



**SCHOOL OF ENGINEERING AND
ENGINEERING TECHNOLOGY
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA**

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ENGINEERING IEC
CONFERENCE 2017**

Theme

**GREEN RESEARCH, INNOVATION AND
SUSTAINABLE DEVELOPMENT:
A MEANS TO DIVERSIFICATION OF MONO-CULTURAL ECONOMIES**

17th - 19th October, 2017

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FORWARD

The School of Engineering and Engineering Technology, Federal University of Technology, Minna, organized the 1st International Engineering Conference in 2015 with tremendous attendance and success. The huge success of the 1st IEC gave the committee the strength to organize this 2nd International Engineering Conference (IEC 2017) with the theme: **Green Research, Innovation and Sustainable Development: A Means to Diversification of Mono-Cultural economies.**

The conference intends to provide opportunities for researchers, engineers, captains of industries, scientists, academics, security personnel and others who are interested in diversification of mono-cultural economies using green research and Innovation towards sustainable development to present and brainstorm on ideas and come out with a communicate that will give the way forward in this respect. To arrive at this communicate, the following sub-themes were carefully coined to guide the authors' submissions:

- ❖ Innovative Research, Development and Commercialization Policy.
- ❖ Electrical Power System and Electronic Engineering for National Economic Development
- ❖ Flood Disaster Management and Adaptation for Sustainable Development.
- ❖ Sustainable Water Supply, Sanitation and Water Quality Management. Sustainable Environmental Engineering and Management.
- ❖ Solid Minerals Potential Exploration for National Economic Development.
- ❖ Post-Harvest Technology and Food Security.
- ❖ Small and Medium Scale Enterprises for National Economic Development.
- ❖ Sustainable and Emerging Renewable Energy Technologies for Economic Development.
- ❖ Information and Communication Technology for Sustainable Economic and Security.
- ❖ Content Initiatives and Development.
- ❖ Structural Integrity and Geotechnical Survey for Sustainable Infrastructural Development.
- ❖ Sustainable Engineering Education and Curriculum Development.
- ❖ Engineering Entrepreneurship for National Economic Development.
- ❖ Green and Sustainable Built-Environment.
- ❖ Energy Economy, Planning and Management.

The conference editorial and Technical Board have members from the United Kingdom, Saudi Arabia, South Africa, Malaysia, Australia and Nigeria. The conference received submissions from 10 countries viz: United States of America, United Kingdom, Canada, the republic of Cyprus, Turkey, Malaysia, Botswana, South Africa, Netherlands and Nigeria. I am very happy to state that 142 papers were received and subjected to blind peer review process. Each of the paper was reviewed by two personalities who have in-depth knowledge of the subject discussed by the paper. At the end of the review process, 135 papers were accepted and recommended for presentation and publication in the conference proceedings. The conference proceedings will be indexed in Scopus.

Let me on behalf of the organizing committee seize this opportunity to thank you all for participating in the conference. Our sincere gratitude to the reviewers for finding time to do a thorough review. Thank you all and we hope to see you during the 3rd International Engineering Conference (IEC 2019)..

Engr. Dr. A. Nasir

Chairman, Conference Organizing Committee

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The Chairman and members of the Conference Organizing Committee (COC) of the 2nd International Engineering Conference (IEC 2017) wish to express our gratitude to the Vice Chancellor and the management of the Federal University of Technology, Minna, the Dean and all staff of the School of Engineering and Engineering Technology (SEET) for the moral and financial support towards the successful hosting of this conference. We also thank the entire staff of the university who contributed in one way or the other. We are sincerely grateful to you all.