



CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

Kokapet (Village), Gandipet, Hyderabad – 500 075

www.cbit.ac.in

Criteria 1	CURRICULAR ASPECTS
Key Indicator-1.3	Curriculum Enrichment
Metric 1.3.2	1.3.2 Number of value-added courses for imparting transferable and life skills offered during 2023-24
LIST OF VALUE-ADDED COURSES FOR AY:2023-24	

1.3.2 Number of value-added courses for imparting transferable and life skills offered during 2023-24

S. No.	Name of value-added course (more than 30 hours duration) offered	Course code	Duration (Hrs)	No. of times offered in a year	No. of students who enrolled	No. of students who completed
1	Three-week Practice oriented Internship programme on 'Software Applications for Sustainable Civil Engineering (SASCE 2023)	CBIT/VAC-CED-2023-24-1	90	1	40	40

Head, CED

PROFESSOR & HEAD
Department of Civil Engineering
Chaitanya Bharathi Institute of Technology
GANDIPET, HYDERABAD-5000 075

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (Autonomous)
GANDIPET, HYDERABAD- 500075
DEPARTMENT OF CIVIL ENGINEERING

Report
on
Three-week Practice Oriented Student Internship Program (SIP) on "Software Applications for Sustainable Civil Engineering (SASCE 2023)"

About the Internship

This internship is an excellent platform for students and researchers to gain knowledge on applications of different computational tools in Civil Engineering. Theoretical knowledge is not solely sufficient to work in real-field problems. Therefore, this internship mainly focuses on hands-on training on Basic statistical methods and its applicability in Civil Engineering, research scope for optimization applications in Environmental Engineering, application of statistics in Water Resource Engineering, Constitutive modelling in Geotechnical Engineering, Applications of statistical techniques in geotechnical engineering which require an intense knowledge of relevant software and their working. The internship was handled by experts from resource persons from universities of national repute and Industries like NITs, VIT, BITS Pilani, Hyderabad campus and HMWSSB. The internship was conducted from 14th November 2023 to 5th December 2023 for total 90 contact hours with its numerous sessions on training, hands-on and project work. Assignments were given to all interns as homework and the same was evaluated. Assessment was done on a given project related to the application of civil engineering, thereby enhancing the ability of the participants in carrying out its application in the future research.

The internship was conducted in association with AICTE IDEA Lab, CBIT and Indian Concrete Institute, Hyderabad Centre. The aim of AICTE IDEA Lab in CBIT is to provide all facilities for conversion of an idea into a prototype. With these facilities in the campus, more students and faculty are being encouraged to take up creative work. In this process, students and faculty are getting trained on creative thinking, problem solving, collaboration etc.

To
Head, CBIT
14/12/23

Received
14/12/23

ABOUT THE INSTITUTE

Chaitanya Bharathi Institute of Technology, established in the Year 1979, esteemed as the premier engineering institute in the states of Telangana and Andhra Pradesh. It is located in idyllic surroundings of Gandpet Lake, Hyderabad. The Institute committed to education and innovation and over the 44 years, has emerged as a dream destination for students with a rewarding career and corporates to source well-rounded engineers. Best academic practices with quality education enabled the Institute to establish its identity in the Technical Education in both the Telugu Speaking States. The great learning experiences in the institute have enriched the lives of students and helped them to develop into a multi-skilled and multi-tasking personalities that ensured success in their careers and occupations. With the students being the singular objective, the institute has established excellent infrastructure such as state-of-the-art laboratories, spacious library with printed and digital collection of books and journals, sports hostel, and other infrastructure for extra and co-curricular engagements with a total built-up area of about 57,714 m² in the serene ambience of 50 acres to inspire, encourage and pursue academics. In its relentless strive for Academic excellence, CBIT has scaled great heights both nationally and internationally in industry and global universities.

ABOUT THE DEPARTMENT

Civil Engineering Department of the institute started functioning right from the inception of the institute, in the year 1979. It has well qualified, experienced and dedicated faculty and committed supporting staff. Apart from giving their best in academics, the students of the department are highly enthusiastic & actively participate in various co-curricular & extra-curricular activities. The laboratories of the department are well equipped with advanced and sophisticated instruments to fully satisfy the training needs of the students and research and consultancy needs of the department as well. The department offers one UC programme (Two Sections) and one PG Programme (Structural Engineering). Conducting seminars, workshops and conferences on the latest developments in civil engineering, arranging expert lectures and industrial visits for the

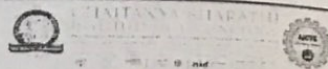
benefit of staff & students, is a regular feature in the department. The department also offers Consultancy Services for various Government and Private Agencies and has completed a good number of prestigious projects. It is a matter of great pride that this Department has submitted the draft for 'Water Policy' for the newly formed Telangana State. In last academic year, CED has organised one 6-Day AICTE sponsored training program on 'Crying need of Bridges' and an International Conference 'ICACE2022' in collaboration with Universities abroad and India. An interdisciplinary (with Mechanical Engg Dept.) project worth Rs. 9.89 lakhs sanctioned by DRDO is under progress. In the current academic year, CED has published 21 research papers in reputed peer reviewed Journals/conferences. Also, one patent has been granted and one is published. Students of the department are equally good in extra-curricular & Co-curricular activities and received some awards as well.

ABOUT THE AICTE IDEA LAB OF CBIT

The aim of AICTE IDEA Lab in CBIT is to provide all facilities for conversion of an idea into a prototype. With these facilities in the campus, more students and faculty are being encouraged to take up creative work. In this process, students and faculty are getting trained on creative thinking, problem solving, collaboration etc. The IDEA Lab of CBIT is headed by Principal & Professor Dr. P. Ravinder Reddy, who is the chief mentor. The program is being actively guided by Dr. UK Choudhury, Director I & I, Dr. BVS Rao and Dr. P. Sathish are coordinators. We also have strong team of four Technical Gurus. The IDEA lab at CBIT is equipped with 15 3-D Printers, 50 Robotic Kits, About 600 Students have already undergone training for Digital Fabrication using 3-D Printers and IoT prototype development. So that they become technically capable and confident to convert idea into prototype. Presently, the IDEA Lab at CBIT is also trying to reach schools and industries in and around Hyderabad, to train and motivate the students to use IDEA Lab in CBIT.

IMPORTANT DATES

Registration Deadline: 12 November 2023
 Confirmation Mail: 17 November 2023
 Internship: 14 Nov to 5 Dec 2023



Three-week Practice oriented Internship
 On
Software Applications for Sustainable Civil Engineering (SASCE)
 (Hybrid mode)
 14th November to 5th December 2023



Organized by
DEPARTMENT OF CIVIL ENGINEERING
 In Association with
 AICTE Idea Lab
 and
 Indian Concrete Institute, Hyderabad Centre

Chaitanya Bharathi Institute of Technology (Autonomous)
 Affiliated to Osmania University
 Accredited by NAAC, UGC, and NBA/AICTE
 ISO 9001:2015 Certified Institution
 Gandpet, Hyderabad-75, TS-500075

ABOUT THE INTERNSHIP

This internship is an excellent platform for students and researchers to gain knowledge on applications of different computational tools in Civil Engineering. Theoretical knowledge is not solely sufficient to work in real-field problems. Therefore, this internship mainly focuses on hands-on training on Basic statistics and soft computing techniques and its applicability in Civil Engineering, Research scope for optimization applications in Environmental Engineering, Application of Artificial intelligence technique in Water Resource Engineering, Constitutive modeling in Geotechnical Engineering, Applications of soft computing techniques in geotechnical engineering. Activity based Travel demand modeling which require an intense knowledge of relevant software and their working. Assessment will be done on a given project related to real-field application thereby enhancing the ability of the participants in carrying out its application in the future research. The proposed internship will be handled by experts from resource persons from universities of national repute and industries.

WHO CAN ATTEND

Students (UG & PG)
VENUE
 Department of Civil Engineering, CBIT (A), Gandpet, Hyderabad, 500075

REGISTRATION LINK

<https://forms.gle/2d4p8K11wz9er98Lx>

REGISTRATION FEE

Rs. 1000/- per participant (includes Kit, hands-on, and Certificate)

Limited seat up to 50 nos. Register first to book your seat.

CONTACT

Dr. Anghuman Das, Asst. Prof.
 Email: anaghuma@cbit.ac.in
 Phone: 9991018357
 Dr. Kamalini Devi, Asst. Prof.
 Email: kamalini@cbit.ac.in
 Phone: 9337683749

ORGANISING COMMITTEE

Patron
Prof. C. V. Narasimhulu
 Principal, CBIT (A)
 Chairman
Dr. K. Jagannadha Rao
 Professor & Head
 Department of Civil Engineering, CBIT (A)
 Convenors

Dr. Anghuman Das
 Assistant Professor
 Department of Civil Engineering, CBIT (A),
Dr. Kamalini Devi
 Assistant Professor
 Department of Civil Engineering, CBIT (A)

Coordinators
Dr. Dudam Bharath Kumar, Asst. Prof., CED
Sri. Ramanarayana Sankriti, Asst. Prof., CED
Dr. Srikanth Koniki, Asst. Prof., CED
Dr. Vishal Singh, Asst. Prof., CED
Dr. B. V. S. Rao, Coordinator, AICTE IDEA Lab CBIT

RESOURCE PERSONS

- Dr. Bhabani Shankar Das**
 Assistant Professor, NIT Patna
- Mr. Mane S R Rohith**
 Manager (Engg. Snyam section
 Sub division -3 Q&M Division -5, HMWS&SB
- Dr. Anasua Guharay**
 Associate Professor, BITS Pilani, Hyd Campus
- Dr. Priyadarshini Babu**
 Assistant Professor, VIT Vellore

Other Resource Persons from IITs and NITs

REGISTRATION FORM

For
Three-week Practice oriented Internship
 On
Software Applications for Sustainable Civil Engineering (SASCE)
 (Hybrid mode)
 (14th November to 5th December 2023)

Name: _____
 Designation: _____
 Semester and Year: _____
 Institute: _____
 Mailing Address: _____
 Contact Number with STD Code
 (Office): _____
 (Mobile): _____
 Email ID: _____
 Transaction ID: _____
 Bank: _____, Date: _____
 Signature: _____

QR code for registration fee:



Note: The participants are requested to mention the subject name as 'Registration Fee for Internship (SASCE 2023)' during payment.

Fig1. Brochure of Software Applications for Sustainable Civil Engineering (SASCE-2023)

Inaugural

Day-1 (14.11.2023)

An Inaugural ceremony for the internship program was conducted in D-Block Seminar hall at CBIT, Hyderabad on its first day. The inauguration function was started with lightening of the lamp the dignitaries. Then it started with Saraswati Bandhana. After that, Principal has addressed the gathering and motivated students for the internship. Head, CED has addressed the interns and highlighted about the department and its activities/ achievements. Director I&I focused on the AICTE Idea lab aim and objectives in helping to give the scope for different events. Convener Dr. Angshuman Das has foregrounded on the significance of conducting the internship and has accentuated evaluation process and rules and regulation of the internship program. Chief Guest has emphasized on the recent trends of developing ideas for new start-up and the skill development through the internship. Also, Dr. M. V. Venkateswara Rao brief about the role of Indian Concrete Institute in the Civil Engineering domain. Dr. Kamalini Devi, Convenor SASCE 2023 delivered vote of thanks at the end.

In the second session, the content of the program and role of different software in civil engineering domain was briefed to the interns. An introduction about different software such as MATLAB-ANN, ANFIS (prediction based on Dataset/Experimental observations), Excel-Linear regression (correlation based on different statistical methods), PLAXIS, Geostudio, GEO5 and ArcGIS was also delivered to the interns.

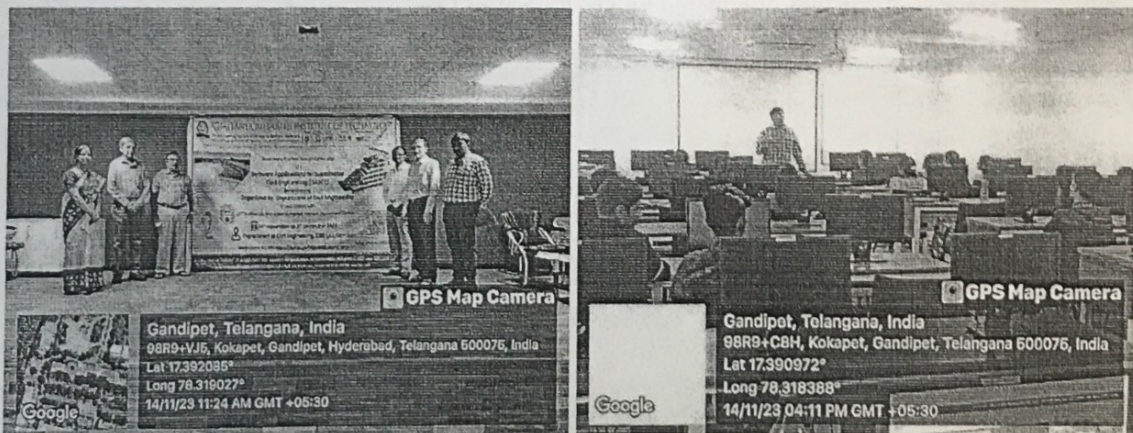


Fig 2. (a) Glimpses during inauguration of SASCE 2023, (b) Session 2 on briefing about the internship

Day-2&3 (15.11.2023 & 16.11.2023)

Dr. Bhabhani Shankar Das of NIT Patna delivered a lecture during session 3 on "Basic Statistical Methods in Civil Engineering." Next day a quiz test was conducted to evaluate the students' knowledge about application of Basic statistics in Civil Engineering. The session was followed by a Hands-on practice session for application of statistical methods using Microsoft Excel. The

session was conducted by Dr. Angshuman Das, Dr. Kamalini Devi, and Dr. Vishal Singh of CBIT.



Fig 3. (a) Session 3 on Statistical methods by Dr. Bhabani Shankar Das, (b) Hands on session (session 4) for application of statistical methods using Microsoft Excel

Day-4&5 (17.11.2023 & 18.11.2023)

On session 5, Dr. Priyadharshini. B, Assistant Professor, Centre for Disaster Mitigation and Management Vellore Institute of Technology, Vellore delivered a lecture on applicability of statistics for air quality monitoring. On the following day a hands on practice session on different method for error analysis was conducted by Dr. Kamalini Devi.



Fig 4. (a) Online lecture on air quality monitoring by Dr. Priyadharshini. B, (b) Hands on session (session 4) for error analysis methods to evaluate model performance using Microsoft Excel

Day 6&7 (20.11.2023 & 21.11.2023)

A session on Water supply system and distribution system in Hyderabad city by Er. Rohith SR Mane, manager, Water works (HMWSSB). The session was conducted to make the students aware of the current source of water supply system in the Hyderabad city and its distribution to

different wards. On the same day, Prof. Umakanta Choudhury delivered an online lecture on idea, concept development and prototyping innovative ideas to motivate the students for innovation and research.

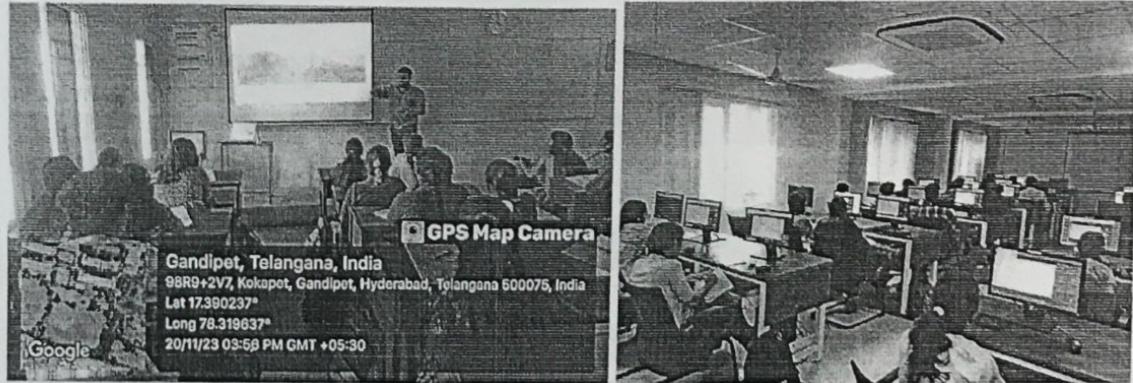


Fig 5. (a) Water supply system and distribution system in Hyderabad city by Er. Rohith SR Mane, (b) Online lecture by Prof. Umakanta Choudhury on idea, concept development and prototyping innovative ideas

Day 8&9 (22.11.2023 & 23.11.2023)

The session on 22nd November was conducted by Dr. Angshuman Das on the application of GeoStudio for slope stability analysis. On 23rd November, the session was conducted by Dr. Dudam Bharath Kumar on application of statistics in Environmental engineering.



Fig 6. Hands on slope stability analysis using Geostudio software on Basic of Geostudio

Day 10 (24.11.2023)

On 24th November, an online lecture was conducted on “Computation Modeling in Geomechanics Using Software” by Prof. Anasua GuhaRay from BITS Pilani Hyderabad Campus. In evening another session was conducted by Dr. Umakanta Chaudhury on Idea, concept development and prototyping innovative ideas.

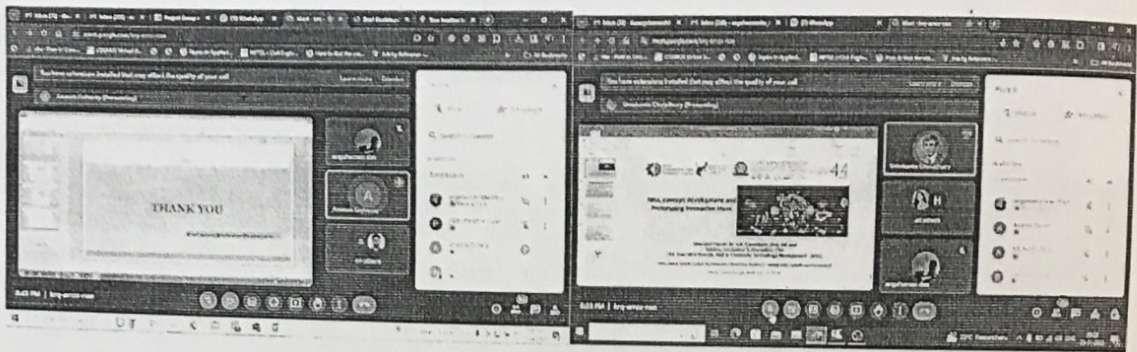


Fig 7. Online lecture on Idea, concept development and prototyping innovative ideas by Dr. Umakanta Chaudhury

Day 11 (29.11.2023), Reviw-1

Four days (25-11-2023 to 28-11-2023) were given to students for identifying and finalizing their project topic with corresponding guides. On 29-11-2023, the first review on student's project was conducted.

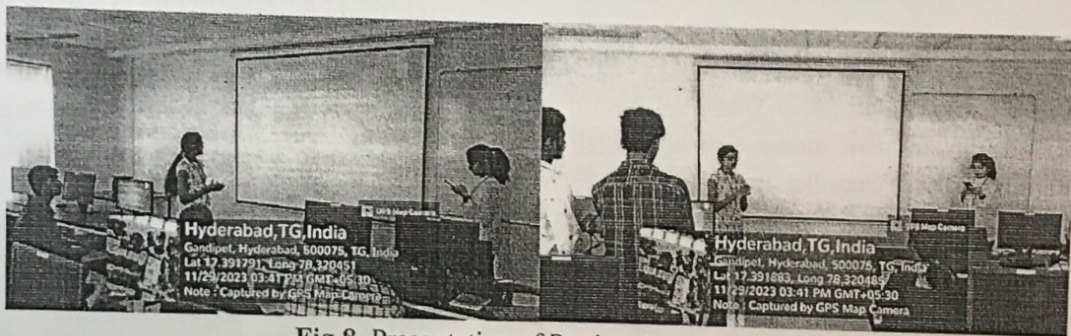


Fig 8. Presentation of Review 1 by the students

Day 12 (1.12.23), Reviw-2

On 01-12-2023, the second review on student's project was conducted where the methodology and work progress were evaluated by the committee.

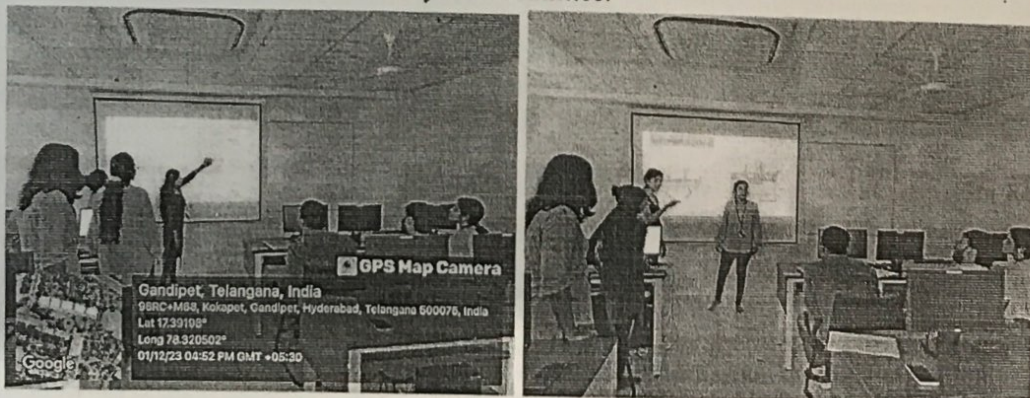


Fig 9. Presentation of Review 2 by the students

Day 13 (4.12.23), Reveiw-3

On 04-12-2023, the final review on student's project was conducted where the output and future work were discussed and evaluated by the committee.



Fig 10. Presentation of Review 3 by the students

Day 14 (5.12.23), Report evaluation

On 05-12-2023, the report was submitted by the students and further they are evaluated by the committee.

Day 15 (7.12.23), Valedictory Function

A Valedictory ceremony for the internship program on Software Applications for Sustainable Civil Engineering (SASCE) was conducted in N-Block Seminar hall at CBIT, Hyderabad on 15th June 2023. The program was started by welcoming the Dr. K. Jagannadha Rao, Head-CED and Chairman SASCE-2023, Prof. U. K. Chaudhury, Advisor I&I, Dr. Angshuman Das, Assistant Professors, Convenor SASCE 2023 at the stage. At First Prof. K. Jagannadha Rao, Head-CED and Chairman SASCE-2023 has addressed the interns and congratulated all interns and appreciated the conveners & coordinators for successful completion of internship. Director I&I focused on the AICTE Idea lab aim and objectives in helping to give the scope for different events and appreciated the effort of civil engineering department, Conveners and coordinators. Convener Dr. Angshuman Das has briefed the concluding remarks of the internship and delivered vote of thanks. Convener Dr. Kamalini has announced the winners of best performers of the internship program at the end. Four students were awarded with best performer award. Cash prizes and merit certificates were given to all awardees. Teaching and non-teaching staff of Civil Engineering department and 41 nos. of interns from CBIT attended this valedictory program.

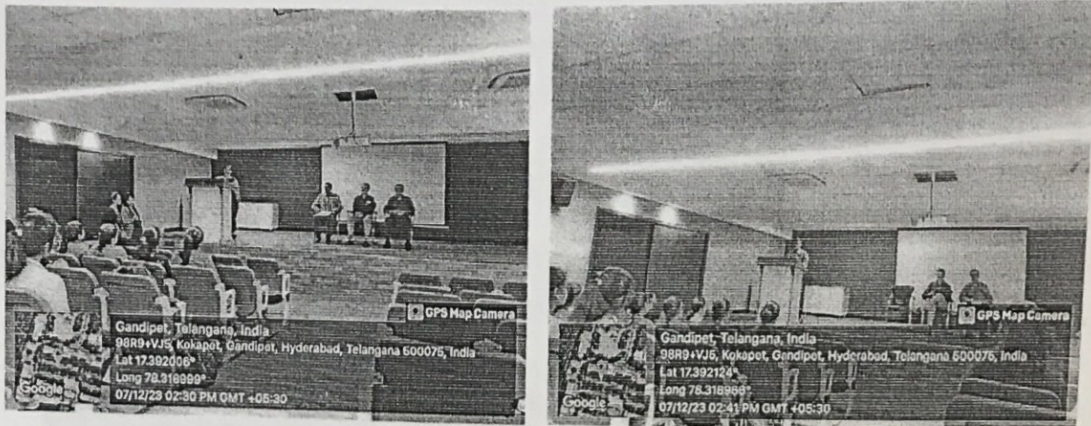


Fig 11. Valedictory Function

During the valedictory session, certificates were presented to the interns upon the successful completion of the internship programme. Eight students out of forty nine students did not meet the eligibility criteria of getting the certificate. Feedback was taken from the interns on their recommendations for similar programs in future. The interns were very happy from the outcome of the internship.



Fig 12. Valedictory Function

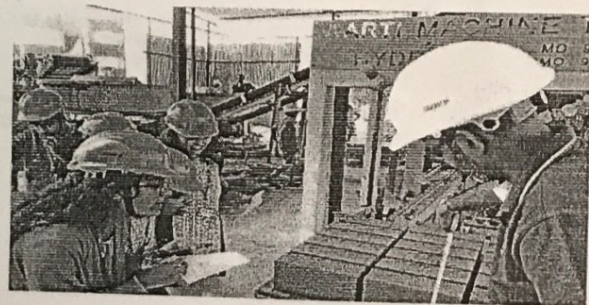
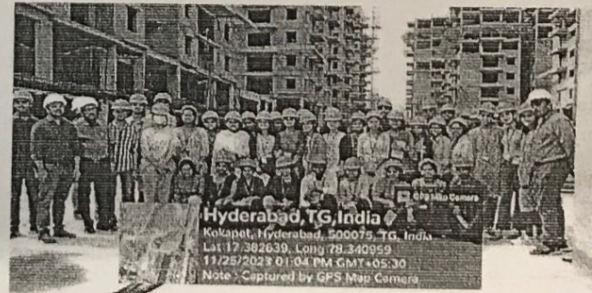
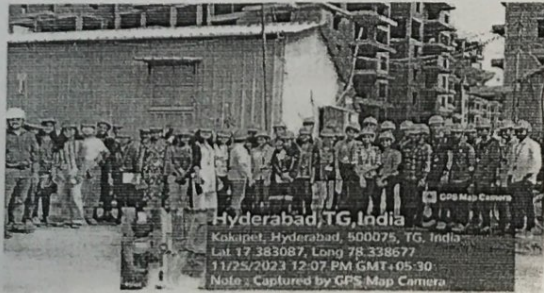
A Site Visit to SRR Sriram River View project at Narsingi, Gandipet Main Rd, Manchirevula

A site visit to SRR Sriram River View project at Narsingi, Gandipet Main Rd, Manchirevula is completed on 25th November 2023. The site is a 13.07 acre gated community which is currently in the construction phase.

Visit to the SRR Sriram River View project was planned for the interns to make them understand the practical aspects of civil construction works. The project is construction of a community living with several facilities including water treatment plant, sewage treatment plant, etc. The community include 10 blocks of G+11 storeyed buildings. At the basement there is a two floor car parking facilities. The buildings are in construction phase.

In addition, one batching plant with capacity of 15 m³ and one fully automatic brick manufacture plant are available at the site. Both the plants are working very efficiently. Those plants are extensively used in current time in different high rise building constructions. For the brick preparation they are using Fly ash, a waste material that can partially replace the cement. The site engineer and other team members were very cooperative and explained each and every facility clearly to our students/ Interns. A total of 40 Interns have participated in this visit. Three faculty members, Dr. Angshuman Das, Dr. Kamalini Devi, and Dr. Dudam Bharath Kumar, Assistant Professors, Department of Civil Engineering, CBIT (A), accompanied the students for the visit.

Glimpses of site visit to SRR Sriram River View project at Narsingi



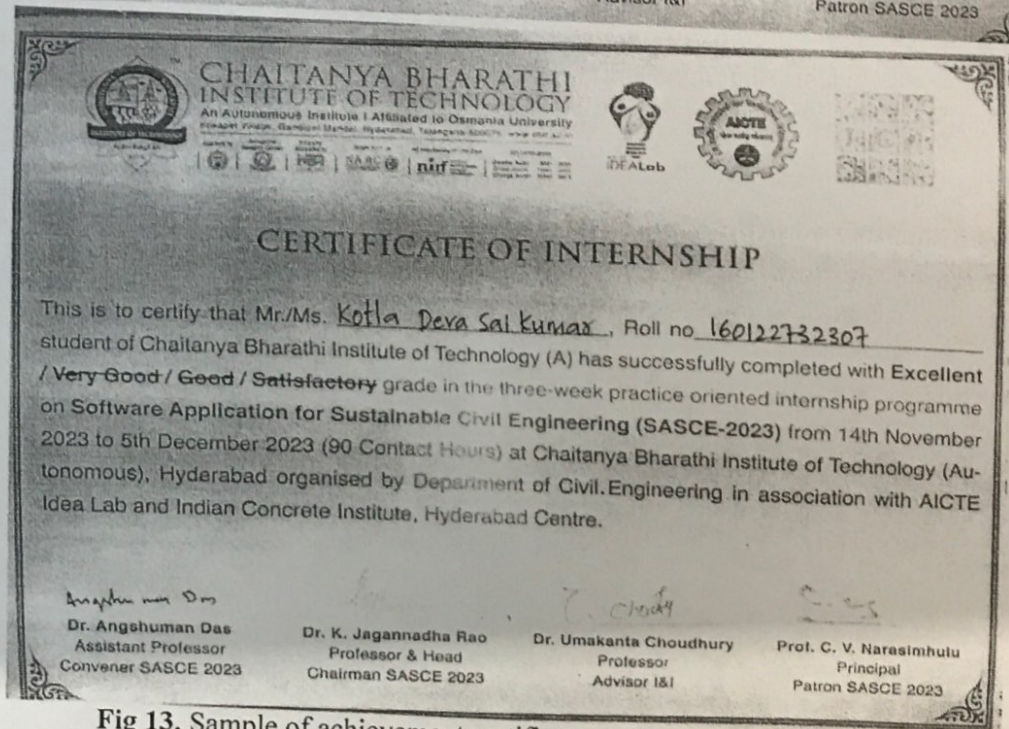
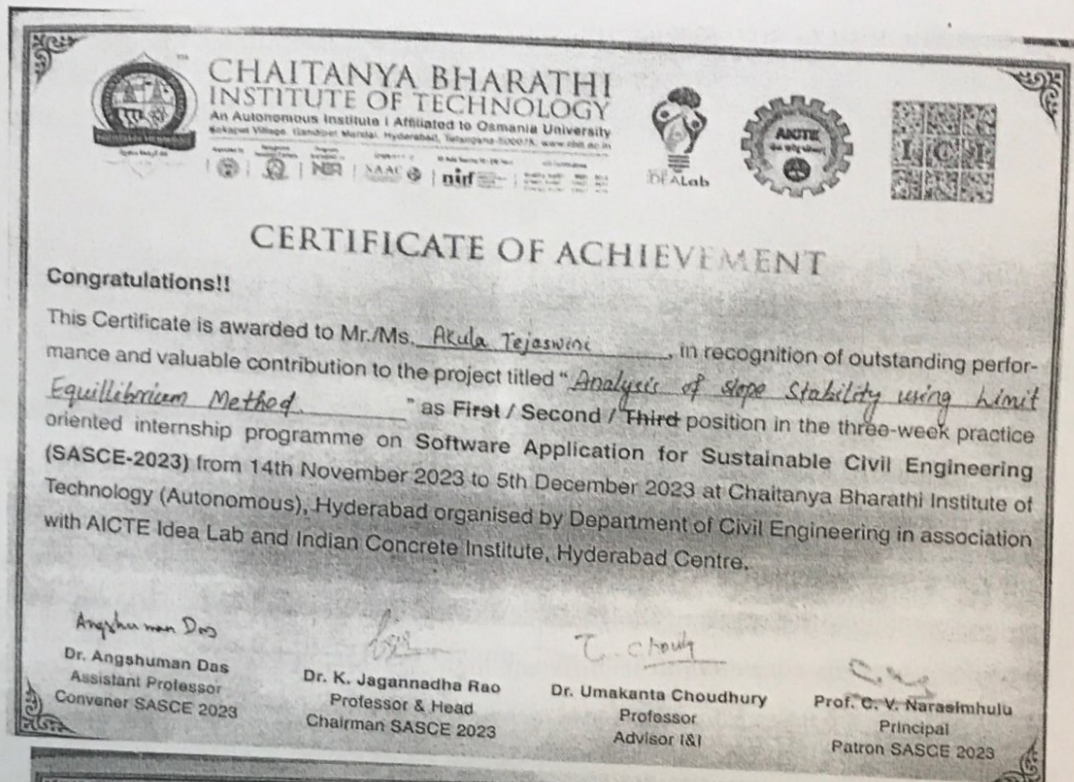


Fig 13. Sample of achievement certificate and completion certificate

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (C)

Kekapet (Village), Gondpet, Hyderabad, Telangana - 500073

www.cbti.ac.in

Three-weeks Practice Oriented Internship

Software Applications for Sustainable Civil Engineering (SASCE)

Duration: 14th November to 30th December 2023

Organized by: Department of Civil Engineering

In association with All IIT Idea Lab and Indian Concrete Institute, Hyderabad Centre

FEEDBACK FORM

Intern's Name: Sri Sai Brothers Year and Semester: Final

Address: Gate No. 559, Madhura Nagar, Dilsukh Nagar, Hyderabad

Email ID: cbti@cbti.ac.in Mobile: 93936114657

1. Was the work a valuable experience in relation to your academic studies?
 Yes No
2. Have you attended the internship regularly?
 Yes No
3. In Evaluation form, covering all the topics taught in the internship?
 Yes No
4. Was the hands-on exposure enough to completion of one problem?
 Yes No
5. Will the knowledge learnt in the internship be helpful in solving real field problems? If yes, how?
Yes, cost-benefit analysis, it is helpful to know the market value.
6. Briefly state new skills, techniques and knowledge gained in this program.
operating software for internet
7. How would you describe the overall internship experience?
It was excellent
8. Can this knowledge be helpful for carrying out your Min and Major project?
 Yes No
9. What have you learnt by visiting the SRR Section Near View project at Narsingi?
Production of bricks, Railway piers, Centenary work
10. Any other comments?
Nil

Signature: Sri Sai Brothers
Name: Sri Sai Brothers

Fig 14. Sample of feedback certificate

Prepared by:

Convener: Dr. Angshuman Das and Dr. Kamalini Devi

Coordinator: Sri Ramanarayan Sankriti

Angshuman Das

Convener
SASCE-2023

Sri Sai Brothers

Chairman
SASCE-2023