



Shiv Chhatrapati Shikshan Sanstha's
Rajarshi Shahu Mahavidyalaya (Autonomous), Latur
Department of Computer Science

A) A Summary Report of the Activity

1) Title of the Programme:	Industrial Tour			
2) Name of Organizing Department/Unit:	Department of Computer Science.			
3) Name of the Coordinator(s)/ Convener(s)/ Organizer(s) of the Program:	Dr. R. R. Londhe			
4) Date(s) of the Programme:	11 Dec to 15 Dec 2022			
5) Venue/Mode:	Bangalore & Mysore, Karnataka			
6) Target Group:	B. Sc. B. Voc. (CT) and M. Sc. (CS) students			
7) Number of participants:	Male	Female	Total	
A separate list with signatures be maintained in the department/Unit)	Teaching Staff	01	03	04
	Non-Teaching Staff	--	--	--
	Students	25	21	46
8) Name(s) and details of Resource Person(s), if any:	--			
9) Total Expenditure for the Programme:	6200/- per student			
10) Source of Funding:	From Students			

B) Report

i. Title

Industrial Visit to Bangalore

ii. Introduction

Department of Computer Science had organized an Industrial Visit tour from 11 Dec to 15 Dec 2022 to Bangalore and Mysore located in Karnataka state for the students of B. Voc. Computer Technology (FY, SY & TY), B.Sc. (FY, SY & TY), M.Sc. (Computer Science) FY & SY. Total 46 students along with 4 faculty members were there in the tour.

iii. Objectives of the Industrial Visit:

1. To provide the students an insight of working of Multi-National Companies.
2. To understand satellite communication & use of computer science for the same.
3. To identify students' prospective area of work like software development, research, marketing, finance, logistics, etc.

iv. Details of Participants: Total 46 (25 Male & 21 Female) Students and 04 Teachers (01 Male, 03 Female)

v. Brief Summary of Event:

Day 1:

We started our journey from the Latur Railway Station at 4:00 PM on 11th December, 2022 and reached Bangalore Railway Station the next day i.e., 12 Dec 2022 at 7:30 AM. Our accommodation was arranged in Hotel Bangalore Gate, Bangalore.

Day 2:

Second day started with various site visits, which included to Vidhana Soudha, Cubbon, Visvesvaraya Industrial and Technical Museum (VITM). Visvesvaraya Industrial & Technical Museum, Bangalore (VITM) was established in memory of Bharat Ratan Sir M. Visvesvaraya. It is a constituent unit of National Council of Science Museum (NCSM), Ministry of Culture, Government of India. Students visited following part of the Museum:

1. Taramandal Show (Engine Hall)
2. Space Technology Gallery
3. Electro Technic Gallery
4. Biotechnology Gallery
5. BEL – Hall of Electronics
6. Wright Brothers Aero plane
7. Science for Kids
8. Science on a Sphere

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9. Dinosaur Enclave
10. Science Park

1. Engine Hall:

This hall contains evolution of mechanisms, machines and devices that form the very foundation of modern technology. This section involves Simple Machines, The Prime Movers, how things work? And the Giant Energy Ball. In this hall 6 classical simple machines of the industrial age placed by scientists. These interactive exhibits include the Pulley System, Gears, Levers, Inclined Plane and Wedge, Wheel and Axle, and Screw. The amazing, but simple principles behind the working of objects like a ball point pen, a zipper, and a lock and key keep visitors engrossed.

2. Space Technology Gallery:

The “Space Technology” gallery is at second floor of Visvesvaraya Industrial and Technological Museum, Bengaluru which brings the various facets of Space Technology in an easy to comprehend way through several interactive and immersive exhibits. There are different sections in this gallery such as: Flight Mechanics, Launch Complex, Mission Control Centre, selfie point of “Be an Astronaut”. Various Models of Satellites and Rockets launched by India till now, Space Applications, GPS, International Space Station, Space Astronomy, Story of Space, Space Spinoff, Indian Space Program, Space Materials, Space Food, Space Wear.

3. Electro Technic Gallery:

This gallery was a fascinating exhibit on various topics in electrical technology. The gallery was a journey through the spectacular world of electricity from the classical experiments to the state of art technology. Different sections were there in this Electro Technic Gallery which involved:

Static Electricity: creates Static Electricity by rubbing different materials.

Electrical Energy (Current Electricity): Electrical Energy can be transformed into the other forms of energy which is shown by the game and how the motors work?

Virtual Electro Magnetic Induction: Performs virtual experiment on basic electricity.

Nuclear Debate: Participate in the nuclear debate by giving opinions on various issues on nuclear power.

Generation, Transmission and distribution of electricity: In this Section, working of solar car was displayed, how electricity could be generated using fossil fuels and alternative energy sources like wind, solar etc. through interactive exhibits.

Magnetism: Turn a piece of iron into a magnet and have fun with magnets.

Quiz Corner: anyone can participate in the quiz and can test the knowledge in electricity.

Milestones in Electricity: Browse through the history of electricity by turning the interactive monitor (Screen of Computer).

Weather Studio: Anyone can see the weather of any location in a TV Studio and can also see the program telecast.

Power Plant: in this section museum have a closer look at how thermal and nuclear power plants work.

Electromagnetic Induction: Discover the principles of electromagnetic induction through hands-on exhibits and conduct Faraday's experiment of electromagnetic induction using the Faraday's ring.

4. Biotechnology Gallery:

The gallery on Biotechnology showcases interactive exhibits on different themes like genesis of biotechnology, fundamentals of biotechnology, genetics, techniques in biotechnology and applications of biotechnology in different fields like agriculture and food, industry, and in pharmacy and medicine. The gallery also has several other exhibits to bring live the ongoing research in different laboratories in India and across countries in the world, and their contribution to the field of biotechnology through digital interactive.

5. BEL- Hall of Electronics:

This department exhibits on digital electronics, communication, virtual environment and computer software.

Sections of BEL- Hall of Electronics:

Digital Corridor: In this section the one can see their own digitised image as they walk through the digital corridor.

Chip Manufacturing Plant: From sand to chip – the process of manufacturing microchips was depicted in this realistic model.

Component Tree: Electronic components hold the key to electronic devices. Watch the videos on different electronic components.

Basic Electronics: Explore the world of semi-conductors, diodes and transistors through interactive models.

Barcode Reader: Shown working of Barcode Reader.

Electronic Circuit Board: Anyone can make simple electronic circuits using enlarged components on giant circuit board.

Semiconductor: In this model one could see the simulated movement of electrons in semiconductor.

Transistors: The model on transistors demonstrates the on-off stages of Field Effect Transistors.

Secure Communication: Speak through a secret phone and know the principles of coded messages through interactive exhibits.

Satellite Communication: Shown how Electronics and satellite technology link the world through satellite communication.

Fibre Optics Communication: Use optical fibre to transmit text, audio and video information and know about the advantages.

Radar: Know about the electronic Watch dogs- through working models of Radars.

Telemedicine: One of the major attractions of the Hall of Electronics is the telemedicine conferencing facility which has been set up in collaboration with ISRO. We can have live teleconsultation via satellite with doctors from a super speciality hospital like Narayana Hrudayalaya.

Thermal Imaging: One can See for yourself how a thermo gram of your body looks like.

Night Vision goggle: We can have a thrilling experience of seeing in darkness using Night Vision goggles.

J.J. Thomson Period Room: The science of electronics began with the discovery of electron by J.J. Thomson in 1897. In this room, there was J. J. Thomson's lab and one could listen to his speech on discovery of electron.

Internet: Know about the enormous power of internet and chat with someone on the other side of the globe.

Nanotechnology: The panel on Nanotechnology gave an idea about this path breaking new technology, which was going to influence human life in the near future.

Virtual Reality Games: The gallery welcomes the visitors to the amazing world of virtual reality. A fascinating exhibit on virtual games invites the visitors to play volleyball with a robot. Experience the power of software in a virtual environment.

Digital Studio: Experience the amazing power of software & emerging technology and create special effects morphing, virtual make up, and virtual emotions and assemble your own image from bits and pieces.

6. Wright Brothers' Aeroplane:

Marking the momentous breakthrough that allowed humans to fly, a full-scale replica of the 'Kitty Hawk', the Wright Brothers' aeroplane, was fabricated by the museum's exhibit team with technical support from the National Aerospace Laboratories. The replica was installed in VITM on December 16, 2003 to commemorate the centenary of the successful flight of 'Kitty Hawk' in North Carolina on December 17, 1903 by Wilbur and Orville Wright. VITM is the only museum in Asia to have a full-scale replica of the plane. A star attraction is an original piece of wood used in the "Wright Model E", the single propeller aircraft flown by the Wright Brothers in 1913.

Wright Brothers' Simulator

Another first is the 'Kitty Hawk' Simulator, which allows visitors to enjoy a virtual experience of flying the Wright Brothers' Aeroplane.

7. Science for Kids:

The new Science for Kids gallery provides a unique opportunity for young children to Explore, Experience and Enjoy science through Touch, Feel and Move. This is the most effective physical learning style through hands on approach that allows children to experiment, and engage in fun. The gallery has a wide range of exhibits for children to experiment and experience, thereby challenging their learning skills. A wide range of interactive science games are part of the gallery that makes their learning fun and enjoyable.

8. Science on Sphere:

A fantastic series of images are created by planetary data of high-resolution satellite images and videos, animated images of atmospheric storms, fluctuations in ocean currents, effects of climate change and other complex environmental processes. No visitor can miss this captivating show! 'Science on a Sphere', developed by the National Oceanic and Atmospheric Administration (NOAA), USA and installed in VITM, is the only one of its kind in Asia. Combined with narration and supporting immersive visuals, 'Science on a Sphere' is an innovative, powerful and immersive teaching tool for informal education about earth sciences, climate change, astronomy and the impact of human activities on the planet.

9. Dinosaur Enclave:

Visitors can enjoy the movement and sound of a true size animated Spinosaurus in a recreated environment of Triassic period and even take pictures with it and also described the history of Dinosaur.

10. Science Park:

Portable Steam Engines: This Steam engines were mainly used to operate machinery for grinding, threshing, pumping and sawing in Farms, mills and factories. Bullocks or horses were used to pull and take it to the worksite.

Stationary Steam Engine: The tandem compound arrangement has the high-pressure cylinder ahead of the low-pressure cylinder and the latter being nearest to the flywheel. The steam expansion is proportioned for equal work in each cylinder with greater economy, both pistons are mounted on the same rod and working on the same crank.

Archimedes Screw: The screw has to Rotate the handle fitted at the top end of the cylinder. Observed that Water comes out intermittently through the end of the tube wrapped around the cylinder. This device is used for raising water to a height and it was conceived by Archimedes the celebrated Greek inventor.

We went to hotel for lunch. After lunch we visited Lal Bagh Garden, Lalbagh Botanical Garden or simply Lalbagh, is a botanical garden in Bangalore. This garden is India's largest collection of tropical plants and sub-tropical plants, including trees that are several centuries old.

At the end of the we visited ISKON (International Society for Krishna Consciousness) temple, Bangalore. Sri Radha Krishna-chandra Temple is one of the largest Krishna-Hindu temples in the world and came back to the Hotel and took dinner.

Day 3:

On third day we left for to Mysore from Bangalore at 7:00AM. We had breakfast on the go. We reached Mysore at 12:15PM. After checking in at Quorum Hotel, we had lunch then we left to visit Mysore Palace and Vrindavan Garden.

Day 4:

On fourth day, early morning we visited Chamundeshwari temple located on the top of Chamundi Hills about 13 km from the palace city of Mysuru in the state of Karnataka. The temple was named after Chamundeshwari or, the fierce form of Shakti, a tutelary deity held in reverence for centuries by the Maharaja of Mysuru.

Visit to U R Rao Satellite Communication Center in Bengaluru:

As Part of Industrial Visit Organized by Department of Computer Science 46 students and 4 faculty members from the department visited U R Rao Satellite Communication Center in Bengaluru on 14 Dec 2022 at 04:00pm. After completing all the documentation & formalities we all were given entry cards & allowed us to went inside the center for an hour.

Dr. S L Shirnivasan showed us a video presentation of about 10-15 minutes regarding Chandrayan & Mangalyam mission. Post the video presentation Dr Shrinivasan gave brief information regarding various ISRO centers in India namely

1. U R Rao Satellite Centre, Bangalore:

It is the unit for spacecraft projects and the main satellite technology bases of ISRO. This facility is responsible for implementing indigenous spacecraft in India. The construction of satellites like Aryabhata, Bhaskara, APPLE, and IRS-1A too place here.

2. Satish Dhawan Space Centre (SDSC), Sriharikota:

It is a rocket launch center of ISRO. It came into being in 1971 as Sriharikota Range. SDSC was renamed after ISRO's former chairman Satish Dhawan. It is the main launch base for India's sounding rockets.

3. Space Applications Centre (SAC), Ahmedabad:

It is responsible for aspects of the practical use of space technology. It researches on geodesy, satellite-based telecommunications, surveying, remote sensing, meteorology, environment monitoring, etc.

4. National Remote Sensing Centre (NRSC), Hyderabad:

It is responsible for remote sensing of natural resources and studies aerial surveying. With ground stations at Balanagar and Shadnagar, it facilitates training at Dehradun Indian Institute of Remote Sensing (1966).

After the discussion Dr Shrinivasan answered/cleared the queries asked by the students and faculties. Then we all were taken to a hall where the actual satellite construction was taking place. Our HoD Dr Renuka had a conversation with Dr Shrinivasan on starting a certificate course in Satellite Communication in association U R Rao Satellite communication center Bengaluru. Lastly, we clicked a group photo in the center and we all left to our return journey to Latur.

vi. Conclusion, with Feedback on the Programme

1. It provided an opportunity to students to question the resource person of India's best institution ISRO.
2. Industrial visit provided the students with an opportunity to learn practically through interaction, working methods and employment practices.
3. This visit provided students an opportunity to explore the different industry sectors like IT, manufacturing, services, finance and marketing.

vii. Any Appendix if necessary: List of Participants attached.

Date: 20/12/2022


HoD
Head

Dept. of Computer Science
Rajarshi Shahu Mahavidyalaya, Latur




Principal
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Rajarshi Shahu Mahavidyalaya
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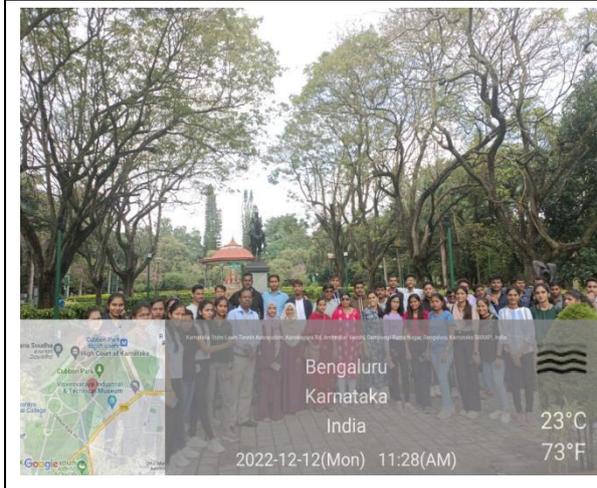
C) Screenshots/Geo tagged Photographs



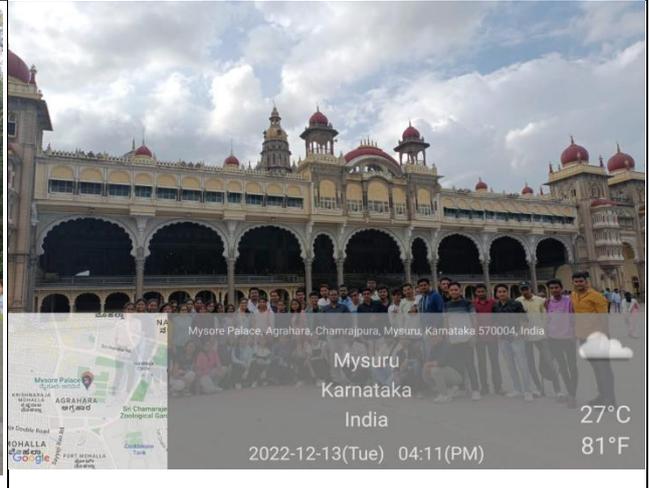
Karnataka Vidhan Souda (Vidhan Sabha)



Visvesvaraya Industrial & Technical Museum (VITM) Bangalore, Karnataka.



Lal Bagh Botanical Garden Bangalore, Karnataka.



Visit to Mysore Palace, Karnataka.

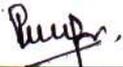
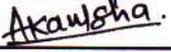
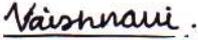
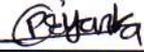
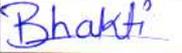
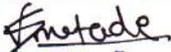
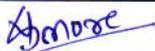
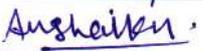
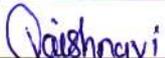
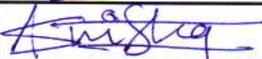
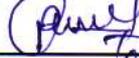


Guide is explaining the history of Mysore Palace.

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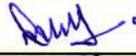
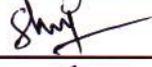
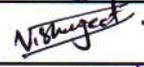
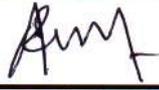
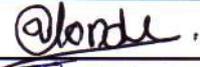
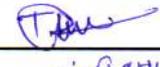
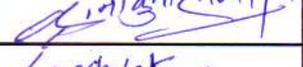
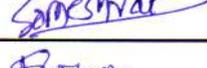
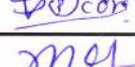
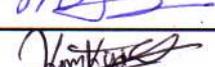
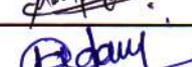
List of Participants

Sr. No	Name Of Candidate	Class	Gender	Signature
1	Dr. RENUKA R LONDHE	--	Female Teacher	
2	BIRADAR AKANKSHA	B Sc SY	Female	
3	GAVKARE SHRUTI ANIL	B Sc SY	Female	
4	KHAPE VAISHNAVI SURYAKANT	B Sc SY	Female	
5	SHELKE NIKITA VYANKAT	B Sc SY	Female	
6	KAMBLE PRIYANKA DATTATRAY	B Voc CT FY	Female	
7	PANSHETTE BHAKTI S	B Voc CT FY	Female	
8	MOTADE SRUSHTI VINOD	B Voc CT FY	Female	
9	KAPNURE RUTUJA UMAKANT	B Voc CT TY	Female	
10	PATIL SNEHA RAJENDRA	B Voc CT TY	Female	
11	GADEKAR BHAVANA	B Voc CT TY	Female	
12	MORE SAKSHI YUVRAJ	B Voc CT TY	Female	
13	KADAM SHRAWANI NAVANATH	B Voc CT TY	Female	
14	Ms. HUMERA F MANIYAR	--	Female Teacher	
15	SHAIKH AFRIN MAKBUL	M Sc CS FY	Female	
16	CHAVAN VAISHNAVI REJENDRA	M Sc CS FY	Female	
17	DAPKE SHRUTI GAJANAN	M Sc CS FY	Female	
18	TUNGE PRATIKSHA BALAJI	M Sc CS FY	Female	
19	NELWADE RENUKA DAYANAND	M Sc CS FY	Female	
20	SHAIKH ANISHA KHAJULAL	M Sc CS FY	Female	
21	GAIKWAD AISHWARYA	M Sc CS SY	Female	
22	BIRADAR PUNAM HANMANT	M Sc CS SY	Female	
23	PATIL SUPRIYA SANJAY	M Sc CS SY	Female	

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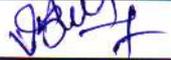
List of Participants

Sr. No	Name Of Candidate	Class	Seat No.	Signature
24	Mrs. POOJA S LATURIYA	--	Female Teacher	
25	POUL MADHAV SATISH	B Sc SY	Male	
26	WAGHMARE PRANAV	B Sc TY	Male	
27	SHINDE PRATIK PRATAP	B Sc TY	Male	
28	SARGE ROHIT SANJAY	B Sc TY	Male	
29	BOYNE MANGESH RAJENDRA	B Voc CT FY	Male	
30	BIRADAR SUSHANT	B Voc CT FY	Male	
31	BHOSALE OMKAR ANANT	B Voc CT FY	Male	
32	SOMWANSHI ANIKET	B Voc CT FY	Male	
33	GIRI KRISHNA BALWANT	B Voc CT FY	Male	
34	FULARI SOHAM DEEPAK	B Voc CT FY	Male	
35	KARADKHELE VISHWAJEET	B Voc CT FY	Male	
36	SALVE PANKAJ VITHAL	M Sc CS FY	Male	
37	Mr. ARUN S SHINDE	--	Male Teacher	
38	LONDHE VAIBHAV VIKAS	B Voc CT SY	Male	
39	NAVAL OM SANTOSH	B Voc CT TY	Male	
40	KANDANGIRE TEJAS ANGAD	B Voc CT TY	Male	
41	MATHAPATI KRANTIKUMAR	B Voc CT TY	Male	
42	SANGULE SOMESHVAR	B Voc CT TY	Male	
43	SAYKAR VISHNU DHONDIRAM	B Voc CT TY	Male	
44	HONMANE MAYUR SATISH	B Voc CT TY	Male	
45	KANAME OMKAR VIKRAM	B Voc CT TY	Male	
46	KADAM KUBER SATISH	M Sc CS FY	Male	
47	SANGULE VITTHAL NAGORAO	M Sc CS FY	Male	

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Computer Science

List of Participants

Sr. No	Name Of Candidate	Class	Seat No.	Signature
48	AGRAWAL RAHUL RADHESHAM	M.SC. SY	Male	
49	BHEDE VISHAL SHIVLING	B Sc SY	Male	
50	RATHOD PRATIL RAJABHAU	B Sc TY	Male	


HoD
Head

Dept. of Computer Science
Rajarshi Shahu Mahavidyalaya, Latur




Principal
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Rajarshi Shahu Mahavidyalaya
(Autonomous), Latur