DEPARTMENT OF CIVIL ENGINEERING
JNTUH COLLEGE OF ENGINEERING,
 KUKATPALLY, HYDERABAD
INFORMATION BROUCHER 1965-2019
Vision of the Institution

To be recognized as one of the top 10 institutes in the country offering technical education, sustaining and improving its repute of UG programmes, expanding need based PG and research programmes with global outlook, synergizing teaching and research for societal relevance.

Mission of the Institution

- To identify technological advancements and build the right level of skills at the right Time contributing to the industrial and national growth.
- To identify and keep abreast with the state of the art technology maintaining its legacy of striving for excellence in higher education.
- To promote world class research of local relevance to society.
- With a research community of professors, research fellows and research centres, expand the scale and multidisciplinary character of its research activities.
- With a global outlook strive for collaborations to network with International Universities and National Institutes of Research and Higher Learning.
Vision of the Department

- The Department of Civil Engineering is committed to raise the intellectual tone of the young students in understanding and incorporating emerging technologies, with an objective of enhancing their competence by applying their proficiency and skill for infrastructure and economic development of the society.

Mission of the Department:

1. To strengthen the teaching tools in order to orient students to acquire necessary skills to perform in the field or to handle industrial projects.
2. To enhance students into knowledgeable, responsible professionals, successful practitioners and lifelong learners in emerging fields for the betterment of society.
3. To improve the quality of technological education through training, consultancy, research, and innovation.
4. To identify, evaluate and implement scientifically proven technological solutions.

Program Educational Objectives

<table>
<thead>
<tr>
<th>PEO</th>
<th>Description</th>
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<tbody>
<tr>
<td>PEO 1</td>
<td>To provide students with a solid foundation in mathematical, scientific and engineering fundamentals required to solve engineering problems and to pursue and to enroll in advanced studies</td>
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<tr>
<td>PEO 2</td>
<td>To Impart basic technical knowledge and skills in Civil Engineering and related fields to cater to the emerging technological needs of society.</td>
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<td>PEO 3</td>
<td>To perceive the technical knowhow, adaptability and innovation in their work so as to pursue lifelong learning, and to be leaders, both in their chosen profession and in other activities.</td>
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<td>PEO 4</td>
<td>To Provide expertise in carrying out civil engineering projects by using state-of-art of computing and experimental techniques to develop interdisciplinary approach.</td>
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<td>PEO 5</td>
<td>To Train the student to possess good communication and presentation skills with ability to work in teams and contributing significantly to the technological development of the Nation.</td>
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Program Specific Outcomes

1. Understand the basics of Science, behavioural mechanics and engineering materials required for Engineering systems.
2. Survey, explore, analyse, formulate, design and manage complete Civil Engineering systems by incorporating socio-cultural and environmental needs.
3. Develop social skills required for multidisciplinary and collaborative works.
4. Train professionally to understand the ongoing field problems and their solutions.
VALUES

- Academic integrity and accountability
- Respect and tolerance for the views of every individual
- Breadth of understanding, including knowledge of the human sciences
- Appreciation of intellectual excellence and creativity

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We have concluded the Golden Jubilee Celebrations of the Institute with a sense of achievement and accomplishment. Since the Civil Engineering Department has always contributed not only in providing the academic excellence but also in building the basic infrastructure of this great Institute; therefore, there would not be a better time to engage in introspection and put together our achievements as well as our resolve to engage with the challenges of the future in view of the rapidly changing needs and environment of our society. This brief information brochure is an attempt in this direction. They have always been deeply involved in moulding our bright undergraduate and graduate students into technologists, technocrats and researchers who are capable of providing the best of solutions to the societal problems. I can vouch on behalf of my faculty colleagues and staff that we will continue to strive for greater heights in teaching and research that is relevant and shall help in nation building. I am very happy to present a brief account of our engagements, achievements and aspirations in the following pages.
The Majestic main building of the JNTUH the Four Pillared Main entrance gate of JNTUH
The Department of Civil Engineering was established in the Year 1965. The Department has created its own reputation through its teaching, research, consultancy and extensive activities. It offers undergraduate program in Civil Engineering and postgraduate programs in Structural Engineering, Geotechnical Engineering & Transportation Engineering.

Academic and Research Programmes

Bachelor of Technology in Civil Engineering
The Department offers B.Tech. degree to eligible candidates, which is a four-year undergraduate programme. The students have a wide variety of core and elective courses to choose from.

Master of Technology in Civil Engineering
The Department offers three postgraduate programmes to eligible candidates, which are of two-year duration each leading to M.Tech degree in a specialised field (as given in the table alongside). In each programme, students acquire knowledge in broad-based core courses followed by electives which provide in-depth and specialised knowledge in areas of special interest to them. Like

- Ph.d. in Civil Engineering
- Mtech in Geotechnical Engineering
- Mtech in Transportation Engineering
- Mtech in Structural Engineering
- Btech in Civil Engineering

the undergraduate students, they also undergo fieldtrips and industry-oriented practical training. A major project is also to be undertaken as a part of the curriculum in the final two semesters which involves research and development. Around 120 students enrol for these M.Tech. programmes every year. The Department also offers M.Tech in Construction Technology as MOU with Asian Institute of Bangkok.

**Research Programmes (Doctor of Philosophy)**

The Department offers Ph.D. degree part-time registration. Nearly 50 students registered from industry or nearby engineering colleges under the guidance of Civil Engineering Faculty.

**Laboratory and Testing Facilities**

About three-fourths of the Department area is occupied by the state of the art laboratories, namely:
Micro Processor Based 1000kN capacity Universal Testing Machine

Concrete Permeability test apparatus
Portable Concrete Permeability Apparatus

100 tones Load Frame
Triaxial shear Test

Pressure Meter
Consolidation Units

Atomic Absorption Spectrophotometer
STAAD Pro, ETABS, STRAP Softwares

Work stations for ARC GIS
Minerals and rock, Models of folds, faults and joints

Department seminar Hall
 Strength of Materials Laboratory
 Concrete Laboratory
 Structural Analysis Laboratory
 Geotechnical Engineering Laboratory
 Rock Mechanics Laboratory
 Geo-Environmental Laboratory
 Environmental Engineering Laboratory
 Highway Materials Laboratory
 Surveying Laboratory
 Fluid Mechanics and Hydraulics Laboratory
 Computer Laboratory
 System and Modelling Laboratory
 Geology Laboratory
 Transportation Engineering Laboratory
 Construction Simulation Laboratory
 Construction Technology Laboratory
 Soil research Laboratory
 Geographical Information System
 Materials Research Laboratory
 Departmental Computational Laboratory
 Seminar Hall

**Publications**

The faculty are always enthusiastic in publishing books/book chapters, journal papers, and conference papers both at the national and international levels on a variety of topics. In recent years (2007-2019), journal papers and conference papers 790 and 5 books have been published. The faculty also actively take part in editing and reviewing books, journal papers, conference papers/proceedings, journal issues, technical articles, Masters and Doctorate theses.
Sponsored Research and Consultancy Projects

The Department has undertaken good number of R & D projects from AICTE, UGC, DST and some private organizations in the fields of concrete technology, Water Resources Management, Geo-Technical Engineering, Geo Environmental Engineering and Earthquake Engineering. At present three projects are ongoing in different fields sponsored by AICTE & UGC. At present the department is having R&D projects of worth Rs. 50 Lakhs on hand.

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Project Duration</th>
<th>Amount Received (Lakhs)</th>
<th>Funding Agency</th>
<th>Type of project</th>
<th>Status (Completed/In progress)</th>
<th>Project Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modernization of Concrete Laboratory</td>
<td>2012-15</td>
<td>12.0</td>
<td>AICTE</td>
<td>MODROBS</td>
<td>Completed</td>
<td>Dr. P. Srinivasa Rao</td>
</tr>
<tr>
<td>Disaster Management (COE)</td>
<td>2013-16</td>
<td>300</td>
<td>World Bank</td>
<td>TEQIP III Center of Excellence</td>
<td>Completed</td>
<td>Dr. G. V. N. Reddy Dr. V. Padmavathi</td>
</tr>
<tr>
<td>Cost and effective and novel treatment method for remediation and reuse of pesticide industrial wastewater</td>
<td>2017-20</td>
<td>25</td>
<td>DST</td>
<td>R &amp; D</td>
<td>In Progress</td>
<td>Dr. Srinivasulu</td>
</tr>
<tr>
<td>Stabilized Compressed Earth Blocks using Rice Husk Ash and their applications to Load Bearing Walls</td>
<td>2013-17</td>
<td>17</td>
<td>DST, Govt. of India</td>
<td>DST, Govt. of India</td>
<td>Completed</td>
<td>Dr Maganti Janardhana</td>
</tr>
<tr>
<td>Use of Polymer fibres and steel fibres for improvement in concrete properties (In association with BITS Pilani Hyderabad Campus faculty)</td>
<td>2017-18</td>
<td>5.85</td>
<td>MORTH</td>
<td></td>
<td>On going</td>
<td>Dr P N Rao &amp; Dr Padmavathi, V</td>
</tr>
<tr>
<td>Possibilities to Use over Burden Sand for Civil &amp; Construction Purpose</td>
<td>2017-18</td>
<td>1.0</td>
<td>Ahome Consultants Private Limited</td>
<td></td>
<td>completed</td>
<td>Dr. P. Srinivasa Rao</td>
</tr>
<tr>
<td>Assessing Suitability of Processed OB for Civil Construction Purpose</td>
<td>2014-19</td>
<td>5.056</td>
<td>Singareni Collieries Company Limited</td>
<td></td>
<td>completed</td>
<td>Dr. P. Srinivasa Rao</td>
</tr>
</tbody>
</table>

STUDENTS PLACEMENTS
The UG and PG students of this Department have been placed in software and core Industries such as IBM, CTS, ICICI, NCC, WIPRO, ACCENTURE, TCS, MAHINDRA SATYAM, FUTURES FIRST, INFOSYS, L&T limited, VISWA, TATA PROJECTS BHAGAVATHI, TATA POWER, L&T, NCC, TCE.
Faculty Profile:

Dr. E. Saibaba Reddy,
Ph.d (Nottingham, UK), Geo-technical Engineering,
Professor & Principal, esreddy1101@jntuh.ac.in,
Research Areas: Pile Foundations, Geo Environmental Engineering, Physical Modelling,
JNTU, Hyderabad.

Dr. N. V. Ramana Rao,
Ph.d (UK), Structural Engineering, Professor & NIT Director, rao.nvr@jntuh.ac.in,
Research Areas: Retaining Structures, Ground Improvement Techniques.
JNTU, Hyderabad, (On leave)

Dr. G. K. Vishwanath,
Phd, Water Resources Engineering,
Professor, UGC Director, gkvishwanadh@jntuh.ac.in,
Research Areas: Integrated Water Resources Management, Watershed Management, Rainwater Harvesting,
JNTU, Hyderabad.

Dr. K. Rama Mohana Rao
Phd (IIT Delhi), Structural Engineering,
Professor, rkunapareddy@jntuh.ac.in,
Research Areas: Soil Structure Interaction, Dynamics,
JNTU, Hyderabad.

Dr. P. Srinivasa Rao,
Phd, Structural Engineering,
Professor, srinivasa.pt@jntuh.ac.in,
Research Areas: Special Concretes, Structural Designs,
JNTU, Hyderabad.

Dr. K. Manjulavani,
Phd, Structural Engineering,
Professor & BOS Chairman, manjulavani@jntuh.ac.in,
Research Areas: Earthquake Engineering, Special Concretes & Structures,
Remote sensing & GIS Technologies
JNTU, Hyderabad.

Dr. E. C. Nirmala Peter,
Phd, Geo-technical Engineering,
Professor, ecnps@jntuh.ac.in
Research Areas: Ground Improvement Techniques, Geo-environmental Engineering,
Rock Mechanics,
JNTU, Hyderabad.

Dr. P. Sravana,
Phd, Transportation Engineering,
Professor & Head, sravana.jntu@jntuh.ac.in,
Dr. S. Srinivasulu,
Ph.D., Post Doc. (U & S Canada), Water resources Engineering
Professor, ss.lu@jntuh.ac.in.
Research Areas: Remote sensing, Artificial Intelligent Application in Hydraulics and Hydrology,
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Dr. V. Venkateswara Reddy,
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Research Areas: Remote sensing, Artificial Intelligent Application in Hydraulics and Hydrology,
JNTU, Hyderabad.

Dr. B. Dean Kumar,
Ph.D., Structural Engineering,
Professor & BICS Director, deankumar@jntuh.ac.in
Research Areas: Special Concretes, Wind Engineering, Dynamics,
JNTU, Hyderabad.

Dr. M. Janardhana,
Ph.D., Structural Engineering,
Professor, jmagoni@jntuh.ac.in
Research Areas: Earthquake Resistant Design of Structures, Concrete Technology,
Masonry Structures,
JNTU, Hyderabad.

Dr. G. Venkata Narasimha Reddy,
Ph.D., Geo-technical Engineering,
Professor, gnreddy@jntuh.ac.in,
Research Areas: Retaining Structures, Ground Improvement Techniques,
JNTU, Hyderabad.

Dr. S. Vidyawathi,
Ph.D., Water Resources Engineering,
Professor, vidyasom@jntuh.ac.in,
Research Areas: Watershed Modelling, Remote sensing and GIS Application in Civil Engineering and allied areas,
Optimization Techniques with Application in Civil Engineering, Effective Agricultural Management Practices,
JNTU, Hyderabad.

Mrs. A. Krishna Nivedita,
M.Tech, Structural Engineering,
Associate Professor, Project Engineer,
a.krishnanvedita@jntuh.ac.in,
Research Areas: Prismatic Shell Structures, Cold Found Steel Structures, FE Analysis of Plates and other Structures, Optimisation,
JNTU, Hyderabad.

Dr. V. Padnavathi,
Future Goals:

- To provide thrust in emerging technologies in Civil Engineering.
- To develop collaboration with industry in research and consultancy.
To conduct training in emerging areas to Organizations & Industry.
To attain infrastructure development in rural India.
To contribute in developing research for the needs of society.

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