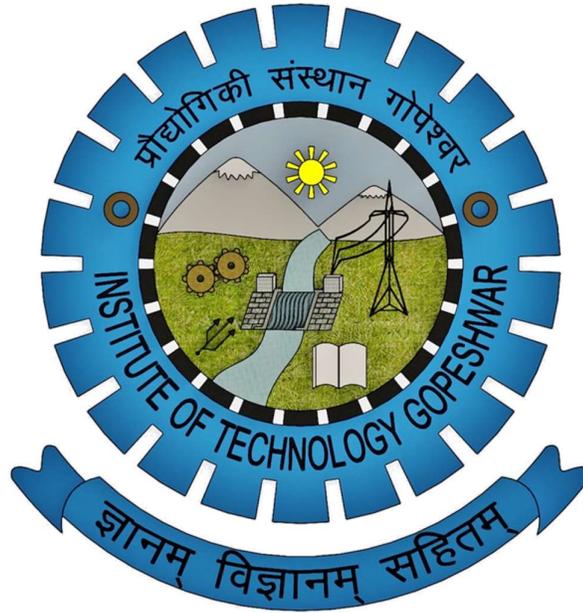


A REPORT
ON
INDUSTRIAL TRIP

OCTOBER , 2019



INSTITUTE OF TECHNOLOGY, GOPESHWAR CHAMOLI- 246401

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CHAPTER 1.

INTRODUCTION

On 29 of October 2019 the industrial trip started as per the plan consisting 40 students, supervised under 6 teachers.



Fig 1



Fig 2

The trip was planned to visit following 5 places:

1. Uttarakhand State Council for Science & Technology

2. Blue Star

3. Global Business Park Zirakpur

4. Doordarshan Kendra, Kasauli, HP

CHAPTER 2

Visit To Uttarakhand State Council for Science & Technology



Fig 3

Uttarakhand State Council for Science and Technology is an autonomous body of the Government of Uttarakhand, Department of Science & Technology. UCOST started its activities from last quarter of year 2005, However it was registered under the Registration of Societies Act, 1860 in November 2002.

Students reached at the place by 1:30 pm and had great chance to experience the different things at the science park and see how things work there. The visit took 4-5 hours itself as it was a big place to cover.

The place consisted of different kinds of science exhibitions which consisted of a vast field space for research, remote sensing technology, advances in image processing, simple phenomena that exhibit in physics shown in an interesting way.

The Science Park encompasses a Dinosaur park, outdoor interactive exhibits based on scientific laws, and a planetarium, while, the RSC building hosts a Fun Science Gallery, Himalaya Gallery, Frontiers of Technology Gallery, Innovation Hub, 3D Theater, Auditorium of 200 sitting capacity, Exhibition Hall, Library and Meeting Hall. Some of the attractive features of the scientific law-based interactive outdoor exhibit in Science park are Gravity chair, Whispering garden, Musical

Bar, Sympathetic swing, Birding Cage, Eco tube, and Perspective house etc. along with proposed planetarium. In addition, Intelligent materials, New trend in nuclear power generation, cloud computing, Robotics, and Carbon nano-tube & graphene etc. are some of the attractive features of the inner exhibits in the RSC Building. The Himalaya Gallery depicts almost every subject related to Geology, geography, tourism, culture & traditional knowledge system of Himalaya through attractive exhibits. It also harbours replica of “holy Amarnath Cave”.

Innovation hub is a multi-disciplinary laboratory equipped with moderate set of tools and scientific instruments. The facility is set up to promote creativity and innovations by the young minds. This would not only ensure more effective utilization of the science centre, but would redefine its usages and role in fostering problem solving and project based learning. This facility provides hands-on/ practical learning and engagement in the process of science, technology and innovation to the students.



Fig 4

CHAPTER 3

Visit To Blue Star



Fig 5

Blue Star is India's leading air conditioning and commercial refrigeration company, with an annual revenue of over ₹5200 crores (over US\$ 750 million), a network of 32 offices, 5 modern manufacturing facilities, 2800 employees, and 2900 channel partners. The Company has 5000 stores for room ACs, packaged air conditioners, chillers, cold rooms as well as refrigeration products and systems, along with 765 service associates reaching out to customers in over 800 towns. Blue Star's integrated business model of a manufacturer, contractor and after-sales service provider enables it to offer an end-to-end solution to its customers, which has proved to be a significant differentiator in the market place. In fact, every third commercial building in India has a Blue Star product installed.

The Company fulfills the cooling requirements of a large number of corporate, commercial as well as residential customers. Blue Star has also forayed into the residential water purifiers business with a stylish and differentiated range including India's first RO+UV Hot & Cold water purifier; as well as the air purifiers and air coolers businesses. The Company also offers expertise in allied contracting activities such as electrical, plumbing, fire-fighting and industrial projects, in order to offer turnkey solutions, apart from execution of specialised industrial projects.

Blue Star's other businesses include marketing and maintenance of imported professional electronics and industrial products and systems, which is handled by a wholly owned subsidiary of the Company called Blue Star Engineering & Electronics Ltd.

The Company has manufacturing facilities at Dadra, Himachal, Wada and Ahmedabad, which use modern, state-of-the-art manufacturing equipment to ensure that the products have consistent quality and reliability. The Company has a manufacturing footprint of about 1 lakh sq m, with the mainstay of product development and R&D being energy-efficiency, coupled with eco-friendly and sustainable products.

Students visited the plant 2 in himachal Pradesh. It is equipped with state-of-the-art manufacturing facilities for water coolers and micro channel heat exchangers (MCHX). The factory also has a modern sheet metal fabrication unit with Amada punching and bending machines as well as a foaming plant set up for water coolers.



Fig 6

Students got to learn a lot about how the company functions both the technical and management aspects.



Fig 7

CHAPTER 4

Visit To Global Business Park Zirakpur



Fig 8

Global bussiness park is a big complex with a variety of things going on here and there. Students had a chance to wander and see the things around, check out different pequiarities in the place.

Visit lasted over about 2 hours where students had a fair chance to look around the place.



Fig 9

CHAPTER 5

Visit To Doordarshan Kendra, Kasauli, HP

The Doordarshan Kendra of Kasauli (A Government Undertaking) was established here in early 80s. In Doordarshan Kendra (Prasar Bharti), Students visited the entire studio like control room, music studio, playback studio, talks studio, Transmitter Section, recording room; etc. The visit started with the video recording room where the company personnel explained the concepts of lighting, cameras used with live demonstrations There are total 3 ELG cameras & 1 ENG camera in that studio .Then he showed the working of control room to the students. At control room there are two VM i.e. Video mixing machine, which mix the video output of those ELG cameras. He demonstrated the students that how the video from CCU (Central Control Unit) comes to VTR (Video Tape Recorder) then to CCVS (Color Composite Video Signal).Then he took the students to Audio control room where he showed the tally distribution and audio console, from which they control the audio signals by altering the Frequencies of sound. He also explained about the different frequency band i.e. HF, VHF, UHF etc, Transmitter & Receiver, uplink & downlink frequency, Line of sight, analog & digital signal, resonance, microwave communication, satellite communication, waveguide, multiplexing, RF, digital encoding, quantization, noise, earth station, power supply, signal transmission, and many more such devices and principles. After that, they headed towards transmission part.



Fig 10

The tower situated at the height of 1680 meter above sea level is 130 meter high, including 14-meter height of DD 1 antenna. The signal-catching facility is outstanding and currently is also used by

private Operators on Rent. It's the transmitter station from where all the received frequencies are captured and transmitted in the form of radiations.

The visit was exceptionally good and knowledgeable for the students as well as the faculty. All the students highly enjoyed their entire visit. It was an amazing experience of fun & learning.



Fig 11

