from last year's sustainability focus to this year's climate-responsive framework reflects a growing recognition of the interconnectedness between architecture and ecological balance. By embracing regenerative practices, leveraging local knowledge, and integrating smart technologies, we can forge a path toward urban environments that thrive amidst adversity. This issue serves as a call to action for practitioners to adopt these principles, fostering designs that are both innovative and enduring. The insights presented here are drawn from the expertise of contributors who bring diverse perspectives to the table, enriching our understanding of these critical issues.

I extend my heartfelt thanks to the authors, researchers, and reviewers whose dedication has shaped this volume. Their rigorous work provides a foundation for dialogue and innovation, encouraging us to push the boundaries of traditional architecture. As you explore these pages, I urge you to reflect on how these ideas can transform your practice, whether through adopting sustainable materials, rethinking urban layouts, or embracing technology-driven solutions. Your engagement is vital to turning these concepts into actionable change. Thank you for your continued support—I hope this issue ignites inspiration and motivates you to contribute to a resilient architectural future.

**Arc Prof E.O. Ola-Adisa, PhD FNIA**  
Editor-in-Chief

## Guide for Authors

NIAJ is a comprehensive journal, accepting articles that span the full extent of the social, behavioural and environmental sciences as well as the humanities. NIAJ aims to be the leading journal in architectural research and practice matters. Through a rigorous review of relevant literature and evaluation of valid research methods in articles, the journal aims to be a publishing reference in the architecture field. While this journal is the flagship publication for The Nigerian Institute of Architects, papers are not restricted to the profession, rather multidisciplinary research is encouraged in line with global best practices. The articles must be original and should not have been published previously, and the manuscript will be double-blind peer reviewed. NIAJ is a unique open access publication that provides free full text download of all articles published in the journal through the platform (<https://niaj.org>) without any page charges or subscription requirements. Authors are invited to submit papers through the submission system. Once your article is accepted, you will receive an email from the submission system. The email contains a link to check the status of your article. Before you contribute to NIAJ, you should read the following contents

### *Types of paper*

Contributions falling into the following categories will be considered for publication: Original

Research papers, Reviews. Please ensure that you select the appropriate article type from the list of options when making your submission. Authors contributing to special issues should ensure that they select the special issue article type from this list.

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You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

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- All references mentioned in the References are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Internet) and checked for plagiarism as NIAJ will not accept more than 25% of similar materials.
- Journal policies detailed in this guide have been reviewed

### *Publishing ethics*

This journal operates a double-blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. The peer review process is following: Author submits paper to journal → Editor's initial evaluation of paper (go to next step if it meets the requirements of journal, otherwise reject and inform author) → Invite experts for peer review → Experts send comments to editor → Editor decides to accept (or reject and inform authors) → Editor asks author to revise → Author revises and submits revised paper → Editor and/or original reviewers re-evaluate to decide further revisions needed or reject or accept → Inform author

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