



**SANKALCHAND PATEL
UNIVERSITY**
॥ अथातो ज्ञानजिज्ञासा ॥



**SANKALCHAND PATEL
COLLEGE OF ENGINEERING (SPCE)**
(AICTE APPROVED)

**AICTE
Sponsored**



INTERNATIONAL MULTI-DISCIPLINARY ENGINEERING CONFERENCE

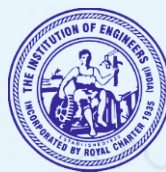
(IMEC-2022)

04/08/2022 to 06/08/2022

Supported by :



**INSTITUTION'S
INNOVATION
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VENUE :

Sankalchand Patel College of Engineering,
Sankalchand Patel University, Visnagar-384315, Gujarat(India)

www.spu.ac.in

Follow us on :



Conference website :

<http://spcevng.ac.in/conference-2022/>

Email : international.mec@spcevng.ac.in

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ABOUT UNIVERSITY



Nootan Sarva Vidyalaya Kelavani Mandal (NSVKM) was established in 1952, by Shri. Sankalchand Patel, a freedom fighter and a social entrepreneur. The aim was always to create a value based diversified education system for the students of North Gujarat.

The Sankalchand Patel University was established on 9th May 2016 vide Gujarat Private Universities (Amendment) Act, 2016 and is spread across 84 acres of land. Today, the university is home to various institutes offering Medical, Paramedical, Technical, & Science Courses. The university also houses some of the most state-of-the-art infrastructure in North Gujarat.

- Nootan Medical College and Research Center
- Sankalchand Patel College of Engineering
- Swami Sachchidanand Polytechnic College
- Nootan Pharmacy College
- Nootan College of Nursing
- Narsinhbhai Patel Dental College and Hospital
- Nootan college of Physiotherapy
- Smt. S. B. Patel Institute of Business Management
- Shri. C. J. Patel College of Computer studies
- Smt. S. S. Patel Nootan Science and Commerce College
- Nootan Global School

The university also houses some of the most state-of-the-art infrastructure in North Gujarat. Sankalchand Patel University is committed to provide high quality education through Quality Teaching, Research, Consultancy and Community outreach services. The University is committed to continuous improvement in the academic and administrative processes by fostering Cooperation, Innovation, Professionalism, and Integrity. University pay equal attention to the all-round development of our students and provide them ample opportunities for giving expression to their inner literary creative and artistic talents as well as, sportsmanship, which leads us to proudly say that **"Tomorrow is Ours"**.

ABOUT INSTITUTE



Sankalchand Patel College of Engineering established in 1999 by Nootan Sarva Vidhyalay Kelvani Mandal - VISNAGAR with an aim of producing world class professionals in the specialized fields of Engineering, Management and MCA. SPCE is affiliated to Sankalchand Patel University, Visnagar and approved by all India Council for technical Education AICTE (New Delhi)

Adequate infrastructure facilities and equal opportunities to excel backed by sound inspiration and incessant motivations are the conspicuous qualities of our vidhyadham. Since we are aware of the fact that creation of talented computer and management professionals with sharp vision and glossy brain cells capable of satisfying the needs of the industry, demands that the educational complex should be far from the din and disorder of market life. The location of the Vidhyadham itself is the justification of this fact.

Our Trust has the experience of the education field of 65 years at its disposal and it is fully equipped with all infrastructure and computer facilities. Almost 66 acres of land has been acquired to construct various buildings for various institutions. The vidhyadham is situated near Gandhinagar-Ambaji link road in VISNAGAR and surrounded by Natural surrounding in the lap of nature.

ABOUT CONFERENCE

The conference aims to provide an excellent international platform for researchers, data scientists, business managers, and industry practitioners to meet and exchange their ideas and novel approaches to the technical challenges of a data-driven world. It provides a premier interdisciplinary forum for sharing knowledge and discussing the most recent innovations, trends, and practical challenges encountered and solutions in the wide fields of engineering, management, and health sciences. Researchers, scholars, business managers, and industry practitioners will be able to meet and discuss ideas and creative ways to the technical difficulties of a data-driven world at this conference. It serves as a leading interdisciplinary venue for exchanging information and discussing the most recent innovations, trends, and practical issues and solutions in the broad subject of engineering. In today's competitive environment, this multidisciplinary conference can play a critical role in various developing fields of engineering business by presenting a solution that may be useful in increasing efficiency, supporting decision-making, and enhancing business operations.

CONFERENCE TRACKS

TRACK 1 : GREEN & SUSTAINABLE CONSTRUCTION

- Concrete Technology
- Green/Smart Building Materials
- Strength of Materials
- Advances in testing material properties
- Soil stabilization material and methods
- Soil structure interaction
- Concrete with recycled materials
- Ground improvement techniques
- Green industrial technology
- Buildings and infrastructure
- Environment and Climate change

TRACK 2 : DIGITALIZATION OF CIVIL ENGG.

- Building Information Modeling (BIM)
- Artificial Intelligent Transportation System
- Digital structure analysis and Design
- Computational structural mechanics
- Safety and accident analysis
- Structural health monitoring
- Smart computing in civil engineering

TRACK 3 : SMART CITIES

- Road Infrastructure
- Public Transport
- Drip Irrigation and Rain Water Harvesting
- AI in energy management for smart cities
- Renewal energy management and planning for smart cities
- Drip Irrigation and Rain Water Harvesting

TRACK 4 : POWER SYSTEM

- Electrical Machines Design and Drives
- Power System Planning and Operation
- Renewable Energy Technologies and Issues
- Smart Grid Technologies and Issues
- Electric & Hybrid Electric vehicles
- Power Quality Issues
- Power system restructuring, deregulation and congestion management
- FACTS Technology

TRACK 5 : POWER ELECTRONICS

- Power Electronics and Applications
- Industrial Electronics & Applications
- Multi Level Inverters

TRACK 6 : INTELLIGENT CYBER PHYSICAL SYSTEM

- Internet of Things
- Machine to Machine Communication
- Wireless Networks
- Cyber Security
- Cloud Computing, Edge Computing

TRACK 7 : DATA ENGINEERING & MACHINE LEARNING

- Big Data Processing & Analytics
- Machine Learning methods & algorithms
- Applications of machine learning and statistics
- Machine learning & Deep learning in Healthcare System
- Wearable sensors and Ambient Intelligence in Health care
- Deep Learning
- Natural Language Processing

TRACK 8 : COMMUNICATION & CONTROL SYSTEM

- Antenna & Microwave
- Circuits and Systems
- Machine Learning, Cloud and Data Analytics
- Computer Architecture & Systems
- Robotics, Control Systems & Theory
- Signal and Image Processing
- Wireless Communications & Networks

TRACK 9 : NEW PARADIGM AND CONTEMPORARY ISSUES IN MANAGEMENT DOMAIN IN CURRENT ERA

- Digitalization-The requisite adaptation
- Innovation and Advancement in the field of Management
- Emerging Issues in Management area
- Sustainable development in Management Domain
- Current / new trends in Management
- Innovation & Entrepreneurship
- The New Normal in Business Management domain
- Transition or Shift in management field on account of Pandemic
- Contemporary issues in Finance, Marketing or HR
- Business Analytics
- Innovation in Management processes
- Strategic Management
- Economic policies & development

CONFERENCE TRACKS

TRACK 10 : MANUFACTURING SCIENCE AND DESIGN ENGINEERING

- CAD, CAE and CAM -- Additive Manufacturing
- Measurement Science, Non-destructive Evaluation (NDE) and Process Control for Advanced Manufacturing
- Nonmanufacturing: Novel Processes, Applications, and Process-Property Relationships
- Advanced Machining and Finishing Processes
- Innovative Product and Process Design
- Computational and Mathematical Modeling and Simulation
- Robotics and Automation and Design of Human Robot Collaboration
- Operations Research, Optimization
- Sustainable Machining Processes
- Industry 4.0, Artificial Intelligence & Smart Cyber-Physical Systems Design
- Reverse Engineering, Sustainable Design, Modeling in Medical, Dental and Bio-Modeling
- Design of Experiments (DOE) Vibration

TRACK 11 : ENGINEERING PHYSICS

- Solid state physics
- Nanomaterial and nanocomposite
- Advanced physics
- Semiconductor optoelectronics devices
- Optics and laser
- Atomic and molecular physics
- Condensed matter physics & Materials

TRACK 12 : ENGINEERING MATHEMATICS

- Numerical Analysis - Approximation Theory
- Analysis - Linear Algebra - Computational Number Theory
- Differential Equations - Operations Research
- Probability and Statistics - Computational Fluid Mechanics
- Mathematical Modeling and Simulation
- Applications of Fuzzy Set Theory
- Discrete Mathematics - Game Theory
- Geometry (Discrete, Algebraic, Finite)

TRACK 13 : THERMO FLUIDICS

- Energy conversion technologies
- Fundamentals and Applications of Thermodynamics
- Analysis and Optimization of Thermodynamic Systems
- Computational, analytical and experimental fluid mechanics and heat transfer
- Multiphase flow and heat transfer
- Refrigeration and HVAC systems, Cryogenic Applications
- Renewable energy
- Nuclear Energy
- Aerodynamics, Automobiles & Automotive Engineering
- Waste management and Waste Disposal

TRACK 14 : MATERIAL ENGINEERING

- Design, Processing, Characterization and Applications
- Biomaterials, Biopolymers & Smart Materials
- Ceramic Science and Engineering
- Computational Materials, Science and Engineering
- Electronic, Photonic, and Magnetic Materials
- Energy Materials
- Composite, Nano, and Nano-Composites materials
- Polymers
- Sensor Materials and Technologies
- Welding Engineering, Advanced Materials, Powder Metallurgy

TRACK 15 : ENGINEERING APPLICATION IN HEALTH CARE

- Biomedical Signal Processing
- Biomedical Imaging and Image Processing
- Micro/Nano-bioengineering Cellular/Tissue Engineering & Biomaterials
- Computational Systems, Modeling and Simulation in Medicine, Multi-scale Modeling & Synthetic Biology
- Cardiovascular and Respiratory Systems Engineering
- Neural and Rehabilitation Engineering
- Biomedical Sensors and Wearable Systems
- Bio-robotics and Biomechanics
- Therapeutic & Diagnostic Systems and Technologies
- Biomedical & Health Informatics
- Biomedical Engineering Education and Society
- Translational Engineering for Healthcare Innovation and Commercialization

CALL FOR PAPERS

The camera-ready version for an accepted paper should meet all given guidelines in paper format.

Link for Paper Template : http://spcevng.ac.in/wp-content/uploads/2021/12/IMEC_Paper_Template.doc

All papers must be submitted electronically, in PDF through the following link:

<https://cmt3.research.microsoft.com/IMEC2022>

PUBLICATION

Selected papers will be considered for inclusion in UGC Care / Scopus indexed journal

All selected papers will be published in conference proceedings with ISBN and DOI

MODE OF PAPER PRESENTATION

All accepted papers to be presented in OFFLINE mode at Sankalchand Patel University, Visnagar, Gujarat Campus.

IMPORTANT DATES

Full Paper Submission Deadline : 5th July 2022

Acceptance Notification : 10th July 2022

Last Date of Registration : 15th July 2022



REGISTRATION

Registration Process has to be carried out post paper acceptance

FOREIGN AUTHORS	\$ 100
INDIAN AUTHORS	3000 INR
INDIAN AUTHORS (SC/ST)	2700 INR
ATTENDEES	500 INR for 1 day 1000 INR for 3 days

* The Registration fee includes conference kit, lunch, tea & coffee

LINK FOR REGISTRATION AND PAYMENT:

Registration Link :

<https://forms.gle/8gWQi4qYDhvwNkXW9>