

Annamacharya Institute of Technology and Sciences

(An Autonomous Institution)

New Boyanapalli, Rajampet-516126 Kadapa (Dt), Andhra Pradesh.

Approved by AICTE, New Delhi, Affiliated to JNTUA, Anantapuramu, Accredited by
NAAC, IEI & ISO 9001:2015)

Recognized by UGC, New Delhi under section 2(f) & 12(B)

Department of Civil Engineering

**About Us:**

Annamacharya Institute of Technology & Sciences, Rajampet is an AUTONOMOUS institution and is affiliated to JNTUA, Anantapuramu. The institute was started in the year 1998 under the auspices of Annamacharya Educational Trust in picturesque surrounding on a spacious 30-acre campus near Tallapaka, the birth place of Annamacharya, the renowned saint poet.

Our Vision:

We impart futuristic technical education and instill high patterns of discipline through our dedicated staff who set global standards, making our students technologically superior and ethically strong, who in turn shall improve the quality of life of the human race.

Our Mission:

Our mission is to educate students from the local and rural areas, and from other states so that they become enlightened individuals, improving the living standards of their families, industry and society. We provide individual attention, world-class quality of technical education and take care of character building.

Civil Engineering**Vision:**

The Department of Civil engineering strives to help its graduates to become technically sound and ethically strong engineers and to be recognized as one of the best Civil Engineering programs in the country through its pursuit of excellence in teaching, research and service activities, besides imparting basic knowledge.

Mission:

- The mission of AITS's Department of Civil Engineering is:
- To impart training to the students in order to make themselves suitable for the changing technologies in Civil Engineering field.
- To provide an environment which inspires the students to enhance their analytical thinking and creativity to solve the problems of rural public and problems of the world related to Civil Engineering.
- To nurture leadership and team work in the students so as to make them good leaders, entrepreneurs and responsible citizens.

Programme Educational Objectives

The following Program Educational Objectives are consistent with the College and Department Missions. Graduates of our Civil Engineering program are expected within four years of graduation to have:

- PEO1** To apply a broad, fundamental-based knowledge and up-to- date skills required in performing professional work in Civil Engineering and related disciplines.
- PEO2** To design the works pertaining to Civil Engineering, incorporating the use of design standards, realistic constraints and consideration of the economic, environmental, and social impact of the design.
- PEO3** To use modern computer software tools to solve Civil Engineering problems and explain and defend their solutions and communicate effectively using graphic, verbal and written techniques to all audiences.
- PEO4** To demonstrate their ability to deal effectively with ethical and professional issues, taking into account the broader societal implications of Civil Engineering.

Programme Outcomes:

- PO1** Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2** Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3** Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4** Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

- PO7** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11** Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12** Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes:

- PSO1 Graduates will be able to apply technical skills and Modern engineering tools for Civil Engineering Day to day practice.
- PSO2 Graduates will be able to participate in critical thinking and problem solving of Civil Engineering field that requires analytical and design requirements.

About Department



In the year 2012, the Civil Engineering department was formed. The department, which is one of the Institute's key engineering departments, has expanded enormously and is now acknowledged as one of the major engineering departments. Undergraduate civil engineering program contain not just civil engineering studies, but also value education, industrial training, placement training, and computer training, all of which are required to be a successful civil engineer in today's world. The department provides field and technical visits for scholars to get practical experience. The department also provides a post graduated gree in structural engineering, which includes both core and elective courses (inter and intra department). Students can obtain practical experience through summer internships.

So, why wait? Come and join us now and build the Nation!

.... DR .T.Naresh Kumar
HOD CE

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STUDENT ACHIEVEMENT'S

- Mr. B. Madhusudhan Reddy, of III B. Tech Civil Engineering has won the GOLD MEDAL in 1st A.P State Grappling (Wrestling) championship 2021 held at KVK Indoor Stadium, Anantapuramu on 2nd and 3rd October 2021.
- Mr. H. Pavan Kalyan of III-year A- sec has won 1st prize in SPICES logo design competition contest conducted by AITS student welfare club from Civil engineering department.
- Mr. D Harish of IV -A Sec has won 2nd prize in SPICES logo design competition contest conducted by AITS student welfare club from Civil engineering department.
- Mr. B. Dinesh of III-B Sec has won 2nd prize in SPICES logo design competition contest conducted by AITS student welfare club from Civil engineering department.
- Miss K. Sucharitha of III-C Sec has won participation prize in SPICES logo design competition contest conducted by AITS student welfare club from Civil engineering department. Miss D. Viswa Sree of III-C Sec has won participation prize in SPICES logo design competition contest conducted by AITS student welfare club from Civil engineering department.
- Miss D. Viswa Sree and Miss G. Lakshmi Manasa of III YEAR won 1st prize in ATM 21 for her presentation on "PLASTIC ROADS". Mr. L. Kumar, Mr. T. Hari Krishna, Mr. K. Naveen Kumar, Mr. R. Mushtaq Basha of III YEAR B-sec has won first prize in quiz competition on constitution of India on constitution day.
- Mr. K. Anand of II YEAR A-Sec has won first prize in elocution competition in a national level competition on the eve of national pollution control day.
- Mr. P. Fayaz Khan has won the II A-sec has won the best Director of Photography award in the short film contest on national short film day.
- Mr. C. Raj Kumar has won the III A-sec has won the best concept award in the short film contest on national short film day.
- Mr. P. Abbas Khan has won the II A-sec has won the best script writer award in the short film contest on national short film day.
- Mr. L. Sudarshan has won the III C-sec has won the best director award in the short film contest on national short film day. Mr. B. Ashok and his Team of II A-sec has won the best Short Film award in the short film contest on national short film day.

FACULTY ACHIEVEMENT'S

Dr. T. Naresh Kumar published two papers on ELSEVIER- MATERIALS TODAY

- "Effect of graphene oxide on fresh, hardened and mechanical properties of cement mortar" 1: 46, AUG 2021, pp 2235-2239.
- "Effect of graphene oxide on strength properties of cementitious materials: A Review" 1: 46, AUG 2021, pp 2157-2260.

FDP'S ATTENDED:

- Dr. T Naresh Kumar Associate professor, HOD of CE has undergone an Innovation Ambassador training (Foundation Level, Total 16 Sessions of 30 contact hours) conducted by Moe's Innovation Cell & AICTE during the period from 30th June - 30th July 2021 in online mode.
- Dr. T Naresh Kumar Associate professor, HOD of CE has attended a 2 weeks FDP on "Advances In FEA using ANSYS 2021 R2" at Sharad institute of technology college of engineering from 17-08-2021 to 27- 8-2021.
- Dr. T Naresh Kumar Associate professor, HOD of CE has attended a 2 weeks FDP on "a2z of NBA Accreditation process" at Indraprastha Engineering college, Ghaziabad from 24-08-2021 to 09-09-2021.
- Dr. D. Sreenivasulu Associate Professor Dept. of CE has attended a 2 weeks FDP on "Sustainable developments and practices in geotechnical and environmental engineering" at Raja Giri School of engineering & technology from 12-10-2021 to 23-10-2021.
- Miss N. Siri Chandana Assistant professor in Dept. of CE has attended a 5-day online FDP on "Advances in numerical methods for engineering structures: fundamentals toward applications" by AICTE from 25-10- 2021 to 29-10-2021.
- Miss N. Siri Chandana Assistant professor in Dept. of CE has attended a 5 days online elementary FDP on "Structural dynamics and earthquake resistant design of structures" by AICTE from 24-08-2021 to 24-08- 2021.
- Dr. D. Sreenivasulu Associate Professor Dept. of CE has attended a 3-day virtual workshop on "Site investigation and soil exploration techniques for geotechnical engineering" from B.S Ablur Rahman credent institute of science and technology, Chennai, from 09-11-2021 to 11-11-2021.
- Mr. K. Vishnu Vardhan Assistant professor Dept. of CE has attended a 3-day webinar series on "Latex/Kile software: A Scientific Documentation" from Rajiv Gandhi Memorial College of Engineering& Technology (Autonomous), Nandyal, from 18-11-2021 to 20-11-2021.
- Miss K. Rajitha Assistant professor in Dept. of CE has attended a 5-day online FDP on "EDP on Fostering start-up, innovation and Entrepreneurship/ intrapreneurship" by AICTE from 06-12-2021 to 10- 12-2021 at Andhra university.
- Dr. D. Sreenivasulu Associate Professor Dept. of CE has attended a 5-day FDP on "Transportation geo techniques and materials for sustainable infrastructure (tgmsi-2021)" at Swami Keshavan and institute of technology from 13-12-2021 to 17-12-2021.

STUDENT ACTIVITIES

- Mr. M. Tharun has won the III A-sec has attended the seminar in junta university from 05-06-2021.
- Mr. C. Varsha has won the III A-sec has attended the seminar in junta university from 05-06-2021.
- Mr. U. Thirupathamma has won the III A-sec has attended the seminar in junta university from 05-06-2021.

FACULTY ACTIVITIES:

- Dr. T. Naresh Kumar Associate professor in Dept. of CE has appointed External Examiner for B. Tech Project Viva -Voce July 2021 Examination from Aditya College of Engineering, Madanapalli.
- Dr. D. GousePeera Assistant professor in Dept. of CE has appointed External Examiner for B. Tech Project Viva-Voce Aug 2021 Examination from Annamacharya Institute of Technology and Science, Kadapa.

STUDENT ARTICLES:

The Palm Islands consist of three artificial islands: Palm Jumeirah, Deira Islands, and Palm Jebel Ali, on the coast of Dubai, United Arab Emirates. The Palm Islands were constructed around the same time as The World Islands. Nakheel Properties is the Palm Islands real estate developer. The creation of the islands began in 2001 and ended around 2006/2007. These islands have significantly impacted ocean sediment and wildlife in the surrounding area. Construction began in 2001 and was financed mainly



by Dubai's income from petroleum. By 2009, 28 hotels had opened on the site. The Atlantis is the largest hotel currently constructed on Palm Jumeirah. The island has a population of over 18,000 people as of 2015. Palm Jebel Ali (Google 25°00'N 54°59'E) is an artificial archipelago that features a palm tree that is 50% larger than the original Palm Jumeirah. The island has a larger crescent shape. Space has been created between the crescent and the tree to build boardwalks that encircle the "fronds" of the "palm" and spell out an Arabic poem written by Sheikh Mohammed bin Rashid Al Maktoum. Construction on the island began in 2001, but as of 2018, progression has been halted due to the financial crisis of 2007-2008. The Deira Islands (25.3333°N 55.2681°E) are four undeveloped artificial islands off the coast of Deira, Dubai, United Arab Emirates. As of 2021, little development has occurred on the islands due to the financial crisis of 2007-2008. At first, the project—which was supposed to be a part of the Palm Islands—was known as Palm Deira. It was intended to be the biggest palm of the three, roughly eight times as big as the Palm Jumeirah.

Purpose

Dubai built the Palm Tree Islands to increase the coastline for tourists. Dubai is known for its sunny weather and beaches, but more than 72 km (45 miles) of coastline was needed to accommodate the goal of tripling the number of tourists to 15 million annually. The solution was to construct a massive island shaped like a palm tree, which, upon completion in 2006, would add 56 km (35 miles) to the coastline. The island is designed to be a city within itself, featuring shopping centers, restaurants, hotels, and residential properties.

**Prepared by
A. Ajith IInd Year 23705A0101**

FCAULTY ARTICLES:

Brihadishvara Temple, called Rajarajesvaram (lit. 'Lord of Rajaraja') by its builder, and known locally as Thanjai Periya Kovil (lit. 'Thanjavur Big Temple') and PeruvudaiyarKovil, is a Shaivite Hindu temple built in a Chola architectural style located on the south bank of the Cauvery river in Thanjavur, Tamil Nadu, India. It is one of the largest Hindu temples and an exemplar of Tamil architecture. It is also called Dakshina Meru (Meru of the South). Built by Chola emperor Rajaraja I between 1003 and 1010 CE, the temple is a part of the UNESCO World Heritage Site known as the "Great Living Chola Temples", along with the Chola-era GangaikondaCholapuram temple and Airavatesvara temple, which are about 70 kilometres (43 mi) and 40 kilometres (25 mi) to its northeast respectively. The original



monuments of this 11th-century temple were built around a moat. It included gopura, the main temple, its massive tower, inscriptions, frescoes, and sculptures predominantly related to Shaivism, but also of Vaishnavism and Shaktism. The temple was damaged in its history and some artwork is now missing. Additional mandapam and monuments were added in the centuries that followed. The temple now stands amidst fortified walls that were added after the 16th century. Built using granite, the vimana tower above the shrine is one of the tallest in South India. The temple has a massive colonnaded prakara (corridor) and one of the largest Shiva lingas in India. It is also famed for the quality of its sculpture, as well as being the location that commissioned the brass Nataraja, Shiva as the lord of dance, in the 11th century.

Architecture

The Peruvudaiyar temple's plan and development utilizes the axial and symmetrical geometry rules. It is classified as Perunkoil (also called Madakkoil), a big temple built on a higher platform of a natural or man-made mounds.[28] The temple complex is a rectangle that is almost two stacked squares, covering 240.79 metres (790.0 ft) east to west, and 121.92 metres (400.0 ft) north to south. In this space are five main sections: the sanctum with the towering superstructure (sri vimana), the Nandi Hall in front (Nandi-mandapam) and in between these the main community hall (mukhamandapam), the great gathering hall (mahamandapam) and the pavilion that connects the great hall with the sanctum.

**Prepared by
Dr. D. Gouse Peera
Assistant professor**

EVENTS CONDUCTED IN DEPARTMENT:**NATIONAL CONFERENCE ON R&AITS-2021:**

It was one day national conference on 28th august 2021 in virtual mode to provide profound research ideas in this pandemic situation for research aspirants and to showcase latest research findings and stand a huge inspiration for the research scholars in tough situations. The main motto of this conference was to exchange the knowledge among researchers to invent the noble material. The conference was graced by Dr. C. Sashidhar as a key note speaker and serving as a registrar, JNTUA, Ananthapuramu. The over all conference was very informative and have some innovative ideology to the usage of materials.

Hon'ble chief guest Dr.C. Sashidar, Institute Principal Dr.SMV. Narayana
And Convener & Co-Ordinator Dr. T Naresh Kumar

**ATM21 (ANATIONAL LEVEL TECHNICAL SYMPOSIUM):**

The department has organized a one-day national level technical online students symposium on 25-Oct 2021 to enhance knowledge on current research trends in CIVIL ENGINEERING. Dr.C. SASHIDAR Garu has graced the event as a chief guest and encouraged the students to take part in such symposiums to improve their knowledge.

Hon'ble chief guest Dr.C. Sashidar,
Director Sri C.Gangi Reddy,
Institute Principal Dr.SMV. Narayana and
Head of the Department Dr. T Naresh Kumar

**Constitution Day:**

In the month of November, a Quiz competition was organized by the department on 26th of this month on the occasion of Constitution Day and the prizes were distributed by the vice chairman of the institute Sri C. Yella Reddy garu, Principal Dr. SMV. Narayana and Head of the Department Dr. T. Naresh Kumar. Winners of the event with institute

Vice Chairman Sri C. Yella Reddy Garu,
Principal Dr.SMV.Narayana and
Head of the Department Dr. T. Naresh Kumar and
coordinators Mr S.V.V. Prasad and Mr K. Vishnu Vardhan.



National Pollution Control Day:

A National Event took part on behalf of the NATIONAL POLLUTION CONTROL DAY by the department of Civil Engineering on 2nd Dec 2021. On this occasion the elocution and drawing competitions were held. The prizes were distributed in the departmental seminar hall and the event was graced by Executive Director of the institute Sri C. Abhishek Reddy Garu. Winners of the event with Institute

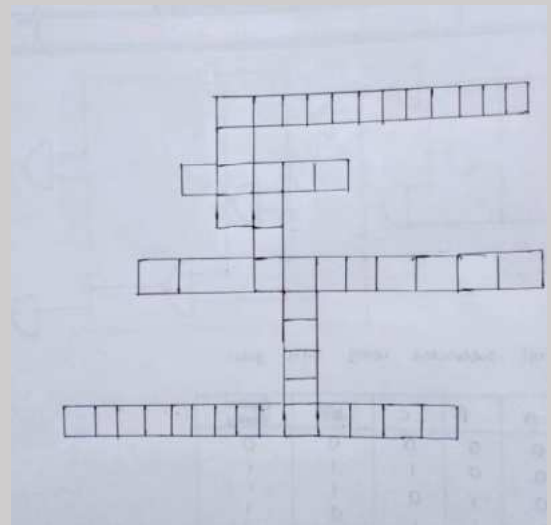
Executive Director
Sri C. Abhishek Reddy Garu,
Institute Principal
Dr. SMV. Narayana and
Head of the Department
Dr. T. Naresh Kumar
And coordinators Mr. S.V.V. Prasad
and Mr. K. Vishnu Vardhan.

**Mathematics Day:**

A National level quiz Competition was held on Mathematics Day (26th Dec) celebrating the birth anniversary of the great Indian mathematician Srinivasa Ramanujan. Principal of the institute Dr. SMV. Narayana Garu has attended the event as a chief guest and distributed the prizes to the students at the Civil Engineering Departmental seminar hall. Participants of the event with Institute Principal Dr. SMV. Narayana and Head of the Department Dr. T. Naresh Kumar and coordinators Mr S . V. V. Prasad and Mr K. Vishnu Vardhan.

CROSS WORDS:

1. Bridge component that supports the roadway
2. Material used to reinforce concrete
3. Measurement of soil's ability to transmit water
4. Structural element used to distribute loads horizontally
5. Process of compacting soil to increase its density
6. Device used to measure distance
7. Unit of measurement for pressure



FUNFACTS:

The Elephant Building or Chang Building is a high-rise building at Paholyothin Road and Ratchadaphisek Road in Bangkok, Thailand. shaped like an elephant with its trunk raised. It houses offices, condominiums, and retail spaces. It lies in the north Bangkok business district and Chatuchak District. The building is one of the better known buildings in Bangkok as it resembles an elephant. It was a collaboration between Dr Arun Chaisaree and architect Ong-ard Satrabhandhu. The building has 32 floors and is 102 metres (335 ft) high. It was completed in 1997. The Elephant Building was ranked number four of the "20 World's Iconic Skyscrapers [sic]" by CNNGo in February 2011.



Prepared by
M. Sai Gunta III-II (B-SEC)

GENERAL FACTS:

The Great Wall of China is a series of fortifications that were built across the historical northern borders of ancient Chinese states and Imperial China as protection against various nomadic groups from the Eurasian Steppe. Several walls were built from as early as the 7th century BC, with selective stretches later joined by Qin Shi Huang (220–206 BC), the first emperor of China. Little of the Qin wall remains. Later on, many successive dynasties built and maintained multiple stretches of border walls. The best-known sections of the wall were built by the Ming dynasty (1368–1644).



Apart from defense, other purposes of the Great Wall have included border controls, allowing the imposition of duties on goods transported along the Silk Road, regulation or encouragement of trade and the control of immigration and emigration. Furthermore, the defensive characteristics of the Great Wall were enhanced by the construction of watchtowers, troop barracks, garrison stations, signaling capabilities through the means of smoke or fire, and the fact that the path of the Great Wall also served as a transportation corridor.

Prepared by
Y. Yamini –IV-I (B-SEC)



Annamacharya Institute of Technology and Sciences