Scientific & Engineering Research Society

(SERS)

www.sers.org.in

Organizes

2nd National e-Conference on

"RENOVATIVE & MULTIDISCIPLINARY RESEARCH IN ARTS SCIENCE & TECHNOLOGY"

2014

About SERS

The mission of SERS is to provide systematic, periodic examinations of scholarly advances in a number of fields of Science, Engineering, Arts, Commerce and Management through critical authoritative reviews. The comprehensive critical review not only summarizes a topic but also roots out errors of fact or concept and provokes discussion that will lead to new research activity. The critical review is an essential part of Research.

Theme of the conference

Conflict from earliest times has been a characteristic of the human condition. The struggle between our individual selves and our social selves arises from what makes us unique on the one hand, being challenged by our being part of an interdependent structure of relationships on the other. The specific blend of experiences, abilities, attitudes, and aspirations, that helps to define us, can sit sometimes uncomfortably alongside our commitments to those closest to us, our communities and our cultures.

This can lead to conflict at different levels. Conflict within communities and societies is inevitable given that these groups are based on commonality of geography, values, attitudes, and beliefs that help to differentiate one from another. The dialectic engendered by diversity, however, although it may lead to conflict, can play an important role in the expansion of ideas in communities and societies. One major challenge of modern society is to harness the synergy that emerges from the interactive dialectic generated by these differences.

The Arts and Humanities have long recognized these differences and frictions when they try to explain conflict through the systematic exploration of ideas, words, and artistic expression.

In present scenario the research in engineering & technology is emerging in multifold and interdisciplinary manner. The requirement or need is always the initiator for new innovation. It is true that the innovation of wheel cannot explore every day but the refinements, modifications and enhancements for betterment in the performance to fulfill the requirement and need of the society can always explore and implement. The innovative research in engineering & Technology includes mostly application oriented modifications in existing and established principles or researches. These enhancements and modifications are incorporating the multidisciplinary approaches. It can realize with bio-informatics, bio-engineering, evolutionary techniques, Robotics, intelligent business system and many more. This multidisciplinary approach in engineering research is renovating the research and exploring the new implementations and appearances of old and already developed ideas or products. This can visualize with smart phones, communication techniques, signal processing, image processing, animations, home appliances, automobiles and many others. The speed of technological development is very fast and it can say that

"you think about the product and the product is in market". Another important factor is the size of the product and the reliability of the product. The research of modern age in engineering and technology is focusing on these issues. The evolution of quantum computer, nano-technology, VLSI design, Fuzzy control systems, Reusability software, component-based design, Intelligent agent systems, 4G-5G telecommunication, 3-D and now 4-D visualization and various concepts to make the line true that one day we have the product that will work with the speed of our mind or even faster than this. The conference hopes to bridge all experts from various disciplines of engineering to promote this renovation research for development of the fast, compact, reliable, secure and cheap applications with multidisciplinary approach for the betterment and to fulfill the requirement of the society and innovations to sustain knowledge for the betterment of humanity under green initiative program. The conference will focus on themes under the institutional framework for sustainable development.

By proposing such a wide-ranging 2014 conference theme, the organizers hope to encourage exciting new avenues of research, inspire the creation of new explanatory concepts, and provide a context for academic and personal encounters. The resultant exchanges it is hoped will stimulate synergies that cross national, religious, cultural and disciplinary divides. This is central to the global vision of RMRAST.

Organizing Committee

1. Sh. Vikash Bansal Patron
2. Dr. Ashish Chaturvedi, Convener
3. Dr. Sumeet Gill Co-Convener
4. Dr. Rajbir Singh Dalal Organizing Secretary
5. Dr. Aarti Gaur Organizing Secretary
6. Dr. Ranjeet Kaur Organizing Secretary

Advisory Committee

1. Dr. Vishnu Bhagwan Editor-in-Chief IJACM
2. Dr. Manu Pratap Singh Editor-in-Chief IJICC
3. Dr. Sanjeev Kumar Editor-in-Chief IJPAS
4. Dr. Shikha Goel, JCD College of Engg., Sirsa
5. Prof. B. S. Rajput, Ex-Vice-Chancellor, HNB Gharwal University Srinagar and Kumoun University, Nainital; Ex-Chairman U. P. State Higher education council.
6. Prof. Sunder Lal, Vice-Chancellor, VBS Purvanchal University, JhounPur
7. Prof. R. Bhardwaj, Ex-Vice Chancellor, Arni University, H.P.
8. Prof. S. K. Mattoo, Department of Computer Science, Delhi University, Delhi.
9. Prof. D. Pandey, Ret. Professor, Department of Mathematics, C. C. S. University, Meerut.
10. Prof. M. K. Gupta, Professor, Department of Mathematics, C. C. S. University, Meerut.
11. Prof. Manhor Lal, Department of Computer Science, IGNOU, New Delhi
12. Prof. Bhim Singh, Department of Electrical Engineering, I.I.T., Delhi

13. Prof. B. P. Singh, Department of Physics, I.I.T. Mumbai.
14. Prof. K. J. Bhatia, Professor, Department of Computer Science, Gurukul Kangari University, Haridwar.
15. Prof. Bikram Rath, Department of Computer Science, Utkal University, Bhubneshwar, Orrisa.
16. Prof. Vilas M. Thakare, Professor & Head P. G. Dept of computer Science, Faculty of Eng. & Tech., S. G. B. Amravati University, Amravati.
17. Prof. R. K. Rathi, CITM, Faridabad.
18. Prof. O. P. S. Negi, Deparment of Physics, Kamaun University, Almora
19. Prof. Sanjay Chaudhary, Department of Mathematics, Dr. B. R. Ambedkar University, Agra
20. Prof. Ajay Taneja, Professor , Department of Chemistry and In charge, Department of Pharmacy, Institute of Basic Sciences, Dr. B. R. Ambedkar University, Agra.
21. Prof. Veenita Singh, Deprtament of Statistics, Dr. B. R. Ambedkar University, Agra
22. Prof. S. S. Thakur, Department of Applied Mathematics, Jabalpur Engineering College, Jabalpur.
23. Prof. Rajesh Bhatia, PEC, Chandigarh.
24. Prof. Rakesh Ranjan, IITB, Sonipat
25. Dr. Vikram Goyal, IIIT, Delhi
26. Prof. Yogesh Chaba, GJUST, Hisar.
27. Prof. R. S. Kaler, TU, Patiala
28. Prof. Dinesh Kumar, GJUST, Hisar.
29. Prof. Saroj, GJUST, Hisar.
30. Prof. Sandeep Arya, GJUST, Hisar.
31. Prof. Amit Garg, DCRUST, Murthal.
32. Prof. Vikram Singh, CDLU, Sirsa
33. Dr. Uday Pal Singh, Department of Seed Technology, R. B. S. College, Agra
34. Dr. Manish Mangal, HP Company, Banglore.
35. Dr. Mukul Jain, TCS, Gurgaon.
36. Dr. Sandeep Kumar Rajput, General Manager (Technical), Samsung Communication, Mumbai

Technical Program Committee

1. Dr. P. K. Buttey, Department of Computer Science, Kamla Nehru College, R. T. M. University, Nagpur.
2. Dr. Karpa Shanker Singh, Department of Physics, R. B. S. College, Agra
3. Dr. Ashutosh Gaur, Department of Computer Application, Bharti Vidhya Peeth, New Delhi.
4. Dr. Rajdev Tewari, Professor and Head Department of Computer Application, NIET, Greater Noida.
5. Dr. S. K. Das, Department of Computer Science, Behrampur University, Bhermpur, Orrisa.

6. Dr. S. R. Pandey, Department of Computer Science, Shevaji Science College, R. T. M. University, Nagpur.
7. Dr. M. P. Dhore, Department of Computer Science, University Campus, R. T. M. University, Nagpur.
8. Dr. Somesh Kumar, Professor and Head Department of Information Technology, NIET, Greater Noida.
9. Dr. VijayPal Singh Dhaka, Jainpur National University, Jaipur.
10. Dr. Ajay Indian, Department of Computer Science, Inverties Univerity, Bareilly.
11. Dr. S. S. Bedi, Deprtament of Computer Engg. & IT, IET, M. J. P. Rhohailkahnd university, Bareilly.
12. Dr. Jaiswar Gautam, Asst. professor, Department of Chemistry, Institute of Basic Science, Dr. B. R. Ambedkar University, Khandari, Agra.
13. Dr. D. K. Bhatt, Associate Professor, Department of Food Technology, Bundelkhand University, Jhanshi.
14. Dr. B. S. Sharma, Department of Environment Science, Dr. B. R. Ambedkar University, Agra
15. Dr. Rajeev Shukla, Department of Chemistry, R. B. S. College, Agra
16. Er. Ajay Yadav, Deprtament of Electronics, I.E.T. Khandari, Agra
17. Er. Ajeet yadav, Department of Meachnical Engineering, I. E. T. Khandari, Agra
18. Er. Vipin Kumar, Department of Meachnical Engineering, I. E. T. Khandari, Agra
19. Er. Chandan Kumar, Department of Civil Engineering, I. E. T. Khandari, Agra
20. Dr. Anuradha Chauhan, Department of Bio technology, R. B. S. College, Agra
21. Dr. Parvinder Singh, DCRUST, Murthal.
22. Sh. Manoj Manuja, Manager, Infosys, Chandigarh
23. Sh. Ravish Garg, GJUST, Hisar.

Supporting Hands

1. Dr. Varun Kumar, Dept. of Mathematics, VCE, Meerut
2. Dr. Anuj Bhardwaj, Dept. of Computer Science & Engineering, BIT, Meerut
3. Mr. R. Manikandan Raju, Dept. of ECE, Pallavi College of Engg. Namakkal, TN
4. Dr. Dheeraj Singh, Director, Gyan Gurukul, Muzaffarnagar
5. Mr. Ramesh Babu, Director, Jeyam Institute, TN

Call of Papers for "Renovative & Multidisciplinary Research in Arts, Science & Technology"

National e-Conference on "**Renovative & Multidisciplinary Research in Arts, Science & Technology"** is the premier forum for the presentation of technological advances and research results in the fields of Arts & Humanities, Basic & Applied Sciences and different disciplines of Technology like: Eletrical & Electronics

Engineering, Mechanical Engineering, Computer Science & Engineering, Civil, Architectural & Environmental Engineering, Chemical & Bio-Engineering. National e-Conference on **"Renovative & Multidisciplinary Research in Arts, Science & Technology"** will bring together leading engineers and scientists in from around the nation.

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

Track 1 Arts & Humanities

Arts

Teaching and Learning the Arts
Arts Policy, Management and Advocacy
Arts Theory and Criticism
Social, Political and Community Agendas in the Arts
Visual Arts Practices
Performing Arts Practices: Theater, Dance, Music
Literary Arts Practices
Media Arts Practices: Television, Multimedia, Digital, Online and Other New Media
Other Arts

Humanities

Media, Film Studies, Theatre, Communication
Aesthetics, Design
Language, Linguistics
Knowledge
Education, Public Administration
Philosophy, Ethics, Consciousness
History, Historiography
Literature/Literary Studies
Political Science, Politics
Teaching and Learning
Globalisation
Ethnicity, Difference, Identity
Immigration, Refugees, Race, Nation
First Nations and Indigenous Peoples
Sexuality, Gender, Families
Religion, Spirituality
Cyberspace, Technology
Science, Environment and the Humanities

Other Humanities

Track 2 Applied Sciences

Physical, Material, Earth, Marine Sciences

Classical and applied physics, atomic and molecular physics, nuclear physics, statistical and quantum mechanics, mathematical and chemical physics, biophysics and geophysics, semiconductor and metals fluid, dielectrics and ferroelectrics, surface science, earth science, thermodynamics and nonlinear systems, wireless and optical communications, crystallography and computer-aided materials design, etc.

Material Sciences which including metals, ceramics, glasses, polymers, fibers, nano-materials and nanostructure materials, their structure and properties i.e., mechanical, chemical, electrical, magnetic, optical, thermodynamics, kinetics and mechanisms, biological and biomedical materials, solid state materials, x-ray crystallography, molecular modelling and advances material engineering, etc.

Planetary sciences, environmental sciences, geo-environmental science and environmental engineering, geochemical engineering, geo-statistics, geo-hazards, geoarchaeology, geothermal energy, groundwater, water resources and marine engineering geology, geography, geochemistry, geophysics, climatology, climate change, glaciology, oceanography, petrology, mineralogy, bio-mineral processing, hydrogeology, meteorology, geodesy, coal and petroleum, etc.

marine science, marine engineering, marine instrumentation, marine ecology, marine architecture, marine archaeology, Education and training in marine sciences, marine sanctuary management, new development model of marine interest programs, marine education research, marine and freshwater research, marine environmental processes and issues, marine policy and law, marine economics, Socio economy, marine geology, marine georesources and geotechnology, marine biology, marine geodesy, Oceanography of marine, satellite oceanography, ocean engineering, ocean modeling or climate change, theoretical and applied climatology, marine weather and forecasting, remote sensing of environment, Biodiversity in varying environments, living marine resources, management and protection of living marine resources, marine organisms and ecosystem, marine habitats, marine fungi, marine mammal, marine reptile, marine invertebrates, marine conservation, marine adaptations, marine biomolecules and biomimetic materials, marine energy, marine current and marine power system, kinetic energy of marine currents, hydrology, deep Sea Research and trenches, coastal waters, coastal zone management systems, Integrated and sustainable ecosystem conservation and management, continental shelf, Brackish water and lagoon environment, brackish water and estuarine/ transitional systems, Effects of waste disposal and anthropogenic pressures, benthic and estuarine sedimentary processes, etc.

Chemical & Pharmaceutical Sciences

Agricultural chemistry, Analytical Chemistry, Astrochemistry, Atmospheric Chemistry, Biochemistry, Bioinorganic Chemistry, Bio-organic Chemistry, Biochemical Engineering, Chemistry, Chemical Engineering, Cluster Chemistry, Combinatorial Chemistry, Chemical Modeling, Chemical Processing, Chemical Thermodynamics, Colloid Chemistry, Drug Chemistry, Civil Engineering, Energy, Electrochemistry, Environmental Chemistry, Environmental Law, Environmental Policy and Management, Forensic Chemistry, Food Chemistry, Fuel Chemistry, Geochemistry, Green Chemistry, Hydrometallurgy, Inorganic Chemistry, Industrial Chemistry, Kinetics, Macromolecular Chemistry, Medicinal Chemistry, Marine Chemistry, Material Chemistry, Nanochemistry, Nuclear Chemistry, Organic Chemistry, Polymer Chemistry, Petroleum Chemistry, Photochemistry, Physical Chemistry, Polymer Chemistry, Pollution and its Prevention, Pharmaceutical Chemistry, Solid State Chemistry, Spectroscopy, Soil Chemistry, Separation and Purification Chemistry, Sonochemistry, Surface Chemistry, Water Chemistry, etc.
Pharmaceutical Chemistry and Drug Design, Pharmaceutical Analysis and Quality Assurance, Pharmaceutics, Pharmaceutical Nanotechnology, Pharmacology and Toxicology, Novel Drug Delivery Systems, Hospital and Clinical Pharmacy, Pharmacognosy and Phytochemistry, Pharmaceutical Microbiology and Biotechnology, Alternative Medicine, Polymer Science, Industrial Pharmacy, Drug Regulatory Affair, IPR (Intellectual Prop Rights), Molecular Modeling, Herbal Medicines.

Mathematical & Statistical Sciences

Mathematical and Statistical Sciences including algebraic, linear and multilinear algebra, geometry, geometry and its applications, simulation, optimization, statistics, statistical mechanics, multivariate statistical analysis, probability, algebraic statistics and its applications, structure of matter, measure and integration, differential geometry, partial and ordinary differential equations, quantum theory, differential geometry and Integral equations, computational algebra, algebra and mathematical logic, mathematical programming, mathematical computer sciences and numerical analysis, mathematics modeling and optimization, computational group theory, calculus of variations and optimal control, matrix theory, general, special and real functions, topology, operations research, and theoretical developments techniques, etc.

Environmental & Bio-Sciences

Aquatic Sciences, Energy Resources and Conservation, Environmental Chemistry, Environmental Biology, Environmental Economics, Environmental Engineering, Environmental Physics, Environmental Health - Public Health, Environmental Law - Policy - Eco Justice, Environmental Management, Environmental Toxicology, Global Change, Climate Change, Monitoring, Environmental Analysis - Monitoring, Nature Conservation - Biodiversity, Pollution and Remediation, Soil Science, Sustainable Development.

Agriculture, Animal Sciences, Botany, Bio Chemistry, Biotechnology, Bioinformatics, Cell biology, Cryobiology, Ecology, Ethno-biology, Food technology, Forestry Sciences, Fishery Sciences, Forensic Sciences, Genetic Engineering, Home Sciences, Life Sciences, Molecular Biology, Microbiology, Medical Sciences, Nanotechnology, Pathology, Pharmaceutical Sciences, Toxicology, Veterinary Sciences, Zoology etc..

Bioinformatics sciences that combines biology, science, mathematics, statistics, computational biology, computational structural biology, computational modelling and simulation, modelling biological systems, bioinformatics databases, modelling software in bioinformatics, biomedical image processing, biomedical modelling and computer simulation, computer science, high performance bio-computing systems, molecular evolution and sequence analysis, data visualisation, protein structure prediction, protein structure modelling and structural genomics, genetic disorders, genetic algorithms hidden markov models, measuring biodiversity, medicine and metabolic pathway engineering, bio-grid, sequence assembly, DNA assembly, e-health, clustering, and mapping, etc.

Agriculture & Forestry Sciences

Agriculture and Forestry Sciences which including agriculture development and policy, agriculture engineering and sciences, horticulture, genetic and plant breeding, genetic resources, agronomy, irrigation, ecology systems and environment, soil and fertilization, soil and cultivation, plant biochemistry, plant biotechnology, plant protection and seed technology, crop science, plant protection, natural ecosystems, stored products research, food security and safety, hydrology, water resources management, rural development and biodiversity and forestry sciences, etc.

Medical Sciences

Medical Sciences which including general medicine, social medicine, clinical medicine, sports medicine, transfusion medicine, oral preventive medicine and clinical research, clinical microbiology, clinical immunology, clinical pharmacology, clinical pathology, clinical cardiovascular research, clinical cancer research, clinical pharmacology, clinical nutritional research, clinical infectious diseases, bio-mechanics, biomedical engineering, public health and sciences, genetics, mental and metabolic disorders, psychiatry, pathology, toxicology, surgery, neurology, neurophysiology, dental surgery, oncology, orthopedics, immunology, cardiology, embryology, anesthesia, diabetology, dermatology, gynecology and ayurvedic treatment, etc.

Track 3 Engineering & Technology

Electrical & Electronics Engineering

- Electronics Engineering Adaptive Signal Processing Advanced Electromagnetics Artificial Intelligence Bioinstrumentation: Sensors, Micro, Nano and Wearable Technologies Circuits and Electronics Communications and Networking Computer Architecture for Intelligent Machines Device Electronics for I.C Electronic Medical Devices Electronics & Nano Electronics Electronics System-Level Based Design FPGA and Reconfigurable Architecture based System Fiber Optics and Fiber Devices High Performance VLSI Systems Integrated Optics Intelligent Transportation Systems Low-Power Signal Processing Micro/Nano Systems and Networks Mobile Computing Multimedia Services and Technologies Networks Design, Protocols and Management Optical Electronic Devices & Photonics Radio-Frequency Integrated Circuits Robotic Systems System on Chips and Network on Chips Techniques of Laser and Applications Of Electro-optics
- Electrical Engineering Analog Circuits and Digital Circuits Analysis of Power Quality and System Stability Antenna and Propagation Battery Management System Bioinformatics & Biomedical Imaging Biomedical Signal Processing Brain-Computer Interfacing and Human–Computer Interfacing Computer Relaying Computer-Aided Surgery Data Compression and Watermarking Electric Energy Processing Electro-optical Phenomena of Semiconductors Electromagnetic and Photonics Expert Systems Health Care Information Systems Healthcare Information Systems, Telemedicine Image Processing Information Security and Cryptography Integrated Optics and Electro-optics Devices Internet and web solutions for healthcare Microwave Theory and Techniques Microwave and millimeter circuit and Antenna Mobile Security Modeling, Simulation, Systems and Control Modulation, Coding, and Channel Analysis Multimedia Signal Processing Natural Language Processing Neural Networks Parallel Programming & Processing Power Electronics Power IC Remote control and techniques of GPS Robotics and Atomization Engineering Signal Integrity Design for High-Speed Digital Systems Signal Processing Simulation of Propagation Smart Grid Speech Analysis and Synthesis Speech Recognition Wireless Communication
- Clean Energy/Green Computing Biofuel and Energy from Waste Materials Bioinformatics and Scientific Computing Climate and Eco System Monitoring Data Modeling for Cloud-Based Networks Efficient Energy generation and distribution Electrical Vehicles and Smart Grid Energy Efficiency Energy Minimization in Cluster-Based Wireless Sensor Networks Energy Usage of High Performance System Energy and Environmental Sustainability in Information Systems and Network Energy-Efficient memory management in virtual machine environments Geothermal Energy Hydrogen and Energy Storage Life Cycle analysis of IT Equipment Low-power Electronics and Systems Low-power electronics and systems Memory energy optimizations in smartphones Power Efficient Hardware Power and energy Profiling and Metrics Power-aware algorithms and protocols Power-aware algorithms and protocols Power-aware software and hardware Reducing Energy Consumption in Wireless Sensor Network Renewable Energy and Transport Renewable

energy models and prediction Smart Grids and Micro Grids Smart Transportation and manufacturing Smart buildings and urban development Solar Power Generation Thermal-aware power optimization techniques for servers and data centers Using IT to reduce carbon emissions Wind Power Generation Wind, Wave, and Solar energy Zero Carbon Urban design

- Biomedical Electronics, Circuits and Systems, Communication Systems, Control Systems, Control theory, Data Mining, Electromagnetics, Microwave, Antennas, Intelligent Systems, Image Processing, Mechatronics, Multimedia, Natural Language ,Processing, Optoelectronics, Robotics, Technology in Education, Scientific Computing, Computer based Education, Quantum Physics, Computational Sciences, Soft Computing, Green Technology, Engineering Sciences, Nano Sciences and Technology, Thermodynamics, Intelligent Control Systems, Seismic Engineering, Engineering Management, Mathematical and Statistical Sciences, Environmental Engineering, Reconfigurable Computing Sensor Networks, Fuzzy based filtering, Signal Processing, Microwave technology, Radar, Leaser technology.

Computer Science & Engineering

- Software and hardware architectures; Big Data visualization; Services; Data analytics; toolkits; open platforms; business processes; Managing, analyzing, and using large volumes of structured and/or unstructured data; Simulation and modeling; Consumerization of Big Data; Big Data in social media; Big Data and decision sciences and analytics; Data and text mining; Crowdsourcing; Case studies; and Applications.

- Multi-resolution vision techniques; Machine learning technologies for vision; Active and robot vision; Cognitive and biologically inspired vision; Dimensionality reduction methods in pattern recognition; Classification and clustering techniques; Statistical pattern recognition; Image-based modeling and algorithms; Illumination and reflectance modeling; Motion and tracking algorithms; Biometric authentication; Medical image processing and analysis; Segmentation techniques; Geometric modeling and fractals; Image data structures and databases; Image compression, coding, and encryption; Image feature extraction; Novel document image understanding techniques; Enhancement techniques; Novel noise reduction algorithms; Mathematical morphology; 3D imaging; Watermarking methods and protection; Wavelet methods; Image restoration; Shape representation; Video analysis; Indexing and retrieval of images; Object recognition; and Case studies and applications.

- Cluster computing; Supercomputing; Cloud computing; Autonomic computing; P2P computing; Mobile computing; Grid computing; Parallel/distributed architectures and algorithms; Networks and interconnection networks; Reliability and fault-tolerance; The use of building block processors; Real-time and embedded systems; Multimedia communications, systems, and applications; Software tools and environments for computational science; Performance analysis, evaluation and monitoring; Wireless networks and distributed systems; FPGA, multicore, GPU, SOC and applications; Nanotechnology in HPC; High-performance mobile computation and communication; Petri Nets; Web-based simulation and computing; Emerging technologies; Scientific computing.

- Computational modeling and simulation in science and engineering; Molecular modeling and simulation; Simulation languages and tools; Performance modeling; Information and scientific visualization; Modeling methodologies; Visual interactive simulation and modeling; Visualization tools and systems for simulation and modeling; Process, device, circuit simulation and modeling Multi-level modeling; CAD/CAE/CAM; Agent based simulation; Analytical and stochastic modeling techniques and applications; Chaos modeling, control and signal transmission; Simulation of complex systems; Simulation of intelligent systems; Vision and visualization; Prototyping and simulation; Biomedical visualization and applications; Discrete and numeric simulation; Internet, web and security visualization; Virtual reality and simulation; Object oriented and knowledge-based simulation.

- Information retrieval systems and databases; Information and knowledge structures; Knowledge management and cyber-learning; Information reliability and security; Knowledge mining; Knowledge classification tools; Knowledge representation and acquisition; Large-scale information processing methods; Intelligent knowledge-based systems; Aspect-oriented programming; Formal and visual specification languages; Decision support and expert systems; Ontology engineering, sharing and reuse; Ontology matching and alignment; Agent-based techniques and systems; Workflow management; Large-scale information processing methods and systems; Database engineering and systems; Data-web models and systems; Data warehousing and datacenters; Data security and privacy issues; Quantum information theory; Natural language processing; Information integration; Domain analysis and modeling; Web services; Semantic web.

- Monte Carlo methods and applications; Numerical methods and simulation; Quantum computing; Computational number theory; Optimization and approximation methods; Probabilistic and randomized methodologies; Computational geometry; Computational biology; Computational chemistry; Computational fluid dynamics; Computational physics; Computational mechanics;

Computational electromagnetics and computational electrodynamics; computational sociology; Splines and wavelets; Inversion problems; Cellular automata; Ordinary and partial differential equations; Stochastic differential equations; Finite element methods; Multi-level and Multi-grid methods; Operational research; Dynamical systems; Nonsymmetric solvers; Engineering problems and emerging applications.

- Fuzzy logic and fuzzy set theory; Computing with words; Neural-fuzzy systems; Fuzzy and rough data analysis; Fuzzy optimization and design; Fuzzy decision making; Systems modeling and identification; Systems architectures and hardware; Control and systems; Fuzzy logic applications.

- Neural network theory and models; Evolutionary neural systems; Collective intelligence; Computational neuroscience; Cognitive models; Neurodynamics; Neuroinformatics; Neuroengineering; Neural hardware; Mathematical modeling of neural systems; Hybrid systems; Self-aware systems; Agent-based systems; Artificial life; and Neural network applications.

- Metaheuristic optimization algorithms; Evolutionary algorithms; Genetic algorithms; Evolutionary programming; Evolution strategy; Particle swarm optimization; Ant colony optimization; Artificial immune systems; Differential evolution; Learning classifier systems; Learnable evolution models; Self-organizing maps and competitive learning; Multi-objective evolutionary algorithms; Reinforcement learning; Parallel simulated annealing; Cultural algorithms; Intelligent, bio-inspired and autonomic computing.

- Brain models and cognitive science; Natural language processing; Fuzzy logic and soft computing; Software tools for AI; Expert systems; Decision support systems; Automated problem solving; Knowledge discovery; Knowledge-intensive problem solving techniques; Knowledge networks and management; Intelligent information systems; Intelligent data mining and farming; Intelligent web-based business; Intelligent agents; Intelligent user interface; Intelligent tutoring systems; Reasoning strategies; Distributed AI algorithms and techniques; Heuristic search methods; Languages and programming techniques for AI; Constraint-based reasoning and constraint programming; Intelligent information fusion; Search and meta-heuristics; Multisensor data fusion using neural and fuzzy techniques; Integration of AI with other technologies; Evaluation of AI tools; Social intelligence (markets and computational societies); Social impact of AI; and Satisfiability methods.

- Pattern recognition applications; Machine vision; Brain-machine interface; Embodied robotics; Biometrics; Computational biology; Bioinformatics; Image and signal processing; Information

mining and forecasting; Sensor networks; Information processing; Internet and multimedia; DNA computing; Machine learning applications; Multi-agent systems applications; Telecommunications; Transportation systems; Intrusion detection and fault diagnosis; Game technologies; Material sciences; Space, weather, climate systems and global changes; Computational ocean and earth sciences; Combustion system simulation; Computational chemistry and biochemistry; Computational physics; Medical applications; Transportation systems and simulations; Structural engineering; Computational electro-magnetic; Computer graphics and multimedia; Face recognition; Semiconductor technology, and electronic circuits and system design; Dynamic systems; Computational finance; Information mining and applications; Astrophysics; Biometric modeling; Geology and geophysics; Nuclear physics; Computational journalism; Computational sociology; Geographical Information Systems (GIS) and remote sensing; Military and defense related applications; Ubiquitous computing; and Emerging applications; Advances in computational intelligence for time series forecasting and applications; Computational science and intelligence for epidemiological modeling.

- Software engineering; Student recruitment and retention methods; Promoting multi-disciplinary initiatives; curriculum; Capstone research projects; Preparing graduates for academia and industry; Undergraduate research experiences; The balance between course-work and research; Transition to graduate studies; Debugging tools and learning; Evaluation methods; Advising methods; Learning models and learning from mistakes; Distance learning; Active learning tools; Funding opportunities for curriculum development and studies; Partnerships with industry and government; Collaborative learning; STEM (Science, Technology, Engineering & Mathematics) promising initiatives; Student observation and mentoring strategies; Team projects and case studies; The role of visualization and animation in education; Academic dishonesty in a high-tech environment; Innovative uses of technology in the classroom; Computer and web-based software for instruction; e-Learning design and methodologies; e-Learning portals; Audio and video technologies for e-Learning; Content management and development; Policy issues in e-Learning; e-Learning standards; Virtual learning environments; Authoring tools; On-demand e-Learning; On-line education; e-Universities; and Case studies.

Mechanical Engineering

- Aerodynamics and fluid mechanics ,Automation, Mechatronics, and Robotics Automotive engineering, Bioengineering materials, biomechanics and biotribology Bulk deformation processes and sheet metal forming, Composites, ceramics, and polymers processing, Computational mechanics /FEM modeling and simulation, Computer-based manufacturing technologies: CNC, CAD, CAM, FMS, CIM, Concurrent engineering, Corrosion, Heat treatment,

microstructure and materials properties, Cryogenics, Dynamic system analysis Energy conservation and auditing, Expert system, Failure and fracture mechanics, Friction, wear, tribology, and Surface engineering, Functionally graded materials, cellular materials, Heating and ventilation air conditioning system, High speed machining, Hydrostatic transmissions and pneumatics, I.C engines and Turbo machinery, Kinematics and dynamics of rigid bodies, Lubricants and lubrication, Machinability and formability of materials, Manufacturing design for 3r "reduce, reuse, recycling", Mechanical micro machining, Mechanisms and machines, Medical device manufacturing, Metal casting, metal joining processes, Metrology and computer aided inspection, Micro and nanomechanics, Modeling, simulation, and optimization, Multifunctional and smart materials, automobile IC engines.

- Robotics and Mechanical Engineering; Actuator design, robotic mechanisms and design, robot kinematics and dynamics; Agile Manufacturing ; Agriculture, construction, industrial automation, manufacturing process ; Automation and control systems middleware; Biomedical and rehabilitation engineering; welfare robotics and mechatronics; Cellular manufacturing; Concurrent Engineering; Design for Manufacture and Assembly; Distributed Control Systems; Flexible Manufacturing Systems; FMS Artificial Intelligence; Humanoid robots, service robots; Human-robot interaction, semi-autonomous systems, telerobotics; Information Technology Applied to Knowledge Based Systems; Lean Manufacturing Logistics; Machine Vision; Mechanical Systems Engineering; Mining robotics; Mobile robotics; Modeling and Simulation Scheduling; Nano/micro systems and applications, biological and medical applications; Navigation, localization, manipulation; Operations Management; Rapid Prototype Rescue; hazardous environments; Robot intelligence and learning; Robot vision and audition; Robots and Automation; Sensor design, sensor fusion, sensor networks, Sensor development, Sensors and Applications; ubiquitous robots and devices
- Material for low carbon building; Green energy and equipment; Key materials for fuel cells; Materials for primary battery and secondary battery; Green chemistry and equipment; Synthetic degradable materials; Waste materials disposal and reuse; Synthesis of environmental catalytic materials; Catalytic desulfurization, denitrification, dechlorination and other technical in Clean energy; Catalysis technology and environmental protection under the condition of light, electricity, magnetism, microwave; Engineering design in a global manufacturing context; Concurrent, collaborative, and distributed engineering design and manufacture; Design tools, methods and techniques; Product life-cycle modeling and management; Computer-aided design and manufacturing; Quality, robust design, and variation management; Global Manufacturing and Systems; Product modeling and visualization techniques and advancement; Modeling and simulation of workflow in design and manufacturing processes; Virtual design and manufacturing technology; Advanced manufacturing processes; Enterprise resources planning; Digital

factory/enterprise; Robotics and vision applications in robotics; Micro electrical mechanical systems; Cost control in product design; Activity based cost management; Precise detection technology; Advanced material forming and processing technology.

- Operations Management; Logistics and Supply Chain Management; Reliability and Maintenance Engineering; Total Quality Management and Quality Engineering; Artificial Intelligence and Expert Systems; Machinability of Materials, Composite Materials; Tribology; Design Tools, Cutting Tool Material and Coatings; Energy Conservation, Renewable Energy Techniques; Fluid Dynamics, Bio-fuels, Fuel Cells; CAD/CAM, Automation & Robotics; Advances o Aero space Technology; Transportation Systems.
- Mechanical, Automotive and Materials Engineering; Aerodynamics; Aerospace Systems and Technology; Alternative energy; Applied Mechanics and Design Automation; Biomechanics; Composite Materials; Computational Fluid Dynamics; Computer aided engineering design; Concurrent Engineering; Condition Monitoring; Design and Manufacturing; Energy and Thermofluids; Energy conversion system; Energy Management; Finite element analysis; Fluid Dynamics; Fuels and Combustion; Green Manufacturing; Heat and Mass Transfer; Solid and Fracture Mechanics; Heat exchangers.
- The Basic of Mechanics and Research Methods; Dynamics and Vibration; Solid Mechanics; Fluid Mechanics; Thermodynamics; Biomechanics; Environmental Mechanics; Composite; Micro/Nano materials; Iron & Steel; Ceramics; Metal Alloy Material; Polymer; Optical / Electrical / Magnetic Materials; Materials Physics and Chemistry; Building Materials; Energy Materials; Environmental-Friendly Materials; Biological Material; Chemical Materials; Thin Films; Seismic materials; Smart Materials and Intelligent Systems; Hydrogen and Fuel Cells; New Functional Materials; Surface Engineering / Coatings Technology; Process Modeling, Analysis and Simulation; Material Processing; Material Cutting; Welding and Mechanical Connections and Fracture; Computer Aided Design of Materials; Materials Testing and Evaluation; Microwave Processing of Materials.

- Computer-aided Design, Manufacturing and Engineering; Innovative Design Methodology; Intelligent Optimization Design; Reverse Engineering; Wear; Precision / Ultra-precision Machining and Inspection Technology; Laser Processing Technology; CIMS Technology; Advanced Manufacturing Mode; Mechanical Dynamics and Its Applications; Mechanical Transmission Theory and Applications; Mechanical Reliability Theory and Engineering; Vibration, Noise Analysis and Control; Dynamic Mechanical Analysis, Optimization and Control; Heat and Thermal Conductivity; System Analysis and Process Engineering; Production Operations Management.

Civil, Architectural & Environmental Engineering

- Bridge Engineering; Cartography and Geographic Information System; Coastal Engineering; Computational Mechanics; Construction Technology; Disaster Prevention and Mitigation; Engineering Management Environmental Management; Environment-Friendly Construction and Development; Geological Engineering; Geotechnical Engineering; Hydraulic Engineering; Monitoring and Control Of Structures; Safety Management; Seismic Engineering; Structural Engineering Geotechnical Engineering; Surveying Engineering; Transportation and Highway Engineering; Water Engineering.

- Theory and Advanced Technology of Engineering Structure; High-rise Structure and Large-span Structure; Bridge and Tunnel Engineering; New Structure and Special Structure; Advanced Technology of Geotechnical Engineering; Municipal Engineering; Hydraulic and Hydro-Power Engineering; Civil Engineering Materials; Engineering Structure Safety and Disaster Prevention; Building Energy Conservation and Green Architecture; Structural Liability, Durability and Health Monitoring; Engineering Management; New Technology, Method and Technique in Civil Engineering.

- Accessibility; Actions and policies to implement sustainable construction; Adapting to Climate Chang; Advanced Monitoring Systems; Architectural Engineering; Biodiversity; Develop energy efficient buildings at design stage to secure long-term savings; Eco-materials and technologies; End-user and community involvement; Location and Urban Design ; Microclimate; New Cement-Based Materials; Social inclusion; Sustainable design and construction standards; Use of non-conventional materials; Waste minimization.

- Structural Engineering including Steel, Bridge, Composite, Reinforced Concrete and Masonry Structures - Structural Integrity - Formfinding, Topology and Structural Morphology - Space, Tension and Shell Structures - Soil-Structure Interaction (static and dynamic) - Buckling and Stability - Linear and Non-linear Dynamics - Analysis of Semi-rigid Connections - Environmental Engineering - CAD (including steel, concrete, masonry and composite) - Transport and Highways Engineering - Geotechnical Analysis and Design - Foundation Engineering - Dam Engineering - Slope Design - Ground Vibration - Construction Automation and Robotics - Construction Management - Project Management - Management Systems - Civil Engineering Surveying - Civil Engineering Management - Lifetime Costs - Productivity - Sustainable Urban Environments - Water Resources Enginering - Enviromental Modelling - Mobile Computing - GIS - Virtual Reality - Structural Control - Fracture Mechanics - Modelling of Concrete Durability - Rock Mechanics - Offshore Structures - Wind Engineering - Computer Controlled Site Instrumentation - Quality

Assessment - Optimisation - Structural Optimisation and Sensitivity Analysis - Numerical Modeling in Geotechnics - Monitoring of Structures & Buildings - Real-Time 3D Simulation - Computer Supported Collaborative Design - New advances in Structural Health Monitoring Technologies - Fuzzy Methods - Seismic Response of Structures and the Environment due to Transport - Earthquake Engineering - Modelling of Seismic Action - Structural Identification - Strengthening of Structures - Assessment of Structures - Multi-Criteria Decision Making - Timber Structures - Structural Damage Detection and Identification - Stochastic Optimization - Nanotechnology - Modelling Mechanical Behaviour at the Nano- and Mesoscale - Railway Engineering - Stochastic Mechanics - Shape and Boundary Optimization - Reliability-based Design Optimization (RBDO) - Optimal Structural Control under Stochastic Uncertainty - Model Predictive Structural Control (MPSC) - Stochastic Mechanics and Reliability - Multi-Hazard Risk Assessment - Fire Structural Design - Multi Scale Modelling, Multi-Scale Analysis - Geostatistics.

- Environmental dynamics; Meteorology; Hydrology; Geophysics; Atmospheric physics; Physical oceanography; Global environmental change and ecosystems management Climate and climatic changes; Global warming; Eco-technology; Bio-engineering; Environmental sustainability; Resource management; Life cycle analysis ; Regulatory practice, water quality objectives standard setting, water quality; Nutrients removal; Suspended and fixed film biological processes; Anaerobic treatment; Process modeling; Sludge treatment and reuse; Fate of hazardous substances; Reuse of reclaimed waters.

Chemical & Bio-Engineering

- Chemical, Environmental, and Process Engineering; Environmental engineering and sustainable development; Process design and optimization; Chemical engineering fundamentals; Physical, Theoretical and Computational Chemistry; Chemical engineering educational challenges and development; Process system, instrumentation and control; Product engineering and product development; Systematic Methods and Tools for Managing the Complexity ; Integration of Life Sciences & Engineering ; Biochemical Engineering; Biotechnology; Product Engineering in the Bio Industries; Self-organisation in the Bio-sciences and elsewhere; Biochemistry and Molecular Biology; Astrobiology; Building biology; Biomaterials; Biomechanics; Biomonitoring; Biophysics; Biology Health Sciences; Biomolecular Engineering; Cell & Tissue Engineering; Biomedical Human Systems Engineering; Bioenvironmental and Ecological Engineering; Biomaterials; Biodevices.

Important Dates:

Full Paper Submission Deadline: 10th November 2014
Acceptance Announcement: 20th November 2014
Paper Registration: Must be Within 10 working days from acceptance
e- Conference Dates: 29th & 30th November 2014
Paper Publication and on air: 15th December 2014.

Registration Fees Details

It is mandatory for an author of an accepted paper to register for the paper in order to appear paper in the Journals Proceedings. Fee includes indexing the papers in various research databases and publication in Journals. All conference participants are requested to register on or before 27th November 2014.

Fee Structure for ONLINE Publication of Accepted paper along with e-Certificate for the Author (s)

Target Group Registration Fees Students & Faculty Members: **500 INR**
(It includes Souvenir publication contains abstract only)
Paper publication Fee: **1100 INR**
The registration fee plus Paper publication fee will include membership of the society as bonus for which the member is entitled to avail student membership of the society and receive a membership certificate. (One can go through our website www.sers.org.in for further details of the membership benefits).
Authors can transfer its equivalent amount from any of your Bank and Country/Currency. In such case, for paper publication or registration fee, the conversion rate shall be calculated against the conversion rate of the day when the papers submission for review is ended; And for membership and others, exchange rate on the date transaction is applicable. You may choose any one of the banking options according to your convenience.

Beneficiary Name: Scientific & Engineering Research Society
Bank Name: HDFC BANK
A/c No.: 50100048168721
A/c Type: Current Account
IFSC CODE: HDFC0002733

Paper Submission

Authors/Researchers are invited to submit their research paper through email. All the submitted papers will be reviewed as per double blind review process.

E-mail ID:

editor@ises.co.in
editor.ijicc@gmail.com
editor.ijeset@gmail.com
editor.ijacm@gmail.com

Author Guidelines:

Please, note the following instructions to submit your full papers to the conference:

- The paper limit is 6 pages.
- Submit the paper in the format as per the template of the Journal which can be download from the website www.ises.co.in.
- Note that at least one author should be registered at the conference for the paper to be published.

For more details visit **www.sers.org.in.**

Copyright:

Each manuscript must be accompanied by a statement that it has been neither published nor submitted for publication, in whole or in part, either in a serial, professional journal or as a part in a book which is formally published and made available to the public. If the manuscript is accepted for publication in our conference, it must not be published in any periodical(s) elsewhere without the permission of the editorial board. If the manuscript is accepted for publication in our conference, it will be communicated to the author(s) who submitted the same through e-mail or telephone. Author(s) is/are expected to send the Copyright Transfer Agreement within 10 working days from the date of acceptance of paper (Scanned copy of the Copyright Transfer Agreement form which can be download from the website www.sers.org.in is accepted). If there is no communication (either positive or negative) from the concerned author(s), then it is up to the Organizing Committee to have a final verdict w.r.t the publication status. It may either be sent to the publication unit for publication or be rejected.

Awards

The ISES **Young Scientists Award**, considered being the highest recognition of promise, creativity and excellence in a young scientist, is made annually to those distinguished for these attributes as evidenced by their research work carried out in India.

Eligibility

The award of a medal to a Young Scientist shall be made in recognition of notable contributions to any branch of science or technology, recognized by the Society, on the basis of work carried out in India.
Any citizen of India, who has not attained the age of 35 years on December 31, of the year preceding the year of award, shall be eligible for the award.

Number of Awards

The number of awards to be made in any year will be limited to maximum 05.

Publication of Accepted papers

Conference papers will included in following International Journals

- ***International Journal of Interactive Computer Communication (IJICC)***

  (ISSN No. 2250 –2661)
- ***International Journal of Arts Commerce & Management***

  (ISSN No. 2250 – 2297)
- ***International Journal of Pure & Applied Sciences***

  (ISSN No. 2250 – 2289)