



ACHARYA'S NRV SCHOOL OF ARCHITECTURE

(Acharya Dr. Save-all Radhakrishnan Road, Soladevanahalli, Bengaluru -560 107, India)

About the Event:

INTRODUCTION

The study tour was conducted for 3rd-year- 6th-semester students, where 47 students participated to understand a certain context and design architecture solutions. The aim of the tour was to expose students to understanding contours, architectural building materials used in different places, and the contemporary and history of architecture. This tour was conducted from 20th February to 4th March. This trip covered North Indian cities like Delhi, Agra, Chandigarh, Manali and Naggar.

ABOUT NORTH INDIA

North India is a loosely defined region consisting of the northern part of India. The dominant geographical features of North India are the Indo-Gangetic Plain and the Himalayas, which demarcate the region from the Tibetan Plateau and Central Asia.

Delhi: Delhi, India's capital territory, is a massive metropolitan area in the country's north. Old Delhi comprises buildings made during the Mughal era like the Red Fort, Jama Masjid, Chandni Chowk, and Qutub Minar among others.

Agra: Agra is a city on the banks of the Yamuna River in the Indian state of Uttar Pradesh. It was known then as Akbarabad and remained the capital of the Mughal Empire under the Emperor Akbar, Shah Jahan and Jahangir. It is famous for its Mughal architecture, the most prominent ones being Taj Mahal, Agra Fort, Fatehpur Sikri, etc.

Chandigarh: Chandigarh, the capital of the northern Indian states of Punjab and Haryana, was designed by the Swiss-French modernist architect, Le Corbusier. His buildings include the Capitol Complex. The nearby Rock Garden is a park featuring sculptures made of stones, recycled ceramics and industrial relics.

Manali: Manali is a high-altitude Himalayan town in India's northern Himachal Pradesh state. Set on the Beas River, it's a gateway for skiing in the Solang Valley. It's also a jumping-off point for paragliding, rafting and mountaineering in the Pir Panjal mountains.

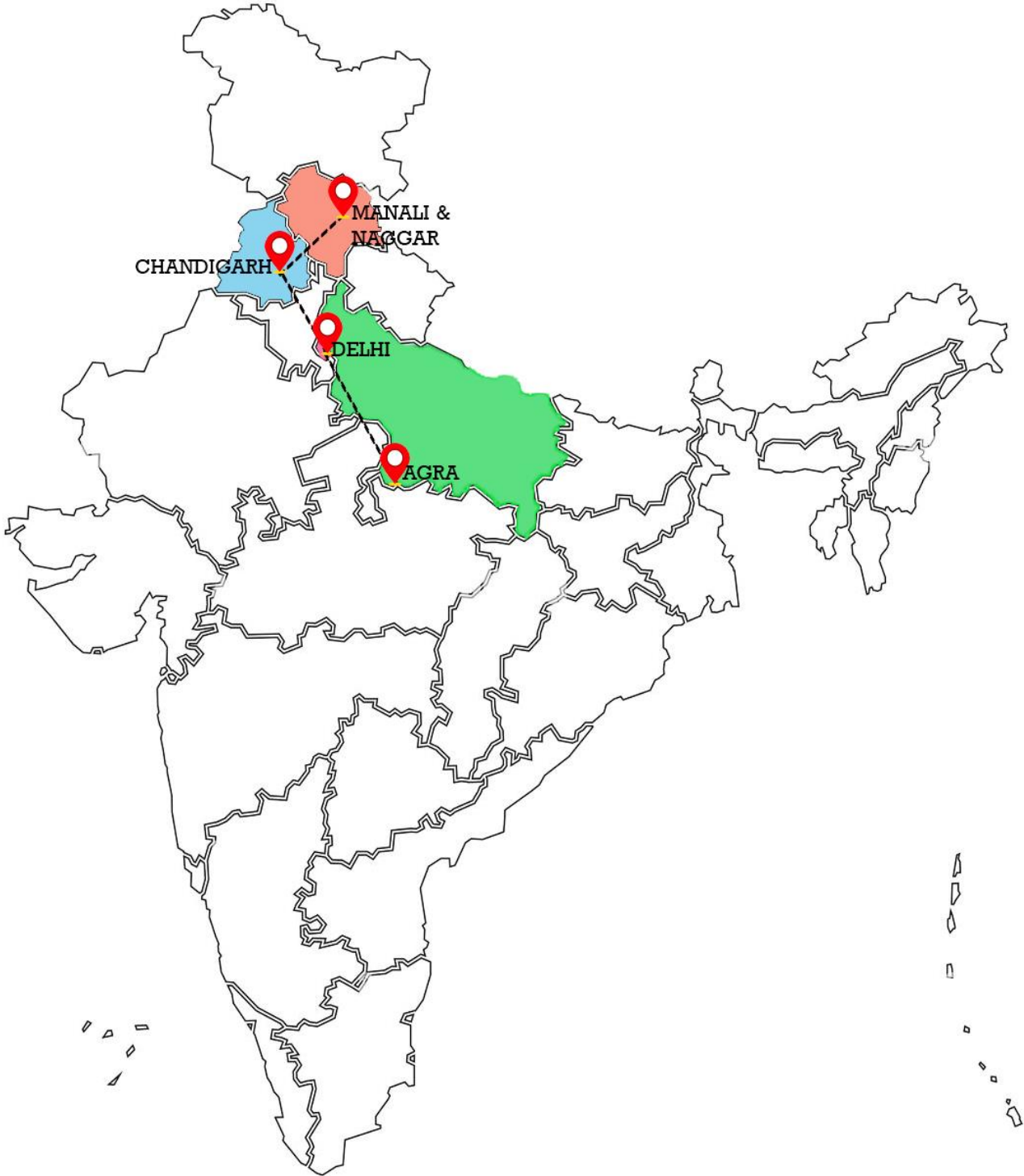
Naggar: Naggar is an ancient town situated on the banks of the mighty River Beas at an altitude of 1851m. This ancient town commands an amazing view, especially to the Northwest of the valley.

This study tour to North India gave us an understanding about the difference in climate, materials used for construction, local culture which influences architecture and the topography. The works done by famous architects also helped in gaining knowledge and experiencing the planning and concept.



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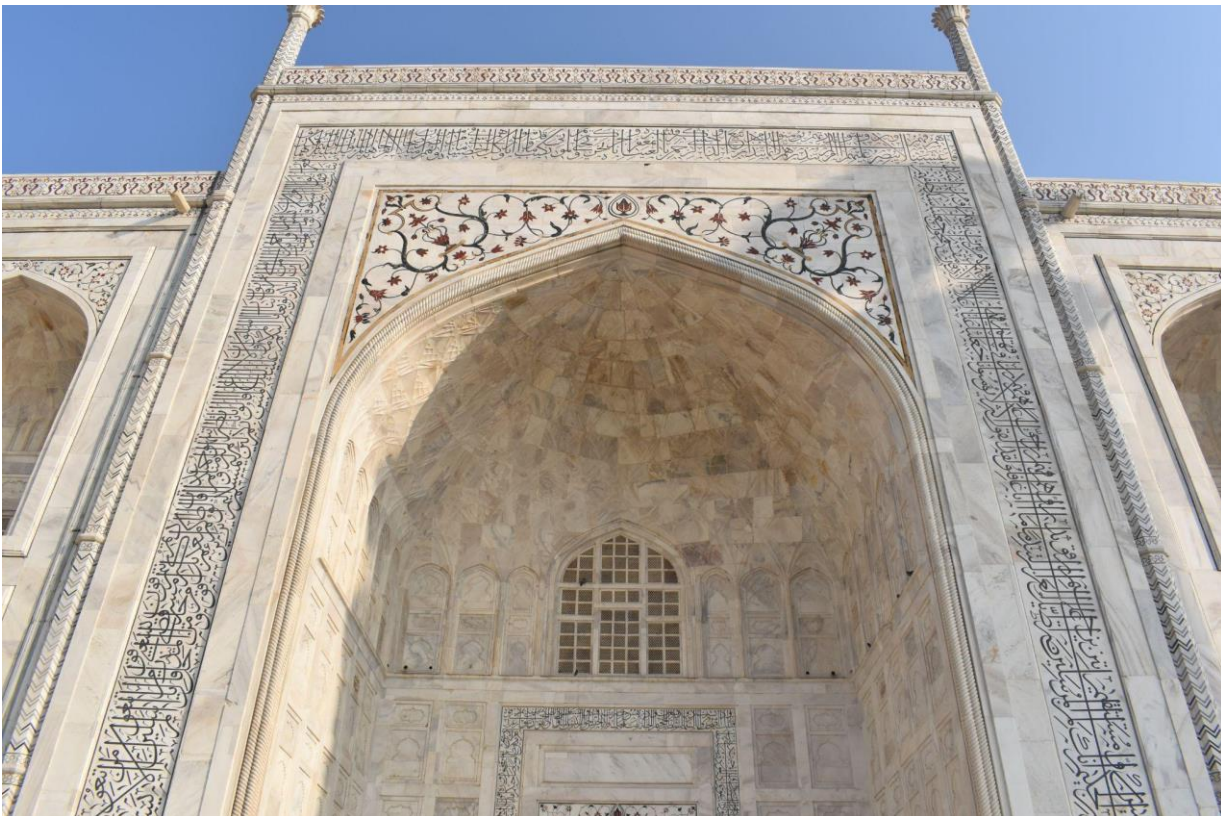
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Day 1: AGRA

The first day of the tour. The team visited the Taj Mahal in the morning during the sunrise to see the beauty of the building then headed to Akbar's tomb then proceeded to Fatehpur Sikri.

Taj Mahal:

- The taj mahal complex covers an area of 62 acres and is divided into two parts. The first part is the courtyard and the second part is the structure.
- The tomb was built by the Mughal ruler Shah Jahan for his wife Mumtaz. The structure was built with marble. He built a tomb for his other two wives in the same complex using red sandstone.
- All the buildings in the complex follow symmetry and there is the presence of the Mughal garden-Charbagh.
- The Taj Mahal was built in 22 years. The proof for the construction can be seen in the domes of the entrance gates, where 11 domes are constructed towards the rear and 11 at the front. Each dome represents a year.
- The walls have high intricate carvings in calligraphy which are taken from the Quran.





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Akbar Fort:

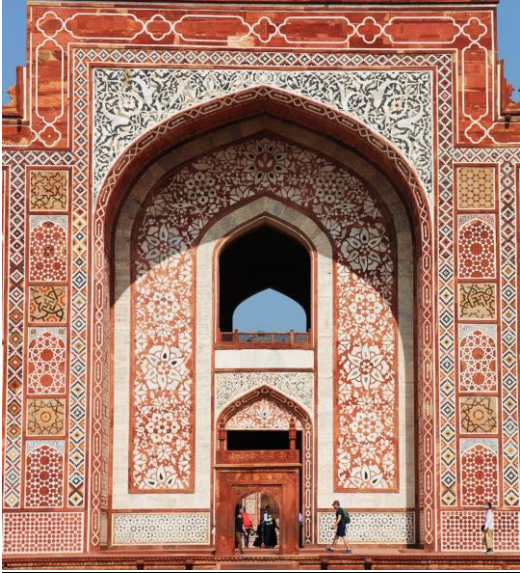
- This mausoleum is situated on the outskirts of Agra City. It houses the mortal remains of the Mughal Emperor Akbar, who, during his lifetime itself had completed the tomb and laid out a beautiful garden. However, the topmost portion of the mausoleum in marble was constructed by his son, Jahangir.
- The shape of the tomb is pyramidal and consists of five stories. The cenotaph is at a level below the ground level, while the false cenotaph is at the top floor. The entire tomb is constructed of red sandstone but for the top story which is constructed in white marble.
- The ground floor is surrounded by cloisters except at the center on the southern side. These cloisters are divided by massive arches and piers divisible into many bays.
- The square stories have arcaded verandahs, with arcades and clusters of kiosks on each side. Some of the kiosks in the second story have marble pyramidal roofs while the rest are crowned by cupolas. Each angle at the third story has a small square room. The top story is entirely made up of white marble. It has a square court, which is open to the sky.
- The central courtyard is enclosed in all the sides by slender arches and piers and divided into bays, which has been roofed in the trabeated pattern. At the center of the courtyard lies a square platform, over which a white marble cenotaph is laid out. This cenotaph is profusely carved with arabesque and floral patterns.





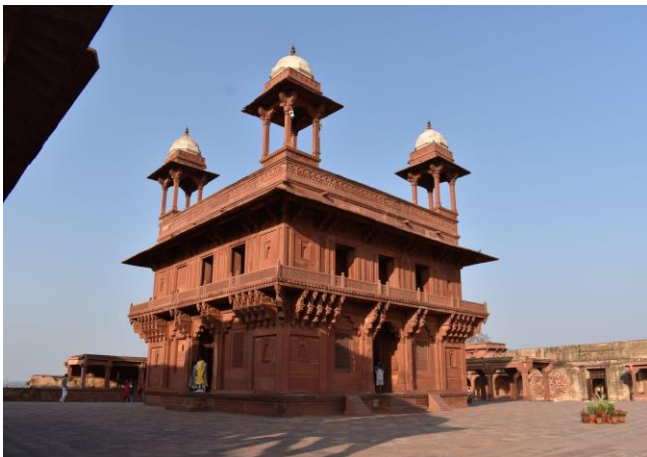
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Fatehpur Sikri:

- It is a small city west to Agra and was the capital of the Mughal Emperor during Akbar's period.
- The buildings here are made out of red sandstone except the tomb of Salim Chishti.
- Buland Darwaza gate is the entrance to Jama Masjid mosque.
- Diwan-E-Khas Hall has a carved central pillar. Where Akbar held regular meetings.
- Jodha Bai's Palace is a mix of Hindu and Mughal styles, next to the 5-story Panch Mahal that overlooks the site





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Day 2: CHANDIGARH

After a long overnight journey from Agra to Chandigarh, the team freshened up in the hotel and left for the capitol complex and rock garden. Here the team were assisted by official people from the Haryana police and Chandigarh police along with a guide. In the evening the team visited Le Corbusier center and went shopping at sectors 17, 19 and 22.

Capitol Complex:

- Located in Chandigarh, it is a government building complex built by Le Corbusier.
- It comprises three buildings: the Palace of Assembly or Legislative Assembly, Secretariat Building and the High Court plus four monuments(open hand museum, Geometric Hill, Tower of Shadows and the Martyrs Monument) and a lake.
- **High court:** common for the Indian states of Punjab and Haryana and the Union Territory of Chandigarh based in Chandigarh, India. Sanctioned strength of Judges of this High Court is 85 consisting of 64 Permanent Judges and 21 Additional Judges including Chief Justice.
- **The Tower of Shadows:** Le Corbusier constructed it in such a way that not a single ray of sun enters it from any angle. The north side of this tower remains open because the sun never shines from this direction. Le Corbusier used the same principle for other Capitol Complex buildings as well.
- **Secretariat Building:** It is a government building located inside the capitol complex. It functions as the headquarters of the Haryana and Punjab government.
- **Palace of Assembly or Legislative Assembly:** It is part of the Capitol Complex and it features a circular assembly chamber, a forum for conversation and transactions, and stair-free circulation. The door is the main feature which is adorned with vibrant colors and is divided into upper and lower halves. The door measures 25 square feet, with its enameled panels, was airlifted from Paris.
- **Open hand monument:** It is the emblem and symbol of the Government of Chandigarh and symbolizes "the hand to give and the hand to take; peace and prosperity, and the unity of mankind. It stands 26 meters high. The metal structure with vanes is 14 meters high, weighs 50 short tons and was designed to rotate in the wind.
- **Geometric Hill:** Corbusier made this hill with construction waste. He created a mound that would hide the assembly from the road. It covers an area of 100 acres.
- **Martyrs Monument:** Honors all who had laid down their lives in India's long-drawn freedom struggle. The memorial consists of a square enclosure with one side elongated into a ramp by which one mounts the enclosing wall, Within the enclosure are to be symbolic figures of a prone man, a snake, and a lion set amid ruins.



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Le Corbusier center:

The old Architects office currently named Le Corbusier Centre is one of the earliest buildings constituted in Chandigarh. The museum was a workplace of Le Corbusier and his team therefore, the building is of immense historic value to Chandigarh.



Rock Garden:

This garden is made out of scrap wastes. It was designed by Nek Chand Saini. It is 200m away from the capitol complex and it is also a tourist spot occupying an area of 18 acres.



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Day 3: CHANDIGARH-MANALI

The next day the team left Chandigarh to move towards Manali. On the way the team visited Virasat -a-Khalsa, visited AIIMS Bilaspur for studying about the campus and analyzing its built form in a terrain. After the campus study the team headed to Manali.

Virasat-a-Khalsa:

- It is Located in the holy town, Anandpur Sahib, near Chandigarh, the capital of the state of Punjab, India. Built by architect Moshe Safdie.
- It is a museum which depicts the culture of Punjab and the Sikh community.
- The complex was opened to the public on 27th November 2011. There are two complexes at each side of the ravine, which is connected by a ceremonial bridge:
 - The western complex includes an entrance plaza, an auditorium, two-story research and reference library, and changing exhibition galleries.
 - The eastern complex contains a round memorial building and a permanent exhibition space, consisting of two clusters of galleries which showcase the architecture style of the Sikh community.
- The buildings are constructed using concrete, beams and columns that are clad in a local honey-colored stone. The rooftops are stainless steel with a double curvature roof which reflect the sky while a series of dams in the ravine create pools that reflect the entire complex at night.





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AIIMS Bilaspur:

- AIIMS Bilaspur is being constructed at Bilaspur, Himachal Pradesh, part of Govt. of India project to provide medical facilities to every Indian.
- The proposed site is situated in earthquake zone-v in the foothills with level difference of 100m from one end to another end.
- The foundations and structure up to plinth are made in concrete to protect steel against the harmful effects of soil on steel.
- Beams are painted with fireproof paint with 2-hour fire rating.
- Lift and staircase lobby has been constructed in concrete and shear walls required to resist the lateral earthquake force and wind loads
- The Institute was approved to be established over a span of about 247 acres



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Day 4: MANALI

This day was a leisure day for us. The team visited the Solang valley, Vashisht temple and mall road for shopping.

Solang Valley:

- Solang valley is also known as the 'Snow Valley,' which is famous for hosting various winter adventure sports like skiing, parachuting, paragliding, trekking, and mountaineering.
- This dazzling valley is one of the most picturesque sights in Manali and is located at an average altitude of 2,560 meters above sea level.
- It is one of the most favorite trekking hotspots of the tourists, holidaying in Manali. Solang Valley is located between the Solang village and Beas Kund and offers majestic views of glaciers and snowcapped mountains.



Vashisht Temple:

- Vashisht Temple in Manali is dedicated to sage Vashisht, the Kula guru of Lord Rama in the village Vashisht across the River Beas. It is among the most famous places to visit in Manali.
- The Vashisht temple is believed to be more than 4000 years old. Inside the temple there is a black stone image of the Rishi wearing a dhoti. The Vashisht temple is decorated with excellent and beautiful carvings on wood. The interior of this temple is rather traditional which is ornamented with antique painting and figures. The temple is made of wooden architecture. It is built in traditional architectural style with intricate wooden carving.



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Tibetan Buddhist Monastery:

- The monastery is located 250m from Manali bus stop and is close to mall road.
- It is one of the oldest and most famous temples built in Manali.
- It was built due to the increasing number of people from the Tibetan cult.
- The monastery is run by the local people who gather funds through donations.
- The unique feature of the monastery is the handicrafts of Tibetan artistry and the carpets that are woven and sold in the monastery. The Gadhan Thekchoking Gompa was constructed in 1969.
- The architecture of the monastery represents the Tibetan style of architecture designed with hued frescoes. The statue of the Lord Buddha presides in the monastery.



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Day 5: MANALI- NAGGAR SITE STUDY

On this day the team checked out from Manali and headed to Naggar. On the way, the team studied various sites that were given by the faculties. The same evening, the team had a few adventure activities and at night campfire and the team stayed in tents near Beas River.

- Naggar site is a contoured site with two access points where one is shorter and the other is longer.
- Those access ways are very narrow as they are situated on the hill top of Naggar.
- The site is an apple farm with a mustard farm also in between.
- It is a stepped slope where each step is about 1.5 to 2 mts high.
- Many of the apple farms there belong to the native people who are also farmers.
- As the team interacted with one of the land owners, he said that he had a farm of 1.5 acres in the area.
- Opposite to the site has a beautiful view of the hills of Naggar which changes its color due to weather change from green to white and blue sometimes.
- To design anything in this site the main thing the team need to understand is that it should be cut and filled in case any construction happens on this site.
- The site is situated on a hilltop. After reaching the hill it is a beautiful site with terraced farming.



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Day 6: NAGGAR

This day was another leisure day in Naggar. The team visited Naggar castle and a Buddhist monastery and left to Delhi in the afternoon



Naggar Castle:

- Naggar Castle is a medieval castle, located in Kullu, Himachal Pradesh, India.
- Built by Raja Sidh Singh of Kullu in around 1460 A.D.
- It was taken over to Himachal Pradesh Tourism Development Corporation, to run as a heritage hotel, since 1978.
- It is made of stone and wood, and served as the residence of Raja Sidh Singh of Kullu.

Buddhist Monastery:

- The monastery is dedicated to His Holiness Dalai Lama.
- It was added as a tourist attraction in 2005.
- It is the place where the Buddhist monks of Kullu reside.
- One has to climb about 50 stairs to reach the temple.
- The architecture of this monastery is a perfect blend of Indo-Tibetan style that dates back quite a few centuries.



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Day 7: DELHI

On reaching Delhi and freshening up the team left for NIFT campus, Qutub Complex, Lotus Temple, national art and craft museum and Sarojini market.

NIFT Campus:

- National Institute of Fashion Technology is an autonomous institute that offers courses in fashion, designing, technology, and management. Its head office is located in New Delhi, India.
- The building was built by BV Doshi. The concept idea is taken from a traditional square town with kund (step well).
- The site occupies an area of 11560 sqm.
- It comprises an academic block, girls' hostel, canteen and administrative block.
- The material used for construction is RCC and is clad with rubble masonry and the floor finish is done with granite. The exterior facade is also decorated with colorful grit.
- NIFT Delhi is the first institute in India that can award its own degrees in the Design field. The degrees awarded by NIFT Delhi are recognized by academia worldwide.



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Qutub complex:

- The Qutub Minar complex are monuments and buildings from the Delhi Sultanate at Mehrauli in Delhi, India.
- Apart from the Qutub Minar and the Quwwat ul-Islam Mosque, other structures in the complex include the Alai Darwaza gate, the Alai Minar and the Iron pillar.
- Probably the oldest continuously inhabited region in Delhi, the area around the Qutub Complex, commonly known as Mehrauli, is the site of Delhi's oldest fortified city, Lal Kot, founded by the Tomar Rajput in AD 1060. The Turks invaded the city of Lal Kot in AD 1192 and with this brought in the Sultanate rule.
- These structures are made using red sand stone and marble.





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Lotus Temple:

- The Lotus Temple Is a Bahai House of Worship that was dedicated in December 1986. Notable for its lotus-like shape, it has become a prominent attraction in the city.
- Like all Baha'i Houses of Worship, the Lotus Temple is open to all, regardless of religion or any other qualification.
- The temple is built in the shape of a floating half open lotus set amidst pools and gardens. This temple has no idols of any God. The Lotus Temple is the only Bahai temple of worship in Asia.



National Art and Craft Museum:

- The National Handicrafts and Handlooms Museum commonly known as National Crafts Museum in New Delhi is one of the largest crafts museums in India.
- It was built by Charles Correa in 1956.
- The building is a reflection of vernacular architecture and fine craftsmanship. Several architectural elements like jharokha, internal courtyards, etc. are all the visual delights.

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Day 8: DELHI

It was the last day of our study tour. The team checked out from the hotel and visited the Red Fort, Jama Masjid, Chandni Chowk, India Gate, Rajpath and Connaught Place. After visiting all the places, boarded our train to return.

Red Fort:

- The Red Fort Complex was built as the palace fort of Shahjahanabad – the new capital of the fifth Mughal Emperor of India, Shah Jahan.
- The Red Fort or Lal Qila is a historic fort in the Old Delhi neighborhood of Delhi, India, that historically served as the main residence of the Mughal emperors.
- The planning and design of the Red Fort represents a culmination of architectural development initiated in 1526 AD by the first Mughal Emperor and brought to a splendid refinement by Shah Jahan with a fusion of traditions: Islamic, Persian, Timurid and Hindu.



Jama Masjid:

- The Masjid-i-Jehan-Numa, commonly known as the Jama Masjid of Delhi, is one of the largest mosques in India.
- It was built by the Mughal emperor Shah Jahan between 1650 and 1656, and inaugurated by its first Imam, Syed Abdul Ghafoor Shah Bukhari.
- Jama Masjid in Arabic means “Friday Mosque.” The mosque is near the Red Fort, yet another of Shah Jahan’s buildings.



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Chandni Chowk:

- In the heart of Old Delhi, Chandni Chowk is a busy shopping area with markets full of spices, dried fruit, silver jewelry and vivid saris.
- The narrow side streets are crowded with tiny shops selling essential oils, stationery and traditional Indian sweets.
- The Chandni Chowk, also known as Moonlight Square is one of the oldest and busiest markets in Old Delhi, India.

India Gate:

- The India Gate is a war memorial located near the Kartavya path on the eastern edge of the "ceremonial axis" of New Delhi, formerly called duty path.
- At the center of New Delhi stands the 42 m high India Gate, an "Arc-de-Triomphe" like archway in the middle of a crossroad.
- Almost similar to its French counterpart, it commemorates the 70,000 Indian soldiers who lost their lives fighting for the British Army during World War I.



Connaught Palace:

Connaught Place is a frenetic business and financial hub, centered on a ring of colonnaded Georgian-style buildings with global chain stores, vintage cinemas, bars and Indian restaurants.

The trip ended with us leaving for the railway station where the team boarded our train back to Bangalore.



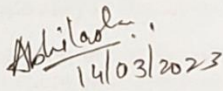
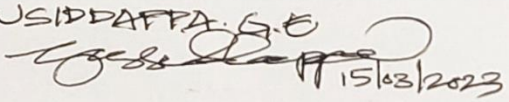
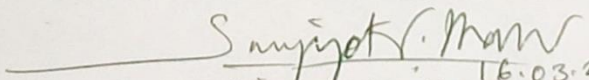
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| Mapping to Course Outcomes (if any) | Course | NA | |
| | Course Code | | |
| | Course Outcome No. and Statement | Mapping Level to Course Outcome(Low-1, Medium-2, High-3) | Justification |
| Mapping to Program Outcomes (if any) | Program | NA | |
| | Program Code | | |
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| Mapping to Program Specific Outcomes (if any) | Program | NA | |
| | Program Code | | |
| | Program Outcome No. and Statement | Mapping Level to Course Outcome(Low-1, Medium-2, High-3) | Justification |
| Photos (with naming, timestamp & geotagging) | Please Find Attachments | | |
| Signatures | | | |
| Event Coordinator | As. Abhilasha  14/03/2023 (Signature/e-sign with Date) | | |
| Head of Department | ATE. GURUSIDDAPPA. S.E  15/03/2023 (Signature/e-sign with Date) | | |
| Principal |  16.03.2023 (Signature/e-sign with Date) | | |