4th International Engineering Conference (IECON 2026)

(Physical & Virtual Participation)

College of Engineering and Engineering Technology (CEET)

Michael Okpara University of Agriculture, Umudike

THEME: Engineering Innovations for a Resilient and Sustainable National Security, Food Value Chain, Energy and Economic Advancement

Call for Papers

THE COLLEGE OF ENGINEERING AND ENGINEERING TECHNOLOGY (CEET) of Michael Okpara University of Agriculture Umudike invites researchers, members of the academia, industry professionals, and policymakers to submit their original, unpublished work for presentation at the IECON 2026. This conference aims to foster discussions and showcase advancements in engineering and technology that address critical national challenges in security, food systems, energy, and economic development.

Conference Registration

- Local Participants — ₦30,000.00 (Late Registration ₦35,000.00)
- Foreign Participants — $100.00 (Late Registration $100.00)
- Postgraduate Students — ₦20,000.00 (Late Registration ₦25,000.00)
- Undergraduates — ₦10,000.00 (Late Registration ₦15,000.00)

Participants must indicate whether they will attend physically or virtually. Selected accepted papers will be published in the Umudike Journal of Engineering Technology (UJET).

A publication fee of **₦25,000** applies to local participants, while publication is included in the registration fee for foreign participants.

Payment Details

Account Name: Umudike Journal of Engineering and Technology
Name of Bank: Access Bank plc
Account Number: 0694937439
Account Type: Current

Important Dates

13th February 2026
(Abstract Submission Deadline)

27th February 2026
(Full Paper Submission Deadline)

13th March 2026
(Notification of Acceptance)

20th March 2026
(Camera-Ready Submission)

20th March 2026
(Late Registration begins)

25th - 27th March 2026
(Conference Date)

Sub-Themes

1. Smart Agriculture, Post-Harvest Technology, Bio-Engineering, and Food Systems Resilience, with focus on:
i. Precision Agriculture & Mechanization: Application of IoT, sensors, and data analytics for optimizing farm inputs (water, fertilizer, pesticides); design and testing of locally adapted agricultural machinery and equipment.
ii. Post-Harvest Loss Reduction and Value Chain Engineering: Engineering solutions for efficient food processing, preservation, packaging, and cold chain logistics; novel technologies for reducing post-harvest losses and enhancing nutritional content.
iii. Bio-manufacturing and Sustainable Resource Utilization: Conversion of agricultural waste and biomass into high-value products such as biofuels, biogas, bio-plastics, pharmaceuticals, etc; optimization of fertilizer and agrochemical production processes.
iv. Soil and Water Engineering Solutions for Sustainable Bio-Economy and Agro-Innovation.

2. Core Infrastructure and National Security, with focus on:
i. Resilient Infrastructure & Climate Adaption: Design and analysis of smart, climate-proof infrastructure (roads, bridges, dams), innovative water management and flood control systems, and sustainable housing using indigenous materials and infrastructure renewal.
ii. Local Content Manufacturing & Defense Industrialization: Development of local capacities for the fabrication of critical components for defense and infrastructure, maintenance engineering, and indigenous design and assembly of machinery.
iii. Critical Infrastructure Protection (CIP) and Smart Grids: Cybersecurity, monitoring, and control of critical national assets (power, communication, transport); deployment and integration of Smart Grid technologies and renewable energy sources.

3. Data Analytics and AI for System Optimization, with focus on:
Leveraging artificial intelligence, machine learning, and big data analytics to predict system performance and failures, optimize resource allocation, and enhance decision-making for a more efficient and sustainable nation.

4. Policy, Ethics, and Engineering Education, with focus on:
The critical role of engineering education in preparing a resilient workforce, the development of ethical guidelines for emerging technologies (like AI), and the creation of effective public policies that support engineering innovation.

5. Sustainable Security and Energy Systems, with focus on:
i. Smart Security: Design and deployment of IoT devices, AI-powered surveillance systems (e.g., smart fences, remote monitoring, and drone applications), and geospatial intelligence for protecting critical infrastructure and agricultural perimeters/border surveillance to mitigate pilfering of farm products, and for agricultural mapping.
ii. Power System Resilience: Modernizing the grid, microgrids, and renewable energy integration for stable power supply to industries and farms.

iii. Cyber-Physical Systems: Securing national data and control systems for infrastructure (e.g., dams, power stations, and communication networks).
iv. Energy Conversion & Storage: Innovations in electrical machines, power electronics, battery storage technologies, renewable energy and mechanical systems for efficient energy use, including advanced combustion engines, turbines, and thermal energy storage.

6. Emerging Materials with Dual-Use Applications, with focus on:
i. Research, development, and charcacterization of novel materials (e.g., composites, metamaterials, smart coatings) that offer superior performance for defense, agro-processing, oil and gas applications while also having strong potential for commercial and civilian use, boosting the economy; nanotechnology applications in sensing and preservation.

7. Advanced Manufacturing for Economic Self-Reliance, with focus on:
i. Utilizing technologies like Additive Manufacturing (3D printing), robotics, and automation to create robust, localized, and sustainable supply chains, reducing dependence on imports and driving economic growth.

8. Automation and Robotics for Industrialization and Security, with focus on:
i. Industrial Automation: Design of automated manufacturing systems for local content production and quality control, supporting economic diversification beyond oil.
ii. Security Robotics: Development of unmanned ground/aerial vehicles (UGV/UAV) for surveillance, mapping, and rapid response in high-risk areas.
iii. Intelligent Control Systems: Optimizing and securing complex national systems, from smart traffic control to automated water treatment plants.

9. Process Innovation and Local Raw Material Value Addition for Economic Growth, with focus on:
i. Petrochemical Diversification: Advanced processes for utilizing non-oil resources (e.g., gas, bitumen) and converting agricultural waste into valuable products (e.g., biofuels, bioplastics).
ii. Local Content Material Production: Chemical engineering roles in the local production of construction materials, fertilizers, and specialty chemicals.
iii. Water and Sanitation Security: Novel treatment and purification technologies to ensure safe water supply, a core component of human security and health..

Papers must be written in English, limited to 10 pages, and formatted on A4 paper using Times New Roman (size 12) with 1.5 line spacing and APA referencing. Submissions must be original, unpublished work, and not under review elsewhere, and should be submitted via email to *iecon@mouau.edu.ng*.

Both similarity index and AI-generated content must not exceed 15%. All papers will be double-blind peer reviewed

Official correspondence should be sent to the Chairman, Technical Sub-Committee at *konyelowe@mouau.edu.ng*

Signed

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