A Report
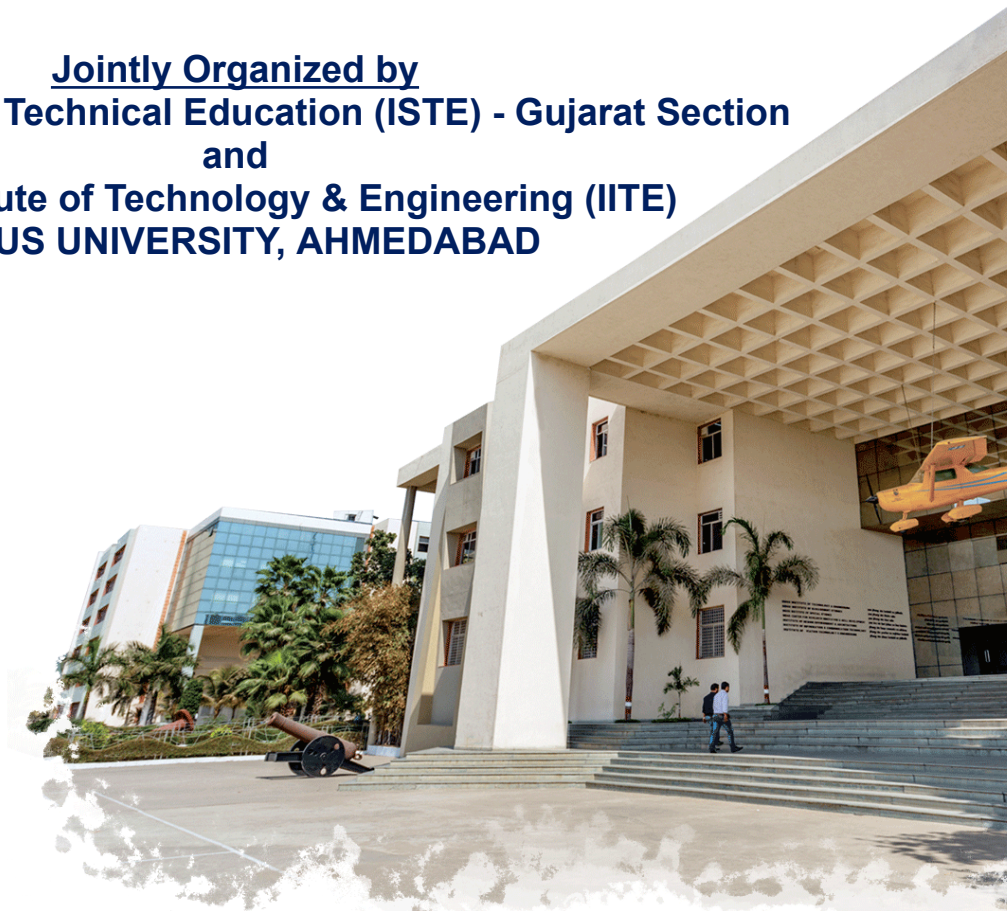## on
26th ISTE Gujarat State Annual Faculty Convention 2022 & Conference
on
"Global Exigencies for Smart & Sustainable Technologies" (GESST)

April 27, 2023

Jointly Organized by
Indian Society for Technical Education (ISTE) - Gujarat Section
and
Indus Institute of Technology & Engineering (IITE)
INDUS UNIVERSITY, AHMEDABAD

About ISTE:

The Indian Society for Technical Education (ISTE) is the leading National Professional non-profit making Society for the Technical Education System in our country with the motto of Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System. The major objective of the ISTE is to provide quality training programmes to teachers and administrators of technical institutions to update their knowledge and skills in their fields of activity and to assist and contribute in the production and development of top quality professional engineers and technicians needed by the industry and other organizations. At present, the ISTE has a very large and an effective membership base consisting of 124024 Life Members, 5 lakh Student members, 2734 Institutional Members, 1369 Faculty Chapters, 1479 Student Chapters at institutional level and 17 Sections at State level. ISTE Gujarat Section is one such section working within the geographical limit of Gujarat.

About Indus University:

Indus University (UGC Recognized) is one of the leading universities in Gujarat. It aims to bring social changes with education, skill development, research and innovation. The University offers Undergraduate, Postgraduate and Research Program in various disciplines of Aviation Management, Aircraft Maintenance, Architecture, Design, Engineering, Management, Computer Applications, Clinical Research, Hospitality Management, under the aegis of various constituent institutes of the University. We have state-of-art infrastructure and well qualified faculty to support teaching-learning, research and innovation.

University has various constituent Institutes & centers such as Indus Institute of Technology Engineering (IITE), Indus Institute of Design, Environment & Architecture (IIDEA), Indus Institute of Sciences, Humanities and Liberal Studies (IISHLS), Indus Institute of Management Studies (IIMS), Indus Institute of Information and Communication Technology (IIICT), Indus Institute of law, Indus Institute of Pharmacy, Indus Institute of Special Studies (IISS), Indus Centre for Start-up, Incubation and Innovation (ICSII), Indus Technology & Smart Solution Centre (ITSSC), Indus Sustainable Smart Cities Center (ISSCC) and Indus Foundry Training & Research Center (IFTARC).

About the Convention & Conference:

The **ISTE Gujarat State Annual Faculty Convention 2022 & conference** was held at **Indus University, Ahmedabad** on **April 27, 2023** with the objective of providing a platform to the technical teaching fraternity for exchanging scientific and technical innovations. The Conference on **"Global Exigencies for Smart & Sustainable Technologies" (GESST)** was conducted as a part of the convention. This conference provided a platform for sharing technical advances among faculty, researchers and Industry professionals. This event was jointly organized by IITE, Indus University, Ahmedabad and ISTE Gujarat Section.

The ISTE Gujarat State Faculty Convention was conducted for the exchange of scientific and technical innovation concepts. The alongside conference (Offline mode) provides a platform for sharing technical advances among faculty, researchers, and Industry Professionals. Papers from Faculty Members from all the Diploma and Degree Engineering Institutes across the state are invited on the theme "Global Exigencies for Smart & Sustainable Technologies" (GESST).

The world is at the threshold of emerging technologies, where innovative ideas in the field of smart & Sustainable Technologies are poised to make the world better. Modern tools and techniques can create incredible development in the various fields of engineering that require more convenience and smart technology than ever before. Innovations are paving the way for more efficient, cost-effective technology in the field of Artificial intelligence, Machine Learning, Robotics and Additive Manufacturing, Internet of Things, Climate Change, Waste Treatment and Management, Nanotechnology and Intelligent transport systems.

The Conference comprised of broadly following themes: Smart Logistic, Climate Change, Nanotechnology, Sustainable Habitat, Sustainable Energy, AR & VR in marketing, Green Business strategies, Intelligent transport system, Internet of Things (IoT) Solutions, Product Design and Manufacturing, Waste Treatment and Management, Robotics and 3D Printing applications, Artificial Intelligence and Machine Learning, Sustainable Architecture and Urban Planning.

The ISTE Gujarat State Faculty Convention & Conference received more than 100 research papers for the conference. All the papers were checked for plagiarism and undergone double-blind peer review by a team of reviewers. The reviewing committee selected 89 papers for publication and proceedings. The conference was conducted in 12 numbers of Plenary sessions.

The program was inaugurated by Hon'ble Dr. Pratapsinh Kakasaheb Desai, National President ISTE New Delhi, Respected Dr. Sachin Parikh, Chairman ISTE Gujarat State, Dr. Bhasker Bhatt, Secretary cum treasurer, ISTE Gujarat State, Dr. Nagesh Bhandari & Dr. Ritu Bhandari, Presidential Secretariat, Indus University, Prof. (Dr.) Sandeep Chakravorty, Executive President, Indus University, Prof. (Dr.) Vedvyas Dwivedi, Executive Vice-President, Indus University, Dr. R. K. Singh, Registrar, Indus University, Ms. Radhika Bhandari, Director-WIIA and Dean Aviation IATE and Dr. Ishbir Singh, Director - IITE & Chairman - ISTE Faculty Chapter, Indus University. The Program conveners were Prof. Harsh Soni, Prof. Miloni Ganatra & Prof. Vineeta Chauhan. The Conference conveners were Dr. Payal Mehta & Dr. Ankit Sodha.

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A. List of Awardees & Participating Institutes

The ISTE State Award Distribution Ceremony highlighted the importance of technology integration in education and recognized those who had excelled in this area. The award was presented to an individual who had shown exceptional leadership in the field of engineering and had made significant contributions to society through their technical insights.

The following technical institutes and universities across the state of Gujarat received awards:

I. <u>List of Awardees:</u>

S. No.	Award Category	Name of Awardees
1	ISTE Best Chapter Award (Announcement only)	Sigma Institute of Engineering, Vadodara
2	Runner Up ISTE Best Chapter Award (Second Position)	Pacific School of Engineering, Surat
3	Most Promising ISTE Chapter Award	SAL Institute of Technology & Engineering Research, Ahmedabad
4	ISTE GUJ- UKA Tarsadia Best Engineering College Award	L. D. College of Engineering, Ahmedabad
5	Shri Pravinkaka Ratilal Maniar Best Knowledge Centre (library) award	V. V. P. College of Engineering, Rajkot
6	ISTE-HJD Institute, Kutch - Award to the Best Institute for contributing in Social Activities	L. D. College of Engineering, Ahmedabad
7	Institutional Member of Gujarat for Raising Highest Number of Life Membership	L. D. College of Engineering, Ahmedabad
8	ISTE GUJ- VBT State Award for the Best Woman Teaching Faculty in Degree Engineering College	Dr. Komal G Dave, [L. D. C. E., Ahmedabad]

9	ISTE GUJ- Nirav Bhatt award to the Best Faculty for Excellent Contribution in ISTE activities	Dr. Chandra Bhushan Trivedi Prasad Pal S. N. Patel Institute of Technology & Research Centre, Bardoli
10	ISTE GUJ- Vadodara Institute of Engineering award for Best Faculty in Computer Engineering, UG Programme in Gujarat state	Dr Ankit Rajeshkumar Thakkar, [Nirma Institute of Technology]
11	ISTE GUJ- M. C. Bhavsar Award for an Innovative Work in the areas of Renewable Energy	Prof. Memon Shebaz Ahemad Abdul Latif, [Nirma University]
12	ISTE GUJ – Atmiya University, Rajkot – Award for the Best Innovative Researcher in the field of Computer Engineering	Dr Ashish Mahendrabhai Kothari, (Atmiya University)
13	Maximum participation in the ISTE Gujarat State Annual Convention	L D College of Engineering, Ahmedabad
Special Appreciation Awards		
1	Special Appreciation Award	INDUS University
2	Special Appreciation Award to Industrial contributors recommended by Host Institute	Shri Rajesh Sharma Founder, Anektaanka, Textile Designer, Ahmedabad
3	Special Appreciation Award to Industrial contributors recommended by Host Institute	Shri Vinod Agrawal Immediate Past Chairman CII Gujarat State Council & Chairman Arunaya Organics Pvt. Ltd., Ahmedabad.
4	Special Appreciation Award	Mr Rahul Panchal

II. List of participating Institutes:

Following Technical Institutes / Universities across the state of Gujarat participated in the program:

1	BVM Engineering College, V.V.Nagar
2	C. K. Pithawala College of Engineering & Technology, Surat
3	Central University of Gujarat, Gandhinagar
4	Charotar University of Science and Technology, Nadiad
5	Gandhinagar Institute of Technology, Gandhinagar
6	Government Engineering College, Daman
7	Indus University, Ahmedabad
8	L. D. College of Engineering, Ahmedabad
9	M.S.University of Baroda, Vadodara
10	Navrachana University, Vadodara
11	Nirma University, Ahmedabad
12	Pandit Deendayal Energy University (PDEU), Gandhinagar
13	SAL Engineering and Technical Institute, Ahmedabad
14	Sankalchand Patel University, Visnagar
15	Silver Oak University, Ahmedabad
16	Somany Institute of Technology and Research, Kadi
17	Vishwakarma Government Engineering College, Ahmedabad

B. Event Poster:

26TH ISTE GUJARAT STATE ANNUAL
FACULTY CONVENTION 2022 & CONFERENCE
ON
"GLOBAL EXIGENCIES FOR SMART & SUSTAINABLE TECHNOLOGIES" (GESST)
DATE: 27TH APRIL, 2023

JOINTLY ORGANISED BY

INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE) - GUJARAT SECTION
AND
INDUS INSTITUTE OF TECHNOLOGY & ENGINEERING (IITE),
INDUS UNIVERSITY, AHMEDABAD

QR Code
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KEY EVENTS

- ISTE Gujarat Award Ceremony
- Annual General Meeting
- Technical Sessions
- Research Paper Presentations

OVERARCHING CONFERENCE THEMES

- Artificial Intelligence and Machine Learning
- Internet of Things (IoT) Solutions
- Sustainable Energy
- Robotics and 3D Printing applications
- Green Business strategies
- AR & VR in marketing
- Smart Logistic
- Product Design and Manufacturing
- Sustainable Habitat
- Climate Change
- Waste Treatment and Management
- Nanotechnology
- Intelligent transport system

Venue: Indus University, Rancharda via Shilaj, Ahmedabad - 382 115, Gujarat , www.indusuni.ac.in

+91-99094 12375   iste@indusuni.ac.in; istegujsecretary@gmail.com

26TH ISTE GUJARAT STATE ANNUAL FACULTY CONVENTION 2022 & CONFERENCE

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AND
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INDUS UNIVERSITY, AHMEDABAD

APRIL - 27, 2023

Venue:
Indus University, Rancharda via Shilaj,
Ahmedabad - 382 115, Gujarat
www.indusuni.ac.in

About Organising Institutions

ISTE

The Indian Society for Technical Education is a national, professional non-profit making society registered under the society's registration act of 1860. The Major objective of the ISTE is to assist and contribute in the production and development of top quality professional engineers and technicians needed by the industries and other organisations.

ISTE Gujarat Section

Gujarat section now has a remarkable strength of 8,500+ of Life Members, more than 50,000 Student Members and 153 (97 Degree & 51 Diploma Institutes) Institutional Members. There are 70 ISTE Chapters and almost equal number of student chapters under the section. More details of chapters and its regional spread can be visualised on section website - www.istegujarat.in

Indus University

Indus University has been established to make a noteworthy contribution to the social, economic, and cultural life of our country. The founders of Indus University seek to deliver the best quality education to their students. The three pillars on which this University firmly stands are educational wisdom, professional brilliance, and research & innovation, all of which aim to nurture a spirit of entrepreneurship and social responsibility.

Indus Institute of Technology & Engineering

Indus Institute of Technology and Engineering (IITE) was established in 2006 with a vision to train and upgrade the technical skills of engineers as per the industry's requirements. It was a conscious effort to look beyond the theoretical framework, understand the natural world and decipher its main concerns. The journey of IITE to transform raw talent into seasoned engineers has been the longest at Indus University, making it the eldest constituent institute till present-day at the university.

Institute of Technology & Engineering provides work and play environment to boost students' persona and intellect quotient throughout the academic period. While they are exposed to fieldwork, much weight is given to research and development in engineering. Students are encouraged and supported in various ways to plan and execute startups.

About Convention & Conference

The ISTE Gujarat State Faculty Convention is an event for the exchange of scientific and technical innovation concept. The alongside conference (Offline mode) provides a platform for sharing technical advances among faculty, researchers, and Industry Professionals. Papers from Faculty Member from all the Diploma and Degree Engineering Institutes across the state are invited on the theme **"Global Exigencies for Smart & Sustainable Technologies" (GESST).**

The world is at the threshold of emerging technologies, where innovative ideas in the field of smart & Sustainable Technologies are poised to make the world better. Modern tools and techniques can create incredible development in the various fields of engineering that require more convenience and smart technology than ever before. Innovations are paving the way for more efficient, cost-effective technology in the field of Artificial intelligence, Machine Learning, Robotics and Additive Manufacturing, Internet of Things, Climate Change, Waste Treatment and Management, Nanotechnology and Intelligent transport systems.

OVERARCHING CONFERENCE THEMES

- Artificial Intelligence and Machine Learning
- Internet of Things (IoT) Solutions
- Sustainable Energy
- Robotics and 3D Printing applications
- Sustainable Architecture and Urban Planning
- Green Business strategies
- AR & VR in marketing

- Sustainable Habitat
- Climate Change
- Waste Treatment and Management
- Nanotechnology
- Intelligent transport system
- Smart Logistic
- Product Design and Manufacturing

Note: **Novel and original work are highly welcomed and not to be bound for above themes.**

Call for Papers :
- Researchers are invoked for and Prospective authors are invited to submit full length papers reporting original unpublished research and recent developments in the topics related to the conference.
- Length of paper should be maximum 8 pages. Papers need to be submitted in the IEEE format as word document. Images, Charts, Graphs if added must be of high resolution ensuring readability.
- All papers will undergo double-blind peer review process.
- The GESST organisers regard plagiarism as serious ethical misconduct. All submissions will be screened for plagiarism and when if identified, the submissions will be rejected.
- The GESST doesn't encourage withdrawals after the paper is accepted.
- Accepted papers shall be deem for copyright transfer and declaration of originality prior publication.
- Authors should submit their full length papers through email on conference.iste@indusuni.ac.in .

Publications :
Papers will be accepted for the conference presentation and selected papers will be published in ISBN conference proceedings.

Important dates		Registration Fees:	
Call for Papers	01/02/2023	Academician:	
Submission of full Paper	17/03/2023	• ISTE-Members	250/- INR
Acceptance of full Paper	24/03/2023	• Non-ISTE Members	350/- INR
Last date of Registration	17/03/2023	Delegates from Industry	750/- INR

Payment :
- Prospective authors and attendees may refer to the table above to identify the registration fee according to the category.
- The account details for making the payment is provided in registration form.
  Registration link: https://forms.gle/EGwj9HNXgb5XjnfF6
- Participants to retain UTR of payment transfer and shall produce when asked by organizers.

Accommodation :
Accommodation and transportation request to be made well in advance and shall confirmed for availability by the event coordinators. Participants however are advised to make their own arrangements.

For Further Details Contact:
Conference Secretariat
Dr. Payal Mehta & Dr. Ankit Sodha
Mobile : +919099929545, +919428479689   E-mail : conference.iste@indusuni.ac.in

INDUS UNIVERSITY
Where Practice Meets Theory

CHIEF PATRONS

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Indus University	Indus University	ISTE, New Delhi

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Executive President	Executive Vice President	Registrar
Indus University	Indus University	Indus University

ORGANIZING COMMITTEE

CHAIRMAN

Prof. (Dr.) Ishbir Singh
Director, IITE
Indus University

CONVENERS

Ms. Vineeta Chauhan	Mr. Harsh Soni	Ms. Miloni Ganatra
Assistant Professor	Assistant Professor	Assistant Professor
Department of Electrical Engg.	Department of Civil Engg.	Department of Ele. & Commu. Engg.
IITE, Indus University	IITE, Indus University	IITE, Indus University

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Dr. Bhasker V. Bhatt, Secretary Cum Treasurer, ISTE Gujarat Section
Dr. Rakesh D. Patel , Executive Council Members, ISTE Gujarat Section
Dr. Kirit M. Makwana, Executive Council Members, ISTE Gujarat Section
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Indus University, Rancharda via Shilaj,
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**26th ISTE GUJARAT STATE ANNUAL
FACULTY CONVENTION 2022 & CONFERENCE**
ON
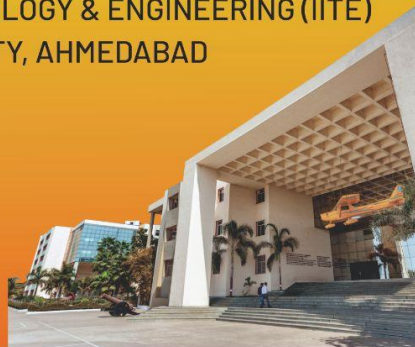"GLOBAL EXIGENCIES FOR SMART & SUSTAINABLE TECHNOLOGIES"
(GESST)

Date: APRIL 27, 2023

Organised by

INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE) – GUJARAT SECTION
AND
INDUS INSTITUTE OF TECHNOLOGY & ENGINEERING (IITE)
INDUS UNIVERSITY, AHMEDABAD

D. Program Schedule & Agenda of Ceremony:

Date: April 27, 2023 | Thursday

Time	Program Details
9:00 am-9:45 am	Registration *(Venue- Main Building)* High Tea *(Venue- Garden, Behind Main Building)*
Inauguration (Venue-Auditorium, Indus University)	
10:00 am - 10:05 am	Arrival of Guests
10:05 am - 10:07 am	Inauguration of event with Prayer and Deep Pragatya
10:07 am - 10:10 am	Ganesh Vandana
10:10 am - 10:15 am	Welcome of Guests
10:15 am - 10:20 am	Welcome address by Prof. (Dr.) Ishbir Singh, Director - IITE, IU & Chairman - ISTE Faculty Convention 2022 & Conference
10:20 am - 10:25 am	About ISTE Faculty Convention by Dr. Sachin Parikh, Chairman-ISTE Gujarat State
10:25 am - 10:27 am	Felicitation of Dr. Sachin Parikh, Chairman- ISTE Gujarat state
10:27 am - 10:45 am	Award Presentation by Dr. Bhasker Bhatt
10:45 am - 10:55 am	Address by Dr. Pratapsinh Desai, National President, ISTE-New Delhi
10:55 am - 11:00 am	Felicitation of Dr. Pratapsinh Desai, National President, ISTE-New Delhi
11:00 am - 11:10 am	Address by Prof. (Dr.) Sandeep Chakravorty, Executive President, Indus University
11:10 am -11:30 am	Award Presentation by Dr. Bhasker Bhatt
11:30 am - 11:35 am	Felicitation of Dr. Bhasker Bhatt, Hon.Secretary cum Treasurer, ISTEGujarat Section
11:30 am - 11:40 am	Felicitation of Presidential Secretariat(IU), Executive President(IU), Director-IITE(IU) by ISTE, Gujarat Section
11:40 am - 11:450 am	Vote of Thanks by Prof. Harsh Soni, Convenor-ISTE Convention, IITE, Indus University
11:45 am -11:50 am	National Song

MOC- Prof. Rashmi Sharma, Electrical Engineering, IITE, Indus University.

Conference (Refer Conference Track Schedule for Venue & more detail)	
12:00 pm - 01:00 pm	Conference Tracks
01:00 pm - 02:00 pm	**Lunch (Venue- Garden, Behind Main Building)**
02:00 pm - 04:00 pm	Conference Tracks
04:00 pm - 04:10 pm	Tea Break *(Venue- Basement, Near Entrance of Auditorium, Main Building)*

Valedictory Function Venue: Auditorium, Indus University	
04:10 pm - 04:15 pm	Arrival of Guests
04:15 pm - 04:25 pm	Felicitation to ISTE-Gujarat State SMC members
04:25 pm - 04:30 pm	Best Paper Awards
04:30 pm - 04:40 pm	Felicitation of Faculty Convention 2022 & Conference Committee Members
04:40 pm - 04:50 pm	Summary of 26th ISTE Gujarat State Annual Faculty Convention 2022 & Conference by Prof. Harsh Soni
04:50 pm - 04:55 pm	Vote of Thanks by Prof. Vineeta Chauhan, Convenor-ISTE Convention, IITE, Indus University
04:55 pm - 05:00 pm	National Song

MOC- Prof. Miloni Ganatra, Convenor-ISTE Convention, IITE, Indus University

Conference Track Schedule

Time	Details of Session
Track 1: Artificial Intelligence and Machine Learning, Internet of Things (IoT) Solutions	
Session 1 [Venue: LH-3, Main Building]	
12:00 PM - 01:00 PM	**Session Chair: Prof. Zalak Vyas** **Session Co-Chair: Dr. Sheetal Pandya**

Paper ID.	Paper Title
GESST0E4	Artificial Intelligence and the Social Dilemma of Parenting
GESST0E5	A Review on Phishing URL detection using various learning techniques
GESST0E12	ReactJS
GESST0E15	Analysis on Machine Learning Techniques to Spot Cyberbullying
GESST0E16	Application of Artificial Intelligence in Urban Planning
Session 2 [Venue: LH-4, Main Building]	
12:00 PM - 01:00 PM	**Session Chair: Dr. Pushpendra Sisodiya** **Session Co-Chair: Dr. Shruti Yagnik**

Paper ID.	Paper Title
GESST004	FOOD CALORIE MEASUREMENT AND DIETARYASSESMENT USING DEEP LEARNING
GESST007	Role of Artificial Intelligence in Micro-Financing for Women Empowerment in India- A Review
GESST008	Artificial Intelligence Techniques in Disease Diagnosis: A Review
GESST009	Machine Learning Techniques in Edge Computing: A Review
GESST010	NLP's Impact on Virtual Assistants: A Review

Session 3 [Venue: LH-5, Main Building]	
12:00 PM - 01:00 PM	**Session Chair: Dr. Seema Mahajan** **Session Co-Chair: Dr. Pooja Shah**
Paper ID.	**Paper Title**
GESST011	Online Attendance System using Facial Recognition and QR code
GESST012	Enhancing Telemedicine through Machine Learning
GESST013	E-Voting system using blockchain
GESST015	An examination of the energy-conscious routing protocol-based cross-layer optimization for MANET
GESST055	EDFA Gain Performance Analysis at 10 Gb/sec in Optical Communication System
Session 4 [Venue: MB-1, Basement, Main Building]	
02:00 PM - 04:00 PM	**Session Chair: Dr. Pooja Shah** **Session Co-Chair: Dr. Sheetal Pandya**
Paper ID.	**Paper Title**
GESST017	A Survey on Cross Layer Optimization Based on Energy Aware Routing Protocol for MANET
GESST021	A Review on Medical Image Based Disease Detection using Machine Learning & Deep Learning
GESST024	Emerging usage of Artificial Intelligence in Defence Sector
GESST025	Graph Signal Processing on Images
GESST028	QoSRP and Optimal Relay for Emergency Message Dissemination in Graph Based VANET: A Survey
GESST029	BANKING AND ATM SECURITY
GESST031	Sustainable habitats using Artificial Intelligence and Machine Learning: Opportunities & Challenges
GESST032	Energy efficient solutions in Cyber Physical System enabled Smart healthcare System
Session 5 [Venue: MB-2, Basement, Main Building]	
02:00 PM - 04:00 PM	**Session Chair: Dr. Pushpendra Sisodiya** **Session Co-Chair: Dr. Shruti Yagnik**
Paper ID.	**Paper Title**
GESST033	TECHNOLOGIES AND RESOURCE ALLOCATION USING AUCTION THEORY USING IOT
GESST035	Security and Privacy Issues of Big Data
GESST036	Classification And Prediction of Alzheimer's Disease Using Machine Learning Algorithms
GESST037	FACE MASK DETECTION USING MTCNN
GESST040	Comparative analysis of Homomorphic encryption in Internet of Things
GESST042	Numeric Image Recognition System
GESST043	Colour Pixel Classification and K-Mean Clustering for Early Fire Detection
GESST044	Crowd Detection
GESST0E18	Diabetes mellitus prediction using various machine learning Techniques: A Comparative study

Session 6 [Venue: MB-3, Basement, Main Building]	
02:00 PM - 04:00 PM	**Session Chair: Dr. Vishal Dahiya** **Session Co-Chair: Dr. Akashara Dave**
Paper ID.	**Paper Title**
GESST046	Big Data Analytics as a key for Preventing Sensitive Data Exposure in Web Security
GESST049	A Systematic Review of E-Voting System Based on Blockchain Technology
GESST050	Research possibilities and issues specific to the area of image processing
GESST053	Design of Hybrid Cryptography System based on Vigenere Cipher and Polybius Cipher
GESST054	A Decentralised, Secure, and Transparent Blockchain-enabled E-voting for Indian elections based on UIDAI Aadhar Identification
GESST057	Implementing a Portal for Student-Faculty Interaction Using Core Components, APIs, and Web Services(IndusUniApp)
GESST062	Real Time Voice Cloning with Image Using Deep Learning Techniques
GESST064	IOT based Smart Wheelchair for Physically Disabled People
GESST067	ASSESSING UNCERTAINTY IN RELIABILITY OF COMPONENT BASED SOFTWARE SYSTEM

Time	Details of Session
Track 2: Sustainable Technology / Energy	
Session 7 [Venue: MB-11, Basement, Main Building]	
02:00 PM - 04:00 PM	**Session Chair: Dr. Sweta Shah** **Session Co-Chair: Dr. Dhiren Patel**
Paper ID.	**Paper Title**
GESST0E7	The effect of adaptive infill patterns on the flexural strength of FDM 3d printed PLA
GESST0E13	Mitigation of Circulating Current in Modular Multilevel Converter
GESST003	Electrical Design Analysis and Implementation for commercial buildings
GESST014	Design, Feasibility Analysis and Implementation of Solar Roof Top System
GESST016	Design & Calculations of Indoor & 0utdoor lighting system
GESST030	Design and Analysis of different parameters in Power Transformer
GESST059	IoT Based Monitoring and Control of AC Motor
GESST060	Using Thermal Devices for Waste Heat Recovery:-A Review

Time	Details of Session
Track 3: Robotics and 3D Printing applications	
Session 8 [Venue: LH-3, Main Building]	
02:00 PM - 04:00 PM	**Session Chair: Dr. Mitesh Mungla** **Session Co-Chair: Dr. Bansi Raja**

Paper ID.	Paper Title
GESST002	Outlook and Challenges of Sustainable Energy
GESST020	Design and Fabrication of Fire Extinguisher Drone
GESST023	A review of plastic composite filaments used in additive manufacturing through fused deposition modeling (FDM)
GESST026	Sustainability of water desalination using solar energy
GESST027	A Review on Applications of Nanotechnology in Waste Management
GESST038	A review of FDM 3D Printing Technique in AM
GESST048	Mobile Controlled Electric Jack – A Review
GESST057	Sonic Boom Noise Reduction through Low Boom Flying Demonstrator (LBFD)
GESST061	Overwhelming study on computer integrated seed spraying machine

Time	Details of Session
Track 4: Sustainable Habitat, Climate Change/ Waste Treatment and Management	
Session 9 [Venue: LH-6, Main Building]	
12:00 PM - 01:00 PM	**Session Chair: Prof. Anand Patel** **Session Co-Chair: Dr. Jishnu Gohil**

Paper ID.	Paper Title
GESST0E2	Crop Monitoring Based on Machine Learning to Increase Agricultural Yields
GESST0E3	USE OF FLOWER WASTE AND FIBERS OF SURGICAL MASK FOR SOIL STABILIZATION
GESST0E6	Sulphate attack on marine concrete: A concern and challenge
GESST0E8	REVIEWING THE GROUND IMPROVEMENT TECHNIQUES FOR SOFT SOILS
GESST0E18	Biosorption of methyl red dyes by mangroves resources: A green and sustainable approach
GESST0E19	Sustainable Technologies and Management Strategies for Waste Remediation

Session 10 [Venue: LH-4, Main Building]	
02:00 PM - 04:00 PM	**Session Chair: Dr. Ketan Lakhtaria** **Session Co-Chair: Dr. Jishnu Gohil**
Paper ID.	**Paper Title**
GESST0E10	Parametric Study on Geogrid Application in Interlayer of Flexible Pavement
GESST0E11	Water Desalination Technique Using Solar Still And Parabolic Trough Collector
GESST006	Driving Towards Sustainability: The Flex Fuel Engine Solution
GESST018	Affordable housing policies & Buyers perspective in Ahmedabad Region
GESST019	Drone Technology: Applications and Challenges in Construction Industry
GESST034	Impact of Climate Change on Education
GESST045	Integrating the Use of Lean Principles for Effective Decision Making in Construction
GESST047	Domestic Electrostatic Precipitator for air purifying

Time	Details of Session
Track 5: Nanotechnology, Track 6: Intelligent transport system, Track 8: Others	
Session 11 [Venue: LH-5, Main Building]	
02:00 PM - 04:00 PM	**Session Chair: Dr. Vrushank Shah** **Session Co-Chair: Dr. Mudit Saxena**

Paper ID.	Paper Title
GESST001	Low Cost Small Scale 3-D CNC machine using Arduino-based Control System
GESST005	"Building the Metaverse: A Comprehensive Overview and Analysis of Current Research and Development"
GESST0E1	Estimation of Reliability Factor for Public Transportation Bus System
GESST052	Design And Development Of Chainless Handicapped Tricycle
GESST022	A Review:"Virtual Reality Application in Post Traumatic Stress Disorder"
GESST051	Financial risk analysis of high rise building in Ahmedabad region
GESST063	Performance Evaluation Of Irregular Building With Pushover Analysis
GESST065	Effects of Stress Management on Employee Work-life Balance
GESST070	A Review On Renewable Energy Integration For Electric Vehicles

Time	Details of Session
	Track 7: Smart Material & Others
	Session 12 [Venue: LH-6, Main Building]
02:00 PM - 04:00 PM	**Session Chair: Dr. K. Shanthy** **Session Co-Chair: Dr. A. D. Dhas**

Paper ID.	Paper Title	
GESST0E9	Effect of Aluminosilicate powder as a replacement of cement on properties of concrete	
GESST0E14	Use of Industrial Waste - Calcium Carbide Residue in activating one part Sodium Hydroxide in geopolymer paste	
GESST0E17	Role of Supplementary Cementitious Materials in Improving the Properties of Pervious Concrete	
GESST039	Impact of Various Natural Energizers on Pack Carburization	
GESST041	Failure Analysis of TMT Rod	
GESST056	A review on seismic isolation with innovative SMAs for smart bridge structures	
GESST066	Performance Evaluation of Ternary Blended Geo-polymer Concrete	
GESST068	Literature review on certain extensions of Generalized Hypergeometric function and Mittag-Leffler function	
GESST069	"A Review of Matrix extension of Humbert polynomials"	

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E. Photographs of Events:

Dignitaries on the Stage

**Felicitation of Dr. Sachin Parikh (Chairman, ISTE- Gujarat Section) by
Dr. Nagesh Bhandari (Presidential Secretariat, Indus University)**

Welcome of Dr. Pratapsinh K. Desai (National President, ISTE- New Delhi) by Dr. Nagesh Bhandari
(Presidential Secretariat, Indus University)

Felicitation of Dr. Bhasker Bhatt (Hon. Secretary cum Treasurer, ISTE- Gujarat Section) by Dr. Sandeep Chakravorty (Executive President, Indus University)

Lamp Lighting by the Dignitaries

Address by Dr. Sachin Parikh (Chairman, ISTE-Gujarat Section)

Address by Dr. Pratapsinh K. Desai (National President, ISTE-New Delhi)

Welcome of Dr. Nagesh Bhandari (Presidential Secretariat, Indus University by Prof.(Dr.) Ishbir Singh (Director,IITE)

The Participant s & Awardees of the Event (Indus University, Auditorium)

Most Promising ISTE Chapter Award to SAL Institute of Technology & Engineering Research, Ahmedabad

Runner Up ISTE Best Chapter Award (Second Position) to Pacific School of Engineering, Surat

ISTE Guj.- UKA Tarsadia Best Engineering College Award to L.D. College of Engineering, Ahmedabad

Institutional Member of Gujarat for Raising Highest Number of Life Membership Award to L.D. College of Engineering, Ahmedabad

ISTE GUJ- VBT State Award for the Best Woman Teaching Faculty in Degree Engineering College to Dr. Komal G Dave, L.D. College of Engineering, Ahmedabad

ISTE Guj.- Vadodara Institute of Engineering Award for Best Faculty in Computer Engineering, UG Programme in Gujarat State to Dr Ankit Rajeshkumar Thakkar, Nirma Institute of Technology

ISTE Guj.- M.C. Bhavsar Award for an Innovative Work in the areas of Renewable Energy to Prof. Memon Shebaz Ahemad Abdul Latif, Nirma University

ISTE Guj. – Atmiya University, Rajkot – Award for the Best Innovative Researcher in the field of Computer Engineering was received by Dr. G.D. Acharya on behalf of Dr. Ashish Mahendrabhai Kothari, Atmiya University

Release of Conference Proceedings by Dignitaries

Special Appreciation Award to Indus University, Ahmedabad

Research Paper Presentation by Participants in the Conference

Group Photo with Organizing Committee

F. The Best Research Paper Award:

1st Position	Dr. Pooja Shah, Department of Computer Engineering, Indus Institute of Technology, Ahmedabad, India Title: Improving Telemedicine through Machine Learning Approach
2nd Position	Dr. Sonal Thakkar, Civil Engineering Department Institute of Technology, Nirma University Ahmedabad, India Title: Use of Industrial Waste - Calcium Carbide Residue in Activating One Part Sodium Hydroxide in Geopolymer Paste
3rd Position	Dr. A.D. Dhass, Mechanical Engineering Department, IITE, Indus University, Ahmedabad-382115, India. Title: A Review on Applications of Nanotechnology in Waste Management

G. Press Note:

Media Coverage in News Paper

Media coverages:

https://youtu.be/JujL-0dDtl0
https://youtu.be/RBZu1Yg979g
https://youtu.be/OAjafhFzHyk
https://www.youtube.com/live/vvtZk_XjeZU?feature=share

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Conference Conveners

Dr. Payal Mehta	**Dr. Ankit Sodha**
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Department of Civil Engineering	Department of Civil Engineering
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I. **Front & Back Cover Page of Proceedings of Conference on Global Exigencies for Smart & Sustainable Technologies (GESST)**

26th ISTE GUJARAT STATE ANNUAL FACULTY CONVENTION 2022 & CONFERENCE

PROCEEDINGS ON
GLOBAL EXIGENCIES FOR SMART &
SUSTAINABLE TECHNOLOGIES
(GESST)

APRIL 27, 2023

Editors:
Prof.(Dr.) Ishbir Singh
Dr. Payal Mehta
Dr. Ankit Sodha

JOINTLY ORGANIZED BY

INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE) - GUJARAT SECTION
AND
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ON
GLOBAL EXIGENCIES FOR SMART & SUSTAINABLE TECHNOLOGIES (GESST)

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