

INTERNATIONAL CONFERENCE

On

Basic and Applied Research in “Mechatronics System, Material Science, Industrial, Robotics, Automotive, Aerospace and Nano-Technology” (AMIANT-2018)

Organized by

“Dr. Govind Chandra Mishra Educational Foundation”

On

1st July, 2018

Venue:

Convention Centre,
Jawaharlal Nehru University, New Delhi

Call for Papers and Conference Themes

The Organizers cordially invites Abstracts and Full length Research Papers from all over the world to participate in the International Conference on **Basic and Applied Research in “Mechatronics System, Material Science, Industrial, Robotics, Automotive, Aerospace and Nano-Technology” (AMIANT-2018)** on the following scientific areas for presentations and discussions thereafter.

The field of **Mechatronics System, Material Science, Industrial, Robotics, Automotive, Aerospace and Nano-Technology** embraces a broad spectrum of technical activities including several dimensions of engineering along with the classical techniques of work methods, production and quality control as well as safety aspects. It also incorporates the fields of human factors, operational research, manufacturing systems as well as management systems. **AMIANT-2018** is the premier forum for communication of new frontiers in the fields of Mechatronics System, Material, Manufacturing, Industrial, Process, Automotive, Automobile, Aeronautical Engineering and Nano-Technology that will focus on various techniques and applications. The conference covers most of the theoretical and experimental topics and also encourages the submission of critical review articles covering advances in recent research of such fields.

The conference aims at providing an opportunity for exchange of ideas and dissemination of knowledge among Academia, Industry, Research Scholars, Scientists, Entrepreneurs and N.G.O for sharing of knowledge followed by discussion related to frontiers of mechanical, automobile and aerospace engineering. 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 Journal having ISSN No. in print version as well as online version and that will be likely to be released on the day of conference.**

Topics of interest for submission include, but are not limited to:

Mechatronics System

- Complex mechanical-electro-liquid System
- Mechanism and Machine Science

- Powder Metallurgy/Casting/Sintering/Thermal Engineering/Welding
- High-speed/precision machining
- Laser Processing Technology
- CAD/CAM Integration Technology
- Computational Mechanics
- Computer-aided Geometric Design & Simulation
- Flexible Manufacturing Technology & System
- Material Engineering
- Mechanical Power Engineering
- Precision Manufacturing & Measurement
- Precision Mechanics & Mechatronics
- Quality & Reliability Engineering
- System Dynamics and Simulation
- Systems Science and Systems Engineering
- Vehicle Dynamic Performance Simulation
- Mechanical Dynamics and Its Applications
- Mechanical Transmission Theory and Applications
- Mechanical Reliability Theory and Engineering
- Theory and Application of Friction and Wear
- Vibration, Noise Analysis and Control
- Dynamic Mechanical Analysis, Optimization and Control
- Structural Strength and Robustness
- Reverse Engineering
- Energy Machinery and Equipment

Robotics

- Artificial Intelligence
- Bio-inspired robotics
- Control algorithms and control systems
- Design theories and principles
- Evolutional robotics
- Field robotics
- Force sensors, accelerometers, and other measuring devices
- Healthcare robotics
- Human-Robot Interaction
- Kinematics and dynamics analysis
- Manufacturing robotics
- Mathematical and computational methodologies in robotics
- Medical robotics
- Parallel robots and manipulators
- Robotic cognition and emotion

- Robotic perception and decision
- Sensor integration, fusion, and perception
- Social robotics

Mechanical Engineering

- Dynamical Systems
- Fatigue and Fracture
- Fracture
- Nonlinear Dynamics
- Dynamics and Vibration
- Fluid Mechanics and Machinery
- Fuels and Combustion
- Internal Combustion Engines
- Acoustics and Noise Control
- Energy Engineering and Management
- Fluid Dynamics
- Heat and Mass Transfer
- Machinery and Machine Design
- Advanced and Digital Manufacturing
- Engineering Systems Design and Analysis
- Fluids Engineering
- Heat Transfer
- Manufacturing and Production Processes
- Noise and Vibration

Industrial Engineering

- Industrial Design
- Ergonomics or Human Factors Engineering
- Applied Mathematics
- Embedded Systems
- Control Systems, Robotics and Mechatronics
- Computational Science
- Computational Mathematics
- Adaptive Control
- Instrumentation and Control
- Industrial Informatics
- Engineering Statistics
- Engineering Optimization
- Information Systems
- Linear and Non-Linear Control Systems
- Engineering Design Process
- Differential Equations
- Automation Systems
- Electromechanical Transmission Control
- Fault Diagnosis and Troubleshooting of Hydraulic System

Manufacturing Processes and Mechanical Engineering

Manufacturing Engineering

- Advanced Design, Production Processes and Devices
- Design of Machines and its Applications
- Engineering Design Methodology and Design Models
- Magnetic Storage System
- Miniaturization of Molding and Casting Processes
- Modeling and Simulation of Manufacturing Processes
- Non-conventional Processing
- Printing Technology for Manufacturing
- Rapid Prototyping and Tooling Rheology
- Surface Engineering/Coatings

- Materials Forming
- Materials Machining
- Welding & Joining
- Laser Processing
- Powder Metallurgy
- Severe Plastic Deformation
- Tribology in Manufacturing Processes
- Theory and Application of Friction and Wear
- Casting and solidification
- Microwave Processing of Materials
- Waste-to-Energy, Waste Management and Waste Disposal
- Thermal Engineering Theory and Applications
- CAD/CAE/CAM
- Rapid Prototyping, Manufacturing, and Tooling
- E-manufacturing, ERP, and Integrated Factory
- Sequencing, and Scheduling
- Virtual Manufacturing, and Simulation
- Operations, and Production Management
- Precision Engineering, and Concurrent Engineering
- JIT, Lean, and Agile Manufacturing
- DSS, ES and AI in Manufacturing
- Engineering Optimization

Robotics and Automation

- Image Processing
- Vision, Recognition and Reconstruction
- Robot Design, Development and Control
- Control and Supervision Systems
- Telerobotics and Teleoperation
- Vehicle Control Applications
- Industrial Networks and Automation
- Human-Robots Interfaces
- Network Robotics
- Autonomous Agents
- Intelligent Transportation Technologies and Systems
- Space and Underwater Robots
- Modelling, Simulation and Architecture
- Human-Machine Interfaces
- Collective and Social Robots
- Humanoid Robots
- Cognitive Approach for Robotics
- Mobile Robots and Intelligent Autonomous Systems
- Mechatronics Systems
- Virtual Environment, Virtual and Augmented Reality
- Perception and Awareness
- Surveillance, Fault detection and Diagnosis
- Engineering Applications

Industrial Engineering, Production and Management

- Lean Enterprise
- Supply Chain and Logistics Engineering
- Virtual Enterprises and Interoperability
- Production Planning, Scheduling and Control
- Computer-based Manufacturing Technologies
- Facilities Planning and Management
- Quality Control and Management
- Energy Efficiency and Green Manufacturing

- Precision Engineering
- Industrial Automation and Robotics
- Intelligent Design and Manufacturing
- Resources and Knowledge Management in Industry
- Manufacturing Systems Engineering
- Systems Modelling and Simulation
- Performance Evaluation and Optimization
- Human Factors & Human-System Interface
- Cost and Value Engineering
- Business Process Modelling
- Mechanical Dynamics and Vibration
- Mechanical Strength
- Mechanical Friction, Wear and Lubrication
- Mechanical Design
- Rolling
- Casting Technology and Equipment
- Welding Technology and Equipment
- Plastic Processing Technology and Equipment
- Heat treatment technology and Equipment
- Cutting Technology and Equipment
- Special Processing Technology and Equipment
- The Machine Assembly Process
- Non-metallic Processing
- CNC Technology and Numerical Control Machines
- Fluid Power Transmission and Control
- Robot Technology
- Computer Aided Manufacturing
- Instrumentation
- Power Mechanical Engineering
- Vehicle Engineering
- Chemical Machinery and Equipment
- Textile Machinery and Equipment
- Food Machinery
- Agricultural Machinery Manufacturing
- Mining Machinery Engineering
- Metallurgical Machinery and Automation
- Construction Machinery and Equipment

Aerospace

- Aircraft Manufacturing Technology
- Aerospace Engineering
- Aerodynamics
- Aerospace Systems and Technology
- Aerodynamics and Aeroelasticity
- Aerospace Dynamics and Controls
- Aerospace Propulsion
- Aerospace Structures
- Aerospace Design, Testing, and Performance
- Airworthiness and Certifications
- Experimental Methods and Measurements
- UAV and MAV
- Flight Systems
- Aircraft Structure and Design
- Spacecraft Structure and Design

Mechanical Properties of Materials

- Advanced Characterization

- Biological Materials
- Bulk Crystal Growth
- Computational Materials Science
- Corrosion and Environmental Effects
- Defects and Devices
- Electrochemistry
- Electronic Materials
- Electronic, Optical, and Magnetic Properties
- Materials for Energy and Environmental Applications
- Materials Theory and Processing
- Organic Polymer Materials
- Phase Transformations
- Self Assembly
- Shape Deposition Manufacturing
- Surfaces, Interfaces, and Thin Films
- Thin-Film Deposition
- Transport Properties

New Materials and Advanced Materials

- Non-ferrous Metal material
- Iron and Steel
- Composites
- Optical/Electronic/Magnetic Materials
- New Functional Materials
- Building Materials
- New Energy Materials
- Environmental Friendly Materials
- Earthquake Materials and Design
- Biomaterials
- Smart/Intelligent Materials/Intelligent Systems
- Polymeric Materials
- Mechanical Behavior & Fracture

Mechatronics

- Design, Modeling and Simulation of Mechatronic systems
- Electrical Machines, Drives & Power Electronics
- Measurement and Diagnostics
- Robotics
- Control and Automation
- Mechatronic Education

Machine Design

- Actuator Systems
- Coatings and Surface Modification
- Contact Mechanics
- Cutting/ Forming/ Grinding/ Polishing
- Design for Manufacturability (DFM)
- Friction and Wear Mechanism
- Machine Design/ Machine Elements

Manufacturing Processes and Systems

- Surface Engineering/Coatings
- Materials Forming and Machining
- Powder Metallurgy
- Severe Plastic Deformation
- Tribology in Manufacturing Processes
- Theory and Application of Friction and Wear
- Casting and solidification

- Microwave Processing of Materials
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- Sequencing, and Scheduling
- Virtual Manufacturing, and Simulation
- Operations, and Production Management
- Precision Engineering, and Concurrent Engineering
- DSS, ES and AI in Manufacturing
- Engineering Optimization

Automation and Equipment Manufacturing

- Advanced NC Techniques and Equipment
- Embedded System
- Industrial Robotics and Automation
- Integrated Circuit Technology
- Intelligent automation
- Laboratory and service automation
- Machine Vision
- Measure Control Technologies and Intelligent Systems
- Mechanical Control and Information Processing Technology
- Micro-Electronic Packaging Technology and Equipment
- Nano-scale automation and assembly
- Process automation
- Sensor Technology
- Transmission and Control of Fluid

Engineering and Automation

- Advances in Metal Forming
- Automation in life sciences and healthcare
- Advances in Quality Control in Multistage Manufacturing Systems
- Bottom-up Nano manufacturing
- Computer-Aided Design and Manufacturing
- Design and Operations of Manufacturing Systems for Responsiveness
- Emerging Technologies in Design and Manufacturing
- Flexible and Distributed Manufacturing Systems
- Fracture Reliability of Fabricated Materials
- Hybrid Macro/Meso/Micro Manufacturing Processes
- Intelligent Systems in Machine Design and Production
- Micro-Manufacturing and Fabrication of Sensors
- Thermally-Enhanced Manufacturing

Aerospace Engineering (Aeronautical and Astronautical)

- Advanced In-Space Propulsion & Power Concepts
- Aero elasticity and Space faring
- Aeroacoustics
- Aerospace Defense Systems
- Aerospace Propulsion Systems
- Aerospace Structures and Materials
- Affordable launch systems and developing countries
- Aircraft Design and Technology
- Aircraft Fuel System, Guidance and Control
- Atmospheric Flight Dynamics
- Avionics Engineering

- CFD and FEA
- Communication Systems and Technologies
- Computational Fluids Dynamics
- Design and construction of space systems, simulation and testing
- Developments in global positioning, interoperability, new applications, vehicle control
- Developments in new space communication techniques, higher frequencies and bandwidths
- Energy from Space
- Flight and Space Mechanics
- Flight Dynamics, Control and Performance
- High Frequency Gravity Wave Generation Detection,
- Industrial Aerodynamics
- Liquid Propellant Rockets
- Lunar Lander Technologies and Design
- Multidisciplinary design Optimization
- Navigation, Guidance and Control
- Near- Earth Space Physics
- Neuro-Fuzzy Control
- Satellite Technologies
- Scientific applications, near Earth space, deep space, microgravity sciences
- Small satellites, micro, nano and pico satellites, cubesat developments
- Space law, space medicine, and social, educational and other benefits of space
- Space Mission and Spacecraft Subsystems
- Space robotics
- Space technology utilization for development and societal well being
- Space weather
- Spacecraft Communication Technique
- Spacecraft Design and Technology
- Spacecraft Software Development and Modeling
- Turbomachinery
- Unmanned Air Vehicle
- Wind Tunnel Design and Testing

Nanotechnology: Fundamentals and Applications

- Biomimetics
- Computational nanoscience and nanotechnology
- Engineering of Biointerfaces
- Layered and composite nanostructures
- Low-dimensional systems
- Mechanical Properties and Nanomechanics
- MEMS and Nano Technology
- Modeling and Simulation
- Multifunctional nanomaterials
- Nano manufacturing Processes and Systems
- Nanobiomechanics
- Nanobiotechnologies
- Nanocatalysis

Abstract Submission:

Abstracts not exceeding 300 words on any of the aforesaid themes should be sent to the Organizing Secretary through email at newdelhi.conference@gmail.com on or before **25th June, 2018**.

Submission of Full Length Research Paper & Copyright Form

Full length research paper, in word format double column maximum in 6 pages and copyright form should be submitted together as separate attachment latest by **26th June, 2018** through email at - newdelhi.conference@gmail.com.

Submission of Registration Details:

Submission of Registration Form/Details: **27th June, 2018**. 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).**

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Registration Charges:

Categories	Indian Delegates	SAARC/ African Country Delegates	Rest of the countries
Academic faculty/Industrial Delegates	3000 INR	150 USD	350 USD
Research Scholars(Ph.D) / NGO Representative	2500 INR	125 USD	250 USD
Students(B.Tech./M.Tech /M.Scetc)	2000 INR	100 USD	200 USD
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Journal & Certificate (additional copy) for Co-Authors in absentia (if required)	700 INR	25 USD	50 USD
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Only Certificates in absentia (Co-Authors)	300 INR	10 USD	20 USD
Additional Research paper for same authors	1000 INR	30 USD	50 USD

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

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.

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“newdelhi.conference@gmail.com”

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