

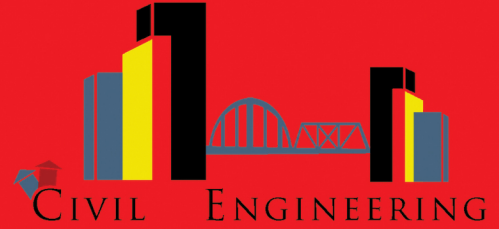
*Innovating Tomorrow...*

AN ISO 9001:2015 CERTIFIED INSTITUTION



# CBIT

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY  
(AUTONOMOUS)



Accredited by NBA, NAAC & Recognised by UGC under section 2(f) and 12(B), Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu  
Vidyanagar, Proddatur - 516360. Y.S.R. Dist. Andhra Pradesh, Email : [cbitpdtr@gmail.com](mailto:cbitpdtr@gmail.com),  
Website : [cbit.edu.in](http://cbit.edu.in), Mobile : 9640808099, 9666071719

## NIRMAN BHARATHI CONSULTANCY CENTER

### ABOUT CBIT

Chaitanya Bharathi Institute of Technology was established at Proddatur in Y S R (Kadapa) District, Andhra Pradesh, India, with an objective of providing quality and value education to the students. It is one of the flagship institutions started by the well-known Philanthropist Dr. V. Jayachandra Reddy, Secretary and Correspondent along with his young and energetic committee members. Under the aegis of Bharathi Educational Society, Chaitanya Bharathi Institute of Technology (CBIT) established in the academic year 2008 with the approval of the All-India Council for Technical Education (A.I.C.T.E), New Delhi, and the recognition of the Government of Andhra Pradesh. CBIT is permanently affiliated to Jawaharlal Nehru Technological University, Anantapuramu (J.N.T.U.A) with the incredible amount of training initiatives that are in full swing, our technocrats will hopefully achieve great heights in the near future.

### VISION OF INSTITUTION

To impart futuristic Technical Education, advance knowledge, research and in still high pattern of discipline that will best serve the nation and the world in the contemporary century.

### MISSION OF INSTITUTION

To provide students with an extensive and exceptional education that prepares them to excel in their profession, guided by dynamic intellectual community and be able to face the technically complex world with creative leadership qualities. Committed in creating and disseminating knowledge, to the students hailing from both, rural and urban areas of Andhra Pradesh and from other parts of India. Endeavors to develop in each student, the ability and passion to work creatively with relevance to real-world problems. Provides world-class, quality education and gives importance for discipline, ethics and character building.



## **AFFILIATIONS :**

- \* Sponsored by BHARATHI EDUCATIONAL SOCIETY
- \* Approved by AICTE, New Delhi
- \* Affiliated to JNTUA, ANANTAPURAMU
- \* Recognized by UGC UNDER SECTIONS 2(f) and 12(B) OF UGC ACT,1956
- \* Accredited by NATIONAL BOARD OF ACCREDITATION (CE, CSE, ECE & EEE)
- \* Accreditation by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL with grade 'A'

## **DEPARTMENT OF CIVIL ENGINEERING**

The department was established in the academic year 2009-2010 with intake strength of 60 per batch. The department is having all necessary labs with good equipment required for UG students. The department produced a large number of qualified engineers. The Civil Engineering arms students with necessary knowledge in all the major areas of the discipline. After successfully completing this course, the students will be able to secure jobs in companies dealing with any of the major civil engineering verticals like structural engineering, construction engineering and so on. The course also lays the foundations for undertaking advanced research in the future. Two times Accreditation by the NBA of AICTE in 2019 and 2022.

## **VISION OF THE DEPARTMENT**

Endeavors to be recognized globally for outstanding technical education and research leading to well qualified civil engineers to cater the ever-changing industrial demands and social needs.

## **MISSION OF THE DEPARTMENT**

- \* To impart quality education to the students to build their knowledge and necessary skills.
- \* To develop alliances with world class R&D organizations, educational institutions, industry and alumni for excellence in teaching & research.
- \* To provide the students an environment that enables success, leadership, ethical practices and lifelong learning needed.

## **LIST OF TESTS**

- TESTS ON CEMENT
- TESTS ON CONCRETE
- TESTS ON BRICK
- TESTS ON STEEL
- TESTS ON TIMBER
- TESTS ON SOIL
- TESTS ON BITUMEN
- TESTS ON WATER



## TESTS ON CEMENT / CONCRETE / BRICK / STEEL / TIMBER

S.No.	TEST NAME
1	<b>Steel:</b> For each dia. of rod Weight co-efficient, yield stress, ultimate stress, breaking stress, % of elongation, % of reduction area
2.	<b>Cement:</b> Setting times- Initial and Final
3.	Compressive strength test on Mortar Cubes – 3, 7 & 28 days
4.	Specific gravity
5.	Fineness of cement
6.	Soundness
7.	Mix Design of Concrete
8.	Compressive strength test on CC cubes/cylinders
9.	Compressive strength test on bricks
10.	Water absorption
11.	Efflorescence test on bricks
	<b>Coarse Aggregates :</b>
12.	Sieve analysis
13.	Shape test
14.	Flakiness & elongation
15.	Abrasion test
16.	Impact test
17.	Crushing test
18.	Bulk density
19.	Soundness
	<b>Fine aggregate:</b>
20.	Sieve analysis
21.	Bulk density
22.	Bulking of sand
	<b>Timber :</b>
23.	Compressive strength
24.	Tension test
25.	Moisture content

## TESTS ON WATER

S.No.	TEST NAME
1.	p <sup>H</sup> value
2.	Turbidity
3.	Total Dissolved Solids
4.	Biological Oxygen Demand
5.	Chemical Oxygen Demand





## TESTS ON METAL AND BITUMEN

S.No.	TEST NAME
	<b>Metal :</b>
1.	Tension test : <12mm
2.	Tension test : $\geq 12$ mm
3.	Hardness
4.	Impact
5.	Torsion
6.	Tension test on welded joints
7.	Bend test
	<b>Bitumen :</b>
8.	Penetration test
9.	Viscosity
10.	Ductility
11.	Specific gravity & extraction test
12.	Bituminous Macadam Design
13.	Bituminous Concrete Design



## TESTS ON SOIL

S.No.	TEST NAME
1.	Bulk density
2.	Specific gravity
3.	Natural moisture content
4.	Sieve analysis
5.	Liquid & plastic limit
6.	Shrinkage limit
7.	Standard proctor compaction
8.	CBR
9.	Safe bearing capacity
10.	Shear parameter
11.	Field CBR
12.	Chemical analysis on soils: $p^H$ value



ADDRESS :

**DEPARTMENT OF CIVIL ENGINEERING**

**CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (Autonomous),**  
 Vidya Nagar, PRODDATUR - 516360, YSR Kadapa (Dist.), Andhra Pradesh.  
 Cell: 9640808099, Email: civilhod@cbit.edu.in