

53RD NSChE CONFERENCE & AGM

SCHEDULE OF EVENTS

| PERIOD | EVENT | VENUE |
|----------------------------------|--|--|
| THURSDAY, 2 NOVEMBER 2023 | | |
| 08:00 – 18:00 | Arrival of Participants/Registration | Registration Desk at PTI Conference Centre |
| 12:00 – 16:00 | Golf Tournament | Ogonu Golf Resort Warri (OGRW) |
| 17:00 – 18:00 | Press Conference by the National President | PTI Conference Centre |
| 18:00 – 18:20 | Rapporteurs Meeting | PTI Conference Centre |
| 18:30 – 19:30 | Cocktail | Wellington Hotel |
| FRIDAY, 3 NOVEMBER 2023 | | |
| 07:30 – 18:00 | Arrival of Participants/Registration | Registration Desk at PTI Conference Center |
| 08:30 – 09:30 | Breakout Technical Session I | PTI Conference Centre Physical Rooms 1-3/Online |
| 09:30 – 10:30 | Plenary Session I: Ethics in Project Management and Supervision by Engr. Bayo Olarewaju-Alo, FNSChE, FNSE, FAEng. | PTI Conference Centre |
| 10:30 – 11:00 | Tea/Coffee Break/Networking | Tea/Coffee Corner/ Online |
| 11:00 – 12:30 | Opening Ceremony/Keynote Address: “Regulatory Compliance and Domestication of Oil and Gas Assets” by Engr. A.O. Anyaoku, FNSChE, FNSE, FAEng). | PTI Conference Centre |
| 12:30 – 13:30 | Lunch | Designated Dining Areas |
| 13:30 – 16:30 | Spouses Tour Programme | |
| 13:30 – 15:00 | Plenary Session II: Chemical Engineering, Entrepreneurship and the Nigerian Oil and Gas Industry by Engr. Dr. N. J. D Erinne, FNSChE, FNSE, FAEng. | P.T.I Conference Centre |
| 15:00 – 16:30 | Breakout Technical Session II | PTI Conference Centre Physical Rooms 1-3/Online |
| SATURDAY, 4 NOVEMBER 2023 | | |
| 07:30 – 12:00 | Arrival of Participants/Registration | Registration Desk at PTI Conference Centre |
| 08:00 – 09:00 | Breakout Technical Session III | PTI Conference Centre Physical Rooms 1-3/Online |
| 09:00 – 10:00 | Keynote Address by Engr. Wilson Dadet, FNSChE, "Best Practices in Process Safety Management in an Oil and Gas Asset." | PTI Conference Centre |
| 10:00 – 10:30 | Tea/Coffee Break/Networking | Tea/Coffee Corner/ PTI Conference Centre |

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|--------------------------------|---|--|
| 10:30 – 12:30 | Guided Tours for Spouses | |
| 10.30 - 11.30 | Plenary Session III: Bridging the Gap between Academia and the Industry by Engr. Prof. A. Rim-Rukeh, Vice Chancellor, Federal University of Petroleum Resources, Effurun. | P.T.I. Conference Centre |
| 11.30 – 12.30 | Launching of Mentoring Programme | P.T.I. Conference Centre |
| 12:30 – 13:30 | Lunch | Designated Dining Areas |
| 13:30 – 14:30 | (i) Sectoral Group Meetings (ii) Students' Session | PTI Conference Centre Designated Room |
| 14:30 – 16:00 | AGM | PTI Conference Centre |
| 18:00 – 21:00 | Annual Banquet and Annual Awards/Closing | Wellington Hotel |
| SUNDAY, 5 NOVEMBER 2023 | | |
| 06:00 – 12:00 | Departure of Conference Participants | |

OPENING CEREMONY

ORDER OF EVENTS

1. Arrival of Dignitaries, Special Guest and Participants
2. Introduction of Dignitaries and Special Guest
3. National Anthem
4. Welcome Address by the LOC Chairman
5. Opening Remarks by the Chairman of the Occasion
6. Welcome Address by the National President
7. Goodwill Messages
8. Introduction of Keynote Speaker
9. Keynote address by Engr. A.O. Anyaoku, FNSChE, FNSE, FAEng
10. Closing Remarks by the Chairman of the Occasion
11. Vote of thanks by the National Deputy President

BREAKDOWN OF SCHEDULE OF EVENTS

THURSDAY, 2 NOVEMBER 2023

| | |
|---------------|--|
| 08:00 – 18:00 | Arrival of Participants/Registration |
| 12:00 – 16:00 | Golf Tournament |
| 16:30 – 17:30 | Press Conference by the National President |
| 17:30 – 18:20 | Rapporteurs Meeting |
| 18:30 – 19:30 | Cocktail |

FRIDAY, 3 NOVEMBER 2023

| | |
|---------------|--------------------------------------|
| 07:30 – 18:00 | Arrival of Participants/Registration |
| 08:30 – 09:30 | Breakout Technical Session I |

Physical Room 1/Online (IFECH Hall 2)

Chairman: Engr. Dr. F. Olayebi

Rapporteurs: Engr. Dr. Ifeoma A. Obiora-Okafo and Engr. Sani Inuwa

TP01: Preparation of Zeolite for Plastic Waste Conversion to Fuel: Characterization, Beneficiation and Acid Leaching of Okada Clay.

Samuel Ebhodaghe*, Christopher Akhabue, Samuel Ogbeide. Department of Chemical Engineering, Faculty of Engineering, University of Benin, Edo State.

TP02: Effect of Catalyst Loading and Reaction Temperature on the Production of Isopentanol Via Hydrothermal Conversion of *Gmelina Arborea* Leaves

Abubakar M. Ali¹ and Haruna Ibrahim². Department of Chemical Engineering, Kaduna Polytechnic, Kaduna-Nigeria

TP03: Synthesis, Characterization and Evaluation of the Corrosion Behaviour of Carbon Steel C1020 in *Jatropha* Oil Biodiesel

K. K. Adama^{*1}, I. B. Onyeachu², P. O. Oghuma¹, L. U. Modebe³, E. O. Olori².
¹Department of Chemical Engineering, Edo State University Uzairue, Edo State, Nigeria; ²Department of Industrial Chemistry, Edo State University Uzairue, Edo State, Nigeria; ³Department of Chemical Engineering, University of Delta, Agbor, Delta State, Nigeria

Physical Room 2 (IFECH Hall 1)

Chairman: Engr. Prof. C. E. Akhabue

Rapporteur: Engr. Dr. Edeh Ifeanyichukwu and Engr. Rebecca I. Solomon

TP04: Thermal Radiation Release from Refinery Flare System Simulation and Safety Consequences

S. MUSA¹; U. Abubakar Zaria^{1*}; P.C. Okonkwo¹. ¹Department of Chemical Engineering, Ahmadu Bello University, Zaria

TP05: Kinetics and Modelling of Degradation Process of Organic Pollutants in Ajali River Stretch, Enugu, Nigeria

^{1*}Ejikeme, Ebere M., ²Nwerem, Judith O., ¹Ejikeme, Patrick C.N. ¹Department of Chemical Engineering Enugu State University of Science and Technology Enugu, Nigeria; ²Department of Pure and Industrial Chemistry, University of Nigeria Nsukka, Enugu State Nigeria.

TP06: Valorization of Waste *Gmelina arborea* Leaves for Nonadecane Synthesis

*Haruna Ibrahim and Abubakar M. Ali. Chemical Engineering Department, School of Engineering, Kaduna Polytechnic, Kaduna

Physical Room 3 (Conference Hall)

Chairman: Engr. Dr. T. Odisu

Rapporteur: Engr. Idongesit Effiong Sampson and Engr. Utibe Benedict Edem

TP07: Physicochemical and Dielectric Strength Characterization of Some Selected Plants and Vegetables Oils as Environmentally Friendly Transformer Oil

Lucas Albert Jerome HAMIDU^{1*}, Abdulsalam SURAJUDEEN²

¹Nigerian Building and Road Research Institute, 10 NBRRI Way/I.T. Igbani Street, off Awolowo Way, Jabi, Abuja, Nigeria; ²Department of Chemical Engineering, Abubakar Tafawa Balewa University, Bauchi, Nigeria.

TP08: Adsorption Behaviour of Methylene Blue by Palm Oil Mill Sludge Adsorbent Functionalized with Deep Eutectic Solvents

Francis Asokogene Oluwadayo^{1*}; Olugbemide Akinola David²; Avara Nnamdi Ikenna³

^{1,3}Department of Chemical Engineering, Edo State University, Uzairue, Nigeria. ²Department of Basic Science, Auchi Polytechnic, Auchi,

TP09: Methylene Blue Adsorption onto Deep Eutectic Solvents Modified Palm Oil Mill Sludge: Kinetics and Thermodynamics Studies

Francis Asokogene Oluwadayo^{1*}; Avara Nnamdi Ikenna^{2, 123}Department of Chemical Engineering, Edo State University, Uzairue, Nigeria

09:30 – 10:30

Plenary Session I

Speaker: Engr. Bayo Olarewaju-Alo, FNSChE, FNSE, FAEng

Title: Ethics in Project Management and Supervision

Venue: PTI Conference Center

Chairman: Engr. Alex Ogedegbe, FNSE, FNSChE, FAEng

Rapporteurs: Engr. Prof. A. R. Ugochukwu
Engr. Dr. E. A. Oyedoh
Engr. Dr. A. N. Amenaghawon

Physical Room 2 (IFECH Hall 1)

Chairman: Engr. Dr. E. A. Oyedoh

Rapporteur: Engr. Ejikeme, Ebere M and Engr. Jeremiah Moses Osaronwaji

TP14: Modelling and Simulation of Wastewater Treatment Plant

Praise T. OBASEKI^{1*}, Joseph O. AJAYI², Mufliah G. OMOFOYEWA³, Idowu I. OLATEJU⁴, Abel A. ADEYI⁵, Saidat O. GIWA⁶, Abdulwahab GIWA⁷.
^{1,2,3,4,5,7}Department of Chemical and Petroleum Engineering, Afe Babalola University, Ado-Ekiti, Ekiti State, Nigeria. ⁶Department of Chemical Engineering, Abubakar Tafawa Balewa University, Bauchi, Nigeria

TP15: Modelling and Simulation of A Cyclic Steam Stimulation System

Udeme F. IME-UDO^{1*}, Mufliah G. OMOFOYEWA², Joseph O. AJAYI³, Idowu I. OLATEJU⁴, Abel A. ADEYI⁵, Saidat O. GIWA⁶, Abdulwahab GIWA⁷.
^{1,2,3,4,5,7}Department of Chemical and Petroleum Engineering, Afe Babalola University, Ado-Ekiti, Ekiti State, Nigeria; ⁶Department of Chemical Engineering, Abubakar Tafawa Balewa University, Bauchi, Nigeria

TP16: Designing and Modeling of Offshore Floating Facilities Using Moses Software

Pokmah EBILUA; Tijani JONATHAN. Risers and Hydrodynamics Department, Global Ocean Engineers Nigeria Limited. Lagos State, Nigeria.

TP17: Optimization of Nigeria's Oil and Gas Assets for Sustainable Energy Transition: Recovery and Reuse of Flared Gas As An Approach Towards Waste Management, Safety And Environment

Rebecca I. SOLOMON*, Joshua A. GODSON¹, Nyire-obong M. ODUOKENE¹, ELO P. ORO¹. ¹Department of Chemical Engineering, University of Port Harcourt, East/West Road, PMB 5323 Choba, Rivers State, Nigeria

Physical Room 3 (Conference Hall)

Chairman: Engr. Dr. A. N. Amenaghawon

Rapporteur: Engr. Utibe Benedict EDEM and Engr. Abubakar Aliyu Aliyu

TP18: Application of Artificial Neural Network and Sensitivity Analysis to Enhance Bioethanol Yield in a Butadiene Plant

Daniel Aliyu KEJI^{1*}, Bomafinitamunopiri Adango LONGJOHN², Mufliah G. OMOFOYEWA³, Abdulwahab GIWA⁴. ^{1,2,3,4}Department of Chemical and Petroleum Engineering, Afe Babalola University, Ado-Ekiti, Ekiti State, Nigeria

TP19: Carbon Capture, Utilization, and Storage (CCUS): A Key Strategy for Nigeria's Energy Transition

¹Onoh Favour Chiemela; ²Hannah Igboke Chinaza; ³Uzor Peculiar Chidimma; ⁴Chigoziri Njoku. ^{1,2,3,4}Federal University of Technology Owerri

TP20: Influence of Drying on Proximate Composition of Kirikou Okra Variety

E. O. Antia¹, U. E. Inyang², I. O. Oboh³, O. O. Antia⁴, J. A. Adam⁵ and U. U. Adum⁶.
^{1-3,5}Department of Chemical and Petroleum Engineering, University of Uyo, Uyo, Nigeria; ⁴Department of Agricultural and Food Engineering, University of Uyo, Uyo, Nigeria

TP21: Optimization of catalytically induced Bio-gasification of organic waste using a cylindrical batch digester

Ifeoma A. Obiora-Okafo¹, Monday Omotioma². ¹Department of Chemical Engineering, Nnamdi Azikiwe University, Awka, Nigeria; ²Department of Chemical Engineering, Enugu State University of Science and Technology, Enugu, Nigeria

SATURDAY, 4 NOVEMBER 2023

07:30 – 12:00 Arrival of Participants/Registration

08:00 – 09:00 Breakout Technical Session III

Physical Room 1/Online (IFECH Hall 2)

Chairman: Engr. Dr. K. K. Adama

Rapporteur: Engr. E. O. Antia and Engr. Onoh Favour Chiemela

TP22: Characterization of Palm Oil Mill Sludge, Palm Oil Mill Effluent and Rice Husk for Biogas Production

Ubani O. Amune*¹, Amos O. Ishaku¹, Jane-Frances O. Iluokhauno, Augustine C. Ohiri², Kevin S. Otoikhian¹. ¹Department of Chemical Engineering, Edo State University Uzairue, Edo State, Nigeria; ²Department of Health, Safety, and Environment, Promasidor Nigeria Ltd, Lagos State, Nigeria

TP23: Tensile Property Evaluation of Some Natural Fibre Reinforced Polypropylene Composites for Load Bearing Applications

E.N. Ikezue², E.I Kalu¹, Skrifvars,¹ M; Khalili¹, P.; ¹Swedish Centre for Resource Recovery, Faculty of Textiles, Engineering and Business, University of Boras, Allegation, Boras-Sweden; ²Department of Chemical Engineering, Faculty of Engineering, Chukwuemeka Odumegwu Ojukwu University, P.M.B 02, Uli, Anambra State-Nigeria

TP24: Evaluating the Impact Strength of Natural Reinforced Polymer Composites for Household Applications

E.N. Ikezue², E.I Kalu¹, Skrifvars,¹ M; Khalili¹, P.; ¹Swedish Centre for Resource Recovery, Faculty of Textiles, Engineering and Business, University of Boras, Allegation, Boras-Sweden; ²Department of Chemical Engineering, Faculty of Engineering, Chukwuemeka Odumegwu Ojukwu University, P.M.B 02, Uli, Anambra State-Nigeria

TP25: Domesticating Carbon Capture for Effective Energy Transition

Abubakar Aliyu Aliyu. National Metallurgical Development Center, (NMDC), Zaria Road, Jos. (Federal Ministry of Mines and Steel Development).

Physical Room 2 (IFECH Hall 1)

Chairman: Engr. Dr. Lucas Albert Jerome HAMIDU

Rapporteur: Engr. Pokmah EBILUA and Engr. Idongesit Effiong Sampson

TP26: Challenges and Possible Solution's on Deployment of Digital Technologies for Process Control and Asset Management in Nigerian Oil and Gas Operations.

Abubakar Aliyu Aliyu. National Metallurgical Development Center, (NMDC), Zaria Road, Jos. (Federal Ministry of Mines and Steel Development).

TP27: Analysis of Okuribada Clay for Zeolite Production

Akoro. J. O^{1*}, Akhihero E. T², Oyedoh E. A³, Oshiomogho F. O⁴, Ogbeide S. E⁵.;
^{1,2,3,4,5}Department of Chemical Engineering, University of Benin, Benin City.

TP28: Optimization of Liquid Storage Tank

Jeremiah Moses OSARONWAJI. Department of Chemical Engineering, University of Port Harcourt, Nigeria

TP29: Sustainable Energy Transition in Nigeria and Waste Management in Cassava Processing Industry: The Nexus

¹Minister Obonukut ²Ikemesit Orok, ³Sunday Alabi, ⁴Alex Jock and ⁵Benjamin Etuk.;
¹Department of Chemical Engineering, Topfaith University. Mkpatak, Nigeria.;
²⁻⁵Department of Chemical and Petroleum Engineering, University of Uyo, Nigeria

Physical Room 3 (Conference Hall)

Chairman: Engr. Prof. E.N. Ikezue

Rapporteur: Engr. Ubani O. Amune and Engr. I. Genesis

TP30: Application of 2^k Full Factorial Design for the Production of Pyro-Oil from the Pyrolysis of Waste Plastics (Pure Water Sachets)

¹Sani Inuwa Lamido, ²Mohammed Kabir Abdullahi and ³Mukhtar Shehu. ¹Department of Petrochemical and Gas Processing Engineering, Kaduna Polytechnic, Kaduna, Nigeria; ²Nuhu Bamalli Polytechnic, Kaduna, Nigeria; ³Nigerian Gas Company, Warri, Nigeria.

TP31: Evaluation of the Potential of the Activated Sludge Biomass from Nigeria as a Feedstock for Biofuel Production

*Edeh, Ifeanyichukwu¹, Ozori Keniwenimo Emmanuel², Ngochingo Ezekiel³.
^{1,2,3}Department of Chemical Engineering, University of Port Harcourt, Rivers State.

TP32: Integrated Renewable Energy System Model for Power Supply in A Nigerian Rural Community

*Utibe Benedict EDEM. Department of Chemical Engineering, University of Port Harcourt, Choba, Rivers State, Nigeria.

09:00 – 10:00 **Keynote Speaker II:** Engr. Wilson Dadet, FNSChE, Lead Process Engineer, NLNG, Bonny.

Title: Best Practices in Process Safety Management in an Oil and Gas Asset

10:00 – 10:30 Tea/Coffee Break/Networking

10:30 – 12:30 Guided Tours for Spouses

10:30 – 11:30 Plenary Session III

Speaker: Engr. Prof. A. Rim-Rukeh, Vice Chancellor, Federal University of Petroleum Resources, Effurun.

Title: Bridging the Gap between Academia and the Industry

Venue: PTI Conference Center

Chairman: Engr. Dr. Grace Akujobi-Emetuche, FNSE, FNSChE

Rapporteurs: Engr. Prof. C. E. Akhabue
Engr. Dr. F. Olayebi
Engr. Dr. T. Odisu

11:30 – 12:30 Launching of Mentoring Programme

12:30 – 13:30 Lunch

13:30 – 14:30 (i) Sectoral Group Meetings

(ii) Students' Session

14:30 – 16:00 AGM

18:00 – 21:00 Annual Banquet and Annual Awards/Closing

SUNDAY, 5 NOVEMBER 2023

06:00 – 12:00 Departure of Conference Participants