INTRODUCTION:

The Blue Apple Educational Foundation (BAEF) has the objective of promoting Science, Technology, Engineering, and Innovation (STEI) through the organising of the National Engineering Science Technology Essay Competition (NESTEC), among other initiatives. The competition is organized for engineering students in institutions of higher learning in the country, with a bias towards science students. The mission is to harness the untapped potential and groom our youths to develop capacity in research and technical paper/essay writing in line with global best standards.

NOTE:

Paper presented should be technical and can be developed into prototype for commercialization. Original idea will be patented for commercialization.

NESTEC is in its 6th edition with improved criteria.

The objectives are;

- 1. To unlock the untapped potentials among our youths in the field of engineering, science and technology
- 2. Promote research among students
- 3. Encourage and develop capacity for technical paper and essay writing
- 4. Introduce the students into mainstream trending and advances in engineering science and technology
- 5. Create global opportunities for students to showcase their talents.

NESTEC INSTRUCTION

CALL FOR PAPER: Papers are invited from engineering and science (physics, computer science etc) students in tertiary institutions in Nigeria. Invitation for paper cuts across all fields of engineering and their subspecialties. Authors are free to choose topics that are original and relevant to the needs of the Nigerian society.

GUIDELINES FOR AUTHORS

Novel ideas are welcome and papers presented should be Original Research work(s) or any other original contribution(s) and improvements on existing ideas. The paper should be written in English Language. The paper should not have been published anywhere and should not be under consideration for publication elsewhere at the time of submission. Papers can be co-authored with Lead Author identified and authors will be legally involved in the process of prototype development, patent application and commercialization.

Your report should meet the following standards:

Paper size: A4; Font Name: Times New Roman; Font Size: 12 pt (for normal text); Left Margin, Right Margin, Top Margin and Bottom Margin should each be 2.5cm. Line Spacing: 1.5; Header and Footer: 0.5cm; Maximum number of pages: 30

GUIDELINES FOR SUBMISSION

The manuscript should contain the features listed below:

Title page:

The title page should contain only the title of the work, contact details of the author(s) such as name, institutional affiliation, email address and telephone number. Please note that the title should not exceed fifteen (15) words. The title should be concise and informative. It should be written in uppercase and lowercase letters, sentence case.

Abstract Page:

The first page of the manuscript should contain the title of the article, name of the author(s), the abstract, five or six relevant key words and /or phrases. Enter key words or phrases in alphabetical order, separated by commas.

The abstract is the heart of the paper/report. It should be a brief summary of the contents and conclusions of the paper/report. The abstract should not exceed 200 words. It must clearly give the overview of the paper/report. (Avoid unnecessary words/things in the abstract). The abstract must be concise yet a comprehensive reflection of what the idea is about. In particular, the abstract must be self-contained, without abbreviations, mathematical equations, tabular material, footnotes, or references. The abstract must be written as one paragraph. To expatiate further, the abstract should include the objective of the study, summary of the work done so far in the research area and the reason(s) for the current research work. The method(s) the researcher(s) developed/employed to achieve their goal(s), a description of the results obtained from the study and the significance or implications thereof, and areas for further works should be stated.

Introduction:

It should include the background to the study, research problem definition, brief survey of relevant literature, aim and objectives for doing the research, scope, project features, feasibility study, intention of the paper/report and the impact of the idea.

Theoretical Analysis of Idea (where applicable) –

This should be presented in a clear and concise manner, with all symbols defined in the text.

Mathematical principles and/or theories used should be included as appropriate. Symbols and abbreviations and acronyms should be defined where first mentioned. Abbreviations that have periods should not have spaces. If the symbols are many, a "Notation" defining the symbols must be included between the abstract and Introduction. International System of Units (SI) units should be used. Numerical value must be separated from the Physical Unit by one space.

Illustrations and Tables:

Photographs should be glossy black and white prints of high contrast. All diagrams should be imported into the text and be formatted by resizing. MS-Excel, Text Art & Draw are preferred for creating illustrations. Graphs must be plotted using MS-Excel. Very clear scanned diagrams and pictures are also acceptable.

All illustrations should be numbered in sequence and referred to in the text and captioned as Fig. 1, Fig. 2, etc., with appropriate legends. (Other graphical and word processing software may be used).

All Tables should be numbered in sequence and referred to in the text as Table 1, Table 2, etc., with appropriate captions. Usually the figure Names/Titles are written below the figure and table Names/Titles at the top of the table. All figures should have proper description by legends, title of the axes and any other information to make the figures self-explanatory.

Equations:

All equations must be numbered in sequence and cited in the body of the paper as "eqn. ()". MS Equation Editor must be used. All symbols must be incorporated in the text, All equations should be centered and have one-line space between equations and text material. Displayed equations should be numbered simply as (1), (2), (3). The numbers should appear at the extreme right of the line in parentheses

Experimental Work: (where applicable) -

This section should include apparatus and equipment setup, materials, design, experimental methods and procedure as applicable. Sufficient information should be given to permit repetition of the investigation.

Results:

Results/Outcomes of the study can be presented in text, descriptive, tabular or graphical forms. Information presented in tables should not be repeated as figures. Tables and Figures should be placed as close as possible to the first place of reference. References should be made to all the tables and figures in the manuscript. Allow one line of space between the table title and the table and between the figure and its caption. Allow two lines of space between the table or figure and the adjacent text.

Discussion:

Discussion should be focused on the interpretation of experimental findings. Key findings should be related to other published research and future trends of the research. The significance of the results in relationship with the aim, objectives and methodologies of the investigation should be given.

Conclusions:

The conclusion should be a brief summary of the paper. It should clearly state the key results, highlights of major findings, improvements, contributions, relevance of the idea and recommendations, as appropriate, and areas for further study/research

General:

Use one space after periods and colons. Use a zero before decimal points: "0.85," instead of ".85." A statement in parenthesis at the end of a sentence is punctuated outside of the closing parenthesis (like this), whereas (A statement in parenthesis is punctuated within the parentheses.)

Prefixes such as "non," "sub," "micro," "multi," and "ultra" are not independent words; they should be joined to the words they modify, usually without a hyphen. There is no period after the "et" in the Latin abbreviation "et al." (it is also italicized). The abbreviation "i.e.," means "that is," and the abbreviation "e.g.," means "for example" (these abbreviations are not italicized).

References:

Example APA7 - The referencing method where the first author's last name is used to arrange entries alphabetically in a reference list is commonly used in APA style. This means that your reference list will be organized alphabetically based on the last name of the first author listed for each source. APA7 2019 Edition

Appendices: (If any)— Appendices are provided to give supplementary information, which if included in the main text, may serve as a distraction and cloud the central theme. Appendices should be numbered using Arabic numerals, e.g. Appendix 1, Appendix 2, etc. Tables and References appearing in appendices should be numbered and referred to, at appropriate places.

Acknowledgement:(Where applicable) -

Acknowledgement of individuals who provided help and substantial contributions during the research, in the area of conception, materials, design, acquisition of data, analysis and interpretation of data, drafting the manuscript or revising it critically for important intellectual content, but who do not meet the criteria for authorship should be stated.

Please also include the source(s) of funding if any.

Those doing their PhD research are exempted from the competition.

SUBMISSION: All papers submitted, assessed and qualified for the competition by the Technical Committee (TC) shall be published on the Engineers' Forum blog. The TC shall note public comments from published works.

PRESENTATION: Only papers selected for the awards shall be presented in PowerPoint multimedia format at the event.

LISTING: All selected papers shall be listed in the Event Brochure with a brief profile of the authors. Thus, authors shall submit along with full papers their profile not more than 50 words detailing names, school, matric number, department, email address and paper title. Lead Author will be responsible for most communication with Technical Committee and the Blue Apple Educational Foundation.

PROOF OF STUDENTSHIP: Only persons whose studentship can be proven and valid on the date of the event are eligible to participate.

SUPERVISING LECTURER

Participating student should be guided by departmental lecturer in writing the paper. The paper should be submitted with the supervising lecturer's name.

Idea(s) shall be considered owned by the student(s).

PRIZES/AWARDS:

- Best Paper Presenter Award shall go home with N1,000,000
- First Runner Up Award shall win N500,000
- Consolation prizes would be given to the most interactive paper, most engaging public personality etc.
- All papers stand a chance of being developed into prototype, patented and commercialized. The decision to develop a prototype of any paper, patent and commercialize rest with the Blue Apple Educational Foundation.

PARTICIPATION CERTIFICATE: A certificate of participation will be given to students whose work passed the assessment criteria and were published on Engineers' Forum. This category of persons shall be eligible to apply to the elite Authors' Forum if they so wish.

SUBMISSION DEADLINE: Submission of abstract and full paper shall not be later than 31st of October 2025 to info@blueapple-edufoundation.org

Papers similar in topics already published in previous editions would not be accepted. Participants are to read up topics at engineersforum.com.ng library for guidance.

COPYRIGHT: All accepted paper shall remain the copyright of Blue Apple Educational Foundation (BAEF).

DATE OF AWARD CEREMONY AND VENUE: to be communicated.

CONTACT: 07059800939

PARTICIPATION/ENTRY IS FREE.

Engr. (Prof.) Tolulope Olusegun Akinbulire