



Marathwada Mitra Mandal's College of Engineering

Karvenagar, Pune 52

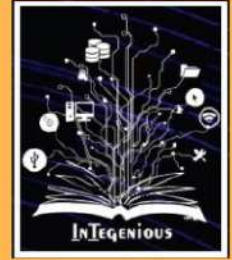
Recipient of "Best College Award 2019" by SPPU



Department of Information Technology

InTegeenious

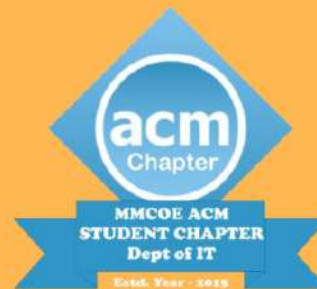
Volume IX | Issue 1 | JUNE 2023 – DECEMBER 2023



Highlighting Events

- **FDP:NextGen
Computing: Blockchain
and AI**
- **Workshop on Brain
Computer Interfacing**
- **Several
informative
expert sessions**

Student Chapters/ Associations



MoU's with Industries





InTegenious



A biannual newsletter from the Department of Information Technology, MMCOE

Volume IX | Issue 1 | JUNE 2023 - DECEMBER 2023

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Vision of Department:

To emerge as a Centre of Excellence in education, research and innovation in Information Technology for enrichment of Society.

Mission of Department:

1. To cater IT Industry with Engineers having theoretical & practical background and competent IT skills.
2. To pursue advanced knowledge in the field of Information Technology.
3. To inculcate budding IT Engineers with professional and interpersonal skills.

1. Message from HOD

Dear Esteemed Readers and Supporters,
Greetings from the Department of Information Technology, MMCOE! As we navigate through the ever-evolving landscape of engineering, innovation, and education, we're thrilled to bring you another edition of our newsletter.

Here's what's in store for you:

1. Student Chapters/Clubs Events
2. Student Achievements
3. Industry Interaction
4. Centre of Excellence
5. Faculty Highlights
6. Community Engagement
7. Featured Article and many more

Thank you for your continued support and dedication to advancing engineering excellence. Together, let's inspire innovation, foster collaboration, and make a lasting impact on the world through the power of engineering. I appreciate the efforts taken by InTegenious Team of Faculty and Students and wish them all the best for the upcoming issue.



Programme Educational Outcomes (PEO's):

PEO 01: Adequate knowledge and skills in Information Technology for implementation of complex problems with innovative approaches.

PEO 02: Inclination and technical competency towards professional growth in the field of Information Technology.

PEO 03: Ethics and value based interpersonal skills to facilitate lifelong learning and societal contributions.

Team InTegenious :

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Our Mentor : Dr. Rupali M. Chopade, HOD IT.

Faculty Editor : Ms. Punam V. Chavan, Assistant Professor, Dept. of IT.

Student Editor : Mr. Aryan Jadhav, (SE IT)

2. Student Placements

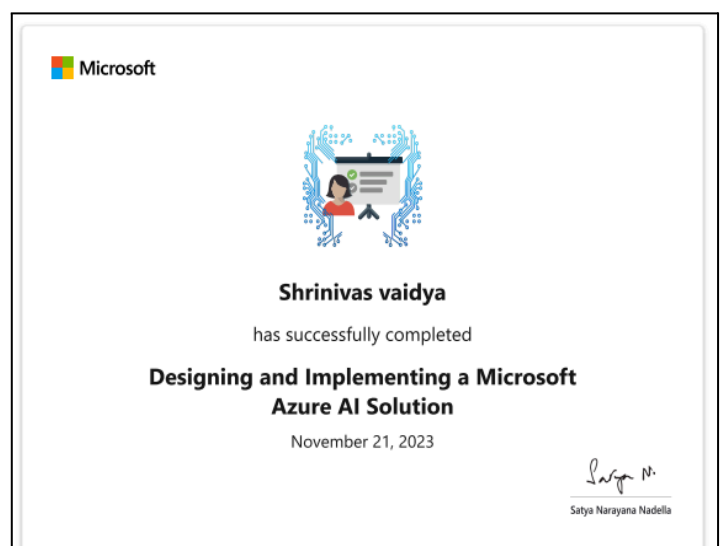
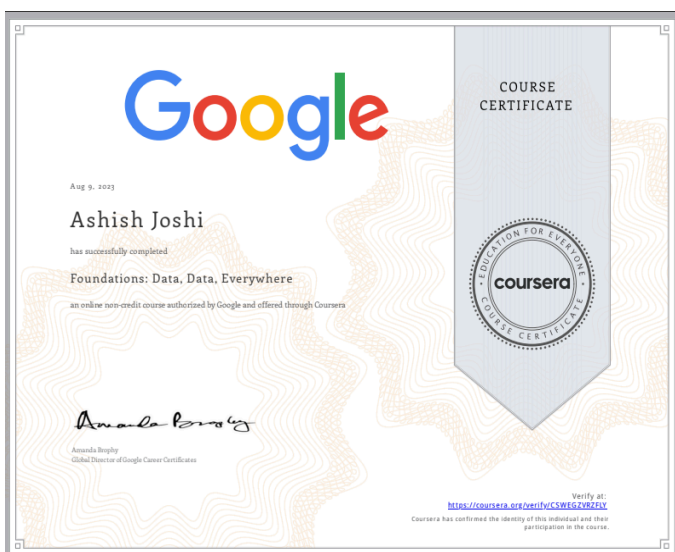
Sr. No.	Name of Student	Company Name	Package in Lacks/Year
1	Deshmukh Raturaj Tatyasaheb	KPIT	4.5
2	Dhere Mohit Mahendra	KPIT	4.5
3	Kolhatkar Rohan Chandrashekha	Hexaware	6
4	Kulkarni Anish Suhas	Consulting India	4.5
5	Mujumdar Rohan Yogesh	Infocenter	4
6	Paranjape Aditya Amogh	KPIT	4.5
7	Utsav Rohilla	Aress Software	4.5
8	Vispute Siddhi Rajesh	Teachnook	2.16
9	Motale Mahesh Babasaheb	Tech Mahindra	4.5

Students Online Certifications

Sr. No.	Name of Student	Certification Body (NPTEL/Coursera/Udemy)	Name of certification course completed
1	Isha Agarwal	Coursera	Prepare Data for Exploration
2	Sumedh Patil	Coursera	Ask Questions to Make Data-Driven Decisions
3	Siddhi Vispute	Coursera	Project Management
4	Mohit Dhare	Coursera	Foundations of Cybersecurity
5	Pooja Dani	Coursera	Prepare Data for Exploration
6	Vedant Purandare	Oracle	Oracle Cloud Infrastructure 2023 Certified Data Science Professional
7	Swarali Suryawanshi	Coursera	Google Data Analytics
8	Nagesh Wadgure	Coursera	Foundations: Data, Data, Everywhere
9	Kirti Bahaddarpure	AWS academy	Cloud Foundations
10	Swapnali Bakal	Coursera	Google Data Analytics
11	Aditya Paranjape	Udemy, Guvi(IIT Madras)	Ethical Hacking
12	Aditya Paranjape	GUVI	Python
13	Aditya Paranjape	NSDC Skill India	AI For India 2.0
14	RAJESHWARI PATIL	UDEMY	JAVA
15	Srushti Raut	Coursera	Data Analytics
16	Rohan Kolhatkar	Coursera	Generative AI
17	Shruti Bhosekar	Coursera , Udemy	Google Data Analytics ,Python and Django Framework
18	Gauri Kokate	coursera	Google Data Analytics
19	Om Kenge	LinkedIn Learning	Responsibilities of Ai
20	Harsh Sanchaniya	Coursera	Crash Course on Python
21	Atharva Hande	Infosys Springboard	Java
22	Anish Kulkarni	Udemy	Cyber Security
23	Anish Kulkarni	Udemy	Machine Learning
24	Rucha Kulkarni	Coursera	Google Data Analysis
25	Mahesh Motale	Coursera	Google Data Analytics
26	Rohit Mehatre	Infosys Springboard	React js
27	Tejal khadke	Udemy	Data structute using c/c++
28	Dakshesh Gandhe	Infosys Springboard	Blockchain Foundation

29	Pranay Mokar	Udemy	C++
30	Sanika Atul Kelkar	Coursera	Crash Course on Python
31	Sejal Pol	Coursera	Project network
32	Abhishek Kamble	YHills	Full Stack Java Development
33	Abhishek Kamble	Teachnook	Artificial Intelligence
34	Aryan Jadhav	GDSC	
35	Nikhita Watpal	Udemy	Data structures and algo using c c++
36	Vaibhavi Vishnu Gawade	Coursera	Data Analytics
37	Shruti Deshpande	Coursera	Digital marketing and e-commerce
38	Anuradha Virkar	Coursera	No-code responsive website with webflow
39	Yash Borade	Udemy	The Web Developer Bootcamp
40	Mihir Apte	Udemy	Data Science using Python
41	Ajeet Lokhande	Google	Google Cloud
42	Bhuvanesh Sudarshan Rajekadam	AICTE	AWS Cloud Foundations
43	Riya Ajay Gawande	Coursera	Foundations of Data Science
44	Diya Raju Sonavale	Coursera	Foundations of Data Science
45	Omkar Sanjay Jainak	coursera	Google Data Analytics
46	Bhargavi Patil	coursera	Python Programming
47	Shreyas Kolharkar	Udemy	Web Developer Bootcamp
48	Abhay Deshmukh	Coursera	Data Analysis With python
49	Anupreeta Nikam	Coursera	UX Design
50	Reva Pethe	Solo Learn	Python
51	Ashish Joshi	Coursera	Data Analytics
52	Reshmi Kulkarni	Accenture	Data Analytics
53	Neha Mahangade	Solo Learn	Python
54	Toyieb Naseer	udemy	python
55	Puneet Dixit	Coursera	Data Analytics Foundation
56	Anurag Kacherikar	Coursera	Data Analytics Foundation
57	Rohan Mujumdar	Coursera	SQL
58	Manav Zutshi	udemy	bootstrap
59	Dhruv Sinha	Coursera	Data Analytics Specialization
60	Kshitij Kamble	Coursera	Regression Analysis

61	Atharva Kadam	Coursera	Introduction to cloud computing
62	Rohan Pathak	AWS Academy	Introduction to Cloud Computing
63	HRISHIKESH PAWAR	Udemy	C++
64	Shreyas Gaikwad	Udemy	C++
65	Shreyash Deshmukh	Udemy	Python
67	Nishad utpat	coursera	data analytics
68	Anushka Phadtare	IBM	Cybersecurity fundamentals
69	Vedant Raut	udemy	Crash course on python
70	Rushikesh Joshi	Udemy	Clean code fundamentals
71	Prasad kachare	Coursera	Data analytic
72	Aditi Pawar	coursera	Data Analytics Foundation
73	Shrinivas Vaidya	Microsoft	Microsoft Azure AI solution



4. Student Internships

Sr. No.	Class	Students Name	Company Name
1	BE IT	Atharva Rohidas Gogawale	Zipy.Ai Pvt, Ltd
2	BE IT	Anish Kulkarni	Cummins Technologies India Private Limited
3	BE IT	OM KENGE	Brose India Automotive Systems Private Limited
4	BE IT	Swapnil Kakasaheb Borude	Binated Inc.
5	BE IT	Pooja Pramod Dani	Brose
6	BE IT	Vaibhavi Vishnu Gawade	Universal Adventures
7	BE IT	Vaibhav Shankar Hawale	Edu-Skill Google Ai-ML
8	BE IT	Shruti Bhosekar	Cloud-Plus Plus
9	BE IT	Swarali Suryawanshi	Brose India Automotive Systems Private Limited
10	BE IT	Nikhita Narendra Watpal	Fundsroom Investment And Services

Internship Certificates of Students



Date: 23-Oct-2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Anish Suhas Kulkarni** has successfully completed his internship project with Cummins Technologies India Private Limited from period **17-July-23 to 17-Oct-23**.

Project Title – IDAT

Guide Name – Gulab Naikwadi

His performance was found satisfactory during this period.

We wish him the best for all his future endeavors.

For Cummins Technologies India Private Limited

Ruchi Jain
Digitally signed by Ruchi Jain
Date: 2023.10.23 15:26:34 +05'30'

Ruchi Jain
HR Lead CSE

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hr@universaladventures.in
www.universaladventures.in

No: HRD/ICC/757 Date: 17 November 2023

INTERNSHIP COMPLETION CERTIFICATE

TO WHOM IT MAY CONCERN

This is to certify that Vaibhavi Gawade has completed her internship as a Content Writer with Universal Adventures during the period 04 September 2023 to 04 November 2023.

During the period, she handled Preparing well-structured drafts using Content Management Systems proofread and edit blog posts before publication, research industry-related topics (Combining online sources, interviews and studies) and write clear marketing copy to Promote our products/services.

During the course of internship, she has shown great amount of responsibility, sincerity and a genuine willingness to learn and zeal to take on new assignments & challenges. In particular, her coordination skills and communication skills are par excellence and her attention to details is impressive.

We wish her all the very best for her future.

Sincerely

Muskan Gupta

Muskan Gupta
HR Head

5. Student Publications

Sr. No.	Name of Author	Paper Title	Journal/ Conference
1	ROHAN KOLHATKAR	Admissions Prediction App for Masters.	METSZET Journal
	BHARGAVI PATIL		
	REVA PETHE		
2	JAYESH KULKARNI	Design an innovative system for Solar panels for informed decision making	METSZET Journal
	SAMBHAJI PATIL		
	NAGESH WADGURE		
	SAINATH CHANDANSHIVE		
3	PRASAD BANDAGALE	DeepFake Detection system using deep learning	International Research Journal of Modernization in Engineering Technology and Science
	MOTALE MAHESH		
	ADITI PAWAR		
	SHRINIVAS VAIDYA		
4	NEHA MAHANGADE	Smart Parking System	International Journal for Research in Applied Science & Engineering Technology
	ANUPREETA NIKAM		
	ADITYA PARANJAPE		
	BHUVANESH RAJEKADAM		
5	SAKSHI ANDHARE	Automated Dental cavity detection system using ml	International Journal for Research in Applied Science & Engineering Technology
	RAJESHWARI PATIL		
	SRUSHTI RAUT		
	SWARALI SURYAWANSHI		
6	KIRTI BHADDARPURE	Container based browser using Docker	Journal of Emerging Technologies and Innovative Research
	MAHESH PIMPARKAR		
	NISHAD UTPAT		
	UTSAV ROHILLA		
7	ISHA AGARWAL	Developing an Integrated Web Application and Cloud-based Saas Product for Aviation Training Institute	METSZET Journal
	POOJA DANI		
	MOHIT DHERE		
	SUMEDH PATIL		

6. Workshops & Technical Events Conducted by Department

1. One week FDP on "NextGen Computing: Blockchain and AI:

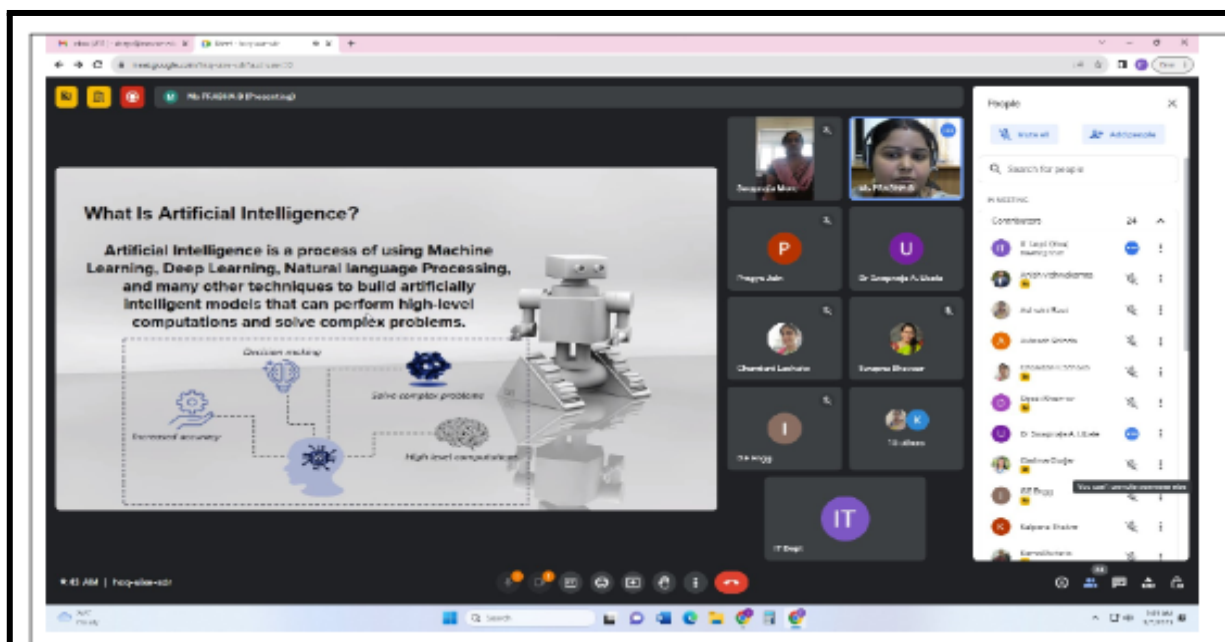
Event name: One week FDP on " NextGen Computing: Blockchain and AI

Event date: 4 Sept- 8 Sept 2023

Platform: Google meet

Faculty Development Program (FDP) on NextGen Computing: Blockchain & AI, was organized by Department of Information Technology, Marathwada Mitra Mandal College of Engineering, Pune. The FDP was organized for five days between period of 4th September 2023 – 8th September 2023 in association with The Institution of Engineers India (IEI) Pune Local Center & SoftTech Data Securities Centre

The faculty Development Program was inaugurated by Information Technology Department HoD, Dr Rupali Chopade. FDP coordinator Mrs. Shraddha Mankar & Dr Swapnaja Ubale were given the brief introduction about FDP schedule and importance of FDP. About 70 participants were actively participated and gained useful information from all the sessions.



2. Workshop on C++

Event Date: 17/08/2023 - 31/08/2023

Venue: MB401, IT Dept, MMCOE

The Information Technology Department of Marathwada Mitra Mandal's College of Engineering, Pune organized ""workshop on C++" for Information Technology students.

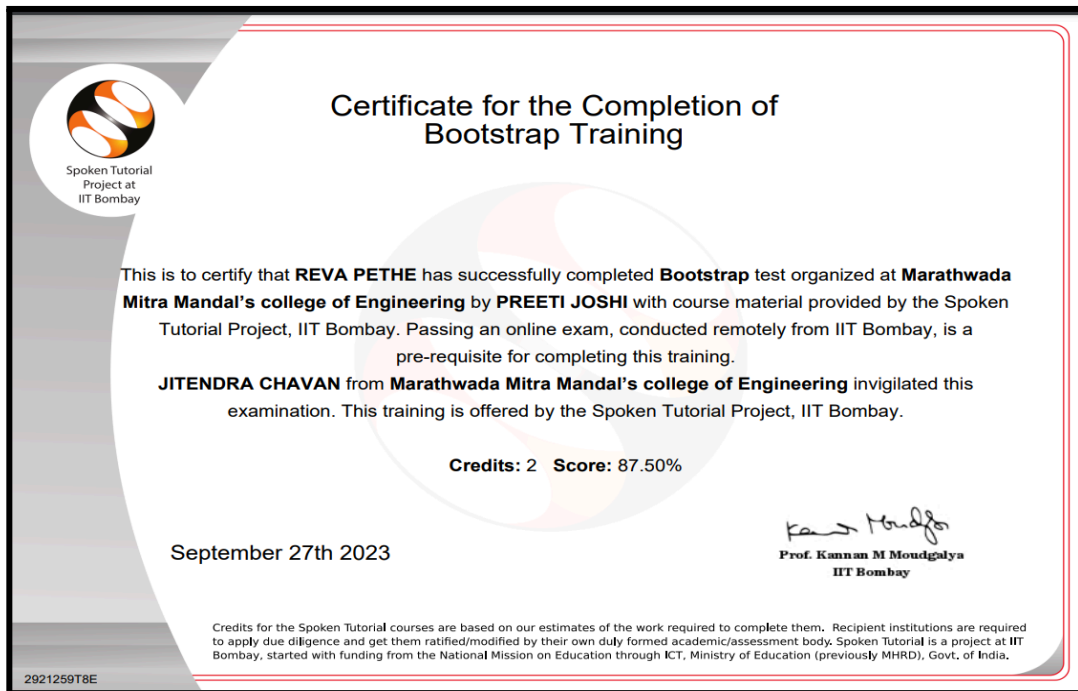
The workshop was conducted on 17/08/2023 to 31/08/2023 for SE IT students. 62 Students participated in the workshop. The Faculties Dr. Bharati Vasgi, Dr. Swapnaja Ubale, Ms. Neelam Jogalekar, Mrs. Shradhha Mankar have conducted sessions regarding C++. This workshop will be definitely helpful to students to explore new domain of research.

▪ **Spoken Tutorial:**

Event Name: Spoken Tutorial Online Test

The summary of the result of the spoken tutorial test for Sem-II were as follows :

Branch	Year	Course Name	Candidates Appeared	Candidates Passed	Passing Percentage
IT	S.E	Python 3.4.3	75	74	98.66
IT	T.E	Java	62	60	96.77
IT	B.E	Bootstrap	78	78	100



Certificates of Students

● **Parent Teacher Meeting :**

Event Date: 14/10/2023

Mode of Conduction: Offline

Venue: AC 401, IT Department, 4th Floor, MMCOE, Karvenagar.

Parent Teacher meeting for the academic year 2023-24, Semester-I was conducted on 14 Oct 2023 in the college campus. Around 34+ Parents from SE, TE and BE were present for the Meeting.

Commencement of the Parent Teacher meeting at 10:45 am with the welcome speech by Dr. Swapnaja Ubale. Department presentation regarding vision, mission, PEO and infrastructure details and academic policies followed by the department was presented by Dr. Rupali Chopade, HOD. Felicitation of Toppers from SE, TE and winners in Extra-curricular and Co-curricular activities. Overview of T & P Activities undertaken by the college by Mr.. Rahul Undegoankar, TPO, MMCOE. Questions and issues of the parents were then addressed by HOD Dr. Rupali Chopade and faculty members of the Department. The parent teacher meeting concluded at 12:30 pm followed by refreshment.

☑ *Following points were discussed in Meeting:*

- 1. At the start of the Presentation the Vision and Mission of the Department was disseminated to the Parents.*
- 2. Current year placement scenarios were discussed with the parents.*
- 3. Discussed the efforts taken by the Department and College for placement and internship.*
- 4. Mr. Rahul Undegoankar, discussed various initiatives taken by the college for Students' Internships and Placements.*
- 5. Discussed the various activities conducted in the department like skill-development programs, Curriculum gap bridging Lectures, Guest Lectures, Workshops, coding competitions and other events conducted under ITSA, IT Tech. Club and ACM student chapter.*
- 6. Discussed the various activities and projects conducted under the 'Centre of Excellence Computational Intelligence' in the department.*
- 7. Discussed the new lab setup of blockchain and its infrastructure. Parents appreciated the lab details and effort taken by the college on improvement of infrastructure.*
- 8. Parents appreciated the efforts taken by the College and Department and were happy to meet the faculties in person.*



7. Seminars / Guest Lectures Conducted by Department

Sr. No.	Name of Resource Person	Designation and Organization	Topic of Lecture	Date	Beneficiary class
1	Mr. Alankar More	Sr. Software Engineer at Globant India Pvt. Ltd	Web accessibility and guide to build future user interfaces	26/10/2023	54
2	Mr. Pratik Kadam	Associate Lead, DevOps. Pune	DevOp tools for secure software delivery and project management”	25/10/2023	68
3	Mr. Girish Hampe	Software Engineering Manager, SIEMENS Industry Pune	Expert Session on Data Structure and Practical	23/10/2023	37
4	Mr. Girish Hampe	Software Engineering Manager, SIEMENS Industry Pune	Expert Session on Data Structure and Practical	23/10/2023	13
5	Mr. Yogesh P Murumkar	CEO & Corporate Trainer, Bharat Soft Solution.	Expert Session on Deep Learning and Techniques & Concepts	02/11/2023	73
6	Mr. Aniruddha Shinde	Service manager(Network Transport) Barclays Bank PLC, Pune	Mobile communications and ISDN	25/11/2023	52
7	Mr. Sijo Mathew	Sr Project Engineer, Denar Automation and Controls LLP, Pune	Processor Architecture and its Interfacing	02/12/2023	47
8	Mr. Shreekant Kulkarni	Spandan Technology Pvt. Ltd.	Expert Session on "Complexity Classes and Cryptography"	1/11/2023	43
9	Mr. Ajay Khot	Data Scientist, Sahaj Software	Expert session on Machine Learning - Hands on Session	31/10/2023	50
10	Mr. Milind Jadhav	Senior Consultant, TCS	Expert lecture on Informatica Cloud ETL	21/10/2023	39
11	Ms. Sonali Suryavanshi	Software Engineer, Yardi Software India Private Ltd	AWS Cloud Computing	25/11/2023	61

12	Mr. Vinayak Jagtap,	@iknowlation Research lab Pvt. Ltd.	Expert Session on "Algebraic System and Application"	29/11/2023	44
13	Dr. Reshma Sonar	Associate Professor, ISBM Pune	Expert Session on Applications of File Handling and Hashing	10/12/2023	41
14	Mr. Taher Poonawala	Senior System Engineer ACI Worldwide	Data Engineering on Linux and Cloud	28/10/2023	65

8. ACM Student Chapter Activities

The students selected for the mentioned posts of MMCOE ACM Students chapter , for the AY 2023-24 are as below:

Sr. No.	Name of Post	Name of Student
1	Chairperson	Mr. Rohan Fargade
2	Vice Chairperson	Mr. Naman Agnihotri
3	Treasurer	Mr. Eeshan Malwandikar
4	Joint-Treasurer	Mr. Dhruv Mahajan
5	Secretary	Mr. Ashish Joshi
6	Joint-Secretary	Ms. Dhanashri Patil
7	Webmaster	Mr. Umakant Shinde
8	Creative Head	Mr. Aniket Kamble

9	Event Manager-Frontend	Ms. Vaibhavi Ladhe
10	Event Manager-Technical	Mr. Harshavardhan Grandhi
11	Publicity and Sponsorship Head	Mr. Prasad Babar
12	Social Media Manager	Ms. Isha Velankar
13	Department Coordinator	Ms. Preeti Pokale
14	Department Coordinator	Mr. Sattyaksh Mangsulikar
15	Department Coordinator	Ms. Kshama Patil
16	Department Coordinator	Ms. Prachiti Doshi



● ACM Event/Workshop :

Event Name: Internal Hackathon For Smart India Hackathon 2023

Event Date: 16/09/2023- 17/09/2023

Mode: Offline

Smart India Hackathon (SIH) is a national initiative by the Government of India for students to solve daily life problems and encourage innovation with a problem solving approach. The Internal Hackathon for SIH 2023 was organized at MMCOE in collaboration with ACM Students' Chapter, MMCOE, and Club of Developers and Engineers (Team CODE), MMCOE on 15th and 16th September 2023 in the college campus. This Internal Hackathon was a 24 hour long event conducted as a screening process to select top 35 teams from the institute for nomination towards the grand finale of SIH 2023.

The event started with the team reporting and inaugural ceremony in the presence of Dr. V. R. Deulgaonkar (HOD Mechanical), Dr. P. K. Tamkhade (Dean Student Welfare). Dr. R. M. Chopade (HOD, IT), Dr. K. S. Thakre (HOD, Computer) and other faculty members from the institute.. The dignitaries encouraged the participants with their words of intellect and inspiration. The participants were given 24 hours to design / develop a prototype for the problem statement that they had selected.

Total 71 Teams with 400+ students participated in the Internal hackathon.

Glimpses from Internal Hackathon



● ACM Brain games :

Event Name: Brain Games

Event Date : End of Every Month

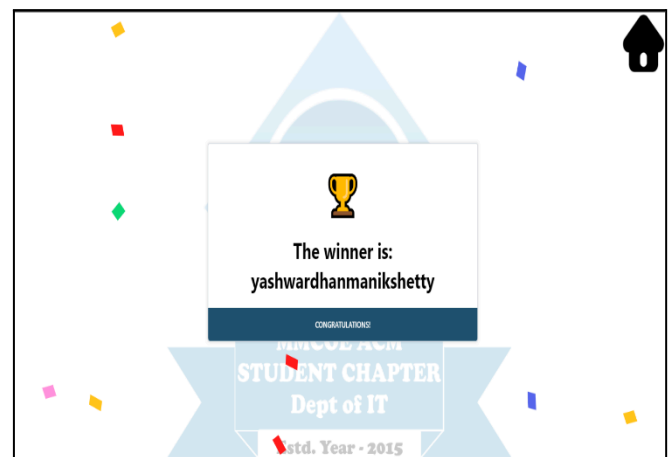
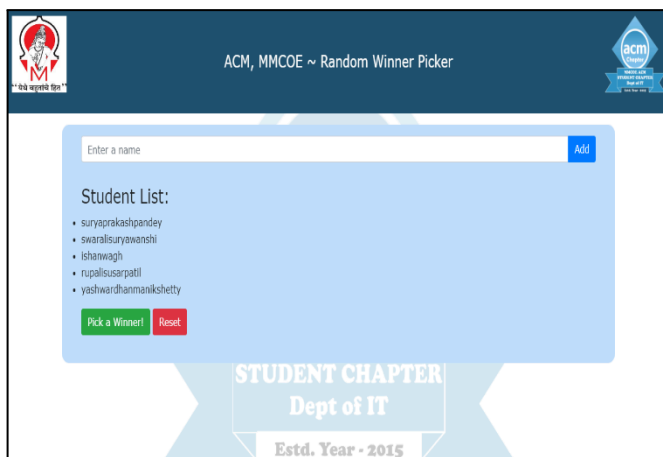
Venue : Online

Platform : Google Forms

The ACM Student's Chapter of Marathwada Mitra Mandal's College of Engineering, Pune successfully conducted "ACM Brain Games" for the months of August and September 2022.

The quiz questions were divided into general knowledge and technical knowledge. The quiz consisted of a total of 14 questions. The total points for the quiz were 20.

To select a winner from multiple top-scorers a digital lucky draw was developed in house. Every month, the winner was awarded with ACM Googies.



Glimpses from Brain Games in month of December

● ACM IT SPEEDHACK:


Event Name: IT SPEEDHACK

Event Date: 14/10/2023

Venue: 4th Floor, Department of Information Technology, MMCOE

*The Department of Information Technology, Marathwada Mitra Mandal's College of Engineering, Pune in association with IT TECH CLUB and ACM Students' Chapter-MMCOE organized a technical event "**IT SPEEDHACK**" on **14/10/2023**. Total 12 teams participated in IT SpeedHack conducted on 14/10/2023 out of which 3 teams were declared as winners based on their presentation skills, new knowledge gained and design. One Winner is picked from Web-Development Domain and 2 Winners are picked from other domains like AI/ML, Cloud Computing, Database Design.*

Winners of ITSpeedHack!! Inbox x

 **IT Tech Club** <ittechclub@mmcoe.edu.in>
to BE, BE, ITSTAFF, Rupali, jitendra, Nikhil

Mon, Oct 16, 2023, 10:22 PM

ACM SC MMCOE & IT TECH CLUB MMCOE
presents
Winners of IT SPEEDHACK 🌟🌟🌟🎉🎉🎉

Total 12 teams participated in IT SpeedHack conducted on 14/10/2023 out of which 3 teams were declared as winners based on their presentation skills, new knowledge gained and design. One Winner is picked from Web-Development Domain and 2 Winners are picked from other domains like AI/ML, Cloud Computing, Database Design.

The Winner from Web-Development is 🥳🥳
1st Prize: Mr. Umakant Shinde & Team

The Winner from Other Domains are 🥳🥳
1st Prize: Mr. Rohan Fargade & Team (Database Domain)
2nd Prize: Mr. Vedant Dalal & Team (Cloud Domain)

Congratulations to all the winners and we hope you participate in such events with the same enthusiasm 🎉🎉🎉!!!

Regards,
IT Tech Club

9. Students Association (ITSA) Activities

- ITSA is an association of IT department students for the students by the students of the students. ITSA was formed in AY 2014-2015.
- ITSA Student Committee for 2023-24:

Sr. No.	Post	Name
1	President	Naman Hariom Agnihotri
2	Vice President	Magdum Suraj Gafar
3	Secretary	Joshi Mahi Makarand
4	Department GS	Anish Peshwe
5	Department Sport Coordinator	Patil Khushal Arun & Ayush Namdev Gunjal
6	Social Media Head	Phadke Atharva Sameer & Bhagwat Nishita Shirish
7	Creative Head	Kothimbire Sneha Shivaji
8	Treasurer	Mahajan Dhruv Abhijit
9	Dongare Vaibhavi	Ms. Nikhita Watpal

Event Name : ITSA Techno-Social Activity**Event Date: 30 Nov 2023****Venue: Mahatma Gandhi Vidyalaya, Khanapur**

ITSA Club, Department of Information Technology, MMCOE organized a techno-social activity focusing on computer literacy at Mahatma Gandhi Vidyalaya, Khanapur. This initiative aimed to bridge the digital divide and promote technological literacy among students from underprivileged backgrounds.

Objective: *The primary objective of the activity was to impart basic computer skills, enhance digital literacy, and foster an understanding of the importance of technology in education and daily life.*

Participants: *A group of 14 students from MMCOE, along with 2 faculty members, Mr. Yogesh Pawar and Ms. Pooja More participated in the techno-social activity. The participants were selected based on their interest in community service and technology.*



Event Name : SE IT Induction 2023-24**Event Date: 21th August 2023****Venue: IT Dept, MMCOE**

In collaboration with ITSA, the Department of Information Technology at MMCOE conducted an induction program for first-year students on the 21st of August. The event took place in AC403 and aimed to warmly

Additionally, the induction program showcased several projects completed by senior students. These presentations served as a source of inspiration, encouraging students to explore new avenues and strive for excellence in their academic pursuits.

Overall the event successfully achieved its goal of introducing the FE students to the department's vibrant community and encouraging their active involvement.

*Glimpses from the Event*

10. IT Tech Club Activities

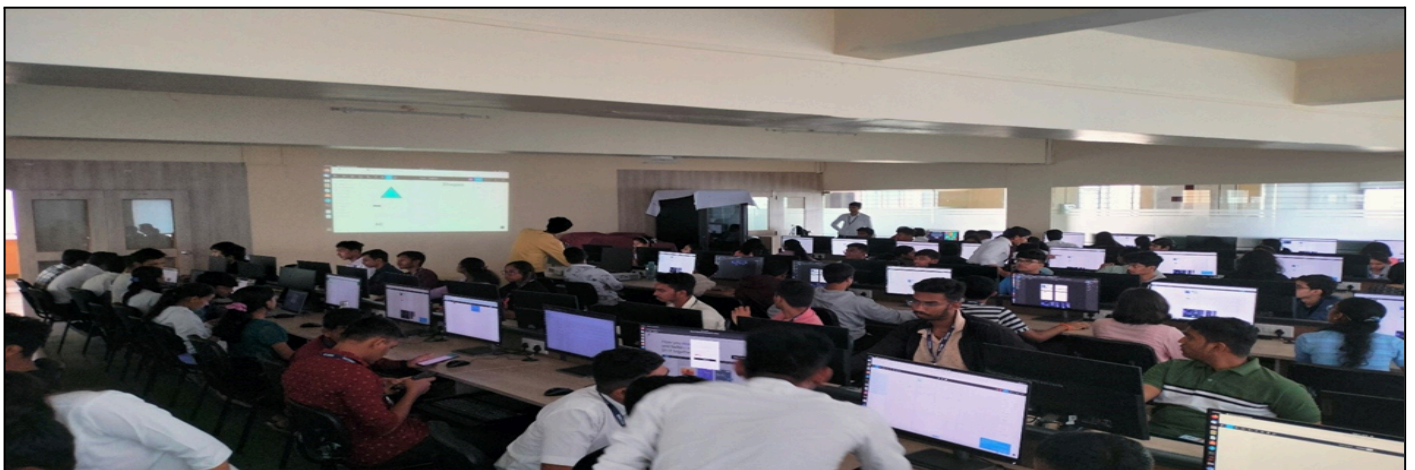
About Club: MMCOE IT Tech will work as a platform for students where they will be able to build their technical skills and bring the best out of them in today's dynamically developing world.

Office Bearers for A. Y. 2023-24

Sr. No	Name of Post	Name of Student
1.	President	Mr. Prasad Kachare
2.	Vice-President	Mr. Vedant Dalal
3.	Student Advisor	Mr. Mahesh Motale
4.	UI / UX Head	Mr. Jineet Vaishnav
5.	Web Development Head	Mr. Umakant Shinde
6.	Web Development Co Head	Mr. Harshvardhan Grandhi
7.	Data Science & AL-ML Head	Ms. Phadtare Anushka
8.	Competitive Coding Head	Ms. Anushka Chavan
9.	Social Media Head & Event Management	Ms. Velankar Isha
10.	Content Designer	Mr. Anish Peshwe
11.	Support Team Lead	Ms. Bhagwat Nishita

List of Activities conducted in AY 2023-24 :

Sr. No	Date	Activity	Domain	Description	Conducted by	Participants
1.	11/8/2023	Session	UI/UX	NO Code Website	Jineet Vaishnav	74
2.	14/10/2023	Competition	Coding Competition	IT SpeedHack	All member	25
3.	26/10/2023	Session	Coding Competition	RapidX	All member	25

Glimpses of Event:

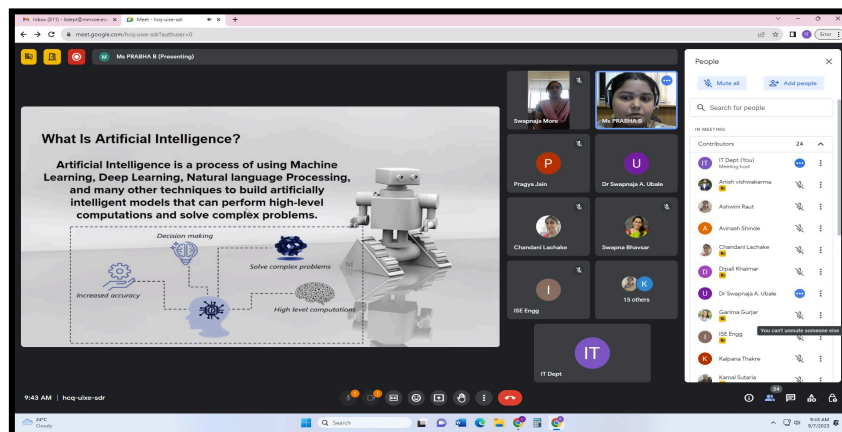
11. Center of Excellence

Sr. No.	COE	Event Conducted	Domain
1	Computational Intelligence	One Day workshop on Brain Computer Interfacing	Brain Computer Interfacing
2	Blockchain	FDP on NextGen Computing: Blockchain and AI	Blockchain Technology

Activities under COE



workshop on Brain Computer Interfacing



FDP on NextGen Computing: Blockchain and AI

12. Result (AY 2023-24 Sem I)

Sr. No.	Class	No. of Students Appeared	Passing Percentage
1	SE	76	67.10
2	TE	71	81.69
3	BE	75	97.40

Our Toppers

Class	Rank	Name of Student	SGPA
SE	1	Anupama Tilak	9.07
	2	Jadhav Rutuja Navnath	8.84
		Jadhav Shravani Avinash	
	3	Manikshetty Yashwardhan R	8.55
		Pawar Siddhi Suresh	
	TE	1	Velankar Isha Shivaji
2		Ladhe Vaibhavi Vikas	9.86
3		Magdum Suraj Gafar	9.71
BE	1	Khadke Tejal Bahubali	9.85
	2	Kulkarni Reshmi Avinash	9.7
		Patil Bhargavi Vinod	
3	Vaidya Shrinivas Ramdas	9.65	

13. Technical Blog by Students

1. Title : Blockchain

Author : Prathmesh Khandare(SE-IT)

Introduction

All traditional transactions depend on the centralized trusted party, which gives many problems of transaction cost, efficiency, and security. To solve these problems and to achieve secure, faster and transparent transactions we need to introduce the concept of Blockchain technology. Blockchain technology, which was introduced by Satoshi Nakamoto . Bitcoin defines as one of the applications of Blockchain Technology in the financial field. The blockchain is nothing but a distributed ledger technology. It will process the transactions between the individuals and organizations without the need for third party involvement.

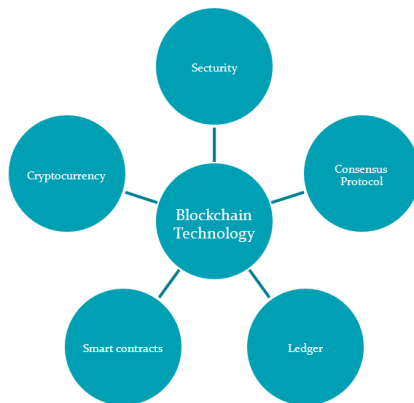


Fig. 1: General Architecture of Blockchain Technology

The above figure shows the Architecture of the Blockchain Technology. The elements of Blockchain Technology are:

Ledger: Blockchain is a distributed ledger technology, means the copy of the record is same who are participating in the network. There is neither central authority nor a trusted third party in the Blockchain

Consensus Protocols: Transaction should be verified by all parties in a network. Creating a block and adding to its ledger is also a decentralized process. It is nothing but a mining process.

Security: Blockchain uses the techniques of digital signatures and public key cryptography in order to verify the identity of the transactions in the network.

Cryptocurrency (or cryptocurrencies): it is designed as a digital asset works as an exchange of medium for providing secure transactions using cryptography.

Privacy: All types of data can be stored in the blockchain. The privacy rules are applicable if sensitive data is processing-e.g. health data or citizen service

Smart contract: These contracts are acts as agreements with a facility of self-execute and self enforced. These contracts take the data from external source, so that data should not tamper with that a cryptographic proof must be attached.

Types Of Blockchains

Types of blockchain Blockchains are classified into three types.

- 1) Public Blockchain
- 2) Private Blockchain
- 3) Permission Blockchain.

In Public Blockchain, everyone can contribute and no trust relationships among the nodes. The transactions on

the public blockchain can never be changed and cancelled. The Consensus algorithms used in this Blockchain are PoW, PoS and DPoS.

In Private Blockchain, only the owner of the Blockchain has the authority to modify the information and rest of nodes has limited access. PBFT consensus algorithm is used in the Private Blockchain.

In Permission Blockchain, Each participant selects its own consensus node based on specified rules. This one is suitable for the semi-closed network which is made by different enterprises.

Popular Blockchain Platforms :

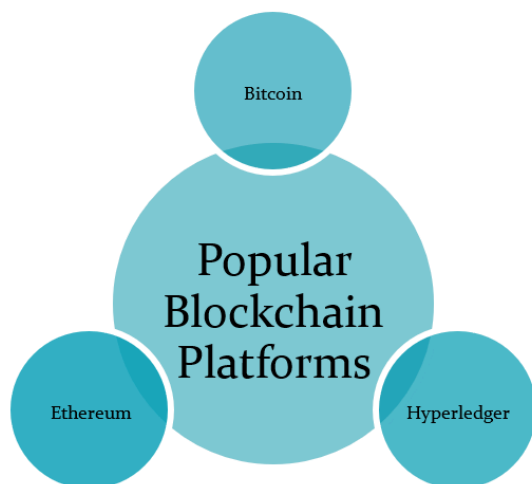


Fig.2 popular blockchain platforms

Bitcoin is the first decentralized digital currency and the first blockchain network. It was created in 2009 by an unknown person or group of people using the name Satoshi Nakamoto. Bitcoin is based on a public blockchain, and it enables people to send and receive payment over the internet without the need for a central authority.

Ethereum is a public, decentralized, and community-built blockchain network that is designed to carry out smart contracts. Smart contracts are scripts that, when called with certain parameters, perform some actions or computations

if certain events are triggered. Ethereum has its own cryptocurrency, called Ether, which is used to facilitate transactions on the network.

Hyperledger is an open-source platform for building distributed ledger solutions, with a modular architecture that delivers high degrees of confidentiality, flexibility, resiliency, and scalability. It is a private and confidential blockchain framework, and it is managed by the Linux Foundation. Hyperledger is often used for enterprise-level B2B applications, and it does not have its own cryptocurrency.

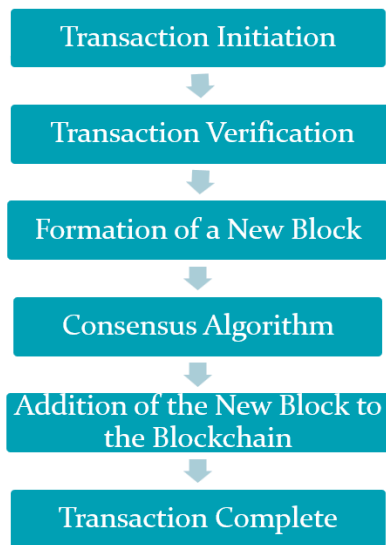
Working of Blockchain

Transaction Initiation: A new transaction enters the blockchain network. All the information that needs to be transmitted is encrypted using public and private keys.

Transaction Verification: The transaction is then transmitted to the network of peer-to-peer computers distributed across the world. All the nodes on the network will check for the validity of the transaction.

Formation of a New Block: Once the transaction is verified and declared legitimate, it will be added to the mempool. All the verified transactions at a particular node form a mempool and such multiple mempools form a block.

Consensus Algorithm: The nodes that form a block will try to add the block to the blockchain network to make it permanent. Only a valid block is securely attached to the blockchain.



| Fig.3 working of blockchain

Addition of the New Block to the Blockchain:

After the newly created block has got its hash value and is authenticated, now it is ready to be added to the blockchain. In every block, there is a hash value of the previous block and that is how the blocks are cryptographically linked to each other to form a blockchain.

Transaction Complete: As soon as the block is added to the blockchain, the transaction is completed and the details of this transaction are permanently stored in the blockchain.

Use Cases and Examples of Blockchain Technology in Industries

Finance:

Cross-border payments:chain technology enables faster and cheaper cross-border payments compared to traditional methods.

Securities trading:

Blockchain can streamline the process of securities trading by eliminating intermediaries and reducing settlement times.

Fraud prevention:

Blockchain's transparency and immutability can help prevent financial fraud by providing a tamper-proof record of transactions.

Supply Chain:

Tracking and tracing: Blockchain can be used to track and trace the movement of goods throughout the supply chain, improving transparency and reducing the risk of fraud.

Smart contracts:

Blockchain-based smart contracts can automate processes and reduce the need for manual intervention, improving efficiency and reducing costs.

Quality assurance:

Blockchain can be used to ensure the authenticity and quality of products, reducing the risk of counterfeit goods.

Healthcare:

Medical records: Blockchain can be used to create a secure and decentralized system for storing and sharing electronic medical records.

Clinical trials: Blockchain can improve the transparency and accountability of clinical trials, reducing the risk of fraud and improving patient safety.

Drug traceability: Blockchain can be used to track the movement of drugs throughout the supply chain, improving transparency and reducing the risk of counterfeit drugs.

Summary

This article provides an overview of blockchain technology, including its architecture, consensus protocols, security measures, and types of blockchains (public, private, and permissioned). The article also covers popular blockchain platforms, such as Bitcoin, Ethereum, and Hyperledger, and their applications in finance, supply chain, and healthcare. The working of blockchain technology is explained in detail, from transaction initiation to

addition of the new block to the blockchain. The article concludes with various use cases and examples of blockchain technology in finance, supply chain, and healthcare, highlighting the potential of blockchain technology to improve efficiency, transparency, and security in these industries.

2. Title : TensorFlow

Author : Tejashree Mulinti (SE-IT)

Introduction

TensorFlow is an open-source library, developed by Google, created for the specific purpose of numerical computation using dataflow graphs as its source. Two of the more important applications of TensorFlow are machine learning and deep neural networks research.

Unlike many libraries, TensorFlow works on just about every conceivable platform, from CPUs, GPUs, mobile and embedded devices, and Tensor Processing Units (specialized pieces of hardware that use tensor math).

The Background

TensorFlow was originally created as a deep learning project of the Google Brain Team. Since its inception, TensorFlow has been deployed across the entire Google ecosystem, in tools like:



- Google Assistant
- Google Photos

- Gmail
- Google search

And considering Google has the greatest machine learning infrastructure on the planet, it made sense for the company to be able to allow other businesses and developers to benefit from their platform. However, it wasn't until TensorFlow was created that Google was able to share that vast platform. With the TensorFlow library of tools, any developer can add deep learning to their software.

How Does TensorFlow Work?

TensorFlow uses a particular set of modules (which includes APIs for Python, C, and C++) to enable the construction and execution of TensorFlow computations. The data flow graphs that result from those computations are stateful, meaning that the program keeps track of the state of interaction.

To be more specific, TensorFlow sorts through layers of data, called Nodes, to uncover more and more complicated data about an image. As TensorFlow dives into deeper Nodes, it can ask more complicated questions.

For example: on the first node, it might recognize a round shape. As TensorFlow dives deeper, it might recognize the shape of an eye. This process of input, that flows through layers of data up until the output is called a tensor.

TensorFlow allows you to write code that then builds a computational graph, which is a data structure that describes the computation you want to perform. There are a number of advantages to this process. For one, the graphs can be executed immediately or saved and later executed on numerous platforms. The graphs can also be deployed into a production environment without having to also deploy the building code. The only thing that is necessary is an available runtime that supports the TensorFlow graph.

TensorFlow operates by defining a computational graph that represents the mathematical operations of a machine learning model. Within this graph, tensors— multi-dimensional arrays—flow through

various operations, encoding data and transformations. The process begins with defining operations and creating tensors to represent input data and model parameters. These components are then organized to construct the model architecture, with tensors

flowing through the graph to produce output predictions.

During training, optimization algorithms adjust model parameters iteratively to minimize a specified loss function. This process involves feeding input data into the model and updating parameters based on computed gradients. Subsequently, the model undergoes evaluation to assess its performance on unseen data, ensuring generalization and identifying potential overfitting.

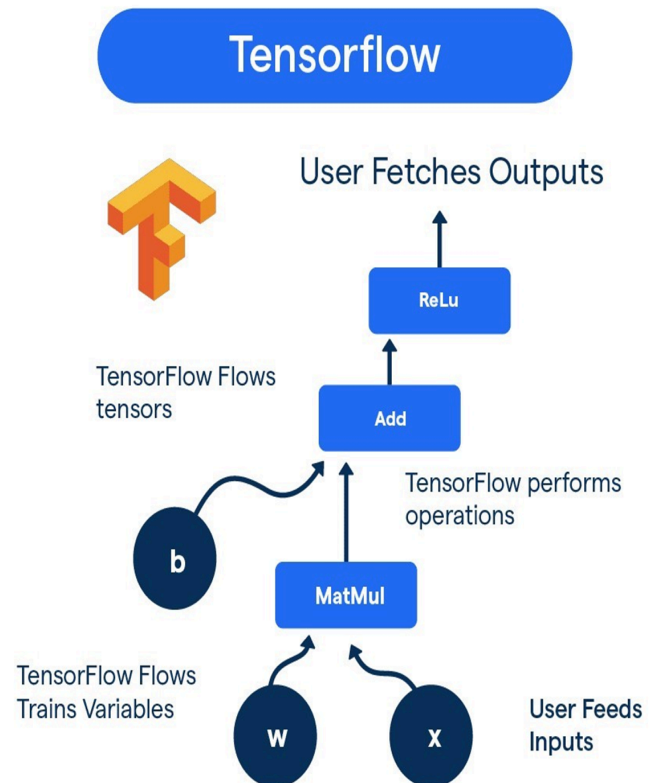
TensorFlow's versatility extends to deployment, with tools and APIs facilitating the integration of trained models into production environments. Throughout this process, TensorFlow efficiently manages computational resources, optimizes operation execution, and supports distributed computing for training large-scale models across multiple devices or servers. Its flexibility, scalability, and comprehensive feature set make it a potent framework for developing and deploying machine learning solutions.

The application of TensorFlow is fascinating. With the help of tensors, an application, such as Google Photos, is able to accurately recognize locations in images. For example, Photos use it to spot a particular item in a photo (say, a bridge or a statue) and know exactly where that photo was taken. The TensorFlow-enabled application can then act on that new information. All that can work like this: the application views a user's images, spots the Empire State Building and knows the photo was taken in New York. The application can then display New York-specific advertisements to the user.

TensorFlow isn't just limited to images. Another use case is voice and sound recognition. In fact, voice and sound recognition is one

of the most widely used

MMCOE, Karve Nagar, Pune 52



Applications of TensorFlow:

Google Assistant is the most obvious example, but there are other very important uses cases TensorFlow can be applied to, such as:

- Image recognition
- Object tagging videos
- Self-driving cars
- Sentiment analysis
- Flaw detection
- Text summarization
- Mobile image and video processing

Air, land, and sea drones

The Components of TensorFlow

TensorFlow has a number of pieces that come together to make the whole. Some of those pieces include:

TensorFlow.js

Allows the use of standard JavaScript models and can build and train models directly in JavaScript.

TensorFlow Federated

An open-source framework for experimenting with machine learning, using decentralized data.

TF Privacy

A library for training privacy centric machine learning models.

tf.function

Allows the transforming of a subset of Python syntax into portable, high-performance graphs.

Tensor Flow Probability

A Python library for the combining of probabilistic models and deep learning.

Tensor2Tensor

A library of deep learning models and datasets.

It's All About Machine Learning

Machine learning is in everything. With the help of machine learning, devices continue to grow smarter and more efficient. Considering that data is the lifeblood of businesses, every company has become dependent on the information it provides. From customer data to B2B information (and everything in between), businesses have become profoundly reliant on data.

With the help of TensorFlow and machine learning, your business is better equipped to leverage the available data. That's because it can help you to do the following:

- Predict customer behaviors and purchasing patterns to help you refine your interactions with customers and better recommend products.
- Predict machine maintenance needs.

- Eliminate manual data entry.
- Detect spam.
- Analyze financial data.
- Use images for data, pattern recognition, and database knowledge discovery.
- Diagnose medical conditions.
- Improve cybersecurity.

Imagine how challenging tackling all those issues would be without the help of machine learning—especially when big data is applied to the equation. Although you might be able to effectively handle some of those tasks with smaller amounts of data, once you're dealing with thousands and hundreds of thousands of data points, making sense out of that data manually becomes impossible.

And predicting behavior? Unless your company has a data scientist on-hand, that's a non-starter. In other words, for any reliable level of predictive computing, you need machine learning. And because TensorFlow was released with an open-source license, you can (with the right development team) integrate this incredible technology into your apps and systems.

A Holistic Approach to TensorFlow

Remember, not only will your development team need to understand TensorFlow, they'll need a solid knowledge of Python, C, and C++. We can deploy a team tailored specifically for the implementation and deployment of TensorFlow to your apps and/or services

14. Faculty Highlights

1. Seminar/ Workshop / Conferences Attended :

Sr. No.	Topic	Name of Faculty	Particulars
1	8 Weeks NPTEL-AICTE Faculty Development Programme on "Introduction to Machine Learning"	Dr. Rupali M. Chopade	FDP
2	One Week FDP on "Applications of Machine learning in Urban Studies"	Dr. Rupali M. Chopade	FDP
3	Three Days FDP on "Research Perspective"	Dr. Rupali M. Chopade	FDP
4	One week IIRS Workshop on "Applications of Machine learning in Urban Studies"	Dr. Rupali M. Chopade	Workshop
5	one week Short Term Training Program on "Future Trends in 5G & 6G: Challenges, Architecture & Program"	Mrs. Shraddha P. Mankar	STTP
6	3 day FDP on research Perspective	Mrs. Shraddha P. Mankar	FDP
7	One week FDP on "Recent trends in Data Analytics & Data mining"	Ms. Punam V. Chavan	FDP
8	Two weeks National level FDP on "Devops"	Ms. Punam V. Chavan	FDP
9	12 week NPTEL AICTE FDP on "The Joy of computing using python"	Ms. Punam V. Chavan	FDP
10	Two weeks National level FDP on "Devops"	Dr. Bharati P. Vasgi	FDP
11	One week FDP on "Research Publication, Copyright and Patents in Science and Technology"	Dr. Bharati P. Vasgi	FDP
12	Two weeks National level FDP on "Devops"	Mr. Yogesh J. Pawar	FDP

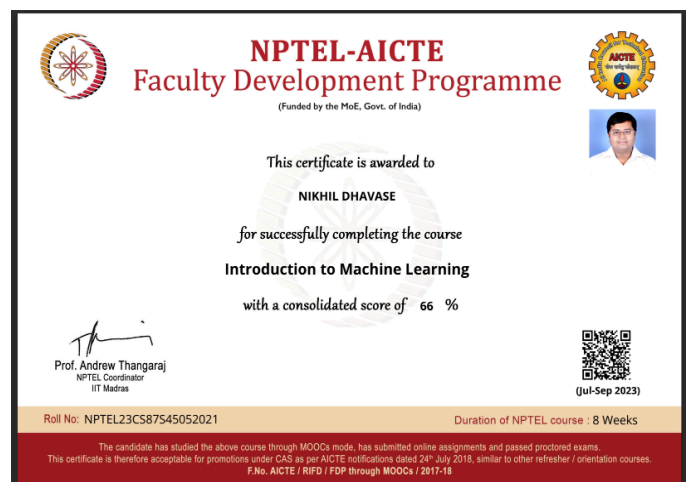
13	3 day FDP on research Perspective	Mr. Yogesh J. Pawar	FDP
14	One week FDP on NextGen Computing and Blockchain and AI	Mr. Yogesh J. Pawar	FDP
15	one week Short Term Training Program on “Future Trends in 5G & 6G: Challenges, Architecture & Applications”	Mrs.Shraddha P. Mankar	STTP
16	one week on “EDUCATION 4.0 IN HIGHER EDUCATION”	Ms. Preeti Joshi	FDP
17	One week FDP on " Foundation of research and AI-based Natured inspired methods"	Ms. Preeti Joshi	FDP
18	One week FDP on NextGen Computing and Blockchain and AI	Ms. Preeti Joshi	FDP
19	Eight Weeks NPTEL-AICTE Faculty Development Programme on "Introduction to Machine Learning"	Mr. Nikhil Dhavase	FDP
20	One week IIRS Workshop on “Applications of Machine learning in Urban Studies”	Mr. Nikhil Dhavase	Workshop
21	one week Short Term Training Program on “Future Trends in 5G & 6G: Challenges, Architecture & Applications”	Mr. J. R. Chavan	STTP
22	One week Short Term Training Program on “Data science for business”	Mr. J. R. Chavan	STTP
23	Three days National Level Faculty Development Program on "Student Centric and Interactive Teaching Strategies using Technological Tools"	Dr S A Ubale	FDP
24	One week FDP Innovative Teaching and Learning Pedagogy	Dr S A Ubale	FDP
25	12 week NPTEL AICTE FDP on "Design & Implementation of Human-Computer Interfaces"	Dr S A Ubale	FDP
26	One week FDP on " Recent trends in Data Analytics & Data mining "	Mr. Vilas Ghonge	FDP
27	Two weeks National level FDP on " Devops"	Mr. Vilas Ghonge	FDP

28	8 week NPTEL AICTE FDP on " Accreditation and Outcome based Learning"	Dr. Bharati P. Vasgi	FDP
29	One week FDP on "Cloud Infrastructure(AWS)"	Mrs. Shital Kakad	FDP
30	one week Short Term Training Program on "Future Trends in 5G & 6G: Challenges, Architecture & Applications"	Mrs. Shital Kakad	STTP
31	One week FDP on " Foundation of research and AI-based Natured inspired methods"	Ms. Neelam Jogalekar	FDP

2. Faculty Achievements :

1. Dr. Rupali Chopade has been invited as a Advisory Board Member in International Conference GCon-SFT Dec 2023.
2. Dr. Rupali Chopade received Grade "Elite Grade in Machine Learning Certification" by NPTEL 2023.
3. Dr. Bharati Vasgi received Grade "Elite Grade in Accreditation and Outcome Based Learning" by NPTEL 2023.
4. Dr. Bharati Vasgi was invited as a Session Chair for the Elsevier International conference, June. 2023.
5. Dr. Bharati Vasgi was invited as a Session Chair for the 6th International Conference on Recent Trends In Engineering & Technology VISHWACON-23 Nov. 2023.
6. Dr. Bharati Vasgi was invited as a Reviewer for the Journal of Autonomous Intelligence (Scopus) August 2023.
7. Dr. Bharati Vasgi was invited as a Resource person for the Faculty Development Program on DevOps August 2023.
8. Dr. Bharati Vasg has been invited as a Advisory Board Member in International Conference GCon-SFT Dec 2023.
9. Mr. Nikhil Dhawase was selected for National Level Poster Presentation in ACM India Council Chapter Meet Dec 2023
10. Mr. N. S. Dhavase received "Elite Grade in Machine Learning Certification" by NPTEL 2023.

11. Ms. P. V. Chavan received “Elite Grade in Joy of Computing using Python” by NPTEL 2023
12. Mrs. Preeti Joshi has received a Letter of Appreciation from Spoken Tutorial IIT Bombay.
13. Mr. Jitendra Chavan received Elite NPTEL Certification for NPTEL, Online Certification in "Programming in JAVA" course.





15. List of faculty members in the Department

● List of Teaching Staff Members :

Name of the Staff & Designation		Name of the Staff & Designation	
Dr. Rupali M. Chopade <i>Associate Professor</i> & <i>Head of the Department</i>		Dr. Bharati P. Vasgi <i>Associate Professor</i>	
Dr. Swapnaja A. Ubale <i>Associate Professor</i>		Mrs. Preeti S. Joshi <i>Assistant Professor</i>	
Ms. Sheetal A. Kakad <i>Assistant Professor</i>		Ms. Rashmi M. Bhattad <i>Assistant Professor</i>	
Mr. Nikhil S. Dhavase <i>Assistant Professor</i>		Mr. Jitendra R. Chavan <i>Assistant Professor</i>	

<p>Ms. Shraddha P. Mankar <i>Assistant professor</i></p>		<p>Mr. Yogesh J. Pawar <i>Assistant Professor</i></p>	
<p>Ms. Punam V. Chavan <i>Assistant Professor</i></p>		<p>Ms. Pooja R. More <i>Assistant Professor</i></p>	
<p>Mr. Amol G. Muley <i>Assistant Professor</i></p>		<p>Ms. Snehal S. Kale <i>Assistant Professor</i></p>	

● **List of Visiting/Adjunct/Professor of Practice:**

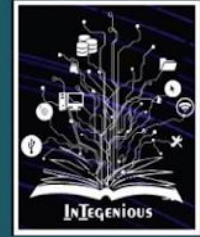
Name of the Staff & Designation		Name of the Staff & Designation	
<p>Mr. Yogesh A. Ghorpade <i>Professor of Practice ME Mechanical, CEO Evisipro</i></p>		<p>Mr. Amey C. Tambe <i>Adjunct Faculty MCA, CEO SoftTech Data Securities</i></p>	

<p>Ms. Shruti A. Kulkarni <i>Visiting Faculty</i> <i>ME Computer Networks</i></p>			
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● **List of Non-Teaching Staff Members :**

<p>Name of the Staff & Designation</p>		<p>Name of the Staff & Designation</p>	
<p>Mrs. Smita Kari <i>Lab Assistant</i></p>		<p>Mr. Dinkar R. Patil <i>Technical Assistant</i></p>	

InTegeinous



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“It is always good to work with people who make you feel insecure about yourself. That way, you will constantly keep pushing your limits”



Sundar Pichai

10 June 1972

“Chief Executive Officer of Alphabet and Google”