



**International Conference  
on  
Innovative Research  
In  
Applied Physics, Material Sciences, Instrumentation, Electronics,  
Communication, Electrical, Power Control, Computer Science and  
Information Technology  
(TECHNOVA-2017)**

*Organized by  
Krishi Sanskriti,  
On Dated*

**19<sup>th</sup> March, 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/Review Papers for Oral/Poster presentation from all over the world to participate and present in the International Conference on Innovative Research in Applied Physics, Material Sciences, Instrumentation, Electronics, Communication, Electrical, Power Control, Computer Science and Information Technology on the following scientific areas for presentations and discussions thereafter.

These engineering subjects are emerging and promising discipline in shaping future research and development activities in both Academia and Industry. The conference aims at providing an opportunity for exchange of ideas and dissemination of knowledge among Academia, Industry, Research Scholars, Scientists and Entrepreneurs for holistic development of the society. 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 in International Journals having ISSN or as Conference Proceeding/edited book/abstract book with ISBN in print version and online version and that will be released on the day of conference.

**Themes**

**Track 1 : Applied Physics and Material Sciences**

**Applied Physics**

- Thermodynamics
- Mechanics (Classical, Continuum, Celestial, Statistical, Fluid, Quantum)
- Gravitation
- Electromagnetism
- Quantum field theory
- Relativity (Special, General)
- Accelerator
- Acoustics
- Astrophysics (Nuclear, Stellar, Heliophysics, Space, Astroparticle)
- Atomic-molecular-optical (AMO)
- Computational
- Condensed matter (Solid-state)

- Digital Engineering
- Optics (Geometrical, Physical, Nonlinear, Quantum)
- Particle (Phenomenology)
- Plasma
- Polymer
- Statistical Biophysics (Cardiophysics, Biomechanics, Medical, Neurophysics, Virophysics)
- Agrophysics (Soil)
- Atmospheric physics
- Chemical
- Econophysics
- Geophysics
- Psychophysics
- Photonics and Optoelectronics
- Surfaces and Interfaces
- Structural, Mechanical, Optical, and Thermodynamic Properties of Advanced Materials
- Semiconductors
- Magnetics and Spintronics
- Superconductivity and Superconducting Electronics
- Dielectrics, Ferroelectrics, and Multiferroics
- Nanoscale Science and Technology
- Organic Electronics and Photonics
- Device Physics
- Biophysics and Bio-Inspired Systems
- Energy Conversion and Storage

**Condensed Matter Physics**

- Crystallography
- Semiconductors physics and devices
- Ferroics and multiferroics
- Magnetic materials
- Computational solid state physics

**Nanoscience and Nanotechnology**

- Low-dimensional systems
- Multifunctional nanomaterials
- Nanoelectronics and information technology

- Nanobiotechnology
- Layered and composite nanostructures
- Computational nanoscience and nanotechnology
- Social impacts of nanotechnology

### **Materials Science & Engineering**

- Surfaces, interfaces and colloids
- Sol-gel technology
- Thin film technology
- Polymers and amorphous materials
- Superalloys
- Ceramics and glasses
- Textile engineering
- Extractive metallurgy
- Melting and casting
- Powder metallurgy
- Steels and steel production technologies
- Heat treatment
- Mechanical behavior of materials
- Science and technology composite materials
- Nondestructive evaluation of materials
- Materials characterization
- Computational materials science and engineering

### **Track 2 : Instrumentation Engineering and Control**

- **Instrumentation and Measurements**
- Data Analysis, Prediction and Model Identification
- Signal Processing
- Prediction and Time Series Analysis
- System Identification
- Knowledge Discovery
- Intelligent Information Systems
- Image Processing & Understanding
- Parallel Computing applications in Identification & Control
- Pattern Recognition
- Clustering & Classification
- Fault Diagnosis, State-Estimation and Identification
- Sensor and Actuator Devices Technology and Principles
- Instrumentation System
- Modeling and Simulation
- Computer Vision and Image Analysis
- Optical and Opto-electronic instrument

### **Control & Instrumentation**

- Robust Control,
- Adaptive Control,
- Stochastic Control,
- Nonlinear Control,
- Optimal Control,
- Intelligent Control,
- Mechatronics,
- Robotics,
- Analog and Digital Electronics,
- Digital Signal Processing,
- FPGA and Microcontrollers,

- Communication, Smart Sensor,
- OP-AMP,
- Microwave,
- Antenna Control,
- Satellite,
- Wireless Control

### **Track 3 : Electronics and Communication Engineering Photonics, Optoelectronics and Quantum Electronics**

- 3D Semiconductor Device Technology
- Advanced Electromagnetics
- Digital Electronics
- Digital Signal and Image Processing etc
- Electronics & Nano Electronics
- Fiber-optic sensor and networks
- Industrial Automation and Control
- Instrumentation engineering
- Microwave Circuits - Systems and Applications
- Power Electronics and Power Drives
- Radio Engineering
- Semiconductor and electro-optic devices
- Simulation and Modeling
- White LED and related technologies

### **Green Electronics**

- Organic And Sustainable Electronics
- Electronics In Renewable Energy

### **Bio-Electronics**

- Biodegradable And Biocompatible Electronics Devices
- Neuroprosthetics

### **Smart Electronics**

- Printed Electronics
- Consumer Electronics

### **Smart Grid Technologies**

- Concept and structural framing
- Dynamic optimization and control
- Smart appliances and consumer devices
- Integrated communication technology

### **Communication**

- VLSI Signal Processing
- Mobile and Cellular Communications
- Vehicular Communication Networks
- Antennas, RF and Microwave Communications
- Optical Communication
- MIMO and Space Time Communications
- Cognitive Radio and Cognitive Networks
- Satellite Communication
- OFDM and CDMA Communication Receivers
- Bio Signal Processing
- Audio / Speech Processing and Coding
- Statistical Signal Processing
- Signal Processing for Communications

- Image / Video Processing
- Array Signal Processing
- Digital Signal Processing
- Signal Processing for Security
- Signal Processing and Applications

### **Network & Communication Engineering**

- Wireless Communication and Network
- Routing and Flow Control in LANs, WANs and PANs
- Modeling & Simulation of communication Networks and Systems
- Mobile Ad-hoc and Sensor Network
- Low-power Network and System Network
- Wearable Network and System
- Quality of Service (QoS)
- Embedded System and Networking
- Network Control and Management
- Network Performance Analysis and Evaluation
- Middleware Support for Networking
- Mobile and Context-aware Computing
- Ubiquitous/Pervasive Networks and Computing
- Data Communication
- Network and Data Security
- Wired and Wireless Network Security
- High-speed Communication and Network
- Network intrusion, detection and prevention
- Mobile and Wireless Technologies (UWB, MIMO, WiMAX, etc.)
- Application of FPGA and DSP in Communication Devices and Networks
- Signal Processing for Wireless Communications
- Modulation, Coding and Multiple Access Schemes in Communications
- Communication Protocols and Standards
- Network Architecture
- Network Interfaces
- Network Reliability
- Wireless Protocol, Architecture and Design Concerns
- Multi-modal Communications Networks
- Heterogeneous Networks
- Network Applications (web, multimedia streaming, gaming, etc.)

### **Track 4: Electrical and Power Engineering**

#### **Electrical engineering**

- Automation, control and instrumentation
- Electrical and electronic materials
- Power management system
- Transmission lines
- Power Electronics, Systems and Applications
- Power Converters Modeling, Simulation and Control
- Power Factor Correctors
- EMI and over-voltage protection
- Active Filters and Harmonics
- Power Electronics Components and Packaging
- Load Modeling, Forecasting and Management

- Safety, Maintenance and Operation
- Distribution System Planning and Reliability
- Flexible AC Transmission Systems
- Permanent magnet machines and drives
- Linear machines and drives
- Piezo and electrostatic actuators
- Maintenance and Fault Diagnosis
- Electrical Vehicles
- EMC related phenomena
- Energy Conversion and Conservation
- Energy Management Systems

#### **Power & Control Systems**

- Advanced Power Semiconductors
- Analysis of Power Quality and System Stability
- Circuits and Electronics
- Control Science and Control Engineering
- Converter/Inverter Topologies
- Electric Drivers and Application
- Electrical Machinery, Motor Drives and Power Electronics
- Embedded Systems and Software
- EMC standardization
- Energy storages
- Evolutionary Algorithm application to Power System
- Fuel cell
- Grid interfaces
- Hybrid energy systems
- Industrial power systems
- Micro-electromechanical systems (MEMS)
- Power Distribution
- Power Electronics Controllers for Power Systems
- Power Electronics in Transportation
- Power Generation
- Power integrated circuits (PIC)
- Power System Design

#### **Power Generation – Conventional and Renewable**

- Hydropower technologies and applications
- Thermal power technologies and applications
- Safe nuclear energy generation and utilization
- Bio-energy technologies, process and utilization
- New technologies and design for energy efficiency
- Wind, Solar and Renewable Energy Sources
- Geothermal and tidal wave energy

#### **Power System Management**

- Power system management technologies
- Integrated substation automation technologies

#### **Power Transmission and Distribution**

- Ultra High Voltage (UHV) technologies
- HVDC and flexible AC transmission system
- Over-voltage, lightning protection and grounding
- Plasma physics and the pulsed power technology

## **Track 5: Computer Science**

### **Software Engineering**

- Component Based Software Engineering,

### **Mobile Learning**

- Augmented Learning,
- Virtual Learning ,
- Blended learning,
- Cloud Computing for E-Learning,
- E-Learning Portals,
- Innovative Teaching and Learning Technologies,

### **Multimedia Processing**

- 3D displays, Imaging and 3D audio,
- Medical Image Processing,
- Multimedia security,
- Multimedia systems, applications and services,

### **Animation**

- Animation Languages,
- Behavioral Animation,
- Character Animation,
- Computer Animation,

### **Computer Graphics and Modelling**

- Geometric Algorithms,
- Surface Modeling,

### **Human-Computer Interaction**

- Collaborative System Design,
- Graphical Interfaces,
- Web Designing,

### **Image and Image Processing**

- Digital Photography,
- Image Acquisition Techniques,
- Image Data Management,
- Internet Imaging,
- Medical Imaging,
- Wireless Imaging,

### **Databases**

- Data Mining and Warehousing,
- Database and Information Systems,
- Distributed Databases,
- Text Mining,
- Web Databases and Filtering,

### **Security Management**

- Cryptography
- Cyber Crimes,

### **Applications**

- 3G/4G Network Evolutions,
- Advanced use of multimedia,
- Agent Computing & Multi-Agents Systems,
- Computer Architecture and Embedded Systems,
- Grid Computing & Applications,

- Hardware and Software Applications,
- Intranet/Internet/Extranet,
- Reconfigurable Computing Systems,

## **Track 6: Information Technology**

### **Information Technology**

- Artificial Intelligence and Machine Learning,
- Broadband & Intelligent networks,
- Computational Intelligence,
- E-Commerce & E-government,
- E-Health & Biomedical applications,
- E-Learning & E-Business,
- Emerging technologies & Applications,
- Event Driven Programming,
- Expert Systems,
- Fuzzy, ANN & Expert Approaches,
- ICT & Banking,
- ICT & Education,
- ICT & Intelligent Transportation,
- ICT in Environmental Sciences,
- Information indexing & retrieval,
- Information Processing,
- Information systems & Applications,
- Intelligent Systems and Approach,
- Internet applications, working & performances,
- Knowledge Based Systems,
- Machine Vision & Remote sensing,
- Management Information Systems,
- Mobile networks & services,
- Network Management and services,
- Next generation network,
- Parallel and Distributed Computing,
- Performance Evaluation,
- Programming Languages,
- Software Engineering and Formal Methods,
- Systems & Software Engineering,
- Theoretical Computer Science,
- Web Engineering,

### **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.enggconference@gmail.com](mailto:info.enggconference@gmail.com) on or before **15<sup>th</sup> March, 2017**.

### **Submission of Full Length Research Paper & Copyright Form:**

Full length research paper, maximum in 6 pages and copyright form should be submitted together as separate attachment latest by **16<sup>th</sup> March, 2017** through email at - [info.enggconference@gmail.com](mailto:info.enggconference@gmail.com)

### **Submission of Registration Details:**

Submission of Registration Form/Details: **17<sup>th</sup> March, 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 in the conference 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 full 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 mentioned 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	150 USD	350 USD
Research Scholars(Ph.D) / NGO	3500 INR	125 USD	250 USD
Students(B.Tech/ M.Tech /M.Sc etc)	2500 INR	100 USD	200 USD
Printing of Additional Page in Proceeding	300 INR	15 USD	20 USD
Listener / Accompanying Member( <b>only Indian Delegates</b> )	1500 INR	**	**
Journal & Certificate (additional copy) for Co-Authors in absentia (if required)	700 INR	25 USD	50 USD
Only Journals(additional copy) for Co-Authors in absentia (if required)	500 INR	15 USD	30 USD
Only Certificates in absentia (Co-Authors)	300 INR	10 USD	20 USD
Additional Research paper for same authors	1500 INR	30 USD	50 USD

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

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**For further information and Latest Updates visit our Website**

<http://krishisanskriti.org/technova17.html>

**Dr. G. C. Mishra,**  
**Organizing Secretary**

**Prof. M. R. Tripathi,**  
**Convener**

**Contact No. : +91-8527006560**