Hexagons in Nature.

The most common example of nature using hexagons is in a bee hive.
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The editor welcomes letters on mathematics from the community.

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HIS EXCELLENCY
MUHAMMADU BUHARI GCFR
PRESIDENT, COMMANDER-IN-CHIEF OF THE ARMED FORCES
FEDERAL REPUBLIC OF NIGERIA
NOTICES OF THE NIGERIAN MATHEMATICAL SOCIETY

HIS EXCELLENCY

PROF. YEMI OSINBAJO SAN
VICE PRESIDENT
FEDERAL REPUBLIC OF NIGERIA
### COUNCIL MEMBERS (2019-2021)

**The Nigerian Mathematical Society**

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<td>1. Prof. Bashir Ali</td>
<td>President</td>
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<td>2. Prof. G. C. E. Mbah</td>
<td>Vice President</td>
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<td>3. Prof. O. J. Adeniran</td>
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<td>5. Dr. Sirajo Abdulrahman</td>
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<td>Ex-Officio</td>
<td>University of Ilorin, Ilorin</td>
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<td>10. Prof. N. I. Akinwande</td>
<td>Immediate Past President</td>
<td>Federal University of Technology, Minna</td>
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<td>11. Dr (Mrs) D. O. Makinde</td>
<td>Member</td>
<td>Obafemi Awolowo University, Ile-Ife</td>
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<td>12. Prof. E. S. Onah</td>
<td>Member</td>
<td>National Mathematical Centre, Abuja</td>
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LIST OF FELLOWS OF THE NMS

In retrospect, the NMS has made awards of fellow to a number of mathematicians at home and abroad for their meritorious service towards the advancement of mathematics in Nigeria and abroad.

2015 RECIPIENTS

1. Professor Iya ABUBAKAR \( (FNMS) \)
2. Pastor Enoch Adejare ADEBOYE \( (FNMS) \)
3. Professor James Nwoye ADICHIE \( (FNMS) \)
4. Professor Eben Akin AKINRELERE \( (FNMS) \)
5. Professor Samuel Akindiji ILORI \( (FNMS) \)
6. Professor Olusola AKINYELE \( (FNMS) \)
7. Professor John Chukwuemeka AMAZIPYO \( (FNMS) \)
8. Professor Sunday Osarumwense IYAHEN \( (FNMS) \)
9. Professor Monsur Akangbe KENKU \( (FNMS) \)
10. Professor Aderemi Olayomi KUKU \( (FNMS) \)
11. Professor Emmanuel Oguntokun OSHOBI \( (FNMS) \)
12. Professor Kevin Ejere OSONDU \( (FNMS) \)

2016 RECIPIENTS

13. Professor Kayode Rufus ADEBOYE \( (FNMS) \)
14. Professor Anthony Uyi AFUWAPE \( (FNMS) \)
15. Professor Michael Olusanya AJETUNMOBI \( (FNMS) \)
16. Professor Ninuola Ifeoluwa AKINWANDE \( (FNMS) \)
17. Professor Udot Isaac ASIBONG \( (FNMS) \)
18. Professor Charles Ejikeme CHIDUME \( (FNMS) \)
19. Professor Godwin O. Samuel EKHAGUERE \( (FNMS) \)
20. Professor Jacob Abiodun GBADEYAN \( (FNMS) \)
21. Professor Oyewusi IBIDAPO-OBE \( (FNMS) \)
22. Professor Frank Ikechukwu OCHOR \( (FNMS) \)
23. Chief Ajibola OGUNSOLA \( (FNMS) \)
24. Professor James Adedayo OGUNTUASE \( (FNMS) \)
25. Professor Samuel Segun OKOYA \( (FNMS) \)
26. Professor Peter ONUMANYI \( (FNMS) \)
27. Professor Micah Okwuchukwu OSILIKE \( (FNMS) \)
28. Professor Babangida SANI \( (FNMS) \)
29. Professor Adewale Roland Tunde SOLARIN \( (FNMS) \)
30. Professor Abba Ali TIJJIANI \( (FNMS) \)

2017 RECIPIENTS

31. Professor Jerome Ajayi ADEPOJU \( (FNMS) \)
32. Professor Alexander O. E. ANIMALU \( (FNMS) \)
33. Professor Iheanyichukwu Sylvester IWUEZE \( (FNMS) \)
34. Professor Francis Kofi Ampenyin ALLOTIEY\( (FNMS) \)

2018 RECIPIENTS

35. Professor Muhammad Yahuza BELLO \( (FNMS) \)
36. Professor Anthony Monday ETTE \( (FNMS) \)
37. Professor Emmanuel Joseph Daniyang GARBA \( (FNMS) \)
38. Professor Moses Oludotun OYESANYA \( (FNMS) \)
39. Professor Olabisi Oreofe UGBEBOR \( (FNMS) \)
It is with great deal of pleasure I am writing this piece as a remark in this edition of the 2020 Nigerian Mathematical Society's Notices. This notices is supposed to have appeared months ago, but due to the Covid-19 pandemic it was delayed.

The society's conference is an annual event since inception. It is nowadays attracting large number of participants. There were a number of requests for hosting right from some private universities. The council approved the 39th annual conference to be hosted by Redeemer's University Ede, which is a private university. This is the first time the NMS conference is going to be hosted by a 100% private university. The conference was scheduled for 7th-10th July, 2020 which was postponed until further notice due to the Covid-19 pandemic. We are not sure if the conference will hold this year (2020). If it fails to hold then it will be the first time in more than two decades.

On behalf of the NMS I wish to extend our heartfelt condolence to all who lost some of their relatives and loved ones during the COVID-19 pandemic. I would like to invite scholars in Mathematical sciences in Nigeria and abroad to actively participate in all the activities of the society. Members are also urged to regularly renew their membership registration by paying their annual dues.

In the next available membership registration/membership renewal exercise, we plan to issue/assign unique registration number to each registered member. In addition to this, we are also making efforts to provide means of online registration, in which one can register (or renew his/her registration) and get his/her certificate also online.

The website of the Society is very active and we are determined to improve it day by day. I wish to urge members to frequently visit the website for various updates and news within and outside the country. We also welcome observations and suggestions for improvements.

As we all know, the Journal of the Nigerian Mathematical Society is one of the best, if not the best in the country, thanks to the efforts of our Editor-in-Chief, Associate Editors and reviewers whose efforts we greatly appreciate.

We are still working towards strengthening the journal in terms of quality and global participations.

The National Mathematical Center (NMC) Abuja is our great partner in the development of mathematics in Nigeria. The center under the leadership of the current Director Professor E.S. Onah has been playing a vital role in the payment of the Nigeria's dues for the membership of International Mathematical Union (IMU). Currently he is coordinating for the payment of the 2020 dues, which is yet to be settled. In recent years the center also is supporting the local organizing committees of some of our conferences. I wish to, on behalf of the NMS appreciate this gesture from the center. It is our believe that the center under the leadership of the current director, started aking a good shape. We pray for more improvements.
Bashir Ali, is a Professor of Mathematics with Mathematical Sciences Department of Bayero University Kano, he hails from Dala Local Government of Kano state Nigeria. He obtained BSc and MSc degrees in Mathematics from Bayero University, Kano in 1996 and 1999 respectively. He then obtained a PhD degree in Mathematics (with specialization in Functional Analysis) from University of Nigeria Nsukka in 2007. He became a full Professor in October 2016, served as Head of department of Mathematical Sciences Bayero University, Kano from 2014 to 2018. He also served as a member in many university committees. He served and still serving as chair/member of a number of some community (nongovernmental) organizations.

Professor Ali's main area of research is in Nonlinear Operator Theory, specifically, Fixed Points Iterative Procedures (47H10, 47J25), Contractive-type Mappings, Monotone Operators and their generalizations (47H05,47H09) Optimizations and Variational Techniques (65K10).

Currently, he is working with some of his collaborators and PhD students on the following problems:

- Studying fixed point problems in the setting of asymmetric Banach spaces. The asymmetric space has found special application in the measurement of complexity of algorithms in computer science.
- Introduction and study of a monotone operator more general than the α-inverse strongly monotone.
- Introduction and study of Pseudocontractive mappings in the setting of a convex metric space.

He successfully supervised over twenty (20) MSc and two (2) PhD students and is currently supervising three (3) MSc and eight (8) PhD students.
Dr. Timothy Terfa Ashezu was born on the 18th January, 1979, to the family of Chief Emmanuel Ashezu (WO II retired) and Mrs Dorcas Ashezu both devout Catholics and farmers. He hails from Mbaiov-Mbayom, in Gwer-East LGA of Benue State.

Dr. Ashezu did his primary school education at the Army Children’s School, New Contonment ‘C’, Kawo, near the Nigerian Defence Academy in Kaduna State from 1985-1990 and obtained his first school leaving certificate. He had his junior secondary education at Government Secondary School, Ikpayongo, from 1992-1994. He briefly started his senior secondary education in the same school before moving to the prestigious special science senior secondary school, North-Bank, Makurdi from 1996-1998 where he obtained his SSCE. He has served the Mathematics Community in Many Capacities including Head of Department (2006-2009), Coordinator of Mathematics Programme and Technical Adviser at the National Mathematical Centre (2013-2016). He has served as External Examiner up to Doctoral levels to many Universities (within and outside the country). He has also served as a member of Accreditation Panels to Mathematics Degree Programmes in the Nigerian University System. He has been invited to many Universities outside Nigeria as Visiting Lecturer/Professor in Mathematics. He was an Associate of the Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy (2001-2006). He was honoured as a Fellow of the Papua New Guinea Mathematical Society in December, 2014 for his Scientific Contribution to the field of Mathematics in Papua New Guinea. He is currently serving as a Subject Expert and Chairman of Mathematics Panel for the Namibian National Council on Higher Education. He has published more than sixty journal articles his area in in Algebra (AMS Subject Classification 20 – Group Theory and Generalizations).

Professor Adeniran has served as the Business Manager of the NMS (2015-2019) and he is currently the Secretary of the Nigerian Mathematical Society.

Dr. Timothy Terfa Ashezu was born on the 18th January, 1979, to the family of Chief Emmanuel Ashezu (WO II retired) and Mrs Dorcas Ashezu both devout Catholics and farmers. He hails from Mbaiov-Mbayom, in Gwer-East LGA of Benue State.

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Dr. Ashezu is currently a lecturer in the Department of Mathematics/Statistics/Computer Science, Federal University of Agriculture, Makurdi, Nigeria. He enjoys reading and travelling as a hobby. He is a member/Assistant Secretary of the Nigerian Mathematical Society (NMS) and Nigerian Society for Mathematical Biology (NSMB). His research interest is in modelling the transmission dynamics, prevention and control of infectious diseases. He is happily married to Mrs Nadoo Vanessa Ashezu and the union is blessed with two children.
Henry Adagba is a professor of Mathematics in the Department of Industrial Mathematics and Applied Statistics at Ebonyi State University, Abakaliki, Ebonyi State, Nigeria. He is currently the Head of Department of Industrial Mathematics and Applied Statistics of the above institution. He received his B.Sc Hons degree in Mathematics from the Anambra State University of Science and Technology, Enugu Nigeria (ASUTECH), M.Sc Applied Mathematics from Nnamdi Azikiwe University Awka and Ph.D in Applied Mathematics from the University of Nigeria Nsukka.

His research area in Mathematics is particularly Effect of Noise in the Cochlea, Cardiovascular and flow dynamic, Biomathematics but in general, Mathematical Modelling. Professor Adagba’s Administrative experience/services to the Public and University Community is such that can be summarized, he held and served on various sensitive positions and committees which includes

- Commissioner of Youth and Sports in Ebonyi State
- Special Assistant to Hon. Minister of Education, Federal Ministry of Education

Henry Adagba has published more than 60 scientific papers in learned journals. His research interest is in the area of mathematical epidemiology as well as population dynamics. He has successfully supervised many postgraduate students and is still counting. Sirajo has been external examiner at both undergraduate and postgraduate levels to many Universities including Bayero University Kano, UDUS and Ibrahim Badamasi Babangida University, Lapai. Prof. Sirajo was the Nigerian Mathematical Society (NMS) Assistant Secretary from 2015 to 2019 and presently the Society Business Manager. He is the Secretary of the Nigerian Society for Mathematical Biology since its inception in 2018 to date and a member of Mathematical Association of Nigeria).

He is sincerely grateful to his mentor Prof. Ninuola Ifeoluwa Akinwande the Immediate Past President of NMS.
Dr. Tertsegha Tivde, is the first born of seven in the family of Rev. (Dr) & Atese Igbughul (JP) of Konshisha Local Government, Benue State Nigeria and he is happily married with three (3) children. Dr. Tivde holds B.Sc (Hons), (BSU) Mathematics, M.Sc, Ph.D (Nigeria) Mathematics with bias in Mathematical Modelling (Nigeria). He holds Dip. Computer Science, Dip. in Desktop Publishing, three (3) Foundation Postgraduate Course Certificates in Iso-Mathematics, Genomathematics, Computational Science and Python (VPython, Matplotlib).

Dr. Tivde is a lecturer in the Department of Mathematics/Statistics/Computer Science, Federal University of Agriculture, Makurdi. He programs in Python, Matlab, Maple, R etc and Uses SPSS, XLSTAT and Spread Sheet efficiently in data analysis. A member of NMS (Ex-Officio), MAN

Research Focus: Mathematical Modelling (Epidemiology, Biofluid dynamics/Mathematical Biology). You can contact him via tivdeter@gmail.com

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Dr. Olubunmi A. Fadipe-Joseph is an Associate Professor of Mathematics in the University of Ilorin, Nigeria. She contributes in teaching and supervision of both undergraduate and postgraduate students. She had B.Sc. Mathematics with First Class Honours in 1995 from the University of Ibadan, Nigeria and obtained Ph.D. Mathematics in 2005 from the University of Ilorin, Nigeria. Her University teaching experience across State, Private and Federal Universities in Nigeria started with Ladoke Akintola University of Technology, Ogbomoso, Nigeria in 1997. From there she crossed to the University of Ilorin, Nigeria in 2001. She was on one-year sabbatical placement at the Landmark University, Omu Aran, Nigeria in 2014.

Olubunmi researches in Functions of a Complex Variable. She has attended many conferences and workshops in and outside Nigeria. She was a visiting research fellow at the African Institute for Mathematical Sciences, South Africa; Institute for Mathematical Sciences, National University of Singapore, Singapore; an Associate of the Abdus Salam International Centre for Theoretical Physics (ICTP), Italy; visiting lecturer at the Institut De Mathematiques Et De Sciences Physiques, Universite D’Abomey-Calavi, Republic of Benin. Fadipe-Joseph won grants at the National and International levels to conduct research and to attend conferences/workshops.

Fadipe-Joseph is the Deputy Director (Academic), Centre for Open and Distance Learning, University of Ilorin; Assistant Secretary, Nigeria Women in Mathematics(NWM) and a Member of Council of the Nigerian Mathematical Society(NMS). She is a Commissioner, African Mathematical Union(AMU) Commission for Women in Mathematics and an Ambassador, International Mathematical Union (IMU), Committee for Women in Mathematics. She is a member of many academic societies and has publications in reputable journals. She is a reviewer for some journals and she gives endowment fund: Fadipe-Joseph Prize in Mathematics for the best Junior Secondary School three (JSS 3) female students in two secondary schools in Nigeria.
FIRST GEOGRAPHICAL BASED ASSOCIATE EDITORS OF THE NOTICES OF THE NMS

KNOW YOUR ASSOCIATE EDITORS

DR. MOHAMMED ABDULHAMEED

Dr. Mohammed Abdulhameed holds a Doctor of Philosophy in Applied Mathematics from Universiti Tun Hussain Onn Malaysia (UTHM) in 2015. He has continuous teaching and research experience in both University and Polytechnic: As a Senior Lecturer visiting in Federal University Lafia and Abubakar Tafawa Balewa University Bauchi for more than Three (3) years, and tenure Lecturer in Federal Polytechnic Bauchi for more than Fourteen (14) years.

He is a registered member with three professional societies: The Nigerian Mathematical Society (NMS), Mathematical Association of Nigeria (MAN) and Society for Industrial and Applied Mathematics (SIAM). He is currently a Principal Lecturer in the Department of Mathematics and Statistics, Federal Polytechnic Bauchi with 14 years working experience. He has graduated Three (3) M.Sc. students. Currently, Four (4) M.Sc student and Three (3) PhD students under his co-supervision with the Universiti Tun Hussein Onn Malaysia and ATBU.

He has published in top tier, peer-reviewed journals total of 23 articles and 20 conference papers. He won two Gold awards: (i) Gold Price in Seoul International Invention Fair Korea 2015, Awards 2015 for research project “An Existence of Steady Terms from an Unsteady Mathematical Problems: Does it Exists in Our Life?” Korea Invention Promotion Association in Seoul, Korea. (ii) Gold Medal in Malaysia Technology Expo 2015, Invention & Innovation Awards 2015 and one Bronze Medal in Research and Innovation Festival 2014 (R&I Fest) Universiti Tun Hussein Onn Malaysia. He was the best graduating student in Mathematics in the year 2003 at Abubakar Tafawa Balewa University Bauchi, Nigeria.

His present research interests include Mathematical modeling and simulations; Biofluid mechanics, Nanofluid mechanics, analytical and numerical techniques for partial differential equations for fluid flow and thermal transport problems. He is experienced in direct numerical simulation with COMSOL multi physics, Matlab, Maple, Mathematica and Mathcad software.

MS. AUGUSTINA IFEOMA CHINAKA

Augustina Ifeoma, Chinaka is a PhD research student born in Enugu and from Umunakanu ama, Ehime Mbano in Imo State, Nigeria. She received her education at the University of Lagos with Masters in Mathematics and a Doctorate degree in Mathematics still in view at the Federal University of Agriculture, Abeokuta Ogun State. She also holds a Bachelor's degree in Mathematics/Statistics and Post Graduate Diploma in Education (PGDE) from the University of Calabar, Cross River State.

Augustina, is an intelligent and a vibrant Lecturer at Alvan Ikoku Federal College of Education Owerri. She is also an avid researcher and her work has been published in both national and international journals with her research focus on Quasigroup and Loop theory (Algebra).

She had attended many conferences and is a member of academic organisations like, Nigeria Mathematical Society (NMS), Mathematical Association of Nigeria (MAN), Nigeria Association of Mathematical Physics (NAMP), Teachers Registration Council of Nigeria (TRCN) to mention but a few.

Also, knowledgeable in the use of some Mathematical softwares like Latex, Sage and MATLAB. She is committed to learning and self development, able to work in a team work environment and good in conceptual and analytical skills.
NOTICES OF THE NIGERIAN MATHEMATICAL SOCIETY

DR. LEWIS NYITOR IKPAKYEGH

Dr. Lewis Nyitor Ikpakyegh was born on the 18 August, 1984 in Aliade, Benue State to the family of Mr. and Mrs. Vincent Ikpakyegh. He had his elementary education at RCM primary School Aliade between 1989-1995. He proceeds to the prestigious Mt. St. Michael's Secondary School Aliade to obtain his secondary education between (1995-2001). he studied Mathematics at the Benue State University Makurdi between (2002-2007) and did his mandatory one-year National Youth Service between 2008-2009 at Kubwa, FCT, Abuja. He proceeded for his post graduate studies at the Federal University of Technology Minna and obtained his master's degree (M. Tech.) in Mathematics between (2011-2013) and between (2015-2019), he obtained his Ph.D. degree under the supervision of Late Prof. G. T. Okedayo.

In 2014, he took appointment with the Federal University of Agriculture, Makurdi, where he currently lectures in the department of Mathematics/Statistics/Computer Science.

His research interest includes fluid flow with special interest in blood flow, differential equations, modelling and numerical computing. He has Authored and co-authored several conference papers and scientific publications in reputable journals as well reviewed in them. He is a member of several societies and at the moment Editor North central, Notices of the Nigerian Mathematical Society.

Dr. Ikpakyegh is happily married with three children.

DR. ABEDNEGO OROBOSA ISERE

It is the inequality of opportunities that enhances the opportunity of those with less opportunities.

Dr. Abednego Orobosa Isere obtained first and second degrees in Mathematics from the University of Benin, Benin City, Nigeria in 1999 and 2004 respectively. He holds a Ph.D in Mathematics (2014) from the Federal University of Agriculture, Abeokuta, Nigeria. He joined Ambrose Alli University, Ekpoma, Nigeria in December, 2006 as an Assistant Lecturer and rose to the post of a Senior Lecturer in 2016 and has been assessed for Associate Professor. He has just concluded his tenures as the Head of Department in August 31, 2020.

Research Focus

Dr. A. O. Isere started his research in ergodic theory where he published a few papers in 2006 and 2007. Then between 2008 and 2014, he published some articles on the outbreaks and control of cholera in Nigeria. However, he specializes in loop theory, precisely in Osborn loops and has published various articles on finite Osborn loops and applications. In 2015, he picked interest in rhetrix algebra and has published several articles on classical rhetrix. In 2018, he introduced even-dimensional rhetrix. His research projects also include quandles and their applications to cryptography.
Ma’aruf Shehu Minjibir was born in Minjibir town of Minjibir Local Government, Kano State. He got his primary education from Amsharo Special Primary School in Minjibir and obtained his Senior Secondary Certificate of Education (SSSCE) from Government Secondary School Danbatta of Kano State. He then proceeded to the prestigious Bayero University, Kano (BUK) where he bagged a 2:1 BSc Mathematics degree. Ma’aruf got his Master’s degree, MSc Mathematics, from the same university, BUK. In 2010, Ma’aruf got admitted into the PhD Mathematics programme of the African University of Science and Technology (AUST), Abuja.

He did his doctoral studies in Functional Analysis (Nonlinear Operator Theory) under the supervision of the distinguished professor, Professor Charles Chidume, and graduated in 2013. Dr. Ma’aruf Minjibir started his academic career as a Graduate Assistant in the Department of Mathematical Sciences, BUK. He is currently a Senior Lecturer in the same department. He is happily married to a fellow mathematician and they have three children.

He hails from Uruekwo village, Enugwu-ukwu, Njikoka L.G. A., Anambra State, Nigeria. He obtained his B. Sc. and M. Sc. from Nnamdi Azikiwe University (NAU), Awka, Anambra State, Nigeria in 1997 and 2001 respectively; He successfully participated in 2001/2002 Diploma Programme of the Abdul Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy. He is a Mori Fellow and was once a visiting scientist at ICTP. He obtained his Ph.D. (under the supervision of Professor Charles Ejikeme Chidume) from University of Nigeria, Nsukka in 2007. He won several academic awards such as National Universities Commission (NUC) 2007 Best Doctoral Thesis Award in Physical Sciences, Nigerian Mathematical Society (NMS) 2008 Best Doctoral Thesis Award in Analysis.

He gained employment at NAU in 1999 as a Graduate Assistant and rose to the position of full Professor of Mathematics in the same institution in 2014. He has served the University in different capacities such as Head, Department of Mathematics (2012 -2014); He is presently the Director Quality Assurance of the University. He has in different capacities served in Editorial Boards of several Journals of high repute.

RESEARCH: His research centers on Nonlinear Functional Analysis, with main focus on existence of fixed points and zeros of different classes of operators on Banach spaces; and iterative approximation of solutions of nonlinear operator equations.
Dr. (Mrs.) O.K. Olumurewa

Dr. (Mrs.) Oludolapo Kehinde OLUMUREWA was born on the 3rd day of April 1973 at Ilesa in Osun State. She had her basic and secondary education at Ilesa and was given admission into Obafemi Awolowo University, Ile-Ife where she bagged a B.Sc. (Ed.) degree in Mathematics in the year 1996. She proceeded to the Federal University of Technology Akure for her postgraduate study and was awarded M.Tech. degree in Industrial Mathematics (Numerical Analysis option) in 2008. Dr. (Mrs.) O.K. Olumurewa got her Ph.D degree in Mathematics (Numerical Analysis option) at Ekiti State University in 2015. She worked at Wesley University of Science and Technology, Ondo (WUSTO) between 2012 and 2016. She is a pioneer staff of Kings University Odeomu where she works till date since 2016. She is currently a Senior Lecturer and the Ag. Dean of the Faculty of Science at Kings University. She is happily married to Prof. (Engr.) J.A.V. Olumurewa and she is blessed with three children.

Research Focus

Her area of research interest is in developing Multiderivative Numerical Methods capable of solving Differential Equations. She currently has fourteen (14) publications in reputable national and international Journals.

Communication

Inaugural Speech of Newly Elected NMS President

Speech of Professor Bashir Ali after his election as president of Nigerian Mathematical Society at UNN on 20th June, 2019

As Reported by Prof. Eric Ofoedu, Awka, S/E

All the outgoing council members of the Nigerian Mathematical Society (NMS), the incoming elected members of Council of NMS, other members of the Nigerian Mathematical Society, good evening.

I would like to start, on behalf of all elected incoming council members of NMS, by expressing our profound gratitude to all of you here present for having confidence in us and entrusting us with the responsibility of running the affairs of the society as council members for the next two years.

It is not because we are the best that we are elected into the positions this evening no, it is because some set of members need to take the baton at a given period and deliver it to the next set and it happened to be us this time.

We shall need your support and cooperation to be able to do well. Therefore, On behalf of the new elected officers this evening, I would like to seek for your support and cooperation.

I would like to say that at present, we do not deserve to be congratulated for being elected, rather it is the outgoing leaders that deserve to be congratulated for completing their tenure successfully. We may be congratulated only if we do well and our tenure also ended well. Thank you very much, thank you all.
Nigerian Mathematical Society (NMS) held her 2019 Annual Conference at University of Nigeria, Nsukka (UNN) from Tuesday 18th June to Friday 21st June, 2019. The opening ceremony for the conference held at Princess Alexandria Auditorium, UNN; while the parallel sessions took place at Professor J. O.C. Ezeilo building, popularly known as Abuja building, UNN.

On Thursday 20th June, 2019, the Society had her Annual General Meeting (AGM) at Princess Alexandria Auditorium, UNN. The meeting started around 7.30pm. In the meeting were all executive members and 480 other members of NMS. Annual reports of several arms of NMS Council were read, inputs and reactions from congress were taken and responses were given by appropriate individuals/offices.

At the end of interactive session of the AGM, the President of NMS, Prof. N. I. Akinwande, FNMS, reminded members that 2019 is election year, that new officers to pilot the affairs of the society for the next two years would be elected into offices. On that note, the president explained that Electoral Committee should be constituted immediately to oversee the election process. Members of Electoral Committee were proposed by the President; and the following were to serve as members:

(1) Prof. J.A. Oguntuase of FUNAB – Chairman;
(2) Dr.(Mrs.) Chinwendu Madubueze of Benue State University, Markurdi – Member;
(3) Dr. Sampson Marshal of Akwa-Ibom State University – Member.

The proposal of the President was approved/ratified by AGM. After approval/ratification of the President's proposed members of the Electoral Committee by AGM, the President, Prof. Akinwade announced that the positions to be contested are

(1) President
(2) Vice President
(3) Secretary
(4) Assistant Secretary
(5) Treasurer
(6) Business Manager
(7) Two Ex-officio members.

Before dissolving the executive and handing over to the Electoral Committee, the President made known to the AGM the following proposal from Council:

(a) that the present treasurer, Prof. Adagba, has served for only one term of 2 years and thus, the AGM may wish to allow him to continue for another term as provided for in the constitution of NMS since the position is sensitive and for the fact that he (the treasurer) has performed credibly well;
(b) that all other positions should be contested.

After acceptance of the council's proposal, the executive was dissolved by the outgoing President, Prof. Akinwade, who called on the Chairman of the constituted Electoral Committee, Prof. Oguntuase, and other members of the Committee to close the gap and conduct election.

A free and fair election of some members into various offices declared vacant was conducted. The following table shows the list and contact of members of NMS who were elected into various offices on 20th June, 2019:

<table>
<thead>
<tr>
<th>S/N</th>
<th>NAME</th>
<th>STATUS</th>
<th>INSTITUTION</th>
<th>PHONE NO.</th>
<th>EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prof. Bashir Ali</td>
<td>President</td>
<td>BUK</td>
<td>08033732245</td>
<td><a href="mailto:bashiratik@yahoo.com">bashiratik@yahoo.com</a></td>
</tr>
<tr>
<td>2</td>
<td>Prof. G.C.E. Mbah</td>
<td>Vice-President</td>
<td>UNN</td>
<td>08034198453</td>
<td><a href="mailto:godwin.mbah@unn.edu.ng">godwin.mbah@unn.edu.ng</a></td>
</tr>
<tr>
<td>3</td>
<td>Prof. O. J. Adeniran</td>
<td>Secretary</td>
<td>FUNAAB</td>
<td>08033194406</td>
<td><a href="mailto:adeniranjo@funaab.edu.ng">adeniranjo@funaab.edu.ng</a></td>
</tr>
<tr>
<td>4</td>
<td>Dr. T. T. Ateh</td>
<td>Asst. Secretary</td>
<td>FUAM</td>
<td>07032230542</td>
<td><a href="mailto:tateh@gmail.com">tateh@gmail.com</a></td>
</tr>
<tr>
<td>5</td>
<td>Dr. Sirajo Abdurahman</td>
<td>Business Manager</td>
<td>Fed.Uni. BirninKebbi</td>
<td>08036896961</td>
<td>siraj@<a href="mailto:enging@yahoo.com">enging@yahoo.com</a></td>
</tr>
<tr>
<td>6</td>
<td>Prof. S.S. Okoye</td>
<td>Editor-In-Chief</td>
<td>OAU, Ille-Ife</td>
<td>08035625281</td>
<td><a href="mailto:ssokoya@gmail.com">ssokoya@gmail.com</a></td>
</tr>
<tr>
<td>7</td>
<td>Prof. H.O. Adagba</td>
<td>Treasurer</td>
<td>EBSU</td>
<td>08036255406</td>
<td><a href="mailto:herzla2012@gmail.com">herzla2012@gmail.com</a></td>
</tr>
<tr>
<td>8</td>
<td>Dr. Tere Seghe Tivde</td>
<td>Ex-Officio</td>
<td>FUAM</td>
<td>07032603420</td>
<td><a href="mailto:tivdeter@gmail.com">tivdeter@gmail.com</a></td>
</tr>
<tr>
<td>9</td>
<td>Dr. Olubunmi Fadpe-Joseph</td>
<td>Ex-Officio</td>
<td>UNILORIN</td>
<td>08033972406</td>
<td><a href="mailto:fadpejoseph@gmail.com">fadpejoseph@gmail.com</a></td>
</tr>
<tr>
<td>10</td>
<td>Prof. N. I. Akinwande</td>
<td>Immediate past President</td>
<td>FUT, Minna</td>
<td>08035908262</td>
<td><a href="mailto:aninual@gmail.com">aninual@gmail.com</a></td>
</tr>
<tr>
<td>11</td>
<td>Dr. Deborah Makinde</td>
<td>Representative NWM</td>
<td>OAU, Ille-Ife</td>
<td>08063920666</td>
<td><a href="mailto:domakinde.comp@gmail.com">domakinde.comp@gmail.com</a></td>
</tr>
<tr>
<td>12</td>
<td>Prof. E. S. Onah</td>
<td>Member</td>
<td>Abuja</td>
<td>08036929704</td>
<td><a href="mailto:ajisonah2001@yahoo.com">ajisonah2001@yahoo.com</a></td>
</tr>
</tbody>
</table>
At the end of the AGM, Notices of Nigerian Mathematical Society (NNMS) interviewed the newly elected president of NMS, Prof. Bashir Ali. The interview went as follows:

NNMS: May we know you Sir?
Prof. Ali: My name is Bashir Ali, a Professor of Mathematics, Bayero University, Kano.

NNMS: This evening, you were elected the President of Nigerian Mathematical Society; correct?
Prof. Ali: Yes.

NNMS: How do you feel concerning this new position?
Prof. Ali: I feel it is a huge one; a very big responsibility bestowed on me. I hope that I will do my best to continue the good work of the past executive and fashion out other means to move the Society forward.

NNMS: How do you intend to pilot the affairs of the Society?
Prof. Ali: I happen to be the Vice President of the Society for four years. I have been with the Council and I know the number of issues that are needed to be dealt with seriously. My intention is to find ways of dealing with those issues. If we are able to handle them, then we have contributed our quota towards upliftment of NMS.

NNMS: Did you say there are number of issues?
Prof. Ali: Yes, there are a lot of problems facing our Society, which by the grace of God, this new executive shall device means of tackling them one after the other. It is my intention to, for instance, put in place mechanisms that will enable the Society (NMS) play her role in making sure that Mathematics and Mathematical sciences survive in this country.

NNMS: What are your plans towards enhancement of research, teaching and learning as regards the subject Mathematics?
Prof. Ali: I think that the best thing for now is for the new EXCO to first of all settle down for work. As things unfold, we shall marshal out goals to be achieved, and set out plans that will enable us achieve those goals. Our plans shall be made public in due course, and when this happens, you will see that your question on enhancement of research, teaching and learning of Mathematics will be completely taken care of.

NNMS: What is your opinion concerning motivating colleagues in other mathematical fields like Statistics, Computer Science, Physics, etc, to start participating fully in NMS affairs?
Prof. Ali: The issue you have just raised is a serious one. To convince people in such areas you mentioned is not all that easy because of the mind set most people have formed. But one thing is very important - there is no way people in such fields will scientifically and academically survive without deep knowledge of Mathematics. As part of issues to be addressed by the new EXCO, we shall do our best to create mechanisms through which we shall attract the attention of such people towards the importance of partnering with NMS.

NNMS: In a nutshell, what is your message to the members of NMS for their support in making sure that your elevation today was a reality?
Prof. Ali: I must say that I appreciate every member immensely. I remain thankful to all of them for finding us worthy to pilot the affairs of this noble Society for the next two years. It is my promise that we shall not disappoint them.

NNMS: Thank you so much for granting us this audience to talk with you. NNMS team wishes you a successful tenure in office.
Prof. Ali: Thank you and God bless.
The Mathematics Institute of the African University of Science and Technology (AUST), a pan-African institution founded at the instigation of Nelson Mandela, was established in 2009 at the request of Professor C. E. Chidume, who joined AUST from the International Centre for Theoretical Physics (ICTP), Trieste in May 2009. Professor Chidume joined AUST as the Chief Academic Officer and Provost, and the Head of the Department of Pure and Applied Mathematics. He is also the Director of the Mathematics Institute.

The research emphasis of Mathematics at AUST is in the general area of functional analysis and applications. This includes: Nonlinear Operator Theory; Differential Equations (ODE, PDE); Evolution Equations; Optimization; Numerical Analysis; Hammerstein Integral Equations; Numerical Algorithms; Mathematical Methods in Medical Physics, Oncology and Biology; Applications of Numerical Algorithms to Image Restoration and Signal Processing.

The MSc degree programme in Mathematics at AUST is an 18-month programme and is very rigorous. It consists of 6 foundation courses, 6 core courses and an MSc thesis. Each course consists of 45 hours of lecture (two lectures of 1 1/2 hours each day), followed by two tutorials (of 2 hours each per day). Furthermore, daily homework is given, graded and recorded, and the scores form part of the final evaluations in the course. Only one course is taught for three weeks at the end of which a 3-hour written examination is given. The students relax for one week before another course starts. It is worth mentioning that since AUST started academic programme in 2007, every cohort admitted for the MSc degree in Mathematics completed the programme within the specified 18 months.

The PhD programme in Mathematics is also very rigorous and emphasizes high level research. It consists of 4 (four) advanced courses and written 3-hour exam in course, a written qualifying examination, and publication of at least 2 (two) papers that must be indexed in SCOPUS. All students admitted to the PhD Mathematics programme of AUST have successfully completed the requirements and obtained their doctorate degrees within 3 (three) years.

The quality of our education is recognized worldwide. Many of our MSc graduates have gone to the USA and Europe with generous scholarships in overseas institutions, and obtained their PhD degrees in record time. Some others, we have been able to retain, with scholarships to pursue their PhD degrees at AUST have also obtained their doctorate degrees within 3 (three) years. On the whole, we have over 90% employment of our graduates in good paying jobs.

Our female MSc graduates/ students have been excellent. In 2018, 3 (three) AUST female students won the prestigious Mwalimu Nyerere African Union Scholarship. Two of the three were students of the Department of Pure and Applied Mathematics. They are Ms. Lois Okereke and Ms. Zulaihat Hassan. Lois Okereke is registered in the PhD degree programme in Mathematics under the supervision of Professor C. E. Chidume. Her doctoral research work is on models and algorithms for approximating the solutions of inverse problems arising in radiotherapy planning during cancer treatment. This topic requires good knowledge of several areas of Mathematics. Because of her work, Ms. Okereke has been able to secure the financial support needed to acquire the necessary background knowledge to complete her doctoral research. In late 2018, she received the International Centre for Pure and Applied Mathematics (CIMPA) grant that enabled her to participate in the CIMPA research school on Stochastic Analysis and Applications, held in early 2019, in Saida, Algeria. In the summer of 2019, she presented some important results in her research at the 43rd Summer Symposium in Real Analysis XLIII, sponsored by the National Science Foundation (NSF) of the United States, and held at Trinity University in San Antonio Texas, USA, as an invited speaker.
that same year, she received the 2019 African-German Network of Excellence in Science (AGNES) Programme Advocating Women in Science (PAWS) AGNES-PAWS Mobility Grant, ranking first in the selection process. This grant is generously funded by the Alexander von Humboldt Foundation (AvH) and the German Ministry of Education and Research (BMBF).

More recently, Ms. Okereke is collaborating with some top researchers at the University of Liverpool and Clatterbridge Cancer Centre, all in the United Kingdom, to practically facilitate the implementation of the research results in local clinical setting.

The European Mathematical Society (EMS) has centres worldwide they award the label of ERCE (Emerging Regional Centres of Excellence). Centres who earn this label are supported by the EMS for 4 (four) years and this support is renewable subject to performance. At the beginning of 2020, there were 5 (five) institutes worldwide that had this label, one in each of the following countries; Pakistan, India, Malaysia, Iran and Mexico. When the 2020 competition was announced, we submitted application for the Mathematics Institute to be considered for this prestigious award. It is my pleasure to take this opportunity to announce that the Mathematics Institute of AUST won the 2020 competition and has now earned the label of ERCE of the European Mathematical Society for four years (2020 to 2024). In the framework of this award, the Mathematics Institute of AUST will organize a 2-month West African Training School (WATS) for PhD students from the West African Sub-region. Fellowships will be available to a few motivated serious students. The following four areas will be covered:

(b) Applications of Mathematics to Medical Physics, Oncology and Biology
(c) Differential Equations (ODE and PDE)
(d) Statistics, Probability and Stochastic analysis

The necessary background needed to follow these courses is a good knowledge, at the MSc level of Functional Analysis, Real Analysis, and Differential Equations. Short courses will be given to provide this background knowledge to interested persons. More information regarding this proposed WATS can be obtained from the AUST web-site or www.

AUST is a post-graduate university awarding MSc and PhD degrees only. We have no undergraduate programme yet. The model is that professors/lecturers who teach at AUST are selected on a very competitive basis from applications worldwide. To qualify to teach at AUST, the applicant must have published at least one paper in a journal that is indexed in SCOPUS within 12 months in which the applicant wants to teach. Each course is taught for 3 weeks and during this period, no other course will be taught. The professor/lecturer gives two lectures of 1 1/2 hours duration each, every morning, Monday Friday. For each 1 1/2 hour lecture, there is a 2-hour tutorial to be conducted by another professor/lecturer in the afternoon. Then, the students are given homework problems to be handed in, graded and recorded. The recorded scores obtained in these homeworks must be submitted with the final grade.

Each department in AUST has two resident faculty. The resident faculty in Mathe- matics are currently Professor C.E. Chidume and Dr. Abdulmalik Usman. It is hoped that as the university develops, each department may have up to five research-oriented faculty.

More information about AUST and the Mathematics Institute of the University, including admission requirements, short programs, scholarships, fees can be found on AUST website or by contacting Amaka Udigwe (Admin.)

Professor Charles E. Chidume, FAS, FTWAS, FNMS
Acting President;
African University of Science & Technology (AUST), Abuja, Nigeria
Olumurewa: As a very calm and easy – going person, how did you manage to lead a crowd of this number?

Akinwande: It was by God's special grace as well as cooperation of all. I have very good and very supportive members, even when we argued and our argument was tough, at the end of the day we laughed. God gave me the grace to be carrying everyone along even up to the moment of this election. I give God the glory.

Olumurewa: How stressful and how enjoyable was your tenure in office?

Akinwande: I have passion for Mathematics, so, leading Mathematicians was not stressful. I led a group that is rational and who are pragmatic. It was much easier to lead them than to lead a community of heterogeneous nature. Every member is a Mathematician and therefore our one plus one is two.

Olumurewa: Was the office financially rewarding or was it just a humanitarian service?

Akinwande: Financially rewarding? No, not at all. It was a lot of sacrifices and call to service. As you are aware, each member pays #5,000 which makes our purse lean. In fact, most times we travelled, what we got was transportation reimbursement, we were not given up to what we spent so it was not about the money but about love to serve and passion for Mathematics and also, the cooperation we got from members gave us impetus to move on.

Olumurewa: How were you able to combine the office effectively with research?

Akinwande: Well, by the time I got to this stage in academics, I was so fortunate to have a lot of active students around me. I have raised a lot of students who have always been there for me and who move around with me since 2007. Even when I have PhD students, my students who are already PhD holders oversee their works and we come together and discuss. At this stage of course, one is not looking for promotion, so it was not difficult to combine research with the office.

Olumurewa: What were your major challenges in office?

Akinwande: It was money essentially, for instance, TETFUND gave us an award of #5 Million but they only paid #2.5 Million. All efforts to get the balance has not yielded.

Another one is the security challenge in Nigeria. There are sections of the country that wanted to host the annual conference but we could not go because of the security challenges. Our Journal was listed on Elsevier, NUC and PDP together awarded for us to be on Elsevier, they paid for one year, a new government came and said there was no money and they asked us to pay $32,000 but we couldn't raise it. It was a very difficult task to get out of that and find alternative in keeping the platform with Elsevier and to be sincere, we have not got it right up till now.

Olumurewa: Now that you are out of office, what is your feeling?

Cont'd on page 21
MATHEMATICAL MODELLING AND THE REVEALING OF ORDER IN NATURE

Excerpt from the inaugural lecture delivered by Prof. G. C. E. Mbah

As Reported by Prof. S.S. Okoya OAU, S/W

Introduction
One would want to ask “What is Mathematical Modelling or the concern of Mathematics in the revealing of order in nature”. From our point of view in Mathematics, all about nature is ordered and all our struggle in scientific research is to reveal this order. In trying to reveal this order, people usually do not know the power of mathematics. This stems from the fact that mere mention of mathematics irritates and send shudders down the spines of many people. Many people have phobia and hatred for mathematics but I want to let you know that mathematics is the language of science and the pivot on which revolves every other subject be it Arts courses, Social Sciences or Management Sciences. In the study of nature, be it in Biology, Technology, Social Sciences or even Environmental Sciences, Mathematics play pivotal roles in the description and interpretation of the result of the research. These roles played by mathematics forms the basis of the title of this inaugural lecture which I hereby try to showcase my attempts in academic research to use mathematics as a tool for the study of nature. Mathematical Modelling is simply the use of mathematical expressions to describe the behavior of various systems in nature. To do this, we study the system to understand the mechanism and behavior of the system theoretically, interpret these behaviours mathematically and eventually express this using mathematical equations and expressions in the form of equations. It takes a lot of rational thinking to come about a model representing the behavior of a given system. Mathematical modelling has many specialized areas such as Cardiovascular flow dynamics, Biomathematics, Financial Mathematics, Computational Mathematics, environmental Control models and other areas that deal with human sensory organs. For ease of understanding of my presentation and research work, I grouped my works under some subheadings comprising of related research works which at the end of each subsection, I listed some of our research publications.

Recommendations and our Current Research Works
We are currently concentrating most of our research works on Ecological problems, Climate change and Green house effect by human activities and then epidemiology. We had studied epidemiological diseases such as in Malaria, Cholera and even typhoid fever by application of biological control which destabilizes the ecosystem. Therefore, our attempt now is to see how the ecological environment is disturbed which results in the depletion of certain animal and plant populations and thus ecological imbalance. Equally, climate change and greenhouse effect due to human activities is of interest to us because most of these human activities that trigger off these environmental changes are mostly inevitable. If this therefore is the case, our focus of research on climate change will not be on how to limit these agents that causes it such as CO₂, H₂S, CO, Ammonia but on how to consume the excess agents that are produced. From our research so far, all these agents have sinking points and so we need to increase their sinking...

Cont’d on page 21
Akinwande: I feel great. I feel very accomplished. There is no human who doesn't make mistakes, no man is perfect, but generally speaking, we can all see that people were very satisfied with my leadership. I enjoyed that cooperation to the last moment of my office. You can see the way the election went, although a lot of things went behind the scene, for everyone to listen to me made me feel great. I am very satisfied. I always tell people that money is not everything. I am an academician, a professor of Mathematics. I have led the greatest Mathematical Society in Nigeria for four years with all my colleagues submitting to my leadership and authority. I feel accomplished.

Olumurewa: What is your advice for the new EXCO especially the new National President of NMS?

Akinwande: We deliberately wanted to move the President to the North to have a wider attention, to boost connection and to be able to penetrate the government. MAN for instance has landed properties, guest house, good mansion and official camp which NMS doesn't have. MAN covers from primary to secondary to tertiary institutions while NMS is majorly for research. For this reason, the number one goal of the new President is to get things running for us.

Olumurewa: What are your expectations for NMS in your capacity as immediate past President?

Akinwande: NMS must make effort to ensure that we maintain annual conference at all cost and also ensure we move on in unity of purpose.

Mathematical Modelling and The Revealing of Order In Nature (cont’d From Page 20)

points so that their production will not be a problem. Our research attention has also been drawn to how we can repopulate some of the animal species that are going to extinction by studying their habitation, feeding habit, co-existing organisms or predators that entirely deplete these populations.

Our most recent introduction in our research methodology is the use of Fractional differential equations instead of ordinary differential equations because research have shown that fractional differential equations present better result than ordinary differential equations. The Fractional differential equations detect diseases and even other points of research interests at the minutest level. Already, we have applied this in Ulcer Wound healings, Anyanwu (M.Sc, 2018), detection of earthquake signals, Isife (Ph.D, 2019), control of Aedes Agypti mosquito population in the case of Zika Virus disease using Wolbachia, Anyanwu (Ph.D, 2019).

Finally, Fractional Calculus have been shown to be very good in the study and interpretation of results most especially in system that suffer structural damages. I recommend that researchers may apply this to see its beauty and better results.

I Sincerely thank some of our colleagues at the Nigerian Mathematical Society (NMS) for being there. Special thanks to Professors S. S. Okoya and M. O. Oyesanya whose presence served as morale booster to me. I really thank you all and to our societies, the Nigerian Mathematical Society and the Nigerian Society for Mathematical Biology, I quite appreciate your supports.
The Inaugural lecturer and Head of Department (Prof. G.C. E. Mbah) with the staff of the Department of Mathematics, UNN who processed in October 2019.

The Inaugural lecturer (Prof. G. C. E. Mbah) with his M.Sc. and Ph.D. graduants and students in October 2019.
R - L: Prof. S. S. Okoya (FNMS), Prof. M. O. Oyesanya (FNMS), Prof. A. O. E. Animalu (FNMS) and the supervisor of the Inaugural lecturer, Prof. J. C. Amazigo (FNMS) present at the Inaugural lecture of Prof. G. C. E. Mbah in October 2019.

Group photograph of the previous council members 2017 - 2019 at UNN 2019
NOTICES OF THE NIGERIAN MATHEMATICAL SOCIETY

Some Nigerian Women in Mathematics (NWM) Executive members at the NWM 2nd Biennial Conference, held at University of Nigeria, Nsukka, 17th - 18th June 2019.

The HOD, Prof. G.C.E. Mbah welcomes the council to his office on arrival for the UNN 2019 Conference.

Participants at a parallel section in the Mathematics Department Computer laboratory during the UNN 2019 Conference.

L-R: President elect, Prof. Bashir Ali and the Vice President elect, Prof. G.C.E. Mbah with smiles all the way after the Annual General Meeting at the UNN 2019.

Group photograph of the newly appointed council members for 2019 - 2021 after the UNN 2019 Annual General Meeting.
Group photograph of some Associate Editors of the Notices of the NMS at the UNN 2019 Annual General Meeting.
Cross section of the Nigerian Women in Mathematics (NWM) members and Executive at the 2014 inauguration.

Prof. G. C. E. Mbah presenting kola to the Vice Chancellor of UNN, Prof. Charles Igwe in the presence of the President of NMS, Prof. N. I. Akinwande at an occasion.

Representatives of the Nigerian Women in Mathematics at the 1st West African Women in Mathematics held at AIMS, Senegal, July 8th - 9th, 2016.
The AMMSI-Phillip Griffiths Prize for 2019 is awarded to Charles E. Chidume of the African University of Science and Technology in Abuja, Nigeria. Professor Chidume’s work encompasses several fields, including Nonlinear Functional Analysis, Nonlinear Operator Theory and Differential Equations; in particular, his research focuses on the area of fixed point theory where his contributions have become indispensable. He is noted for his proof that the Mann sequence for non-expansive maps is uniformly asymptotically regular in any real normed space provided the domain of the map is bounded, hence resolving a problem which had been open since 1978. In another brief, elegant paper, he produced an example to show that the Mann iteration sequence will not always converge strongly to a fixed point of a Lipschitz pseudo-contractive map, thereby resolving an open problem in the field for several decades. He authored or co-authored over 183 research papers and his works have been extensively cited. Professor Chidume has received multiple prestigious awards, including the British Council Fellowship in Mathematics (1986), the Third World Academy of Sciences (1988), the Honor Certificate by the Romanian Mathematical Society (2018).

Professor Chidume has played a key role in discovering and developing young mathematicians in Africa through supervision of many postgraduate students at the International Center for Theoretical Physics (ICTP) in Trieste, Italy, and at the University of Nigeria, Nsukka. He has served as an Associate Editor of numerous scientific journals and is a Fellow of The World Academy of Sciences (FTWAS), among others.

The Special Committee with the following membership:
1. Dr. Saheed Ojo Akindeinde, Department of Mathematics, Obafemi Awolowo University, Ile-Ife – Chairman
2. Dr. Ugochukwu Rich Ndubuisi, Department of Mathematics, Federal University of Technology, Owerri – Secretary
3. Mr. Jamilu Yahaya, Department of Mathematics, Ahmadu Bello University, Zaria – Member

constituted by the Editor-in-Chief (Prof. S. S. Okoya) on behalf of the Editorial Board and the Associate Editors of the Journal of the Nigerian Mathematical Society.

The committee’s recommendations will project the image of the Journal as we celebrate 40 years of the Journal and the Society next year.

Professor S. S. Okoya  
FNMS FMAN
Editor-in-Chief, Journal of the NMS (2011 - date)
Editor, Notices of the NMS (2016 - date)
The 38th Annual conference of the Nigerian Mathematical Society (NMS) was held at the Department of Mathematics, University of Nigeria Nsukka from 18th to 21st June 2019. The event witnessed participants from various states in Nigeria and some West African countries. There were over five hundred participants. The local organizing committee and the entire staff of the Department of Mathematics worked tirelessly to make the event a huge success.

The event was supported by different bodies and individuals. The Nigerian Mathematical center (NMC) Abuja supported the event financially. The LOC wishes to appreciate to the Director of the center for his kind gesture. The administration of the University of Nigeria supported the conference by providing hotel accommodation for all council members and guest speakers in addition to providing busses to convey council members and participants to and fro their hotel accommodation. The Pastor E A Adeboye professorial chair in the Department of Mathematics also contributed to the success of the event by releasing some of its facilities to enhance presentations at the parallel sessions.

The Theme of the conference was “Mathematics: Bedrock for Scientific and Technological Advancement”. The opening ceremony of the conference was held on Wednesday, 19th June 2019 at the Princess Alexandria Auditorium UNN. The Vice Chancellor of the University of Nigeria in the person of Professor C. A. Igwe who was the chief host of the conference was the Chairman of the opening ceremony. Though was unavoidably absent; he was ably represented by the DVC academics Professor James Ogbonna. Also present at the opening ceremony was the Dean of the faculty of Physical Sciences, Professor U.C. Okoro. The President of the Nigerian Mathematical society gave an opening remark while Vice Chancellor ably represented by the Deputy Vice Chancellor (Academics) declared the conference open. The key note address was delivered by Professor Samuel S. Okoya (FNMS, FMAN) of the Department of Mathematics, Obafemi Awolowo University Ile-Ife, Nigeria.

The opening ceremony was concluded with two plenary lectures. Professor O. D. Makinde (MFR FAAS, FIAPS) gave a plenary lecture titled: “Mathematical treatment of Fluid Flows and Heat Transfer in Engineering and Biological Systems”. The second plenary lecture titled “Are we rational? From Economy to Differential Geometry through Partial Differential Equations” was taking by Professor Ngalla Djitte who is currently Head of the Department of Applied Mathematics at Gaston Berger University, Saint Louis, Senegal.

After the opening ceremony, the participants went for lunch and a short break. The conference continued at about 4.00pm that same day with parallel sessions. The parallel session were held at the JOC Ezeilo (aka Abuja) building. There were about ten parallel sessions with paper presenter from various aspects of Mathematics, Mathematics Education, Statistics and Computer Science. The parallel sessions were stop at about 6 pm for participants to take their dinner which was provided by Abuja.

The conference continued the following Thursday, 20th June 2019 at about 7 am with breakfast for participants. After breakfast, the participants continued with the parallel session as it was the previous day. All Parallel sessions ended before lunch and break at about 2pm. The conference continued on this day by 4pm at the Princess Alexandria auditorium for the Annual General Meeting (AGM) of the Nigerian Mathematical Society.

During the AGM the existing council was dissolved and new executives were elected into various vacant positions in the NMS council. Election was conducted and Prof Ali Bashiru of Bayero University, Kano emerged as the new President of the NMS. The Vice president elect was Prof GCE Mbah of the Department of mathematics UNN while Prof Adesola Adeniran of Federal University of Agriculture Abeokuta emerged as secretary.

Also during the AGM the hosting of the 39th Annual conference of the NMS was officially given the Redeemer University Ede. Redeemer University Ede is the first private University to host the Nigeria Mathematical Society conference. Most of the participants departed to their various destinations on Friday, 21st June 2019.

After the AGM the conference ended with a special dinner for participants at the Princess Alexandria auditorium. Certificates of presentation and participation were distributed to participants as the concluding event of the conference.

The Department of Mathematics, the LOC and the University of Nigeria appreciates the council of the Nigeria Mathematical Society for the right to host and the successful hosting of the conference. We look forward to another opportunity to host such an important event in future.

Thank you.

Prof. G. C. E. Mbah
Chairman LOC
Head, Department of Mathematics UNN

Dr. D. F. Agbebaku
Secretary LOC
Department of Mathematics, UNN
The Nigerian Society for Mathematical Biology (NSMB) in conjunction with the Department of Mathematics, University of Nigeria Nsukka had her 4th International workshops on Mathematical modeling and simulation (IWWMAS) from 8th - 11th September, 2019 and her 2nd Annual Conference from 11th - 14th September, 2019. The one-week event took place in the Department of Mathematics, J.O.C. Ezeilo Building (aka Abuja), University of Nigeria, Nsukka.

The workshop began on Monday 9th September 2019 with a brief opening ceremony. The opening ceremony for the workshop was chaired by the President of the Society with some of the workshop lecturers as guest on the high-table. The workshop began the same day immediately after the opening ceremony. The areas covered in the workshop include, but not limited to

- Bio-mathematics/Epidemiological model
- Non-Epidemiological models (Cardiovascular flows)
- Analysis of models constructed
- Fluid dynamics and their models
- Basic tools and software for Graphical Analysis of models (MATLAB, MAPLE, MATIMATICA, etc)

The resource persons that featured in the 2019 workshop include:

Prof. N.I. Akinwande (FUTMINNA), Prof. G.C.E. Mbah (UNN), Dr. D. Okunghae (UNIBEN), Prof. V. Asor (MOUAU), Dr. A. Sirajo (FUTMINNA). Practical sessions which include practical training on how to use MATLAB, MAPLE, and other softwares needed for the analysis of models were handled by Dr. T. Tivde(FUAM), Dr D. Sarki and Dr. D. Agbebaku (UNN).

The workshop ended on Wednesday 11th September 2019 and certificates of participation at the workshop were given to participants after a brief closing ceremony. Wednesday 11th September was the arrival of the conference participants. Workshop participants were given express permission to participate and present papers at the conference. So many of them remained to participate in the conference which kicked off the following day 12th September 2019.

Prof. G. C. E. Mbah
Chairman LOC
Head, Department of Mathematics UNN

Dr. D. F. Agbebaku
Secretary LOC
Department of Mathematics, UNN
REPORT OF THE 2ND BIENNIAL CONFERENCE

The 2nd Biennial Conference of the Nigeria Women in Mathematics tagged 'Mathematical Sciences & Security Challenges for Women & Children' took place at the University of Nigeria, Nsuka from 17th - 18th June 2019 in conjunction with Nigerian Mathematical Society’s 38th Conference which held between 18th and 21st of June. The plenary lecture was given by Professor Ngozi I. Anyaegbunam, from the Department of Science Education, Faculty of Education, University of Nigeria, Nsuka with 41 participants. Four research presentations were given during the conference and in conclusion there was a panel discussion where the modality for Nigeria chapter of the celebration of the Women in Mathematics day, which comes up May 12, every year, was discussed. It was agreed that for the coming year we gather the faces of women in Mathematics in Nigeria with their voice note, introducing themselves and area of research in their local languages. Also, four research groups were formed at the panel discussion with the mandate to achieve published journal articles in each group which will be reported at the next Biennial Conference in 2021. The groups formed are as follows:
1. Numerical Analysis
2. Fluid, Solid, Bio-Mathematics
3. Operation Research
4. Analysis and Algebra

Each group is to have a whatsapp platform where they will discuss on their research group. The Council of the NMS under the Presidency of Professor N.I. Akinwande, paid the accommodation expenses of the NWM Executive members throughout the 2nd NWM biennial and the 38th NMS Conferences, at the University of Nigeria, Nsukka, 17th to 21st of June, 2019. We are very grateful to the President and all the Council members.
At the OJS of the Journal of the Nigerian Mathematical Society (NMS), we remain committed to improving your experience with us and are consistently working on innovations to make this a reality.

We have upgraded the quality of service delivery on the OJS platform to address some of the earlier challenges raised by users and those observed by the Editorial board and the Associate editors. It will be appreciated if you can spend few minutes of your time to take a look. Please click on the link below to take a look. https://ojs.ictp.it/jnms/

On behalf of the Editorial board and the Associate editors of the Journal of NMS, we appreciate Dr. Clement Onime of the International Centre for Theoretical Physics, Italy and the IT support team for the recent upgrade of the Journal of the NMS.

Thank you, reader for patronizing the Journal of the NMS.

Professor Samuel S. Okoya
Editor-in-Chief, NMS
A BRIEF BIOGRAPHY OF LATE PROFESSOR ALAGBE WASIU GBOLAGADE
(02/02/1958 - 22/09/2019)

Prince Alagbe Wasiu GBOLAGADE was born into a royal family at Iwo, Osun State on 2nd February, 1958. He was a Professor of Mathematics who obtained a Bachelor of Science (B. Sc) Degree in Mathematics with Second Class Honour (Upper Division) from the University of Ilorin, Ilorin in 1986 and Masters of Science (M. Sc) Degree in Mathematics from Obafemi Awolowo University, Ile-Ife in 1990. He obtained a Postgraduate Diploma in Computer Science from Ladoke Akintola University of Technology, Ogbomoso in 1994 and Doctor of Philosophy (Ph.D) Degree in Mathematics from University of Ilorin, Ilorin, Kwara State in 1997. His area of specialization was Fluid/Solid Mechanics and Computational Mathematics. Late Professor Gbolagade received several academic scholarship and fellowship awards including Gani Fawehinmi Scholarship award (1986), Federal Government of Nigeria Postgraduate Scholarship (1988); Obafemi Awolowo University Fellowship award (1989); Leadership Trust Foundation award (1999), UNU-IIST Visiting Fellowship at the University of Calgary, Canada (2005).

Late Professor Alagbe W. Gbolagade worked at the College of Education Ilia-Orangun (01/11/1988 to 1995), University of Ibadan (1995-1996), Olabisi Onabanjo University (formerly Ogun State University), Ago –Iwoye from November 1,1996 to 2009 after which he joined the services of Osun State University, Osogbo Nigeria. He was a visiting Professor to University of the North, South Africa (2006), Kano State University, Wudill, Kano (January 2006), Babcock University, Ileshan,(August 2006), Fountain University, Osogbo, While in Osun State University, he served as External Examiner to several Nigerian Universities including Federal University of Technology, Minna, Niger State, Ladoke Akintola University of Technology Ogbomoso and so on. He supervised undergraduate and postgraduate research students and also served in several administrative capacities within the University system. These include membership and chairmanship of several Academic Committees and as Pioneer Head of the Department of Mathematical and Physical Sciences (2009-2010); He was the Director of Foundation Degree Programme (2010-2011). Late Professor Gbolagade served as Provost of the College of Science, Engineering and Technology and also as Provost of Postgraduate College. He also served as Senate Representative on the Governing Council of Osun State University. He singlehandedly resolved lingering crisis between the former Principal Officers of the University and the Governing Council of Osun State University. On 15th February, 2012, my late Professor delivered an inaugural lecture series 006 titled “Applied Mathematics as a Panacea to all round Development: Trends and Prospects”. He also served as Leader of the National University Commission (NUC) Accreditation visitation team to some Universities. He was an active member of the Nigerian Mathematical Society (NMS), Nigerian Association of Mathematical Physics (NAMP) and many others.

On Wednesday 19th July, 2017, the immediate past Osun State Governor, Ogbeni Abdulrauf Adesoji Aregbesola, approved the appointment of Professor Alagbe Wasiu Gbolagade as the Statistician-General of the State. According to the former Governor, Professor Gbolagade as the Statistician-General of the state, was a thoroughly bred academic who filled the post nicely and proceeded to compile an economic and social database with full indices on all parameters for the state. He was able to bring fact and truth from data in a non-controversial manner. He was on this position when he received a call to glory and departed from us on the 22nd of September 2019. Professor Gbolagade, a freedom fighter, a teacher of Mathematical Sciences and native intelligence, lived a meritorious life for the people and for the continuous benefit of humanity. He was survived by wives and well educated biological and academic children. May his soul continue to find peace with his creator.

Adieu my Professor, a role model and a mentor.

Amos O. Popoola (Ph.D)
Professor of Mathematics and Director,
Office of Research, Innovation and Management,
Senate Representative on the Governing Council of Osun State University,
Provost-elelct, College of Science, Engineering and Technology, Osogbo Campus
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PRESENTS

39TH ANNUAL CONFERENCE
Holding at Redeemer’s University, Ede

THEME:
SUSTAINABLE DEVELOPMENT GOALS:
THE MATHEMATICAL PERSPECTIVE

PRE-CONFERENCE WORKSHOP ON NON-LINEAR DYNAMICS.
VENUE: ICT LABORATORY, REDEEMER’S UNIVERSITY, EDE, OSUN STATE, NIGERIA.
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Annual Dues: ₦5,000.00
Conference Registration Fees:
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LEAD PAPER
PROF. M. O. OSILIKE (FNMS)
FIRST OCCUPIER OF PASTOR E.A ADEBOYE CHAIR, UNIVERSITY OF NIGERIA, NSUKKA.

LEAD PAPER
PROF. S. S. MOTSA,
UNIVERSITY OF SWAZILAND, SWAZILAND.

KEYNOTE SPEAKER
PROF. STEPHEN E. ONAH (FMAN, FIA)
DIRECTOR / CHIEF EXECUTIVE, NATIONAL MATHEMATICAL CENTRE, ABUJA, NIGERIA.

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