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About NIAJ

The 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 has been produced digitally and later in the print edition.

The Journal of the Nigerian Institute of Architects, NIAJ publishes peer-reviewed, original research 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

Erekpitan Omoikhefe Ola-Adisa, PhD MNIA

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From the Chair, Library and Publications Committee

It is with great pleasure that I welcome you to the second volume of the digital version of the NIA journal. As the Chair of the Library and Publications Committee, I am honoured to be a part of this pivotal moment in our institute's history. Our commitment to excellence and the advancement of the architectural profession is clearly reflected in the diverse range of articles and research papers that have been curated for this volume.

One of the core values that we hold dear as architects is the principle of sustainability. We understand the vital need to create built environments that are not only aesthetically pleasing, but also environmentally friendly and socially responsible. Thus, it is my ardent request that we use the platform of the NIA journal to encourage and promote sustainability within our profession.

Sustainability is not merely a concept or buzzword; it is a necessity for the future of our planet and the wellbeing of generations to come. As architects, we have a unique responsibility to design structures that are energy-efficient, reduce carbon emissions, and promote sustainable practices. The NIA journal provides a tremendous opportunity for us to share our knowledge, experiences, and research in this critical area.

I invite all of our esteemed members, academics, and professionals to contribute their insights, case studies, and innovative techniques that

showcase sustainable architectural practices. Let us use this platform to exchange ideas, discuss challenges, and propose innovative solutions that can shape a more sustainable future for our built environment.

The second volume of the digital NIA journal aims to highlight the pioneering work being done in sustainable architecture within Nigeria and beyond. By featuring the diverse perspectives and expertise of our members, we can inspire each other to push the boundaries of sustainability in our projects.

As Chair of the Library and Publications Committee, I assure you that every effort has been made to ensure that this volume presents a wide range of articles that provide a comprehensive understanding of sustainability in architecture. It is my sincere hope that this journal serves not just as a source of information, but as a catalyst for change, encouraging all of us to incorporate sustainable practices into our work.

Thank you for your continued support and dedication to the Nigerian Institute of Architects. Together, let us use the power of knowledge and collaboration to build a sustainable future.

Arc Fitzgerald Umah, MNIA

Chair, Library and Publications Committee

Editorial: Embracing Sustainability in the Digital Age

Welcome to the second volume of the digital edition of the Nigerian Institute of Architects journal. As we embark on this new chapter, we invite you to explore the world of sustainability and its crucial role in shaping the architecture of tomorrow. In recent years, the concept of sustainability has become more than just a buzzword; it has evolved into a philosophy, a way of life, and an imperative for our profession. As architects, we bear the responsibility to design spaces that not only enrich the lives of their inhabitants but also minimize their impact on the environment.

This issue focuses on the various aspects of sustainability, ranging from energy-efficient design to deep learning and sustainable homes and the integration of renewable technologies. We aim to shed light on innovative solutions that not only prioritise sustainability but also enhance the quality of our built environment. One notable transformation in our journal's journey is the transition to the digital realm. The advantages of online academic journal publication cannot be overstated, especially in our quest for open access. Embracing the digital format allows us to overcome the barriers of physical distribution, making our knowledge and insights easily accessible to a wider audience both within and beyond Nigeria. Moreover, digital publication drastically reduces our carbon footprint, aligning with our commitment to sustainability.

Open access stands as a beacon for progress, tearing down the walls that segregate knowledge based on financial means. By embracing this philosophy, we empower architects, researchers, and students alike to broaden their horizons, exchange ideas, and accelerate the pace of innovation. The digital version of our journal serves as a facilitator of this transformation, democratizing access to cutting-edge research and fostering a global community of architectural thinkers.

Within this issue, you will encounter a rich tapestry of articles, showcasing ambitious architectural projects that go beyond conventional boundaries to tackle pressing environmental challenges. From the integration of nature into urban landscapes to adaptive reuse of existing structures, our contributors have sought to redefine sustainability in the context of our unique Nigerian identity.

In conclusion, the September 2023 issue of the Nigerian Institute of Architects journal embodies our commitment to sustainability and progress. The digital format of our publication signifies our resolve to embrace open access, enabling architects to transcend boundaries and collaborate on a global scale. We hope that you find this issue both enlightening and inspiring, and we look forward to embarking on this journey toward a more sustainable future together.

Erekpitan O. Ola-Adisa, PhD MNIA
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 (<http://NIAJ/>) 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 and review papers. Please ensure that you indicate the appropriate article type when making your submission. Authors contributing to special issues should ensure that they indicate special issue article.

Submission checklist

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.

Ensure that the following items are present:

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Manuscript:

- Include keywords
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- Ensure all figure and table citations in the text match the files provided
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Further considerations

- Manuscript has been "spell checked" and "grammar checked"

- 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 20% 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.

Peer Review Process

The peer review process is as follows: Author submits paper to journal → Editor's initial evaluation of paper including similarity check (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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