CSE

Department of Computer Science and Engineering

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INDEX

AUGMENTED REALITY

Cover Story Inside story of Augmented Reality which is emerging as biggest Technology nowadays focuses difference between AR, VR and MR

Augmented reality (AR) is one of the biggest technology trends right now, and it's only going to get bigger as AR ready smartphones and other devices become more accessible around the world. AR let us see the real-life environment right in front of us—trees swaying in the park, dogs chasing balls, kids playing soccer—with a digital augmentation overlaid on it. For example, a pterodactyl might be seen landing in the trees, the dogs could be mingling with their cartoon counterparts, and the kids could be seen kicking past an alien spacecraft on their way to score a goal.

With advances in AR technology, these examples are not that different from what might already be available for your smartphone. Augmented reality is, in fact, readily available and being used in a myriad of ways including as Snapchat lenses, in apps that help you find your car in a crowded parking lot, and in variety of shopping apps that let you try on clothes without even leaving home.

Perhaps the most famous example of AR technology is the mobile app Pokemon Go, which was released in 2016 and quickly became an inescapable sensation. In the game, players locate and capture Pokemon characters that pop up in the real world—on your sidewalk, in a fountain, even in your own bathroom.

Games aside, there are as many uses for AR in our everyday lives as there are Pikachu on the loose in Pokemon GO. Here are just a few examples:

- Enhanced navigation systems use augmented reality to superimpose a route over the live view of the road.
- During football games, broadcasters use AR to draw lines on the field to illustrate and analyze plays.
- Furniture and housewares giant IKEA offers an AR app (called IKEA Place) that lets you see how a piece of furniture will look and fit in your space.
- Military fighter pilots see an AR projection of their altitude, speed, and other data on their helmet visor, which means they don't need to waste focus by glancing down to see them.
- Neurosurgeons sometimes use an AR projection of a 3-D brain to aid them in surgeries.
- At historical sites like Pompeii in Italy, AR can project views of ancient civilizations over today's ruins, bringing the past to life.
- Ground crew at Singapore's airport wear AR glasses to see information about cargo containers, speeding up loading times

Students' Acheivement

Sr.No.	Name of Student	Company Name	Designation
1	Abhishek Dakre	Capgemini	Capgemini Technology Services India Limited.
2	Vinita Virbhan Nanwani	Capgemini	Capgemini Technology Services India Limited.
3	Sakshee Bansoad	Capgemini	Capgemini Technology Services India Limited.
4	Vaishnavi Joshi	Capgemini	Capgemini Technology Services India Limited.
5	Sumit Batra	Capgemini	Capgemini Technology Services India Limited.
6	Meghna Nerkar	TCS Codevita S-9	Associate System Engineer Trainee
7	Dhanashree P. Ambadkar	Tata Consultancy Services	Assistant System Engineer Trainee
8	Deepesh Shankarlal Bodhani	Tata Consultancy Services	Assistant System Engineer Trainee
9	Shantanu Vilas Deshmukh	Tata Consultancy Services	Assistant System Engineer Trainee
10	Vedant Nandkishor Jawanjal	Tata Consultancy Services	Assistant System Engineer Trainee
11	Onam Vinodrao Kale	Tata Consultancy Services	Assistant System Engineer Trainee
12	Yash Naresh Mansukhani	Tata Consultancy Services	Assistant System Engineer Trainee
13	Shailesh Ramchand Nanwani	Tata Consultancy Services	Assistant System Engineer Trainee
14	Nitikesh Rajesh Pihul	Tata Consultancy Services	Assistant System Engineer Trainee
15	Akshata Sunilrao Pote	Tata Consultancy Services	Assistant System Engineer Trainee
16	Rashi Vinod Kale	Tata Consultancy Services	Assistant System Engineer Trainee
17	Karan Jitendra Sharma	Tata Consultancy Services	Assistant System Engineer Trainee
18	Nasrin Jahangir Siddique	Tata Consultancy Services	Assistant System Engineer Trainee
19	Vaishnavi Anil Lonare	Tata Consultancy Services	Assistant System Engineer Trainee
20	Yogesh Purushottam Gite	Tata Consultancy Services	Assistant System Enginneer Trainee

Students Internship in the year 2020-21

| Sr.No.	Name of Student	Company Name
1	Pranit Subodh Karale	IBM
2	Sanjana Sandeep Maheshwari	Oyester Training
3	Isha Vithalani	Shelfebook
4	Shantanu Deshmukh	TCSiON , JP Morgan Chase and Co.
5	Vaishanvi Govind	Bisen Internshala (E-cell IITRoorkee)
6	Samiksha Sanjay Mankar	Internshala (Hamari pehchana NGO)
7	Sanyukta Kankirad	Unschool
8	Anuja Rajendra Gosavi	Sun InfoTech Pvt. Ltd. Amravati
9	Prasanna Prasad Dhole	Sun InfoTech Pvt. Ltd. Amravati
10	Shivam Pramod Shete	Sun InfoTech Pvt. Ltd. Amravati
11	Aditya Gajanan Sawate	Sun InfoTech Pvt. Ltd. Amravati
12	Radhika Ganesh Harsule	Sun InfoTech Pvt. Ltd. Amravati
13	Sanskruti Sandeep Malani	Sun InfoTech Pvt. Ltd. Amravati
14	Nilay Rajesh Guhe	Sun InfoTech Pvt. Ltd. Amravati
15	Sakshi Premnath Divekar	Inside Sherpa
16	Prasanna Prasad Dhole	Obdurate Technologies Pvt. Ltd.
17	Arpit Pravin Wath	Obdurate Technologies Pvt. Ltd.
18	Ashlesha Talankar	Obdurate Technology Pvt. Ltd.
19	Sana Vilas Thamke	Obdurate Technology Pvt. Ltd.
20	Rohit Bharatrao Mandavkar	Obdurate Technology Pvt. Ltd.
21	Rajshree Sudhir Datey	Brain o vision, markyto innovation
22	Soniya Prakhadsingh Tomar	AUTOMATE ENGINEERING
23	Shreya Wanjari	Suven Consultants
24	Vaishnavi Sunilrao Datir	Aashman Foundation
25	Vaishnavi Ravindra Kale	Makryto Innovation Pvt. Ltd.
26	Rohini Ravindra Mankar	Makryto Innovation Pvt. Ltd.

Students Involvement in various Activities in the year 2020-21

| Sr.No.	Name of Student	Event Name	Prize	Program	Venue
1	Mr. Prasanna Dhole	Movie Making Competition	Winner	Movie Making	SIPNA, COET, Amravati
2	Mr.Ravindra Kanitkar Kshitij Sherekar	Movie Making Competition	1st Runner Up	Movie Making	SIPNA, COET, Amravati
3	Mr. Nitish Giri	Movie Making	Winner	Movie Making Amravati	SIPNA, COET,
4	Dhanashree Lahoti Nikita Agrawal Rutika Kapile Anjali Verma Sneha Ambulkar	Paper Presentation Competition	1st Rank	CIMC 20	Central Institute of Business Management, Research & Development.

Students Activities in the year 2020-21

A Webinar was organized on 4ᵗʰ October 2020 on the topic "on IoT & Enabling Technologies

An Overview " for Second Year to final Year Students of All Branches and also for M.E. students .It was conducted Abhijeet Deogirikar, Founder & CEO, Copper Cloud, Pune
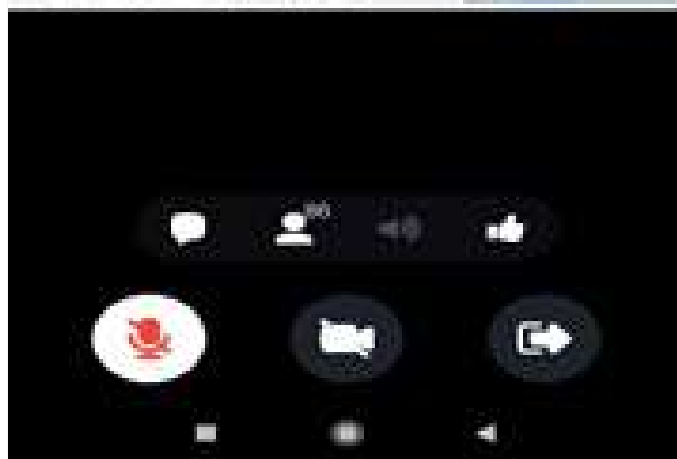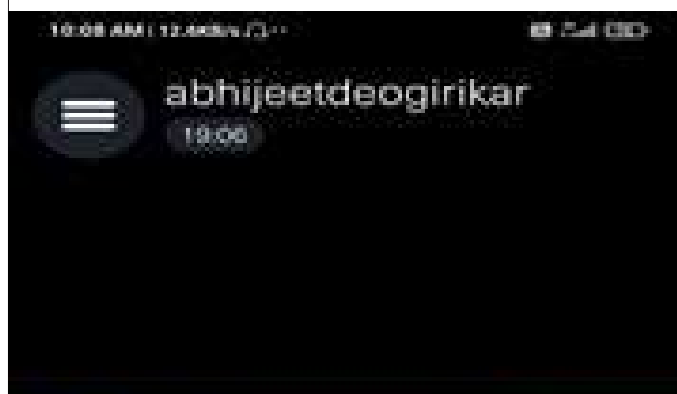
A Quiz was organized from 30 december 2020 to 01 January 2021 "Basics of Computer Science " for for Second Year to final Year Students of Computer Science and Engineering Department. It was a departmental activity. 50 students has participated in the Quiz and succseefully completed it.
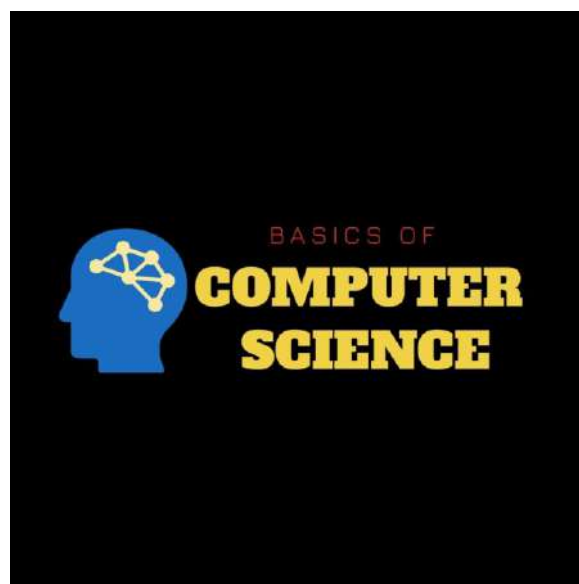
A Webinar on "Career Options after Engineering" was organized for Second and Third year students. It was organized on 11ᵗʰ January 2021. It was conducted by Mr. Anirudhh Shukla   Manager, Mumbai Educational Trust, Mumbai

Students Attainments

Heartily Congratulations to

Ms. Dhanashree Lahoti, Ms.Nikita Agrawal, Ms. Rutika Kapile, Ms. Anjali Verma, Ms.Sneha Ambulkar for receiving Best Paper Award in student category for Paper Title "Automated Irrgigation System" published at 13th CIMS 2020 held on 27th November 2020. They have successfully done this work under the guidance of Dr.P.A.Tijare

Heartily Congratulations to Dr. P. A. Tijare for Publishing a Book Chapter on "Data Dupication" in the book "Data Duplication Approaches: Concepts, Starergies and Challenges.

Heartily Congratulations to Dr A. V. Zade Upon completion of his PhD on the topic **A Novel Optimization Algorithm for Mobile Ad-hoc Network based on Swarm Intelligence**

NPTEL Courses
Hearty Congratulations
to the following faculties on completion of their online courses on NPTEL

Dr.Miss V.K. Shandilya	Miss P.C.Khanzode
Mr. A.R. Itkikar	Dr. Miss A.A. Khodaskar
Miss S.B.	Miss S.W. Wasankar
Miss K.R. Ingole	Ms. A.M. Meshkar
Miss R.V. Gupta	Dr. A.V. Zade

Deapartmental Achivement

Program Educational Objectives (PEOs)

PEO1: Acquire the fundamental and advanced knowledge in Computer Science and Engineering subjects along with additional knowledge in the subjects like Mathematics, Basic Sciences and inter-disciplinary courses which enable them to solve real life problems.

PEO2: Succeed in getting the engineering positions in Computer Software and Hardware Industries, Government Organizations at regional, national and international levels.

PEO3: Succeed in the pursuit of higher studies and continue with life-long learning.

PEO4: Aware of social responsibility, ethical standards and environmental issues to serve the society better.

Programme Outcomes:Engineering Graduates will able to:

PO1 : Engineering knowledge : Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 : Problem analysis:Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

PO3 : Design/development of solutions:Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4 : Conduct investigations of complex problems:Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5 : Modern tool usage:Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6 : The engineer and society:Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

Deapartmental Achivement

PO7 : Environment and sustainability:Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 : Ethics : Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9 : Individual and teamwork:Function effectively as an individual, and as a member or leader in diverse teams, and in multi disciplinary settings.

PO 10 : Communication:Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11 : Project management and finance:Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi disciplinary environments.

PO12 : Life-long learning:Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Objectives (PSO's)

PSO.1 : Solve problem using Basic Maths, Discrete Structure, Theory of Computation and knowledge of Programming, Data Structures.

PSO.2 : Design and developed software solutions by applying the knowledge in Algorithms, DBMS, Computer Network, Artificial Intelligent and Software Engineering.

PSO.3 : Analyze and understand Computer Architecture, Basic and Digital Electronics, Operating System and Object Oriented System to provide better solution.

PSO.4 : Demonstrate awareness towards Professional Ethics, Environment Aspects, Social Issue and readiness for life long learning

About Institute

Sipna Shikshan Prasarak Mandal, established in the year 1995, aims to impart higher & technical education to the enthusiastic youths and envision them for a better tomorrow.

Since its inception, SSPM has been successfully running undergraduate and postgraduate courses in emerging areas through Sipna's Arts, Science & Commerce college, Chikhaldara and Sipna College of Engineering & Technology, Amravati, affiliated to Sant Gadge Baba Amravati University, Amravati. We have already marched towards various Postgraduate, Management and Research Programs.

The Sipna College of Engineering & Technology (SCOET) was started in July 1999 to provide professional education to the students in the region and around. The College is located in Amravati, an educational hub of Maharashtra.

Sipna College of Engineering & Technology is an unaided Engineering college approved by the All India Council for Technical Education (AICTE), New Delhi and affiliated to Sant Gadge Baba Amravati University, Amravati (Maharashtra).

The Institute is accredited by IAO and Certified by ISO 9001:2015 (Quality Management System), ISO 14001:2015(Environment Management System) & ISO 17025:2005.

National Assessment & Accreditation Council (NAAC) accreditation is another feather in the cap for the institution and it has received an 'A' Grade. We are the first institute in Maharashtra to get accredited under the new scheme- 2018. Under the AICTE Margadarshan scheme, Sipna College of Engineering & Technology, Amravati is "A Mentee Institute" of College of Engineering, Pune (COEP). To enhance the Industry Institute Interaction and to build   a strong rapport with Industry, Sipna C.O.E.T has got the membership of Confederation of Indian Industry (C.I.I), the most reputed Industry Organization. We are proud to say that Sipna C.O.E.T is the only Institute in Sant Gadge Baba Amravati University who is a member of C.I.I. C.I.I is a non- government, not- for-profit, industry-led and industry-managed organization, playing a proactive role in India's development process.

Using innovative and latest teaching methodologies, well equipped with all the infrastructure and facilities needed for efficient transfer of knowledge and skill-sets, Sipna is working towards generating confidence amongst students to take on tomorrow's challenges of highly dynamic world. This is the reason why we stand out from a cluster of several institutes in the country, and take our students straight to the realms of their future careers.

Students Attainments

Develop globally competent Computer Science and Engineering graduates by inculcating value of leadership and research qualities and make them ready for industry needs.

MISSION

- To create an ambience of education for attaining professional excellence.
- To enhance the fundamental concepts, analytical and problem solving skills of students.
- To make the students acquainted with the contemporary technologies and expectations of industries.
- To encourage the students for internship programs, alumni interaction in order to apply knowledge for solving societal problems.

About Department

Department of Computer Science and Engineering is prepared to meet the challenges and is playing a leader's role in shaping the education by proving unique academic and research opportunities in the forefront of Computer Science & Engineering and its applications.

The department is accredited by National Board of accreditation (NBA).Present intake of Undergraduate (B.E.) Course is 180. The intake of post graduate (M.E.) Course is 42.The department has S.G.B. Amravati University approved Research Laboratory with capacity of 15 candidates for pursuing their Ph.D. research studies.

The department has a team of well qualified and competent faculty members. Most of the curriculum is taught using modular learning approach to integrate the academic programs with practical knowledge. In addition to this, co-curricular activities are carried out to promote intellectual growth of the students so that the next generation of engineers would prove their excellence in all fields. Similarly, eminent personalities from industries are invited to give an insight on latest technologies that are practiced.