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# TULSIRAMJI GAIKWAD-PATIL College of Engineering & Technology



Approved by AICTE, New Delhi and Govt. of Maharashtra | An ISO 9001:2015 Certified Institution

Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

**NBA Accredited (ME & EE) UG Programmes**

— AN AUTONOMOUS INSTITUTE —

## Second Announcement

# 10<sup>th</sup> INTERNATIONAL CONFERENCE

ON

## INDIAN KNOWLEDGE SYSTEM, SCIENCE AND SPIRITUALITY FOR ADVANCING TECHNOLOGY (IC-IKSAT-2K24)

Quality Papers in Scopus/ESCI Indexed / UGC CARE Listed  
Journals & Proceeding ISBN:978-93-5967-410-0

### 15<sup>th</sup> - 16<sup>th</sup> MARCH 2024

[HYBRID MODE]

Organized by

DEPARTMENT OF CIVIL AND ELECTRONICS & COMMUNICATION ENGINEERING  
TULSIRAMJI GAIKWAD-PATIL COLLEGE OF ENGINEERING AND TECHNOLOGY, NAGPUR

In collaboration with:



SEGi  
University



## About the Host

Gaikwad-Patil Group of Institutions (GPGI) provides education in various sectors such as Engineering & Technology, Science, Management, Architecture & Health Science. Group also provides schooling education in Gaikwad-Patil International School. It also provides sport facilities through MS Dhoni Cricket Academy.

Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) was established in the year 2007 by Vidarbha Bahu-uddeshiya Shikshan Sanstha (VBSS), a registered society. It is a self financed Private Engineering College, which is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) Nagpur and is approved by All India Council for Technical Education, New Delhi and the Directorate of Technical Education (DTE), Mumbai, Maharashtra State. The Institute is Accredited with A+ grade (3.32 CGPA) by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL, (NAAC) Bengaluru. It is an Autonomous Institute affiliated to RTM Nagpur University, Nagpur. TGPCET offers Eight PG programs in engineering such as Computer Science and Engineering (CSE), Integrated Power System (IPS), Structural Engineering (SE), Electronics Communication Engineering (ECE), Artificial Intelligence & Machine Learning (AIML), Mechanical Engineering Design (MED) Aeronautical Engineering (AE), Electric Vehicle Technology (EVT) and also offers Two years PG programs in Master of Business Administration (MBA) as well as Two years Master in Computer Application (MCA)

The College offers four years UG programs in Nine disciplines of engineering such as Bio-Technology (BT), Aeronautical Engineering (AE), Computer Science and Engineering (CSE), Computer Science and Engineering (Data Science), Information Technology (IT), Electronics and Communication Engineering (ECE), Mechanical Engineering (ME), Civil Engineering (CE) and Electrical Engineering (EE). The institute also offers four diploma courses in Mechanical Engineering (ME), Civil Engineering (CE), Computer Science and Engineering (CSE) & Electrical Engineering (EE).

## Vision

“To emerge as a learning Center of Excellence in the National Ethos in domains of Science, Technology and Management”

## Mission

- To strive for rearing standard and stature of the students by practicing high standards of professional ethics, transparency and accountability.
- To provide facilities and services to meet the challenges of Industry and Society.
- To facilitate socially responsive research, innovation and entrepreneurship.
- To ascertain holistic development of the students and staff members by inculcating knowledge and profession as work practices.

## Civil Engineering Department

Department of **Civil Engineering** was established in 2009 has intake of 60 in B.Tech Civil Engineering and 30 in M.Tech Structural Engineering. Civil Engineering is considered as one of the oldest engineering disciplines. Civil Engineering involves planning, designing and executing structural works. The profession deals with a wide variety of engineering tasks including designing, supervision and constructional activities of public works like roads, bridges, tunnels, buildings, airports, dams, water works, sewage systems, ports etc. and offers a multitude of challenging career opportunities. The Department is dedicated to consultancy, educational research, and an exposure of students to the trends of development in the field of Planning, Designing & Execution to meet the needs of the construction industry, consultancies and research organizations in India and abroad.

## Electronic & Communication Engg. Department

Department of Electronic and Communication established in year 2007 with an intake of 60 & M. Tech. in Electronics (Communication) Engineering is started in year 2012 with an Intake of 24. The Department has a state-of-the-art Microwave & Radar Engineering Laboratory in addition to well-equipped laboratories in the areas of Electronic Devices, Communication Engineering, Digital Signal Processing, Microprocessor and Microcontroller and Digital Electronics. The department has Industry Institute Partnership Cell (IIPC) which aims to establish and explore proper links with various departments, agencies and industries all over the country. It also aims to work in close coordination with the industries and organizations for placement and training of the students, to support R & D and sponsored projects from industries, to exchange personnel between the Industries and the Institute by organizing guest lectures by Industrial experts, evaluation of project work, development of curriculum as per industry needs.

## About The Conference

It is a matter of honour and pride that Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur (TGPCET) is organizing International Conference on 'Indian Knowledge System, Science & Spirituality for Advancing Technology' (IC-IKSAT-2K24). It is 10<sup>th</sup> International Conference being organized on 15<sup>th</sup> & 16<sup>th</sup> March, 2024 which will cover various topics of Indian Knowledge System, Spirituality, Science & Technology. The conference will be jointly organized by SEGi University, Malaysia and the Prince of Songkla University, Thailand.

The Conference identifies and proves importance of those Indian knowledge practices which are indispensable for entire humanity and environment in modern times as well as provide a road map for future deliberations and research. Researchers, academics, students, educators, and industry professionals will take every opportunity to present their own research findings. Researchers will get the opportunity to deliver research articles and abstract presentations at the best international conference. Researchers can receive critical feedback on their original research, strengthening their reputation as an expert in their own discipline. The conference will help in grooming a strong community of scientists, academicians, budding Engineers, NGOs, research scholars, students to exchange / share their expertise / experiences so as to create a platform for meaningful dialogue and intellectual exchange in research and study amongst the wider community interested in Indian knowledge system, science & spirituality for advancing technology.

## Aim

To provide a potential platform for young researchers and students from within the country and abroad. To keep pace with the latest development in the areas of Indian Knowledge System, Spirituality, Science & Technology for the benefit of the society.

## Objective

1. To demonstrate research on Indian Knowledge System and its impact on Science and Technology.
2. To facilitate collaboration between Indian knowledge system, Spirituality, Science and Technology.
3. To attract, nurture, strengthen and retain critical human thinking through a science, technology and innovation ecosystem.
4. To create a platform for meaningful dialogue and intellectual exchange in research and study amongst the wider community interested in Indian knowledge system, science & spirituality for advancing technology.
5. To create systematic documentation on aspects of ancient Indian knowledge system, science, technology and spirituality with contributions from eminent scholars and researchers.
6. To portray all the aspects of ancient Indian knowledge system, science, technology and spirituality by publishing a research papers in International platform through reputed peer reviewed international Journal/Book chapter.

## Tracks of the Conference

Topics of interest include but are not limited to:  
Indian Knowledge System, Science and Spirituality for Advancing Technology in

- **Civil Engineering**  
**Coordinator Name:** Prof. Mohitsingh Katoch (+91 9766901323)  
**Email ID:** mohitsingh.civil@tgpct.com
- ✓ Incorporating Vedic principles in modern civil engineering design
- ✓ Sustainable water management: Lessons from ancient Indian water harvesting techniques
- ✓ Innovations in Indian traditional construction materials and techniques
- ✓ Integrating principles of Vaastu Shastra in modern building design
- ✓ Assessing seismic resilience of historic Indian buildings
- ✓ Revitalizing traditional Indian cities: Challenges and opportunities
- ✓ Incorporating traditional Indian knowledge in disaster risk reduction strategies
- ✓ Enhancing green infrastructure in urban India: Insights from traditional practices
- ✓ Heritage preservation through adaptive reuse of traditional Indian structures
- ✓ Integrating Indian traditional knowledge into modern civil engineering education and research
- ✓ Indic Traditions of Architecture, Design and Planning

### ➤ **Mechanical & Aeronautical Engineering**

**Coordinator Name:** Prof. Vishvajeet Ambade (+91 7774046646)

**Email ID:** vishvajeet.mechanical@tgpctet.com

- ✓ Additive Manufacturing, Optimization, Modeling, Analysis and Simulation of Advance Manufacturing Process
- ✓ Ancient and Advances in Material Science and design strategies
- ✓ Influence of concept in Agricultural and Environment sustainability
- ✓ Emerging trends in Automotive Electrical Vehicle with AI and Electronics Configurations
- ✓ The use of green technology and ancient renewable energy for environmental and societal applications
- ✓ Advances in Thermal Energy system for Waste Heat Reduction
- ✓ Ancient scripts on Aircraft Designs
- ✓ Vimanas and Vedas
- ✓ Vaimnika Shastra
- ✓ Modern and Ancient Aerospace Technologies
- ✓ Influence of Ancient concepts on modern flying machines
- ✓ IKS based approaches in Materials , Metallurgy
- ✓ Sustainable Agriculture and Food Preservation

### ➤ **Electrical Engineering**

**Coordinator Name:** Dr. Kumari Shipra (+91 9472453985)

**Email ID:** shipra.electrical@tgpctet.com

- ✓ Electronics & Electrical Technology in Ancient Era
- ✓ Sustainable Habitat & Green Solutions
- ✓ Advanced Power System and Control System
- ✓ Spirituality- Inspired Power Electronics & Electric Drives
- ✓ Power and Energy Systems
- ✓ Renewable Energy Resources and their Technologies
- ✓ Emerging Electric Vehicle Technologies
- ✓ Electrical Measuring Technology and Instruments
- ✓ Electrical Machinery and Electrical Apparatus
- ✓ Digitally Controlled Power Converters

### ➤ **Electronics and Communication Engineering**

**Coordinator Name:** Prof Rohini Pochhi(+91 9730773991)

**Email ID:** hod.ece@tgpctet.com

- ✓ Ancient Indian Communication Technology
- ✓ Application of Remote Sensing in Rural Technology
- ✓ Innovative Tools and Implementation in Rural Livelihood Approach
- ✓ Advances in Communication Engineering & Signal Processing
- ✓ Vedas Telepathy in Communication
- ✓ Vedas application in Robotics
- ✓ Biomedical Signal Processing and its applications in Cognitive Science

- ✓ Reviving the Ancient Indian Knowledge System in Technology
- ✓ Ancient Indian Mathematic and Its Application to Electronics Engineering
- ✓ Designing Circuits with Ayurveda Principle
- ✓ Exploring Vedic Roots of Electronics Engineering
- ✓ Bridging the gap, integrating traditional Indian Electronics with modern VLSI Technology

### ➤ **Computer Science Engineering and Computer Applications**

**Coordinator Name:** Bramhadeo Wadibhasme (+91 9260267291)

**Email ID:** bramhadeo.cse@tgpctet.com

**Coordinator Name:** Prof. Suraj Mahajan (+91 9921547001)

**Email ID:** suraj.cse@tgpctet.com

- ✓ Artificial Intelligence for sustainability
- ✓ Cloud Computing, Big Data and Internet Enabled Infrastructure for Sustainability
- ✓ Internet of Things(IoT)
- ✓ Cryptography and Network Security
- ✓ Image Processing
- ✓ Blockchains Technology
- ✓ Virtual/Augmented Reality
- ✓ Computer Vision
- ✓ Data Science
- ✓ Indian Knowledge System to Machine Learning
- ✓ Deep Learning
- ✓ Natural Language Processing

### ➤ **Biotechnology**

**Coordinator Name:** Prof. Rohit Kalnake (+91 909689926)

**Email ID:** rohit.bt@tgpctet.com

- ✓ Ayurveda and Biotechnology
- ✓ Impacts of the Biotechnological advances on Indian Society
- ✓ Ancient Indian Biotechnology and it's relevance in current era
- ✓ Sustainability through Biotechnology
- ✓ Art of Brewing: Then and Now
- ✓ Emerging Trends in Bioinformatics and applications of AI
- ✓ Biotechnology in Medicine and Nutrition
- ✓ New-age Biomaterials
- ✓ Biotechnology and Artificial Intelligence
- ✓ Biotechnology for Sustainable Farming

### ➤ **Interdisciplinary Sciences and Other Areas**

**Coordinator Name:** Dr. Mamta Takarkhede (+91 8888816699)

**Email ID:** mamta.fyr@tgpctet.com

- ✓ General Relativity
- ✓ Real and Complex Analysis
- ✓ New Trends in Advanced Material Technology
- ✓ Polymer Chemistry
- ✓ Green Chemistry
- ✓ Concept of Nano chemistry in Ancient Science
- ✓ Ancient Environmental Chemistry and its development
- ✓ Quantum Physics and Power of Mind
- ✓ IKS based approaches in Astronomy and Physical Sciences
- ✓ IKS based approaches in Mathematics and its applications

## ➤ Management

**Coordinator Name:** Prof. Amit Rahangdale (+91 8788082695)

**Email ID:** amit.mba@tgpct.com

- ✓ Sustainable Development Goals & IKS
- ✓ Human lifestyle, holistic health & IKS
- ✓ Modern education system & IKS
- ✓ Governance and development mechanisms & IKS
- ✓ Rural Entrepreneurship & Agri Business Management
- ✓ Indian Knowledge system based on ancient and modern technology
- ✓ Contemporary Issues in Teaching Learning Pedagogy
- ✓ Ancient Indian Knowledge Systems and their relevance Today
- ✓ Indian civilization and Indian Knowledge Systems
- ✓ Spirituality in Management
- ✓ Excellence in administration through Spirituality
- ✓ Role of spirituality in human well-being
- ✓ The impact of spirituality on quality of life
- ✓ Ancient Indian Management Techniques
- ✓ Ancient wisdom for modern business leaders

## Guidelines for Paper Submission

The authors are expected to submit original research papers which have not been submitted elsewhere in other conferences /Journals. The authors should strictly adhere to the template which is given in quick link of conference website. The abstract should be submitted before the deadline through this link:<https://submit-manuscript.org/s/655c78c30d12e>

## Keynote Speakers



### **BK. Dr. E. V. Swaminathan**

Human Resource Trainer and Consultant,  
Thane, Maharashtra



### **Dr. Chan Mieow Kee**

Deputy Dean (Research),  
Segi University, Malaysia



### **Dr. Juntakan Taweekun**

Prince of Songkla University,  
Thailand



### **Dr. Alexander Hankey**

Professor, Massachusetts institute of  
Technology and Cambridge University, USA

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## Publication

Authors are invited to submit original, unpublished research papers that address the conference themes. The paper should have plagiarism similarity index below 15% done by Turnitin Software. A double-blind peer review will be carried out for review of every article. All accepted & presented papers from registered participants will be included in a Conference Proceedings with ISBN number. Selected high-quality research papers after peer review will be submitted to publish in indexed journal- Scopus / WoS / UGC CARE as per additional charges applicable.

## In Association with



Indian Society for  
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The Institution of  
Engineers (India)



Indian Water  
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V.M. Institute of  
Engineering & Technology



Tulsiramji Gaikwad-Patil  
College of Architecture

## Registration

### Registration Fees

Sr. No	Participant	Early Bird Registration (Before 28 <sup>th</sup> February 2024)	Registration (After 28 <sup>th</sup> February 2024)
1.	International Delegates	\$ 50(USD)	\$ 80(USD)
2.	Industry Professionals	Rs. 2500/-	Rs. 3500/-
3.	Academician & PG Students	Rs. 2000/-	Rs. 3000/-
4.	UG Students	Rs. 1000/-	Rs. 2000/-

For any queries you can reach to us on Email: [iciksat@tgpct.com](mailto:iciksat@tgpct.com)

### Note:

- The Conference Registration fees does not includes Journal Publication Charges
- Papers should be in English and maximum of six pages are allowed for manuscript, each extra page will be charged INR 500/-
- The conference registration is mandatory for at least one of the authors and should be done before the deadline.
- The participants across the globe shall present their ideas in online / offline modes as per their choice.
- There will be an award for the best papers.

### Mode of Payment

Payments can be made in cash , Demand draft , NEFT, Bhim or Google Pay App to our bank account.

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## Important Dates

**Last Date of Full Length Paper Submission:** 15<sup>th</sup> February 2024

**Notification of Paper Acceptance:** 22<sup>nd</sup> February, 2024

**Final Full Length Paper Submission & Early Bird Registration:** 28<sup>th</sup> February, 2024

**Camera Ready Paper Submission:** 29<sup>th</sup> February, 2024