



## ***International Conference***

***On***

***“Innovative Approach in Applied Physical, Mathematical/Statistical, Chemical Sciences and Emerging Energy Technology for Sustainable Development”***

***(APMSCSET-2017)***

***Organized by***

***“Krishi Sanskriti”***

***On***

***15<sup>th</sup> January, 2017***

***Venue:***

***Jawaharlal Nehru University,***

***New Delhi***

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### ***CALL FOR PAPERS AND CONFERENCE THEMES:***

The Organizer cordially invites abstracts and full length research papers for oral/poster presentation from all over the World to participate in the ***International Conference on Innovative Approach in Applied Physical, Mathematical/Statistical, Chemical Sciences and Emerging Energy Technology for Sustainable Development***". ***APMSCSET-2017*** is the premier forum for the presentation of new advances and research results in the fields of theoretical, experimental, applied physical, chemical, mathematical, statistical sciences and emerging energy technology for sustainable development. The conference will bring together leading researchers, Entrepreneurs and Academicians in the domain of interest from around the world. Topics of interest for submission include various subthemes, but are not limited to the conference aims at providing an opportunity for exchange of ideas and dissemination of knowledge among Scholars for Sustainable Development. Contributions are invited from prospective authors from related areas. All contribution should be of high quality, Original and not published elsewhere or submitted for publication. During the review period, Papers will be reviewed by eminent scholars in the respective areas. All Selected papers will be published as chapters in edited book having ISBN No. and few high-end papers will be published in international Journal having ISSN No. which will be issued to authors after publication.

### ***Themes:***

#### **Applied Physics and Engineering Mathematics**

- Advanced Numerical Algorithms
- Aeroacoustics
- Algorithmic Approaches to Computational Kernels and Applications
- Application of Soft Computing, Knowledge Engineering, and Machine Learning
- Applications of Computation as a Scientific Paradigm
- Applications of Microscopy in the Physical Sciences
- Applied Materials Science & Engineering
- Applied Optics, Non-linear optics, Laser Physics, Ultrafast phenomena, Lasers application to Medicine, Chemistry
- Applied Solid State Physics/Chemistry and Materials Science and Technology Advanced Materials
- Artificial Intelligence and Soft Computing (Neural, Fuzzy, Evolutionary Systems)
- Astrophysics and Plasma Physics

- Atomic, Molecular and Chemical Physics
- Automation, Control and Robotics
- Aviation & Space Technology
- Biomaterials Science and Biomedical Engineering
- Biophysics, Bio (electro) magnetism, Biophysical Chemistry
- Computational Physics, Non-linear Physics
- Control of Dynamical Systems
- Electronics, Microelectronics and Nano-electronics
- Engineering and Industrial Physics, Instrumentation, Metrology and Standards
- Environmental Physics
- Health Physics, Biomechanics
- Imaging Techniques, Microscopy
- Instrumentation and Measurement
- Large-code development
- Mechanics and Fluid Mechanics
- Medical/Biological Physics, Health Physics, Biomechanics
- Multimedia and Video Systems
- Nanoscale physics
- Nanoscience and Nanobiotechnology
- Non-equilibrium systems
- Nonlinear Analysis
- Nuclear Physics/Chemistry, Radioactivity, Radiochemistry, Radiation Safety
- Nuclear Sciences and Engineering
- Optical Physics, Quantum Electronics and Photonics
- Optimization Inverse Problems
- Optometry
- Particle Physics
- Petascale computing
- Physical Properties of Biological/Biomedical Systems through Microscopy
- Physics and renewable energy
- Processing, Radiation-Matter interaction,
- Quantum Monte Carlo
- Radiation Physics, Radiation Chemistry, Radiation Processing, Radiation-Matter interaction, Spectroscopies
- Radioactivity and Radiochemistry, Radiation Protection and Safety Issues
- Semiconductors devices and Photonics,

- Semiconductors devices and Photonics, Opto-electronics, Quantum Electronics
- Soft and granular matter
- Solar System
- Solid State Physics
- Spectroscopies
- Stellar Astrophysics
- Stellar Scintillation
- Surfaces, Interfaces and Colloids
- Technology Advanced Materials
- Theoretical physics

### **Condensed Matter Physics**

- Crystallography
- Semiconductors physics and devices

### **Nano-science and Nanotechnology**

- Applied optics
- Laser physics and applications
- Layered and composite nanostructures
- Low-dimensional systems
- Multifunctional nano-materials
- Nano-electronics and information technology

### **Engineering and Industrial Physics, Instrumentation Metrology And Standards**

- Advances in instrumentation and techniques
- Applications of microscopy and imaging techniques in
- Applied non-linear physics
- Biomedical image processing and analysis
- Finite element analysis
- Medical/biological physics, health physics
- Optimization techniques

### **Quantum, Atomic and Nuclear Physics**

- Computational atomic and nuclear physics
- Plasma physics, high-energy physics and particle Quantum entanglement, quantum information and quantum Cryptography

### **Chaos and Complex Systems**

- Chaos and Nonlinear Dynamics
- Chaos and Solitons
- Chaotic Systems
- Complexity Fractals and Nonlinearity in Nano-Science
- Fractional dynamical systems
- Nonlinear Science and Applications
- Nonlinear Time Series Analysis
- Stochastic Chaos
- Synchronization and Control of Nonlinear Dynamical Systems

### **Mathematics**

- Approximation Theory
- Complex Analysis
- Computer Aided Geometric Design

- Cryptography
- Differential Equations (ODEs and PDEs)
- Dynamical System
- Financial Mathematics
- Functional Analysis
- Fuzzy Theory
- Mathematical Logic
- Mathematical/Computational Techniques
- Mathematics for Chemistry
- Maths/Computer Modeling
- Number Theory
- Set Theory
- Stochastic Process
- Topology

### **Discrete Mathematics:**

- Algebraic Combinatorics
- Combinatorial Algorithms
- Combinatorial Number Theory
- Computational Biology
- Design Theory
- Discrete Geometry
- Enumeration
- Extremal Combinatorics
- Game Theory
- Matroids
- Optimization
- Ordered Sets
- Probabilistic Combinatorics
- Probability
- Ramsey Theory
- Topological and Analytical Techniques in Combinatorics

### **Mathematics and Statistics**

- Algebra & Mathematical Logic
- Algebraic Geometry and Topology
- Algebraic Statistics & Its Applications
- Algorithms
- Applied mathematics & Parallel processing
- Approximate Confidence Interval
- Approximation Theory & Its Applications
- Asymptotical Methods
- Bayesian Analysis
- Bioinformatics
- Biostatistics
- Biostatistics & biocomputing
- Categorical data analysis
- Category Theory; Homological Algebra
- Censored Data
- Clustering & classification
- Coding Theory
- Combinatorics & Its Application

- Computational bayesian methods
- Computational Geometry and Econometrics
- Computational Group Theory
- Computational mathematics & modeling
- Computational Statistics
- Computer-aided data analysis
- Cryptology, Geometry
- Data exploration and data mining
- Data visualization
- Design of experiments
- Difference and Functional Equations
- Differential equations & applications
- Differential Geometry
- Discrete mathematics & control
- Distributions of Ratios
- Dynamical Systems and Ergodic Theory
- Engineering Mathematics
- Ergodic Theory
- Error Models
- Extreme value theory & applications
- Factorization methods
- Field Theory and Polynomials
- Financial Mathematics & Computation
- Finite difference methods
- Finite element methods
- Fixed Point Theory
- Fluid mechanics & Heat transfer
- Fluid Mechanics and Solid Mechanics
- Fractional Differential Equations and Applications
- Functional Analysis & It's Applications
- Functional data analysis
- Functions of a Complex Variable
- Fuzzy mathematics and its applications
- General Algebraic Systems
- Generalized eigen-problems
- Generalized Likelihood Ratio Test
- Geometry & Its Application
- Graph Theory
- Group Theory and Generalizations
- Harmonic Analysis
- High order difference approximations
- High Performance Computing
- High-dimensional data analysis
- Hybrid Computational Methods
- Ill-posed Problems
- Industrial Mathematics
- Information Theory & Error Correcting Codes
- Integral Equations and Integral Transforms
- Inverse Problems
- Inversion problems in Geophysics
- Iterative methods
- Kernel & monte carlo methods
- Kinematics
- Lattices, Algebraic Structures
- Lie Algebras and Groups
- Linear algebra & applications
- Linear and Multilinear Algebra; Matrix Theory
- Mathematical Actuary
- Mathematical and Computer Modelling
- Mathematical Biology, Chemistry, Physics and Medicine
- Mathematical Methods in Continuum Mechanics
- Mathematical models for the information society
- Mathematical models in Economy and Insurance
- Mathematics Modeling & Optimization
- Mathematics of Finance
- Measure Theory and Integration
- Methods for integration on a uniform and non-uniform mesh
- Mixture models
- Modeling and computation of soft matter materials and complex fluids
- Models for Complex Media
- Molecular dynamics
- Multivariate Analysis of Variance
- Multivariate data analysis
- Network Analysis
- Neural Networks
- Neutrosophic Mathematics
- Non-Linear Production Function
- Nonlinear systems and eigenvalue solvers
- Nonparametric statistics
- Nonsymmetric solvers
- Number Theory
- Numerical analysis
- Numerical linear algebra
- Numerical methods and simulation
- Numerical methods in statistics
- Operations Research and Information Engineering
- Optimization and optimal control
- Optimization heuristics in statistical modeling
- Ordinary and partial differential equations, integral equations, singular perturbation problems
- Overlapping and nonoverlapping domain decomposition methods
- Parameter Estimations
- Parametric & semi parametric models
- Partial differential equations
- Perturbation Methods
- Poisson Distribution
- Probability & Statistics Applications
- Probability Models
- Random Variables and Random Matrices
- Rings and Algebras
- Robust Methods and statistics

- Sample Estimation
- Sampling Methods and Censored Sampling
- Sequential Test
- Signal processing
- Space Geodesy and Space Dynamics
- Spatial statistics
- Spectral Theory
- Splines and wavelets and applications
- Statistical Applications
- Statistical Computing
- Statistical Inference
- Statistical Mechanics
- Statistical Methods and Analysis
- Statistics and Probability
- Statistics Education
- Stochastic differential equations
- Stochastic Process
- Supercomputing and scientific computing
- Symbolic data analysis
- Time series analysis
- Topological Groups,
- Wavelets and Wavelet Transforms

#### **Chemical Engineering and Applications**

- Chemical engineering equipment design and process design
- Distillation, absorption and extraction
- Interfacial & colloidal phenomena
- Membranes and membrane science
- Multifase flows
- Particulate systems
- Physical, Theoretical and Computational Chemistry
- Rheology
- Thermodynamics
- Transport phenomena in porous/granular media

#### **Chemistry and Chemical Engineering Fundamentals**

- Bio-drug discovery
- Biorefinery
- Catalysis & reaction engineering
- Catalysts Synthesis
- Catalytic and Multiphase Reactors
- Chemical engineering equipment design and process design
- Chemistry and applied chemistry
- Hybrid and Membrane Processes
- Intelligent Polymers
- Interfacial & colloidal phenomena
- Ionic liquids/electrolyte solutions
- Kinetics of Complex and Hybrid Processes
- Micro Reactors
- New Catalytic Processes
- New materials & structured products

- Particulate systems
- Phase Equilibrium and Transport
- Photo- and Sono-Chemical Reactors
- Physical, Theoretical and Computational Chemistry
- Polymerization Reactors
- Polymers
- Process intensification
- Separation Processes
- Structured Systems
- VCE Chemistry

#### **Chemical, Environmental, and Process Engineering**

- Environmental engineering and sustainable development
- Nanotechnology
- Physical Chemistry
- Process design and optimization
- Process integration
- Product innovation, development and economics
- Sustainable & clean technologies

#### **Multi-scale and/or Multi-disciplinary Approaches**

- CFD & chemical engineering
- Controlled release of the active ingredient
- Energy & nuclear sciences
- Process system, instrumentation and control
- Product design & innovation
- Product engineering and product development

#### **Systematic Methods and Tools for Managing the Complexity**

- Multiscale modeling
- Process synthesis & design
- Process control & operations

#### **Integration of Life Sciences & Engineering**

- Biochemical Engineering
- Biological and Medicinal Chemistry
- Energy and environment
- Improvement of environmental remediation processes
- Physical chemistry and thermodynamics for life sciences and biotechnology
- Product Engineering in the Bio Industries
- Self-organisation in the Bio-sciences and elsewhere
- The impact of bio-based polymeric materials

#### **Energy Science and Technology**

- Alternative transportation fuels, sustainable transport
- Appropriate energy technologies for rural development,
- Clean coal technology and IGCC, fluidized bed systems
- Combustion system modeling and analysis, clean combustion
- Corporate Social Responsibility initiatives for energy management
- Development and Utilization of Biomass Energy

- Emission, climate change, implementation of emission
- Energy policy, planning and economics, energy and
- Energy:- conservation, management, efficiency and storage
- exploitation of fossil fuel resources and sustainability
- Impact of Climate Changes on Energy Systems
- Low energy society: Challenges, opportunities and mitigation Technologies
- New Energy Vehicles, Electric Vehicles
- Nuclear energy: Availability, Costing, Technologies, pathways
- Renewable Energy Standards
- Waste to energy and its management

### **Theory and practice of Sustainable Development**

- Advanced Technologies for Wind Generation and Systems
- Biomass energy, materials and technologies
- Environmental Protection and Economic Development
- Fuel cells system and applications
- Next Generation (Nano) Photonic and Cell Technologies
- Optimizing Wind Power Resources
- Regional and International Energy Flows
- Reliability of Photovoltaic Cells, Modules, Components
- Thin Film Solar Technology

### **Advancement Energy**

- Conservation (Tidal and Wave)
- Energy Conversion Techniques
- Energy Harvesting and Conservation
- Energy Storage Batteries and other Storage Devices
- Future Energy Technologies

### **Greening the Fossil Fuels**

- Sustainable coal use and clean coal technologies
- Natural gas research and development
- Carbon and Methane capture, storage and utilization

### **Green Energy in Transport**

- Advance bio-fuel for a sustainable heavy-duty transport and Aviation
- Bio-fuels in developing economies
- Hybrid vehicles and its integration

### **Renewable Energy**

- Biogas and biomass
- Energy and heat transfer
- Geothermal, Hydraulic
- Heating and Cooling Applications
- Hydro power
- Integrated energy systems
- Nanotechnology applications to RE
- New Perspectives of Renewable Energy
- Solar cell technology, Solar cell materials, testing and efficiency

### **Hydrogen & Fuel Cell**

- Fuel Cell for Transportation, Power Plants and Co- generation

- Hydrogen End-Use Technology

### **Energy Economics**

- Finance of energy
- Financial support, pricing, and regulation schemes

### **Energy Systems**

- Combustion system modeling and analysis, clean combustion
- Energy and Exergy Analyses
- Energy-Environment Interaction
- Greenhouse cultivation, renew-able energy in agriculture.
- Low carbon heat and power (CCS, Nuclear, Wind, Solar,etc.)
- Natural gas water table content of basic research
- Oil and gas exploitation of new technology
- Waste to energy and its management

### **Green technology, Renewable energy and Environmental protection**

- Climate and climatic changes
- Energy and Environment Energy Policy, Planning & Management
- Environmental policy in developing countries
- Environmental restoration and ecological engineering
- Global warming Green Energy Options
- Hydro power Industrial waste treatment
- Recycling technologies

### **Advanced Energy Technologies**

- Energy From the Space, Dark Energy
- Nuclear Energy Application: Power Generation, Desalination
- Nuclear Materials and Fuels

### **Solar Photovoltaic Devices and Systems**

- Laser Material Processing for Solar Energy Devices
- Next Generation (Nano) Photonic and Cell Technologies

### **Wind Energy**

- Connecting Wind to the Grid
- Managing a Wind Farm
- Offshore Wind Power

### **International Convergence on energy**

- Energy Diplomacy and National Security
- Global Crisis and Energy-Dependent-Economies
- Regional and International Energy Flows

### **Green Buildings and Infrastructures**

- Energy efficiency in building designs and management
- Energy Saving in Buildings

### **Smart Buildings**

- Building Information Modeling
- Passive House & nearly Zero Energy Buildings
- Benchmarking of Regulations on Energy Efficiency of Buildings
- Low Energy Architecture

- Integration of renewable energy sources in buildings

### Greening Urbanization and Urban Settlements

- Rapid urbanization and energy-environmental implications
- Settlement forms and functions and energy
- Low carbon city scenarios, plans and actions

### Green Policies and Programmes

- National bioenergy programmes: economic, political and social Issues
- Bioenergy supply management strategies

### Abstract Submission:

Abstracts not exceeding 250-300 words on any of the aforesaid themes should be sent to the Organizing Secretary through email at [info.internationalconf@gmail.com](mailto:info.internationalconf@gmail.com) on or before **7<sup>th</sup> January, 2017**.

Intimation of Acceptance of Abstract will be issued within 24 to 48 hrs of submission time.

### Submission of Full Length Research Paper

Full length research paper, maximum in 6 pages and copyright form should be submitted together as separate attachment latest by **9<sup>th</sup> January, 2017** through email at - [info.internationalconf@gmail.com](mailto:info.internationalconf@gmail.com)

Intimation of Acceptance of Full Paper will be issued within 24 to 48 hrs of submission time.

### Submission of Registration form:

Submission of Registration fees latest by **11<sup>th</sup> January, 2017**.

Registration process can be initiated after receiving acceptance letter of full paper.

### Accommodation

Free one day Accommodation will be available to the limited no. of out station non N.C.R. Delegates at JNU guest house and nearby other guest houses/hotels around conference venue.

The Tariff rate for next day and subsequent day accommodation is as follows: Double-bed Room @ Rs.800/- per person (Indian non N.C.R. delegates) and 35 USD for Foreign delegates on sharing basis per day (check out time noon to noon). To and fro transportation facility from guest house to the conference Venue will be provided by the organizer.

**NOTE:** In case Research article is accepted by the editorial committee it will be published and released on the day of conference. In case the delegates are not able to physically present their paper due to some or other reason his/her research paper will be published (in absentia) and published copy along with certificate will be dispatched to his/her correspondence address by post just after the conference at no extra cost. **All communication should be by e-mail/online only (no hard copy is required to be posted).**

### Mandatory steps to be followed:-

1. In case of multi authored research paper, at least one Registration is mandatory.
2. In case other author/co-author wish to physically attend the conference they need to pay full Registration fees individually, separate Journal & Certificate along with the conference kit will be issued to them. Co- Authors are requested to fill & submit separate Registration forms in case they are physically attending the conference.
3. Charges for extra copy of Journal/ Certificate for other Co-author (if required) should be paid along with preliminary Registration by the corresponding author.

4. Co-Authors will not be considered as accompanying person. Listeners are not entitled for free accommodation (it will be on paid basis). However they will be issued conference kit and participation certificate.

5. All Selected papers will be available online after 15 to 20 days of conference date over, in order to download the papers the authors need to go in the publication section of Krishi Sanskriti website.

### Registration

The participants are requested to register by sending the duly filled Registration form through e-mail along with their research paper and registration fees (through RTGS/ Wired Transfer or Online Transfer)

Bank Details mention below for RTGS/ Wired Transfer or Online Transfer:

**Beneficiary Name** : Krishi Sanskriti  
**Bank Name** : Canara Bank  
**Bank Address** : Jeet Singh Marg, New Delhi  
**Account No.** : 1484101026988  
**Account Type** : Savings  
**IFSC Code** : CNRB0001484  
**Swift Code-** : CNRBINBBID

### Registration Charges:

Categories	Indian Delegates	SAARC/ African Country Delegates	Rest of the countries
Academic faculty/Industrial Delegates	4000 INR	125 USD	250 USD
Research Scholars(Ph.D) / NGO Representative	3500 INR	100 USD	200 USD
Students(B.Tech./M.Tech /M.Sc etc)	2500 INR	75USD	150 USD
Printing of Additional Page in Journals	300 INR	15 USD	20 USD
Listener / Accompanying Member(only Indian Delegates)	1500 INR	**	**
Journal & Certificate (additional copy) (for Co-Authors in absentia)	700 INR	20 USD	30 USD
Only Journal (additional copy) (for Co-Authors in absentia)	500 INR	15 USD	25 USD
Only Certificates (for Co-Authors in absentia)	300 INR	10 USD	20 USD
Additional Research paper for same authors	1500 INR	25 USD	35 USD

**\*\*Foreign Participants as listener are not allowed, only authors from foreign country/countries will be allowed in this conference.**

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