



AICSTE2013

Abuja International Conference on Science, Technology and Engineering

Venue: FCT Education Resource Center, Abuja-Nigeria
25-28 November, 2013

Conference Chair
Professor Gerhard Berchtold
Vice-Rector, Universidad Azteca, Chalco-Mexico

Sub-Themes and Topics

Natural Products Chemistry;Material Science & Nanochemistry;Physical & Computational Chemistry;Organic Synthesis;Pharmaceutical Chemistry and Drug Design;Latest Developments in Water Research;Recent Advances in Spectroscopy; Renewable Energy;Coordination Chemistry; Electrochemistry, Neurochemistry; Coordination and Inorganic Chemistry; Educational Chemistry, Bioorganic Chemistry; Bioinorganic Chemistry; Environmental and Analytical Chemistry; Heterocyclic Chemistry, Solution Chemistry; Structure and Function of Pi-Conjugated Systems;Human Biology,Human Science and Informatics;Marine Biology and Sciences;Mathematical Biology;Health Education;Medical and Pharmaceutical Engineering; Medical Technology,Microbiology,Molecular Biology;Nanoscale Science and Engineering;Pharmacy and Pharmaceutical Sciences;Biotechnology ,Clinical and Health Informatics;Clinical Laboratory Sciences; Bioseparations Science and Engineering; Biosystems Science and Engineering;Cytotechnology ,Ecological Science and Technology,Environmental Science and Engineering,Fisheries; Agricultural and Biological Engineering; Animal Science and Zoology;Biochemistry and Molecular Biology; Bioengineering and Biomolecular;Materials,Biological and Biomedical Sciences,Biology and Life Sciences;Biomedical Engineering Systems and Technologies, Biomolecular Science and Engineering;Bioscience and Technology, Animal and Veterinary Sciences,Food Science and Technology;Pharmacy Engineering,Plant Science and Technology,Toxicology;Computational and Knowledge Management Methods with Algorithms; Association Rules,Statistical Algorithm for Data Engineering; Science Education;Partial Least Squares,Recursive Partitioning and Matrix Computations;Information Retrieval and Decision Support Systems; Text Mining,Decision Trees and Pattern Matching; Machine Learning ,Structural Equations and Mixture Models; Signal , Structured Data and Database Engineering; Nonlinear Time Series and Financial Econometrics; Technical Education;Association Rules,Dimensional Modeling and Data Warehousing; Genomics,Routing and Scheduling and Statistical Algorithm for Data Engineering;Information Extraction and Discovery Techniques; Software and Tools for Statistical Computing; Data Security,Software Tools and Content Management; Performance Evaluation Methods and Large-Scale Information

Processing; Fault-Tolerance Systems and Knowledge Based Applications; Decision Support Systems, Expert Systems, Geographic Information Systems; Astronomy, Astrophysics and Cosmology, Atomic, Molecular and Optical Physics; Vibrational Spectroscopy, Mathematical Physics, Complex Systems, Chaos and Self-Organisation, Spectral Line Shapes, Computational Physics and Numerical Simulation; Semiconductors, Clusters, Nanomaterials, Low Temperature Physics; Optical Remote Sensing of the Environment, High Energy Physics, Particles and Fields; History and Philosophy of Science, Metrology and Instrumentation, Nuclear Physics; Radiation Protection, Radiation Risk Communication: Issues and Solutions; Optics and Lasers, Laser Safety, Particle Accelerators, Plasma and Gas-discharge Physics; Quantum Mechanics and Quantum Information Theory, Thermodynamics; Acoustics, Biophysics and Medical Physics, Electrostatics, Electromagnetic Waves; Magnetism and Magnetic Materials, Mechanics, Rheology and Tribology, X-rays; Synchrotron Radiation and Crystallography, Neutron Scattering, Physics Research & Education; Fluid Dynamics and Statistical Physics; Artificial Intelligence in Medicinal Sciences, Biological neural networks; Biomaterials, Biomedical image processing, Biomedical Robotics and Biomechatronics; Biomedical signal processing, Bio-Modeling and Control, Biosensors, Bioanalytics and Bio-Statistics; Brain science and Cognitive technologies, Cognitive Neuroscience and Technology, Clinical chemistry and Clinical neurophysiology; Complex Bioinformatics and Complex Medical Imaging; Complex Technology in Rehabilitation and Complex Virtual Technology in Medicine and Data mining in Medicine; Dementia, Neuron Disease, Diagnostic Technology, Digital Human, e-Healthcare and Electrophysiology; Engineering design, e-Science, Imaging technology, Implants, Information and Communication Technology in Medicine; Interventions, Man-machine interfacing, Measurement techniques, Medical diagnostics and Medical instruments; Medical Robotics, Medical Web Intelligence and Telemedicine, Micro Tele-Operation/Tele-Surgery and Molecular imaging; Movement sensing, Musculoskeletal models, Finite Element models, Human Vision and Technologies; Nano/Micro Bio-Robotics, Neural stimulation; Neurorehabilitation, Radiotherapy, Registration, and Navigation; Modeling and Segmentation, Welfare Information Technology, Rehabilitation engineering and Rehabilitation Robotics; Surgical techniques, Tissue engineering, Virtual Surgery, Medical Knowledge Networks and

Management;Mechatronics; Computational,Plasticity,Geo and Biomechanics;Heat and Mass Transfer;Compressible Flows and Transport Phenomena;Nanomaterial ,Material and Automotive Engineering;Fracture, Vibrations, Acoustics and Noise Control;Multibody,Nonlinear,Structural ,Fluid and Aerodynamics;_Manufacturing Process;Allergology and Pulmonology ,Basic and Preclinical Sciences,Bioinformatics and Telemedicine Cardiology;Dental Surgery , Dentistry , Dermatology , Endocrinology, General Surgery and Transplantology, Genetics and Molecular Biology;Gynecology and Obstetrics ,Health Sciences and Epidemiology , Infectious Diseases Internal Medicine;Invasive Cardiology and Cardiosurgery, Laryngology ,Neurology ,Neurosurgery, Oncology and Hematology;Oncological Surgery, Ophtalmology , Pediatrics , Perinatology, Pharmacological Sciences;Psychiatry and Clinical Psychology , Urology ,Vascular Surgery;Integrated circuit, Analog circuits,Nonlinear circuits,Mixed-mode circuits;Digital Circuits;Electronic amplifier;Nano-technologies;Superconductivity circuits; Circuits design;Antennas technology, Sensors;CAD Tools;Silicon devices, Molecular computing;Thin film technologies;System architectures;Microelectronics;DNA computing;Circuits for Artificial Intelligence and Scientific Computing Applications;C Circuits and networks;Theoretical computer science;Algorithmic information theory and Theory of computation; Cryptography ,Formal semantics ,Analysis of algorithms and problem complexity;Logics and meanings of programs,Mathematical logic and Formal languages;Hardware;Control structures and Microprogramming,Arithmetic, Logic and Memory structures;Input/output and Data communications,Logic and VLSI Design, Integrated circuits ,Performance and reliability;Computer systems organization;Computer architecture,Computer networks and Distributed computing,Computer system implementation;Computing methodologies; Symbolic and Algebraic manipulation, Artificial intelligence,Computer graphics and computer vision; Pattern and Speech recognition,Simulation and Modeling ,Document , text ,Image and Digital signal processing;Computer applications;Robotics; Automated theorem proving ,Physical science and Engineering,Bioinformatics,Medical informatics; Mathematical software,Computer-aided engineering,Human-computer interaction, Speech synthesis,Telecommunications; Administrative data processing,Enterprise resource planning;Aerospace Engineering, Agricultural Engineering, Architecture & Regional Planning, Automobile, Engineering,

Chemical Engineering, Civil Engineering, Communication Engineering, Computer Engineering, Electrical, Electronics and Communication Engineering, Geotechnical Engineering, Industrial Engineering, Mechanical Engineering, Optical Engineering, Structural Engineering, Anthropology, Astrophysics, Biology, Botany, Chemistry, Computer Sciences, Computational Mathematics, Earth Sciences, Environmental Sciences, Geology, Genetics, Health Sciences, Life Sciences, Mathematics, Physics, Physiology, Space Science, Zoology, Agro-technology, Automation and Robotics, Bioengineering, Bioinformatics, Biotechnology, Construction Technology, Food Science and Technology, Genetic Engineering, Genomics and Proteomics, Image Processing, Immunology, Information Technology Instrumentation Engineering, Metallurgical Technology, Molecular Biology, Microbiology, Nanotechnology, Pharmaceutical Technology; Biomass, Animal Behavior, Geochemistry, Agricultural Education, Computers in Agriculture, Food and Nutrition, Plant and Tree Studies, Sea Studies, Marine, Crop Studies, Agronomy, Soil, Mycology, Fish, Forest, Genetics, Agribusiness, Hydrology, Land Use and Policy, Pesticides, Plant Pathology, Veterinary Sciences, Variable rate fertilization and spraying technology ; Recombination intertillage and weeding machinery; The damping, optimizing, reliability and intellectualization design technique for combine harvester; Economic crop harvesting technology and Machinery ;Straw bale-silagerer and efficient utilization new technology; Facility Agriculture control and high production new technology ;Seed Cleaning and Upgrading, processing, drying and store new technology ;Biological systems computational methods and intelligence in modelling and visualization simulation research; Agricultural equipment virtual prototyping, virtual test and reliability design method ; Intelligent design of biochips, bioinstrumentations; Precision farming technologies, equipment and instruments ; Large and medium-sized tractor and machinery in the design, manufacture and application ;Energy saving techniques and intelligent methods in developing vehicles, engines and agricultural equipments; Support for low carbon agriculture and sustainable development of the new technologies of agricultural engineering; Agricultural soil organic carbon compounds, organic carbon in stability and farmland productivity ;Circular agricultural engineering technology; Irrigation and agriculture, energy saving and new technology; Improve the efficiency of agricultural equipment technology, measures and mode; Ecological agriculture, green farming and organic

agriculture, agri-tourism and other new mode; The new technology in utilization of clean and renewable energy resources, including solar, wind power and biomass; The techniques for sustainable and solar building, greenhouse Photo-Voltage Generation ;Wind/PV hybrid system and wind power generation system; Design, control and network connecting technology of big-scale wind turbine ; Biomass energy utilization new technology (Principle and application for biomass bioconversion technology of stalk, energy crop, forest and seaweed bio-energy,etc.); The new technology in agricultural products processing and the quality analysis/ detection technology for food / agricultural products ;The application of HPLC in food/ agricultural products' detection and analysis ;The application of mass spectrometry in food/ agricultural products' detection and analysis ;The application of spectral analysis technology in food/ agricultural products' detection and analysis ;The application of bio-detection technology in food/ agricultural products; The application of rapid detection technology and traceable system in food/ agricultural products; The new technology in agricultural products processing; Agricultural Education;Algorithms, Applications of computer science in modeling, Artificial Intelligence, Bio-informatics, Circuits and Systems, Cloud Computing, Computer Architecture, Computer Vision, Computer Graphics and Multimedia, Data Communication and Computer Networks, Computer in Agriculture, Computing in Energy Technology, Computing in Hybrid/Convergence Service/Technology, Computing in Medical Service/Technology, Data Mining, Database Systems, Digital Signal and Image Processing, Digital System and Logic Design, Distributed and Parallel Systems, E-commerce and E-governance, Formal Methods, Fuzzy Logic, Computer Games and Animation, Graph Theory and Computing, High performance and Next Generation Computing, Human Computer Interaction, Information Security, Information Systems, Internet and Web Applications, Knowledge and Data Engineering, Language Processing, Learning Management System (LMS) and e-Learning, Mobile computing, Neural Networks and Fuzzy Logic, Operating Systems, Pattern Recognition, Programming Languages, Robotics, Sensors, Signal Processing, Business Aspects of Convergence IT, Software Engineering, System Security and Control, Ubiquitous Computing, VLSI, Wireless Communication

CO-SPONSORING PARTNERS

2013 Abuja International Conference on Science, Technology and Engineering(AICSTE2013) **are organized by** African Society for the Scientific Research (ASSR) and African Association for Teaching and Learning *with the Support and Cooperation of:* International Association for the Scientific Knowledge, Portugal;Teachers Registration Council, Abuja-Nigeria; Mediterranean Center for Social and Educational Research, Italy; Universidad Azteca, Mexico; Asian Research Consortium and other international co-sponsoring partners.

INFORMATION FOR AUTHORS

1. The paper should be A4 format. Left, right, top and bottom margins should be 2.00 cm each. English is the official language of the conference.
2. Title should be 14-point, all in capital letters, bold and centered.
3. Font size throughout the paper should be 12-point in Times New Roman, in single space, and justified.
4. The whole text should be written with “Times New Roman”.
5. Do not give page numbers for the paper
6. A blank line should be left after the title. Names of authors, affiliations and e-mails should be provided after the title.
7. Following the authors’ information, a 200-word abstract should be provided with five keywords. The “**Abstract**” should be a summary of the paper.
8. Graphics and pictures should be prepared in black and white.
9. One blank line should be allowed between the components of the paper (i.e. introduction, methods and procedures, results, conclusion, references.). Main headings should be centered, bold and capitalized. The second level of headings should be title case and bold. The third level should be italicized and upper- and lower-case heading.
10. For titles of tables, graphics and pictures, sentence case should be used.
11. Texts used in Tables, graphics and pictures should be Times New Roman. The font size can be reduced to 10 pt.
12. **References** should be at the end of the paper and should be listed alphabetically. References and citations within the text should be prepared in the APA format.
13. Abbreviations should comply with the standard use. They should be given in full format at the first place they are used.
14. The paper should be maximum 10 pages
15. SI unit should be employed where applicable
16. Only proposals containing abstract and full texts are acceptable. We do not welcome only abstracts.

17. All submissions must be by email attachment preferably in MS words. We do not accept hard copies
18. All papers must adhere to this template in format. No paper can be processed if not formatted according to the stated rules and regulations.
19. Papers submitted after October 31, 2013 may be presented at the conference but they may not be published in the conference book
20. The first 40 registered participants will collect free copies of our previous publications.
21. All papers should be submitted by email to abujaconference@gmail.com

REGISTRATION

All Participants must complete the registration form. Payment of Conference registration should be made in USD in the form of bank transfer (all costs at Participant's charge). Delegates who wish to pay by others such as Money gram, Western Union etc must contact the conference secretariat. We request that you send us a computer print-out copy of the bank transfer and the duly completed registration form by email attachment.

Conference Fees

Conference Registration:	International	Local
<i>Registration:</i>	US \$200	N32500
<i>Registration at Venue</i>	US\$275	N40500
<i>Corporate Participation</i>	US\$350	N55000

NB: Payment in local currency is only possible for delegates resident in Nigeria. Authors whose paper(s) are accepted shall be informed of the bank details for payment registration.

PRACTICAL INFORMATION

Accommodation

Cheap hotels are available around the conference venue. Information on accommodation is available on request. The hotel offers reduced rates for conference delegates.. If any participants need accommodation, the conference organizers can reserve rooms for them. Price of accommodation ranges from US\$65 to US\$350 per night.

Visa and Travel Information

International guests visiting Nigeria may require a visa. Visitors from West Africa do not need a visa. Participants should contact the Nigerian Embassy or Consulate nearest to them for more information. Registered participants who need Invitation Letter/Acceptance Letter to facilitate their visa application can send us email. Detailed list of Nigerian Embassy/Consulates and the requirements for visa application can be obtained from the nearest Nigerian Embassy.

Contact

For more information or clarification on any aspect of the Conference, please contact the secretariat, (**Professor Joseph Kosu**, Co-Chair, AICSTE2013, Tel:+2348132296589; email: abujaconference@gmail.com)