

A PROJECT REPORT
ON
PROPOSED CASSAVA PROCESSING FACTORY
FOR
OWU ISIN LOCAL GOVERNMENT AREA. KWARA STATE.
BY
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HND/23/ARC/FT/0019
SUBMITTED TO:

**THE DEPARTMENT OF ARCHITECTURAL TECHNOLOGY
INSTITUTE OF ENVIRONMENTAL STUDIES (I.E.S) KWARA
STATE POLYTECHNIC, ILORIN.**

**IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF HIGHER NATIONAL DEPLOMA (HND) IN
ARCHITECTURAL TECHNOLOGY**

JULY, 2025.

DECLARATION

I Ibrahim Ayodeji Ibrahim with matric no. HND/23/ARC/FT/0019 of the department of Architectural technology hereby declare that this project ‘MODERN CASSAVA PROCESSING FACTORY’ was compiled by me

SIGNATURE

DATE

CERTIFICATION

I certify that this research project Modern Cassava Processing Factory has been read and approved as meeting the requirement for the Award of Higher National Diploma (HND) in Architectural technology, Institute of Environmental Studies (I.E.S), Kwara State Polytechnic, under the supervision of Arc. Olarewaju F.A.

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DEDICATION

I hereby dedicate this research to the Almighty God for His faithfulness and favour upon me, and to my lovely parents: Mr. Jamiu Ibrahim and my late mother, Mrs. Fatimah Ibrahim, for their love and support throughout this project

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ABSTRACT

The increasing demand for cassava-based products in Nigeria and the inefficiency of traditional processing methods present a significant challenge in meeting both local consumption and export needs. This project aims to design a modern cassava processing factory that incorporates efficient architectural planning, hygienic workflow systems, and energy-saving technologies to enhance productivity, reduce post-harvest losses, and improve product quality.

The study employed a mixed-methods approach, including field surveys, literature reviews, and case studies of existing cassava processing facilities. Site analysis and environmental considerations were integrated into the architectural design process, alongside 3D modeling and spatial planning software to ensure functional flow and compliance with industrial and safety standards.

The findings revealed that integrating modern mechanical processing units with a well-zoned factory layout significantly improves processing speed, reduces contamination risks, and enhances worker safety. The proposed design allows for a continuous production line—from raw cassava intake, washing, peeling, grating, pressing, drying, to final packaging—within a controlled and hygienic environment.

The project concludes that a purpose-built, modern cassava processing facility can greatly contribute to the agro-industrial sector by improving efficiency, encouraging rural industrialization, and supporting food security. It is recommended that future cassava factories adopt sustainable materials, renewable energy sources, and adaptable designs that can evolve with technological advancements.