

**Blue Apple Educational Foundation
(BAEF)**

PRESENTS:

**4TH
NATIONAL ENGINEERING SCIENCE &
TECHNOLOGY ESSAY COMPETITION**

NESTEC 2023

AWARD CEREMONY

Partners



Date

Saturday 27th April 2024

Time

10:00am (WAT)

Venue

ZOOM



NATIONAL ANTHEM

Arise, O compatriots
Nigeria's call obey
To serve our fatherland
With love and strength and faith
The labour of our heroes past
Shall never be in vain
To serve with heart and might
One nation bound in freedom
peace and unity.

Oh God of creation
Direct our noble cause
Guide our leaders right
Help our youth and truth to know
In love and honesty to grow
And living just and true
Great lofty heights attain
To build a nation where peace
and justice shall reign.

NATIONAL PLEDGE

I pledge to Nigeria my country
To be faithful, loyal and honest
To serve Nigeria with all my strength
To defend her unity
And uphold her honour and glory
So help me God.

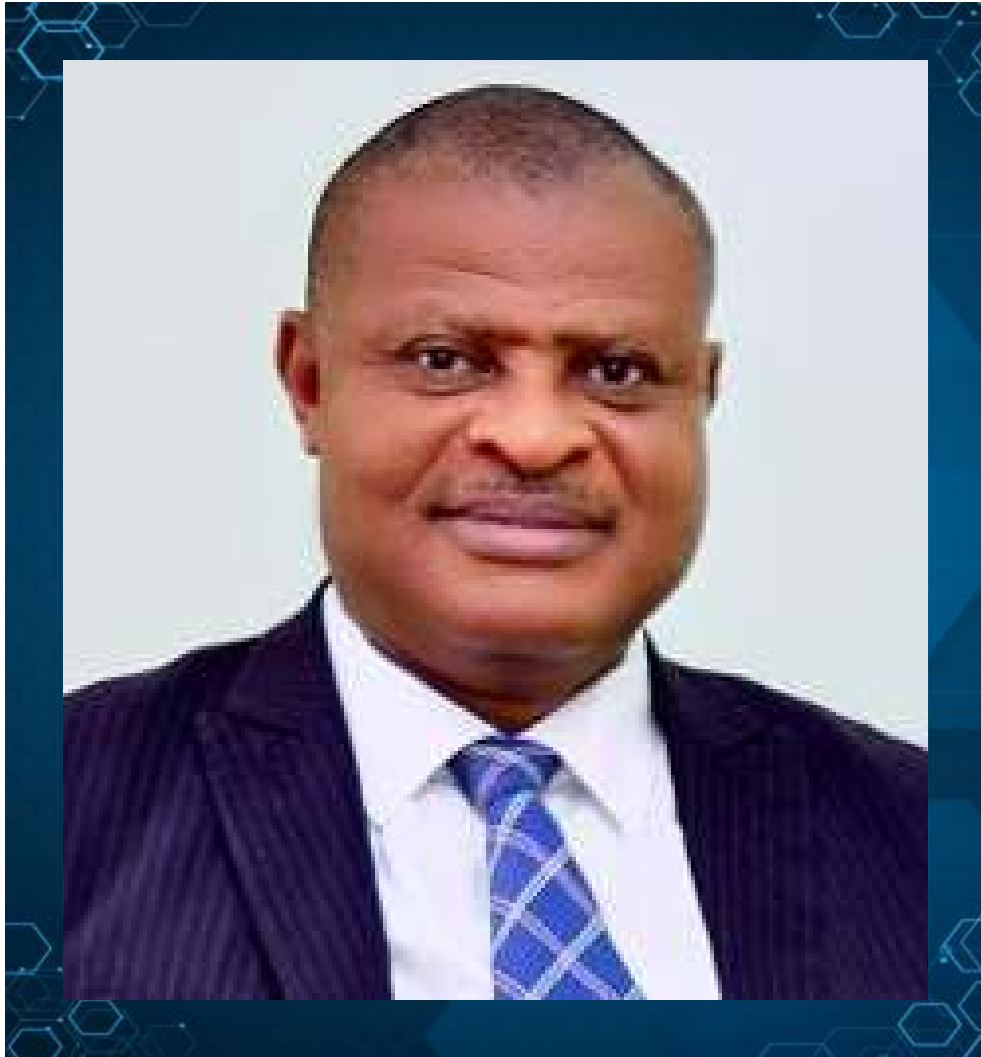
4TH NESTEC AWRAD CEREMONY

EVENT PROGRAMME

1. Interlude (Guests join the event)
2. National Anthem (Stanza 2 as opening prayer)
3. Introduction of Guests
4. Opening address by the President, Blue Apple Educational Foundation
5. Remarks by Prof. Ifeyinwa Achumba
6. Presentation by Zhen Zhao, Ph.D
7. Presentation by Amb. Ebikemefa Clinton
8. Papers Presentation by Finalists
9. Remark by Prof. Ramalan Aliyu Mohammed
10. Testimonial by 2022 NESTEC Ambassadors
11. Declaration of best paper/winner by Prof. Engr.Tolulope Olusegun Akinbulire, Technical Committee Chairman, NESTEC
12. Remarks by Guest of Honours
13. Speech by NESTEC 2023 winner
14. Photograph
15. Vote of thanks
16. Closing remarks



His Excellency,
Bola Ahmed Tinubu, GCFR
President, Federal Republic of Nigeria



Engr Akan Michael, FNIEEE
President, BAE Foundation



Special Guest of Honour
Prof. Ramalan Aliyu Mohammed
Ahmadu Bello University, Zaria
Kaduna State



Special Guest of Honour
Prof. Ifeyinwa Achumba
Chair, IEEE Nigeria Section



Father of the Day

Engr. Isaac Adekanye, FNIEEE
Chair, IEEE Africa Council



Mother of the Day

Engr. (Dr). Atinuke Owolabi, FNIEEE, MNSE
Chair, APWEN, Lagos Chapter



Guest of Honour

Engr. John Funso-Adebayo, FNSE, SMIEEE
Immediate Past Chair, IEEE Nigeria Section



Guest of Honour
Engr. Felix O. Olu, MNSE, FNIEEE
President, NIEEE



Guest Lecturer
Zhen Zhao, Ph.D
Temple University, USA



Guest Speaker

Amb. Ebikemefa Clinton, MNSME, MNMGS
Mining Engineer, Dexter Roy Geo Consult Limited, Abuja



Guest of Honour

Engr. Shereefdeen Oladapo Sanni
Federal University Oye-Ekiti,
Ekiti State.



Prof. Engr. Tolulope Olusegun Akinbulire
University of Lagos
Technical Committee Chairman, NESTEC

BLUE APPLE EDUCATIONAL FOUNDATION'S BoT



Engr. Akan Michael, FNIIEE
Chairman



Engr. (Dr). Atinuke Owolabi, FNIIEE
Member



Engr. Isaac Adekanye, FNIIEE
Member



Engr. (Dr) Unyime Okure
Member



Ahmad Abdalbaki
Member



Desmond Peter
Member



Ntah Franklin
Member



Dr. Nsongurua Peter
Member

PAPER PRESENTERS PROFILE



Njoku, Onyekachi Sylvester
University of Nigeria, Nsukka
Matric: 2019/241845
Dept.: Electronic and Computer Engineering.
Email: njokuonyi562@gmail.com
Paper Title: Drones and Autonomous Cars:
Addressing Nigeria's Insecurity Issues



Adisa Taofik Ajibola
University of Ibadan
Matric No. 207404
Dept. Mechanical Engineering
Email: adisataofik99@gmail.com
Paper Title: Campus Sustainability;
Biogas Potential of Sewage and Municipal
Solid Waste Organic Fraction in
Nigerian Universities



Omede, Stephen Peace
University of Nigeria, Nsukka
Matric No. 2019/245785
Dept.: Electrical Engineering
Email: peacestephen933@gmail.com
Paper Title: Low- Income Renewable
Energy-Based Microcontroller
For Northern Nigeria.



Ebong Ekemini Paul
Akwa Ibom State University
Matric No. Ak19/ENG/CPE/012
Dept.: Chemical/Petrochemical Engineering
Email: ekeminipaul19@gmail.com
Paper Title: The Role Of Engineers In
Tackling Climate Change And Mitigating
It's Effect

To access finalists papers visit:
www.engineersforum.com.ng/category/library/
X(formerly Twitter) handle @engineersforum2

PAPER PRESENTERS PROFILE



Abosede, Iyiola David
University of Ibadan
Matric No: 215036
Dept.: Mathematics
Email: abosedeyiola98@gmail.com
Paper Title: Design and Implementation of a Smart Traffic Management System Using IoT



Ogbu, Emmanuella Kosisochukwu
University of Nigeria, Nsukka
Matric No: 2019/245971
Dept.: Electrical Engineering
Email: ellakosyogbu@gmail.com
Paper Title: The Implications of the Nigeria Power System Losses on the Electricity Market and Consumers.



Ngene Paul Onyedikachi
University of Nigeria, Nsukka
Matric No. 2019/244325
Dept.: Electronic and Computer Engineering
Email: paul.ngene.244325@unn.edu.ng
Paper Title: Localization Of Missing Children Or Individuals Using LoRaWAN Technologies



Dordor Eden Ayebanua
Niger Delta University, Bayelsa State
Matric No. UG/19/2332
Dept.: Mechanical Engineering
Email: dordoreden@gmail.com
Paper Title: Exploring the Role of Renewable Energy for Sustainable Development in Nigeria

To access finalists papers visit:
www.engineersforum.com.ng/category/library/
X(formerly Twitter) handle @engineersforum2

NESTEC (4th Edition) Paper Supervisors



Dr. Anioke Chidera Linda
Dept: Electrical and Electronics Engineering
School: University of Nigeria Nsukka
Supervised Candidate: Njoku Onyekachi



Dr. Olawale Saheed Ismail.
Dept: Mechanical Engineering
School: University of Ibadan
Supervised Candidate: Adisa Taofik Ajibola



Engr. Uchenna Amazue
Dept: Electronic and Computer Engineering
School: University of Nigeria Nsukka
Supervised Candidate: Ngene Paul Onyedikachi



Dr. Dauda Alani Dikko
Dept: Mathematics
School: University of Ibadan
Supervised Candidate: Abosede Iyiola David



Engr. Uduak Eyibio Promise
Dept: Chemical/Petrochemical Engineering
School: Akwa Ibom State University
Supervised Candidate: Ebong Ekemini Paul



Engr. Chinweike Okoli
Dept: Electrical Engineering
School: University of Nigeria Nsukka
Supervised Candidate: Omede, Stephen Peace



Engr. L.U. Omeje
Dept: Electrical Engineering
School: University of Nigeria Nsukka
Supervised Candidate: Ogbu Emmanuella



Dr. Agonga Oyinbonogha Fred
Dept: Mechanical Engineering
School: Niger Delta University
Supervised Candidate: Dordor E. Ayebanua

Papers Assessors



Prof. R. A. MOHAMMED: A Professor of Metallurgical and Materials Engineering at the Ahmadu Bello University, Zaria, Kaduna State, Nigeria.

He obtained his M.Sc. (Metallurgical Engineering) from Higher Institute of Chemical Engineering, Sofia, Bulgaria and Ph.D (Doctor of Philosophy of Science), Metallurgical Engineering from Ahmadu Bello University, Zaria, Kaduna State. Nigeria.

He is a member of Nigerian Society of Engineers (MNSE), Council of Registered Engineers of Nigeria (COREN) and Nigerian Metallurgical Society (NMS). He has published several articles in reputable journals and presented technical papers in both national and international Conferences



Dr. Rabi Aliyu Abdulkadir: Is a lecturer at the Department of Electrical Engineering, Aliko Dangote University of Science and Technology, Wudil Kano, Nigeria.

He obtained his Ph.D., Electrical and Electronic Engineering from Near East University, Northern Cyprus, Turkey, M.Tech., Electrical & Electronic Engineering from Sharda University, Greater Noida, India and B.Eng., Electrical Engineering from Kano University of Science and Technology, Wudil, Nigeria.

He is Member of Institute of Electrical and Electronics Engineers (MIEEE), International Association of Engineers (IAENG) and Registered Engineer by the Council for the Regulation of Engineering in Nigeria (COREN).

His research interests includes AI, Renewable Energy, Cyber-physical Systems, Smart Grids and Cybersecurity. With several publications in high profile journals/conference proceedings.



Engr. Haruna Ali Isah is a Assistant Lecturer at Aliko Dangote University Of Science And Technology Wudil, Kano, Nigeria. He obtained his M.Tech in Electrical And Electronics Sharda University, India And had his B.Eng in Electrical from Kano University of Science and Technology Wudil, Nigeria.

He has published International Journal Articles

SPEECH BY PRESIDENT, BAE FOUNDATION ON THE 4TH EDITION OF NESTEC AWARDS CEREMONY

Distinguished Guests,
NESTEC Ambassadors,
Participants,
Professional Colleagues,
Students,
Media Crew,
Ladies and gentlemen,

It is with great pleasure and profound excitement that I welcome you all to the award event of the 4th edition of the National Engineering Science and Technology Essay Competition (NESTEC). As the initiator of this noble event, it fills me with immense pride to witness the gathering of some of the brightest minds in our nation, all assembled here with a common purpose – to celebrate innovation, creativity, and the relentless pursuit of knowledge in the fields that shape our world.

This competition stands as a testament to the unwavering commitment of our youth to harness the power of science and engineering for the betterment of society. NESTEC is a platform that not only recognizes outstanding talent but also fosters an environment of collaboration, where ideas flourish and boundaries are pushed.

In a world facing complex challenges, from climate change to global health and insecurity crises, the role of engineering, science, and technology has never been more crucial. It is through the ingenuity and dedication of individuals like yourselves that we pave the way for a brighter, more sustainable future.

As we embark on this journey together that started 5 years ago, I urge you to embrace the spirit of innovation and inquiry. Your essays have all sought to find solutions to national problems cum global challenges. The competition will continue to seize opportunity to inspire, to challenge, and to ignite the flames of curiosity in our youths thereby creating passion for research and relentless pursuit of excellence.

To our esteemed supervisors, I appreciate your guidance offered these youngsters in the course of their work. To our assessors, I extend my deepest gratitude for your invaluable contribution in evaluating the submissions with fairness and integrity. Your expertise will ensure that the most deserving entries receive the recognition they rightfully deserve.

To the participants, I offer my sincerest congratulations for your courage in stepping forward to share your ideas with the world. You were selected and you made it to the finals from among many who submitted their papers out of competence. Remember that each word you write has the power to spark change, to inspire action, and to leave a lasting impact on generations to come.

Finally, I would be remiss not to acknowledge the dedication and hard work of the members of Board of Trustees, staff of the Foundation, organizing committee and NESTEC ambassadors, whose tireless efforts have made this event possible. Your commitment to excellence sets a standard that we all strive to uphold. I wish to thank especially our guest speakers, partners and the media who will take the information out to the world.

In closing, let us embark on this journey with optimism, determination, and a shared sense of purpose. May this competition serve as a catalyst for innovation, a beacon of hope for the future, and a celebration of the boundless possibilities that lie at the intersection of engineering, science, and technology.

Thank you, and best wishes to all participants.

GUEST LECTURER PROFILE



Zhen Zhoa, Ph.D.
Vice President, Head of Global AI Engineering-Chubb
Adjunct Associate Professor
Temple University, USA.

Dr. Zhen Zhoa is a the VP, Head of Global AI Engineering-Chubb, a prominent insurance company. With two decades of experience, Zhen is a leading figure in the tech industry. Holding a PhD and several degrees in Computer Science and Engineering, he specialize in AI and machine learning. At Chubb, Zhen oversees the development and implementation os groundbreaking AI solutions worldwide. Previously, Zhen held leadership roles in renowned companies like Barclays and Comcast, leading transformative projects. his expertise in AI has earned him recognition in the tech community, reflected in his frequent speaking engagements at international conferences where he shares insights on emerging technologies.

Apart from his professional contributions, Zhen is an advocate for STEM education and actively mentors aspiring engineers while teaching at Temple University. His commitment to pushing boundaries and revolutionizing industries make him invaluable to Chubb and a true inspiration to AI engineers globally

GUEST SPEAKER PROFILE



Amb. Ebikemefa Clinton, MNSME, MNMGS

AAmb. Ebikemefa Clinton held leadership roles as Chief Operations Officer/Mining Engineer and Project Supervisor while at Dexter Roy Geo Consult Limited, Abuja, Nigeria. He obtained his BSc, in Mining Engineering from the University of Jos and he is currently studying for a master's degree (MSc) in Metallurgical and Materials Engineering at

Ahmadu Bello University, Zaria, Kaduna State, Nigeria. He has published several articles in reputable journals.

Amb. Clinton is a Member, Nigeria Society of Mining Engineers (MNSME) and Member, Nigeria Mining Engineers and Geo-Scientist (MNMGS).

NESTEC Ambassador Testimonial 1



My journey with The National Engineering Science and Technology Essay Competition (NESTEC) organized by Blue Apple Educational Foundation, BAEF started in 2022. I was one of the candidates who submitted an entry for the 2022 edition. Before I submitted my entry, I went through the accepted technical papers of the previous years/editions published on www.engineersforum.com.ng and properly studied the competition's instructions.

My paper was accepted and I emerged the winner of the 2022 edition of the competition, I was awarded a cash prize of N500,000.00 which went a long way toward taking me through my financial needs during my final year as an undergraduate. Also, the impact of the cash prize was on my personal development as an electronic hobbyist majoring in embedded systems. I was able to purchase more development boards as well as the tools I have been needing for electronic project designs. In the same vein, I was able to fund my research on the accumulation of solar energy and lithium-ion battery charging through the cash prize I won.

Through NESTEC, I was convinced that writing is one of the best methods to put figures, facts, and explanations together to support technological innovations.

Nnurturing young individuals' intellectual and technological ideas, which is one of the BAE foundation's mandates has led me to seek major improvement in my career growth through learning to improve my writing skills and research skills, while also focusing more on my practical electronics. NESTEC has made me successfully realize the potential I have, part of which has made me write different articles since I participated in NESTEC 2022 edition. Thank you Blue Apple Educational Foundation.

Amb. Wasiu Adeleke

2022 1st Prize Winner

adelekewasiu2017@gmail.com

NESTEC Ambassador Testimonial 2



The National Engineering Science Technology Essay Competition, NESTEC has given me a new sense of direction over the years. Making the finalist list from hundreds of submitted papers is something to be proud of, which I also regard as an achievement.

NESTEC has inspired me to compete locally and internationally for opportunities, it stimulated my passion for writing, especially about biomedical-related topics in Nigeria. Participating in NESTEC also gave me the opportunity and chance to interact with other finalists from different parts of the country. NESTEC enabled us to share more knowledge within ourselves, regions, states and tribes. I am truly humbled and honoured to find myself among the finalists. My article was published, this prestigious recognition and accolade are a reflection of the collective dedication and hard work of Blue Apple, the organizer of NESTEC who contribute tirelessly to our shared vision of educational advancement and essay writing. I am earnestly grateful for the recognition I have received from my essay.

It was indeed a great honour for me to receive the certificate of participation from Blue Apple. This certificate encouraged us to realize our goals for the future and inspired us to carry out activities in the field of science and technology with high responsibility and dedication.

Long live BLUE APPLE! Long live NESTEC!! Long live the Federal Republic of Nigeria!!!

Amb. Sadiq Idris Musa

sidris1994@gmail.com

NESTEC Ambassador Testimonial 3



Participating in The National Engineering Science and Technology Essay Competition, NESTEC 2022 and presenting my paper titled "Design and Implementation of Unmanned Aerial Vehicles for Monitoring and Evaluating the 2023 General Election" was not just a personal achievement; it was in partial fulfilment of a deep-seated dream to contribute towards solving an age-old national challenge in my country Nigeria. Where the integrity of electoral processes is often questioned, my experience at NESTEC underscored the critical role of technology in ensuring free and fair elections.

My journey into engineering research was a leap into the unknown, but NESTEC illuminated the path, igniting my passion and propelling me beyond my perceived limits. Amidst the challenges, the unwavering support of friends, colleagues, and my supervisor, and an unyielding desire to effect tangible change sustained me. NESTEC sharpened my technical prowess and also connected me with a diverse community of like-minded young researchers, expanding my horizons in ways I never imagined.

At the end of the competition, I emerged as the first runner-up, the award was not just a personal triumph but a validation of the importance of innovation in addressing pressing societal issues. It also renewed my resolve to continue striving for excellence and leveraging engineering and technology to make meaningful contributions to Nigerian society.

Therefore, I am deeply thankful to the Blue Apple Educational Foundation for providing a platform that not only nurtures talent but also cultivates a culture of innovation and excellence. To all aspiring participants, I urge you to embrace the challenges, draw inspiration from those around you, and let your passion for engineering and technology drive you towards greatness. So then, let us continue to innovate, create, and strive for a Nigeria where transformation is not just a dream but a reality.

God bless Blue Apple Educational Foundation

Amb. Emmanuel Eke
2022 2nd Prize Winner
nnagozieemmanuel@gmail.com

NESTEC 1st Edition (2019)

NESTEC 2019 FINALISTS

Abubakar A. Ahmad Kaduna University of Science Matric No. 1431801001005	Ikenna Okechukwu Lagos State Polytechnic Matric No. 1002120100	Akintayo L. Yusuf ATE University Matric No. 200210010027	Wajidat Olatunmbi Moses University of Nigeria, Awka Matric No. 2114100100
Shayo Chukwaka C. FUTA Matric No. 1002100100	Mrs. Sadiya Muja Bells University, Oyo Matric No. 201401001	Mohammed S. E. Eshin Fuku College Of Technology Matric No. 1002100100	Ekemena S. Eshin University of Jos Matric No. 1002100100
Dorcas O. Yusuf Nigeria Maritime University Matric No. 2002100100	Abimbola F. Oluyinka Lagos State Polytechnic Matric No. 1002100100	Chibwarama O. Ogunyemi University of Lagos Matric No. 1002100100	Chibwarama O. Ogunyemi University of Lagos Matric No. 1002100100
Est. Chika Harrison University of Nigeria, Awka Matric No. 2002100100	To engage the finalists on their papers, visit www.engineersforum.com.ng/library for Q&A For more information email: info@engineersforum.com.ng		

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NESTEC 2022 3rd Edition Cont.

NESTEC 2022 FINALISTS



Adullahi Aliyu
Usmanu Danfodiyo University, Sokoto
Matric No. 1711402001



Odu Sunday Bancha
University of Abuja
Matric Number: 182831004



Hassan Sunusi Kani
Aliko Dangote University of
Science and Technology Wudil
Metric Number: UG20/ELEE/1002



Okpako Ogheneochuko
University of Benin
Matric Number: ENG1704330



Dogban Makanjuola Houstrouvi
Yaba College Of Technology
Matric Number: F/HD/21/3420025



Abubakar Muhammad
Usmanu Danfodiyo University Sokoto
Matric Number: 1911404027



Adeleke Wasiu Ademola
School: Federal University Oye-Ekiti
Matric Number: EEE/2017/1008



Emmanuel Nnagozie Eke
University of Nigeria Nsukka
Matric Number: 2017/247400



Muutasim Abdulhadil
Kano University of Science and
Technology, wudil
Matric No: UG16/ELEE/1135



Osadebe Chijioko Akaolisa
University of Nigeria, Nsukka
Matric Number: 2018/242683



Tikili Wisdom Yenimi
University of Port Harcourt
Matric No: U2018/3025038



Rosabeth Twarmi Balla
Abubakar Tafawa Balewa University
Matric No: 17/47326U/2



ENGR. WURAOLA ATINUKE OWOLABI CAPACITY BUILDING INITIATIVE FLAGS OFF 3IN1 PROJECTS ON EDUCATION SUPPORT INITIATIVE

1



FOR COMMUNITY
KIDS IN
PRIMARY
SCHOOLS

2



Operation NTU
(No tattered uniforms in
Lagos public schools)
... Tailors on Standby

3



Scholarship Scheme to 100
Indigent Engineering students
at entry point (100level)

Flag Off date: 3rd March, 2022
Time: 11:00am
**Venue: Fred Williams Memorial
Primary School, Fagba bus stop,
Iju Ishaga, Ifako-ijaiye
Lagos, Nigeria.**



**ENGR. WURAOLA
ATINUKE OWOLABI**
MNSE, FNIEEE
Founder, WAOO Capacity Building Initiative

Technical Partners:



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The Institute of Electrical and Electronics Engineers (IEEE), a non-profit organization, is the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity.

IEEE Nigeria Section

<https://r8.ieee.org/nigeria>

NESTEC 2023 4th Edition PHOTOS



NESTEC 2023 PHOTOS Cont.



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NESTEC
2023

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 www.engineersforum.com.ng

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5TH

**NATIONAL ENGINEERING
SCIENCE & TECHNOLOGY
ESSAY COMPETITION**

NESTEC 2024

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Appreciation

The Management and Staff of Blue Apple Educational Foundation extend their heartfelt appreciation to our esteemed guests, Board of Trustees, partners, students from different schools, NESTEC Planning Committee members, NESTEC Assessors, NESTEC Ambassadors, paper supervisors, and all others involved

Thank you for graciously sparing time from your busy schedules to grace the grand finale of the 2023 Awards Ceremony of the National Engineering Science and Technology Essay Competition, NESTEC 2023.

We wish you continued success in all your endeavours and eagerly anticipate further collaboration with you.

Thank you.

Ekong Sunday
Foundation Administrator

Partners

