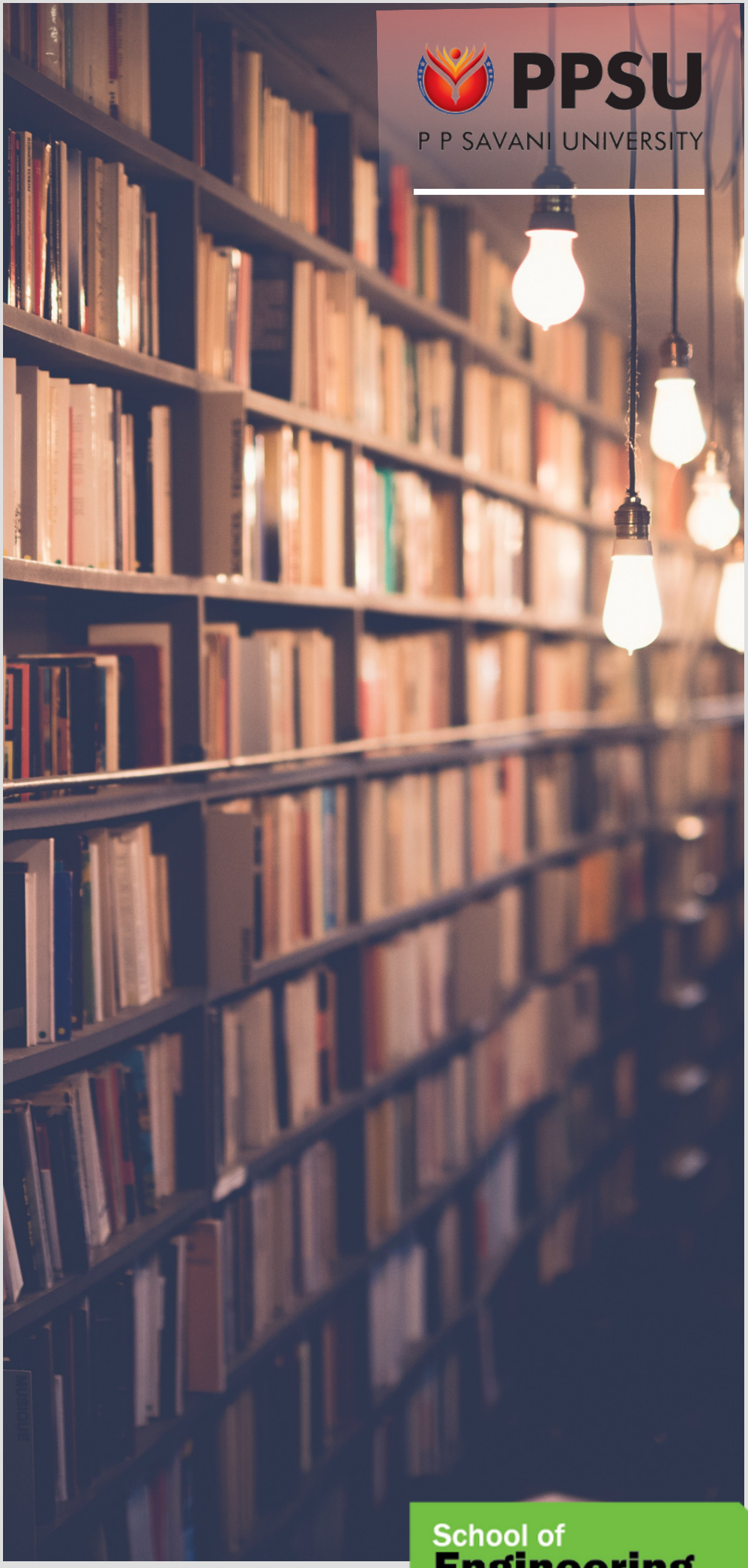
TECH वृतम्

TECHVRUTAM



PPSU
P P SAVANI UNIVERSITY

School of
Engineering

JULY
2023

CONTENTS

1 EVENTS OF ACADEMIC EXCELLENCE

2 INDUSTRY-ACADEMIA MEET

3 FACULTY PARTICIPATION

4 FACULTY ACHIEVEMENT

5 RESEARCH ERUDITE

6 STUDENTS' ACHIEVEMENT

7 STUDENTS' ALLEY

8 STUDENT THINKS

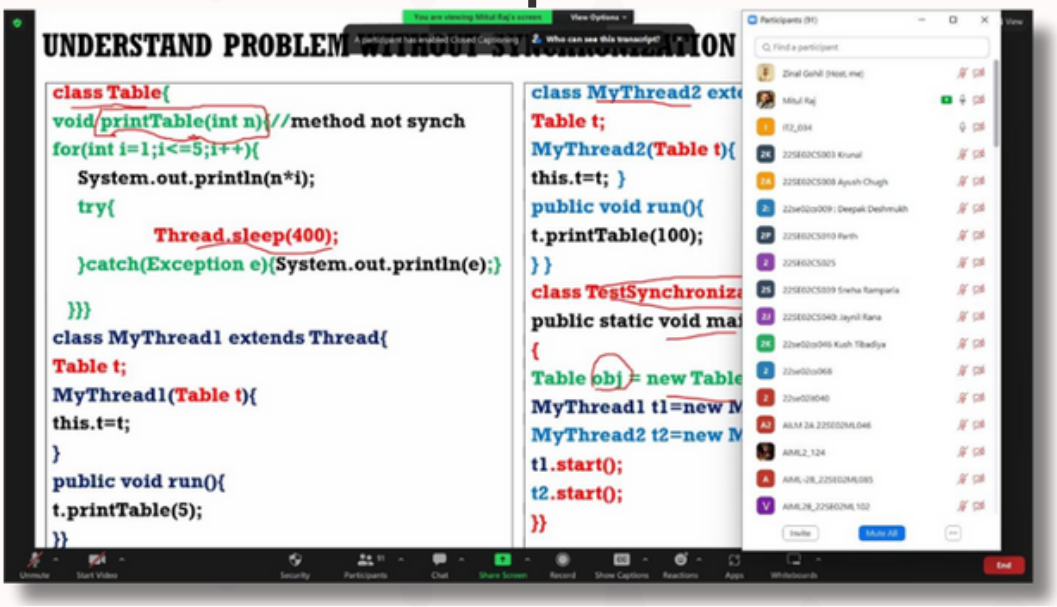
9 FACULTY THINKS

EVENTS OF ACADEMIC EXCELLENCE

02

Master Java Concurrency

The Computer Engineering department planned an Expert talk on “Master Java Concurrency” on April 24, 2023, from 10:30 AM to 12:30 pm. **Ms. Zinal Gohil**, **Ms. Hemangini Patel**, **Ms. Riddhi Desai**, **Mr. Kaushal Singh**, **Mr. Rohit Awasthi**, and **Mr. Mrugesh Patel** were the coordinators of the event under the guidance of **Dr. Niraj Shah**. This session was delivered by an eminent expert **Mr. Mitul Raj**, Assistant Professor, AWS Academy Educator, SOE, PPSU.



03

Data Science Techniques and Opportunities

A Seminar on " Data Science Techniques and Opportunities" was organized under placement assistance on April 1st Saturday, 2023 for students of BSc. IT, BCA and MLAI. Moderators were **Dr. Vikas S. Chomal**, **Mr. Aakash Gupta**, and **Ms. Nidhi Parmar** under the mentorship of **Dr. Niraj Shah**. This was delivered by expert **Dr. Ronakkumar Panchal** (Senior Data Scientist & Project Manager, Cognizant, Pune).

PPSU

05

Present Scenario of Fertilizer Industries

P P Savani University, School of Engineering Team scheduled an expert Session on the Topic “Present Scenario of Fertilizer Industries” for 4th and 6th sem Students of Diploma Chemical Engineering, held on April 13, 2023, at Government Polytechnic, Valsad. **Mr. Vishal Shah** and **Dr. Deepak Kohli** were the speakers of the Session. Chemical Engineering, held on April 13, 2023, at Government Polytechnic, Valsad. **Mr. Vishal Shah** and **Dr. Deepak Kohli** were the speakers of the Session.

Deepak Singh Panwar conducted an expert lecture on the theme “Current trends of Shale Gas Production in India” organized by the Department of Mining and Mineral Processing Engineering, Lakshmi Narain College of Technology, Jabalpur on May 05,2023.

06

51 students and 6 staff members from ITI karach visited the campus on April 12, 2023. Students were given a presentation on PPSU activities. All the CV, ME, and CH Lab facilities were shown to the students and guided them for higher studies.

INDUSTRY ACADEMIA MEET

08

Industry-Academia Meet

There was a 5 days training program at the International automobile centre of Excellence, Gandhinagar from June 26 to 30, 2023 sponsored by P P Savani University. Faculties got a very excellent knowledge of autotronics, hybrid, and electric vehicles. Students got very good exposure to recent and upcoming technologies in automobile engineering and manufacturing. Students of mechanical and automobile engineering (degree and diploma) were benefitted by this visit.

International
Automobile Centre of
Excellence (iACE)

International
Automobile Centre of
Excellence (iACE)

FACULTY
PARTICIPATION

11

Faculty Participation

Dr. Niraj Shah has completed Crash Course on "NAAC Accreditation: Focused Preparation & Improved Performance"on June 03, 2023.

Ceritificate Of Achievement

NAAC Accreditation: Focused Preparation & Improved Performance

Crash Course on various Criteria Points of NAAC Accreditation. Understand, apply and Improve performance.NAAC Accreditation (Step by Step process in detail across all the Criteria Points).Understand eligibility and cycles. Preparation of SSR for NAAC. Best Practices for Quality Improvement.

NIRAJ SHAH

has completed Crash Course on topic titled above online on 3rd June, 2023.

Issued By: Edhitch.com

Authorized Signatory

Dr. Niraj Shah attended two days of online "2nd National Level Workshop on CURRICULUM FRAMEWORK 2023" held on March 17th & 18th , 2023, conducted by the Institute for Academic Excellence (IAE), Hyderabad in collaboration with Collegiate Education & Technical Education Department, Govt. of Telangana.

12

Twisha Patel attended:

·5 Days Online Short-Term Course On “Recent Advancement in Deep Learning” from April 24, 2023 to April 28, 2023 Organized by the Centre for Continuing Education NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL & Dept. of CSE NIT Warangal Dept. of Computer Engineering, Parul Institute of Engineering & Technology- Diploma Studies.

·Online Faculty development Programme "Recent Research Trends and Applications of Artificial Intelligence and Machine Learning" Sponsored by Ministry of Electronics and Information Technology organized by E&ICT Academy, NIT Warangal and GCET, Vallabh Vidhyanagar from February 20 to 27, 2023.

·Online Short-Term Training Program (STTP) on "Data Science and Statistical Analysis through R and Python Software" from May 10 to 14,2023 organized by Sardar Vallabhbhai National Institute Of Technology.

·Completed Course on "Exploratory Data Analysis for Machine Learning" online course authorized by IBM Skills Network and offered through Coursera on March 6, 2023.

Jigna Patel attended:

·The 7 Days Online Faculty Development Programme on "Outcome Based Education (OBE)” from January 18 to 25, 2023 organized by SES College, Sreekandapuram in association with The Kerala State Higher Education Council.

·The 6 Days Faculty Development Programme on "Challenges and Advances in Upstream Oil and Gas Industry" from 06/02/2023 to 11/02/2023 organized by the Department of Petroleum Engineering & HRDC, AMET Deemed to be University, Chennai, India.

·One-week International Faculty development programme on “Modelling and Simulation of Renewable Energy Systems" held from April 25 to 29, 2023 organized by the department of Mechanical Engineering, Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur, India.

13

Barkha Makwana attended:

·The 5 Days Online Short-Term Course On “Recent Advancement in Deep Learning” from April 24 to 28, 2023 Organized by the Centre for Continuing Education NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL & Dept. of CSE NIT Warangal Dept. of Computer Engineering, Parul Institute of Engineering & Technology- Diploma Studies.

·The 5 Days Online Short-Term Course On “Recent Advancement in Deep Learning” from April 24 to 28, 2023 organized by the Centre for Continuing Education NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL & Dept. of CSE NIT Warangal Dept. of Computer Engineering, Parul Institute of Engineering & Technology- Diploma Studies.

Khushbu Chauhan attended:

·The 5 Days Online Short-Term Course On “Recent Advancement in Deep Learning” from April 24 to 28, 2023 Organized by the Center for Continuing Education NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL & Dept. of CSE NIT Warangal Dept. of Computer Engineering, Parul Institute of Engineering & Technology- Diploma Studies.

·5 Days International FDP on “Next Generation Computing: AI, Machine Learning and Cryptography” from May 8-12 ,2023 Organized by Dept. of CSE, JIS University.

Sneha Saini attended:

·The 5 Days Online Short-Term Course On “Recent Advancement in Deep Learning” from April 24 to 28, 2023 Organized by the Centre for Continuing Education NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL & Dept. of CSE NIT Warangal Dept. of Computer Engineering, Parul Institute of Engineering & Technology- Diploma Studies.

The 5 Days Online Short-Term Course On “Recent Advancement in Deep Learning” from April 24 to 28, 2023 organized by the Centre for Continuing Education NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL & Dept. of CSE NIT Warangal Dept. of Computer Engineering, Parul Institute of Engineering & Technology- Diploma Studies.

14

Deepaksingh Panwar attended:

·One Day National Research Workshop on the theme “In-text Citing & Referencing in Research Deepaksingh Panwar Papers” organized by MBien Analytica and Systems in association with Adonic Informatics, on May 01, 2023.

·One-Week International Faculty Development Program (FDP) on the theme “Modelling and Simulation of Renewable Energy Systems" from April 25 to 29, 2023 organised by the Department of Mechanical Engineering under Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur.

·One Day National Research Workshop on the theme "Writing a Review Paper: Innovative use of Tables, Flowcharts and Graphs” on May 21,2023 organised by MBien Analytica and Systems in association with Adonic Informatics.

·One Day National Research Workshop on the theme "Writing Scopus Indexed Authored / Edited book Proposals for International Publishers" on 28/05/23 organised by MBien Analytica and Systems in association with Adonic Informatics.

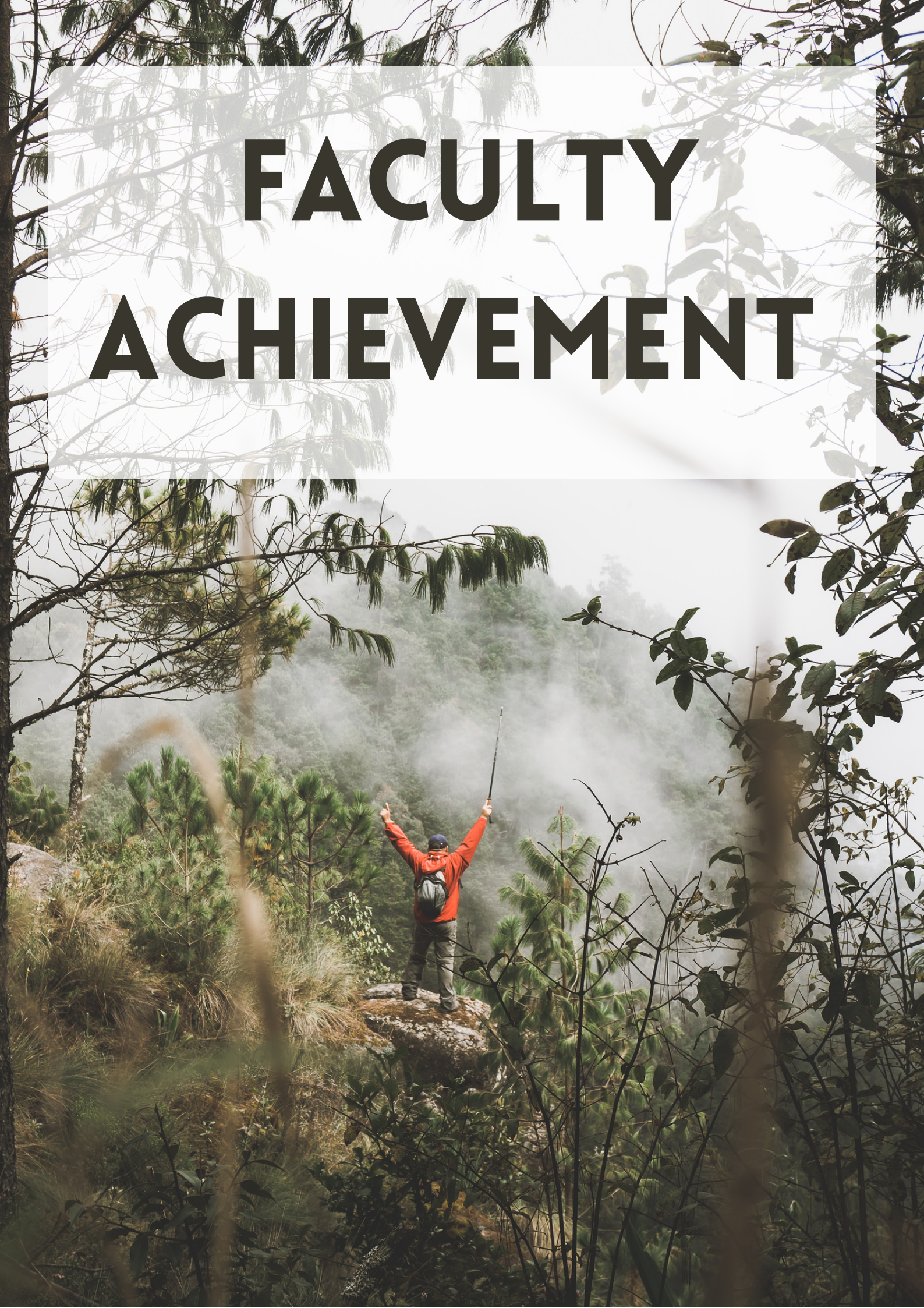
Barkha Wadhvani attended:

·Online Faculty development Programme "Recent Research Trends and Applications of Artificial Intelligence and Machine Learning" Sponsored by Ministry of Electronics and Information Technology GoI organized by E&ICT Academy, NIT Warangal and GCET, Vallabh Vidhyanagar from February 20- 27, 2023.

Jigesh Mehta attended:

·Two days “2nd National Level Workshop on CURRICULUM FRAMEWORK 2023” held on March 17 to 18, 2023 Online, conducted by Institute for Academic Excellence (IAE), Hyderabad in collaboration with Collegiate Education & Technical Education Department, Govt. of Telangana.

FACULTY ACHIEVEMENT



16

Faculty Achievement

The project entitled "Preparation and Synthesis of low-cost UF- membranes for treatment of emulsified water" submitted by **Dr. Deepak Singh Panwar** and **Dr. Deepak Kohli** has been sanctioned by Gujarat Council on Science and Technology (GUJCOST) with a research grant of 16,16,000/- (Rupees Sixteen Lakh Sixteen Thousand only) for two years.

17

Research Erudite

Tasneem Kagzi presented a Paper entitled “A Comprehensive Survey of AI-Based Prediction Models for Failure of Industrial Bearings” at an International Conference on Recent Trends in Engineering and Sciences (RTES-2023) on May 2 to 3,2023 organized by Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat – INDIA.

Jigna Patel has published a paper on "Critical Review on Coalbed Methane Extraction and Government Policy in India" in QUADERNS, Volume 11, Issue 6, June 2023, ISSN: 1138-5790.

Deepak Singh Panwar, Jasleen Kaur, and Deepak Kohli have published a paper on “New insight into the geochemical characterization of Paleogene coals from Jarain coalfield, Meghalaya, N-E India: Hydrocarbon potential and organic petrographic analysis”. Geoenergy Science and Engineering, Elsevier, 2023 (SCIE).

Deepak Singh Panwar has published a paper on “Hydrocarbon generative potential and thermal maturity of newly discovered coal seams from Bapung Coalfield, Meghalaya, India: Rock-Eval pyrolysis and Organic Petrographic Analysis”. Journal of Sedimentary Environments, Springer, 2023 (ESCI).

Maulika Patel has published a paper on “Traffic Light Negotiation and Perception-Based Detection” in the Journal of Xidian University, VOLUME 17, ISSUE 4, 2023.

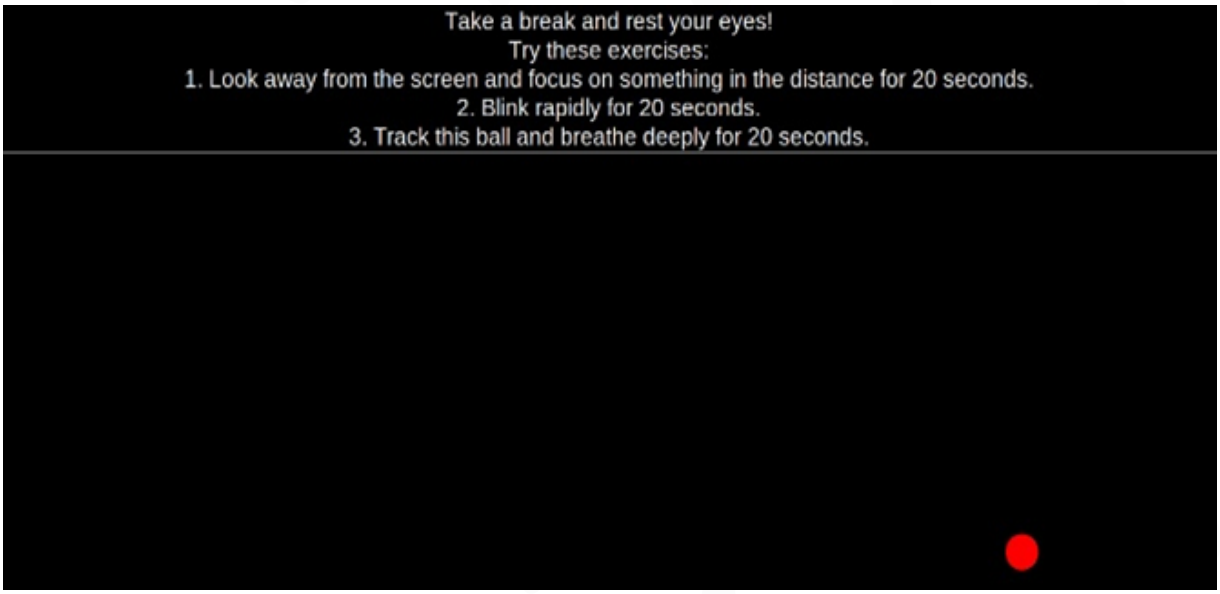
Jigesh Mehta has published a paper on " Use of Waste egg shells as novel chitosan-based Adsorbent for dye removal" in QUADERNS, Volume 11, Issue 3, June 2023, ISSN: 1138-5790.

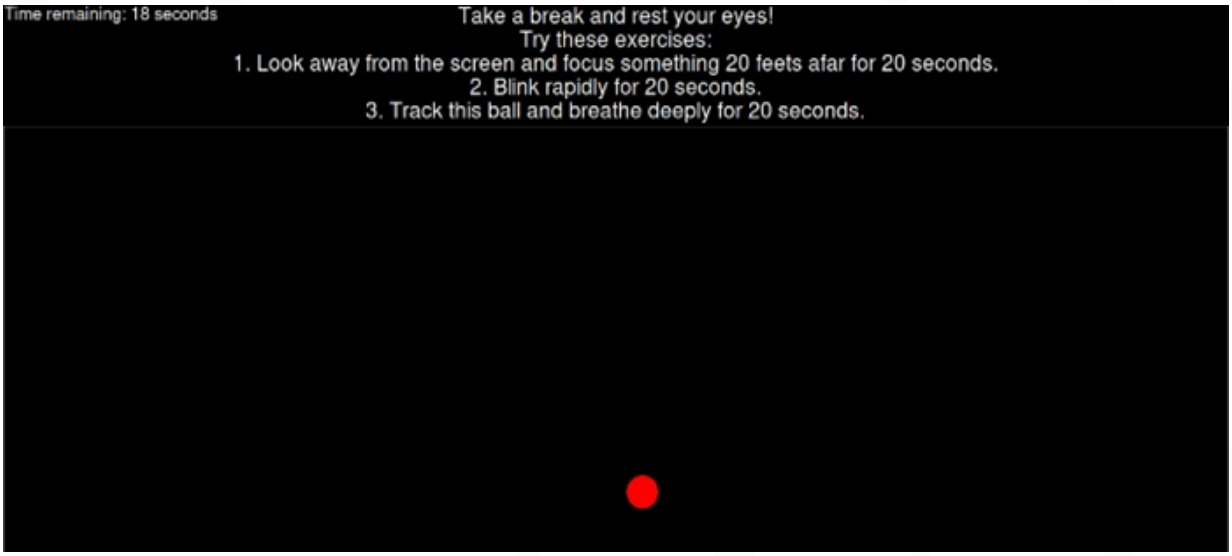
Hiral Patel has published a paper on “Insights of Ambient Assisted Living: Scope for Research and Development” in the International Journal of Novel Research and Development, Volume 8, Issue 6, June-2023

STUDENTS'
ACHIEVEMENT
WINNER

Students' Achievement

Jay Thakkar student of MLAI sem 7 alongwith Dr. Shifa Khan (School of physiotherapy) and Dr. Niraj Shah (Dean, SOE) have made some efforts to design an application to reduce eye strain and reduce eye related issues seen in employees who uses computer/laptops for long time (it gives break of 1 minute every 1 hour till the computer is not powered off).





20

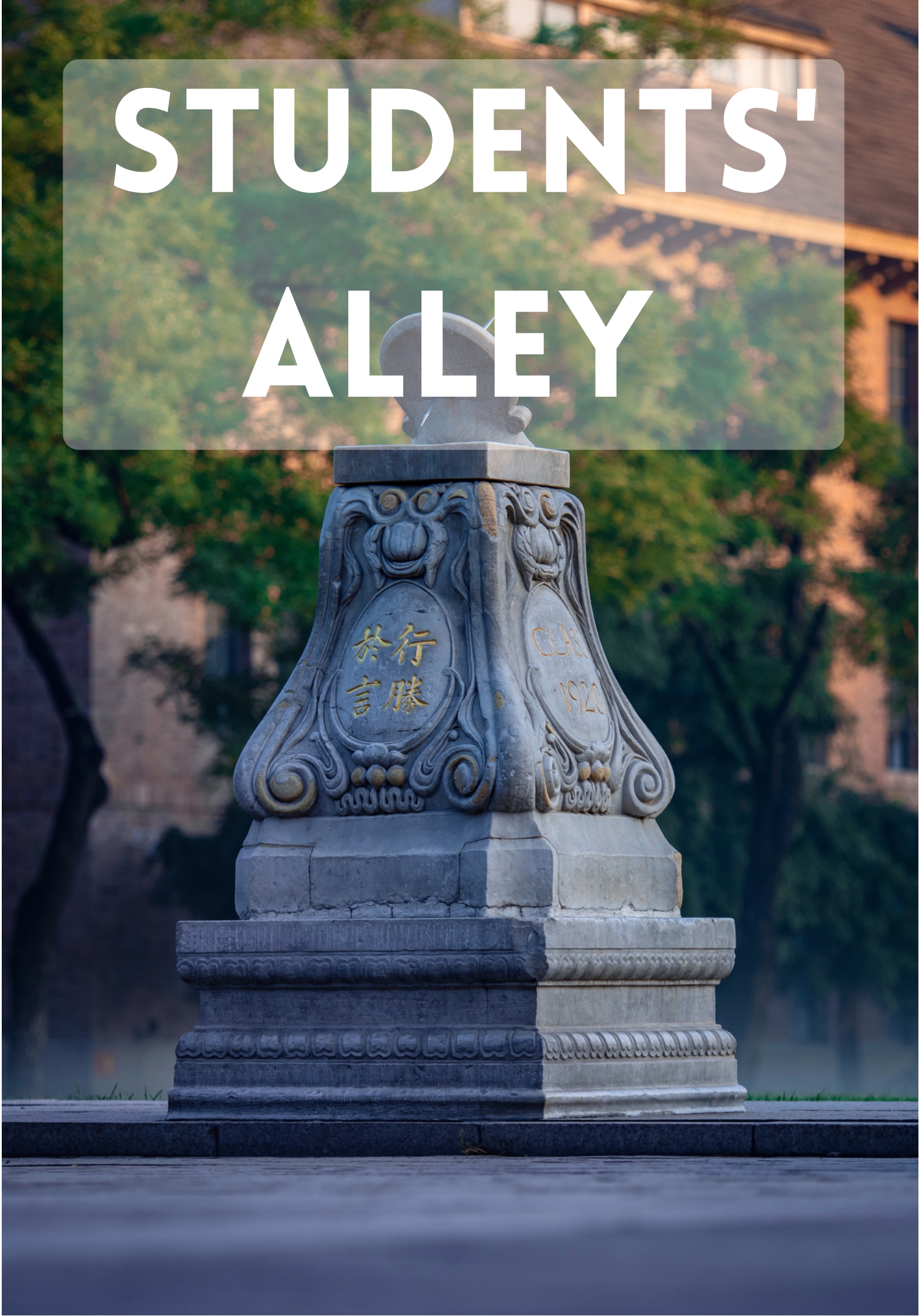
Online Hackathon Competition

The team 'Hackers' participated in the 48-hour HackDays@Sellular online hackathon, organized by Sellular Networks. During the event, they developed a real-time chat application called 'Let's Chat Messenger' using HTML, CSS, JavaScript, and PHP. The team's outstanding efforts and innovative solution earned them the first position in the hackathon. As a reward, they received certificates of achievement and were presented with a 5000/- Amazon voucher.

The team consisted of the following members:

- **Priyanshi Chunawala** (Team Leader) 21SE02CS016
- **Riya Chudasama** 21SE02CS015
- **Varun Rana** 21SE02CS060

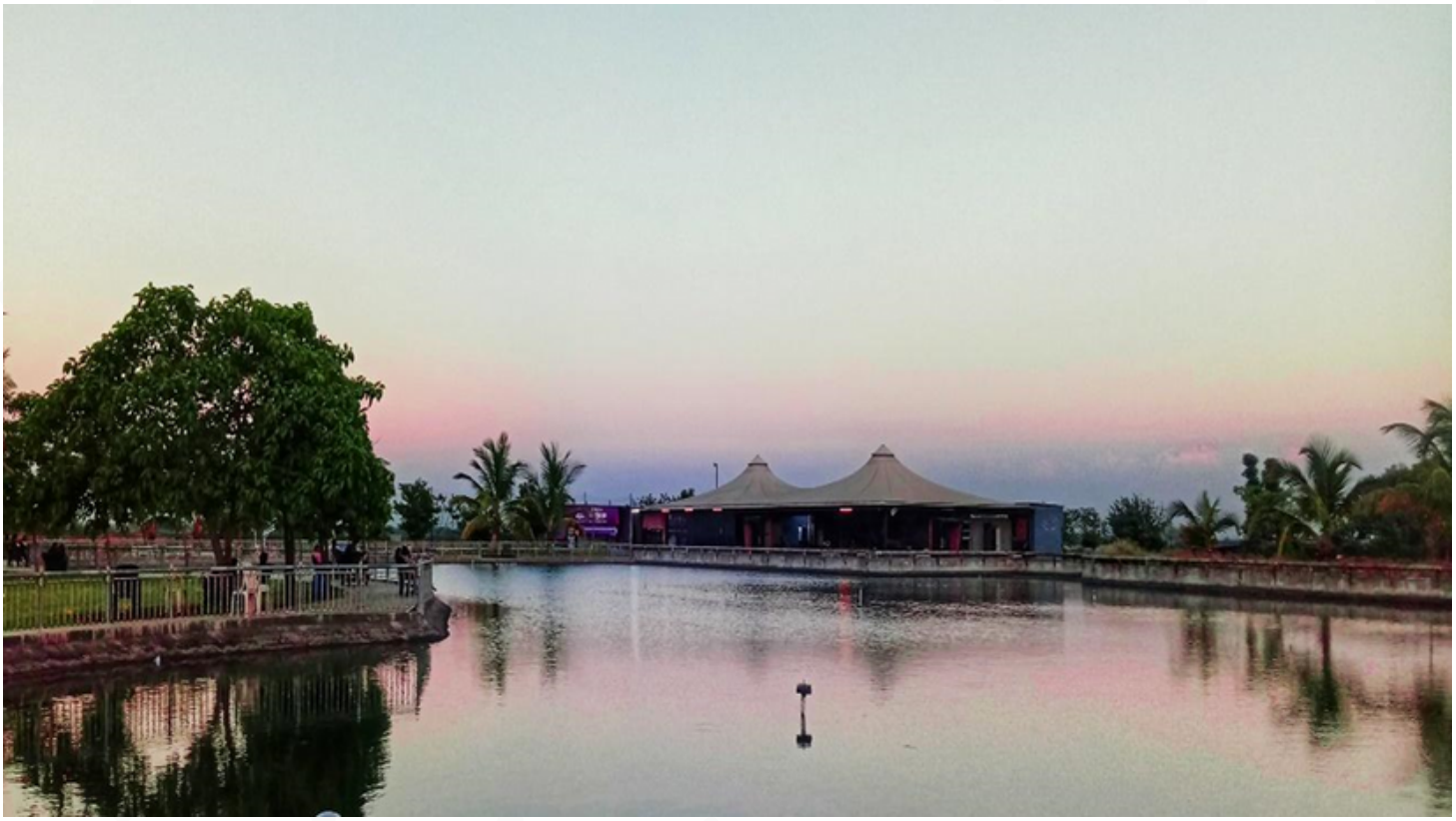
STUDENTS' ALLEY



22

Students' Alley Creative Corner

Name: Patel Shivangini Brijeshbhai
22SS03CS002
M.Sc. DS AND ML
Contact number: 9586661823



23

24

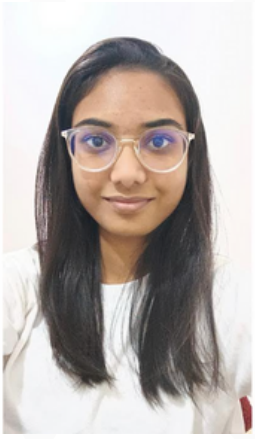
Name : Maitri Patel
22SE02CS076
B. Tech CSE Sem3
Contact number -9898703371

26

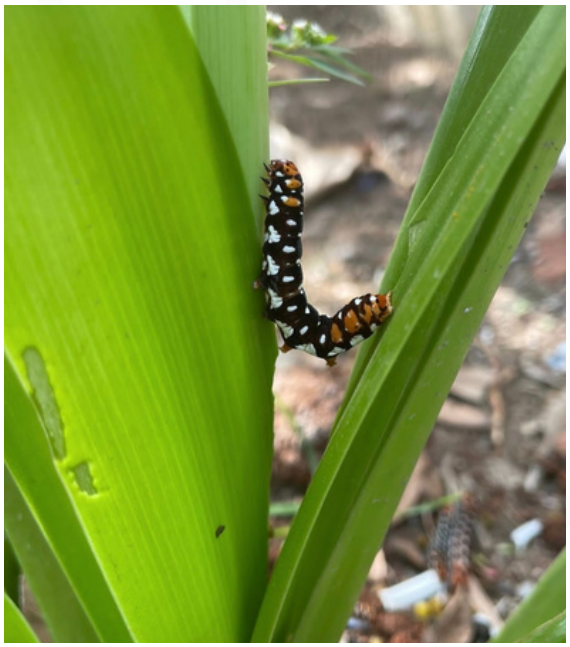
Name:- Priyanshi Chunawala
Enrollment no:- 21SE02CS016
Batch:-CSE 5
Mobile no:- 9313836573

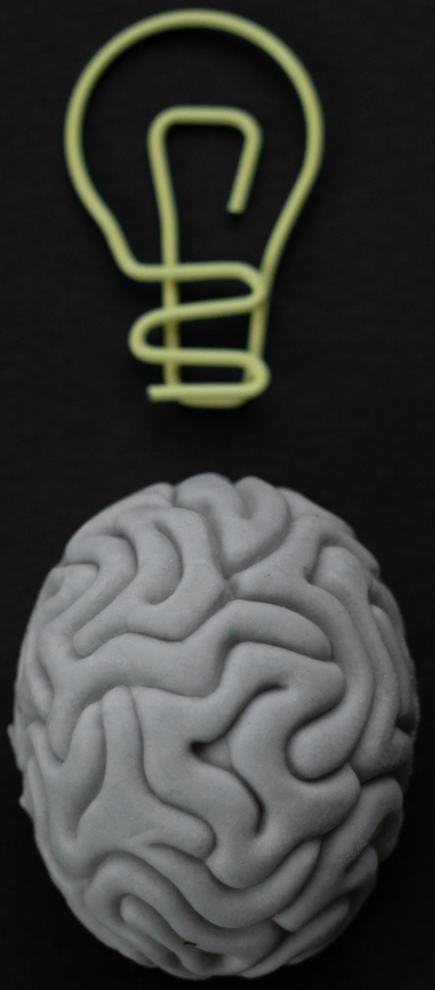
priyanshi..

29



Name : Riya Chudasama
Enrollment no : 21SE02CS015
BATCH : CSE-5
Mo No : 9106927628





STUDENT THINKS

31

Name :- Zeel Patel
Enrollment number:-21se02cs078 Cse 5
Mo. 9998004760

ARTIFICIAL INTELLIGENCE
A boon or bane.....

The final technology that humanity will ever need is artificial intelligence, as someone once said. First and foremost, what exactly is artificial intelligence? Artificial intelligence (AI) is the use of computers to do tasks that previously required human intelligence. AI has the ability to process enormous volumes of data in ways that humans cannot.

Have you heard of Siri and Alexa? We all use these items, right? "Hey Siri, play a song for me," we can say, or "Who was India's first president?" and Siri will provide you with information either from your device or from the internet. What is the name of this type of technology? This is a straightforward example of artificial intelligence. Other examples of artificial intelligence include: Autocorrect, Chatbot, Google Maps, Face ID, Voice Recognition Lock, and Google Assistant are all available.

The goal of developing artificial intelligence is , the primary goal of artificial intelligence is to improve decision-making. Artificial intelligence will assist us in achieving this goal. Another goal of artificial intelligence is precision. Because it provides nearly accurate data, artificial intelligence will be utilised to diagnose and identify diseases in the future. It will also allow us to examine large amounts of data that could be very beneficial to us. The primary goal of Artificial Intelligence is to empower robots with the ability to reason and interact with software systems similar to humans.

One of the most significant advantages of artificial intelligence is that it will assist us in performing activities with zero danger of error. It will assist us in lowering the chance of error and improving accuracy and precision. Because it makes decisions based on the acquired data, errors are practically eliminated. Artificial Intelligence systems, unlike humans, can function indefinitely with no interruptions. According to certain studies, "a human body can only work effectively for four hours a day." In contrast, AI can perform any task indefinitely. It will not become bored like humans. Artificial intelligence systems think considerably faster than humans and can complete any work more quickly and efficiently than we can. Over 95% of corporate organisations require unstructured data analysis. Artificial intelligence will be used in this case. It will assist such businesses in analysing their data and drawing conclusions. It will also assist them in identifying new business prospects.

But everything in the world that has advantages also has disadvantages. Artificial intelligence is still in its early stages. It has not yet progressed to the advanced level. In this sector, there is a lot that needs to be researched and done. We all know how much money every field requires in its early stages.

Furthermore, AI is associated with technology that necessitates the purchase of expensive devices and software. Any programme must be upgraded on a regular basis to stay current. As a result, it will be pricey. No matter how powerful our technology becomes, it will never be able to replicate human emotions or creative abilities. Many techies believe that "In the coming decades, artificial intelligence is expected to surpass human intelligence." Though it will outperform human talents, it will fall short of wisdom and emotional intelligence. AI makes decisions based on the data it receives. It will be unable to make independent decisions based on wisdom and feeling. Simply put, it is incapable of thinking outside the box.

Finally, AI has the potential to be a tremendous instrument for problem solving and creating a better future. However, it must be utilised carefully and ethically, or it may have disastrous repercussions. As a result, it is critical that we employ AI carefully and ensure that its benefits are shared by everybody.

Artificial intelligence will usher in a massive shift in human history. As long as we manage to keep technology helpful, human civilisation will prosper by augmenting human intelligence with artificial intelligence.

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22SS03CS003
MSC DS AND ML
Contact number: 7984177512

माँ वो घर है,
जिसकी दीवार बाप के,
पसीने से बनी है।
माँ वो दरिया है,
जिसका पानी बाप के,
प्यार से भरा है।
माँ वो दरवाज़ा है,
जिसकी चाबी बाप के,
कमाने से खुलता है।
माँ वो दुआ है,
जो बाप के,
होने से मिलती है।
माँ वो परिवार है,
जिसका साया बाप के,
बिना कुछ नहीं।
और मैं वो ख़ुशनसीब,
औलाद हू जिसके पास,
ये दौलत कभी कम नहीं।

Name: Hasti Rupareliya
22SE02IT035
Btech IT Sem 3
Contact number - 9908782847

GAURDIAN ANGEL

In shadows deep, where hope seems far,
I wait for my angel, my guiding star.
Through trials and darkness, I seek their light,
A guardian to save me, in my endless night.

With bated breath and longing eyes,
I yearn for wings, to touch the skies.
In silence, I wait, with faith untold,
For my guardian angel, brave and bold.

Through stormy seas and turbulent tide,
I pray for their presence, right by my side.
To soothe my fears and calm my soul,
A savior to heal, to make me whole.

In moments bleak, when I feel lost,
I trust in their wings, at any cost.
With whispers of comfort, they'll gently impart,
Guiding me forward, with love in their heart.

But as I wait, I'll not lose sight,
Of strength within, burning bright.
For in my own heart, a flickering flame,
An inner angel, with power to tame.

So, I'll hold on, with faith so true,
Knowing my guardian angel will come through.
But until that day, I'll find strength within,
A beacon of hope, my own light to begin.

FEAR NOT

Fear not, when you experience failure,
Because it brings you success.
Fear not, to be a honest person,
Because it builds up your character.
Fear not, to come through trouble,
Because it makes you bold and brave.
Fear not, to admit your fault,
Because it always corrects you.
Fear not, to express what you feel,
Because it keeps on following you.
Fear not, when you are alone in dark,
Because there is always a glow behind.
Fear not, to fall down,
Because it always let you up.
Fear not, to face your life as it is,
Because it is like your shadow.
From which you can never escape.

"If you have the courage to begin then you have the courage to succeed"

FACULTY
THINKS

Faculty Thinks

UNESCO World Heritage Sites at Gujarat by **Dr. P Umeshkannan** Assistant Professor, Department of Mechanical Engineering, School of Engineering.

UNESCO World Heritage Sites @ Gujarat

There are 40 World Heritage Sites located in INDIA[2022]. Out of these, 32 are cultural, 7 are natural, and one mixed type. India has the sixth largest number of sites in the world.

The most recent site listed was Dholavira, [Gujarat] in 2021.
Dholavira is an archaeological site at Khadirbet in Bhachau Taluka of Kutch District, in the state of Gujarat in western India, located at Tropic of Cancer. It is one of the five largest Harappan sites and the most prominent of archaeological sites in India belonging to the Indus Valley Civilization. It is located on Khadir bet island in the Kutch Desert Wildlife Sanctuary in the Great Rann of Kutch. Recent research suggests the beginning of occupation around 3500 BCE (pre-Harappan) and continuity until around 1800 BCE.
https://en.wikipedia.org/wiki/Dholavira
The other UNESCO World Heritage Site located in Gujarat are mentioned below.

Champaner - Pavagadh Archaeological Park is located around the historical city of Champaner, Panchmahal district in Gujarat, India. The heritage site is studded with forts with bastions starting from the hills of Pavagadh, and extending into the city of Champaner. The park's landscape includes archaeological, historic and living cultural heritage monuments such as chalcolithic sites, a hill fortress of an early Hindu capital, and remains of the 16th-century capital of the state of Gujarat. There are palaces, entrance gates and arches, mosques, tombs and temples, residential complexes, agricultural structures and water installations such as stepwells and tanks, dating from the eighth to the 14th centuries. The Kalika Mata Temple, located on top of the 800 metres (2,600 ft) high Pavagadh Hill, is an important Hindu shrine in the region, attracting large numbers of pilgrims throughout the year. It was inscribed by UNESCO as a World Heritage Site in 2004.

https://en.wikipedia.org/wiki/Champaner-Pavagadh_Archaeological_Park

Rani Ki Vav (lit. 'The Queen's Stepwell') is a stepwell situated in the town of Patan in Gujarat, India. It is located on the banks of the Saraswati River. Its construction is attributed to Udayamati. It was rediscovered and restored in the 1980s by the Archaeological Survey of India. [listed as one of the UNESCO World Heritage Sites in India 2014] .The finest and one of the largest examples of its kind, this stepwell is designed as an inverted temple highlighting the sanctity of water. It is divided into seven levels of stairs with sculptural panels. These panels have more than 500 principal sculptures and over a thousand minor ones that combine religious and symbolic imagery.

40

The Historic City of Ahmadabad or Old Ahmedabad, the walled city of Ahmedabad in India, was founded by Ahmad Shah I of the Gujarat Sultanate in 1411. It remained the capital of the state of Gujarat for six centuries and later became the important political and commercial center of Gujarat. It was inscribed as a World Heritage City by UNESCO in July 2017.

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