



**A.V.C. COLLEGE OF ENGINEERING**  
 Approved by AICTE, Affiliated to Anna University  
 Re-Accredited by NAAC with 'B++' Grade(2<sup>nd</sup> Cycle)  
 An ISO 9001:2015 Certified Institution



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25 years of excellence in education

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# DEPARTMENT OF CIVIL ENGINEERING

## CEAT

**Civil Engineering Advanced Technologies**

### HoD's message

I am delighted to present the welcome message for our biannual newsletter "CEAT" which gives glimpses of the cumulative efforts of the Department of Civil Engineering guided by the Honorable Management and supported by the administration. I congratulate the entire civil engineering department faculties, staff and students for their contribution to department activities and look forward for future developments. Heartiest congratulations to the Editorial Board for development of this newsletter.

**Dr. R. JAYASANKAR**  
**HOD-CIVIL**

### Patron

*Dr.C.Sundar Raj*  
*Principal*

### Convener

*Dr.R.Jayasankar*  
*HoD/Civil*

### Editorial committee

- Mr.J.Arun – A.P
- Mr.S.Rameshwaran - A.P
- Mr.S.Kannan - A.P
- Mr.S.Harikrishnan - A.P
- Mr.S.Ambethkar - A.P

### Student Members

- S.Vishva - II year
- A.Sneha - II year
- B.Bharathbharathi - III year
- P.Praneetha - III year
- S.Suriyakala - IV year
- K.Ramkumar - IV year

### **Vision**

To produce knowledgeable and professionally qualified Civil Engineers with the capability to offer global solutions to the increasing problems in the construction industry.

### **Mission**

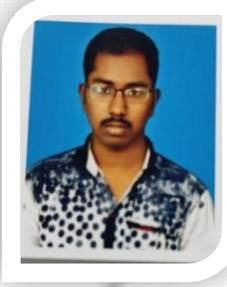
- To impart knowledge and training in Civil Engineering.
- To establish state-of-the-art infrastructure to enable learners to update their knowledge in current developments in Civil Engineering
- To Bridge the gap between academy and industry through practical exposure and hands-on training.

## **ABOUT THE DEPARTMENT**

Civil Engineering is the art of directing the great sources of power in nature for the use and convenience of mankind. It is the mother branch of engineering that deals with the design, construction and maintenance of the physical and naturally built environment. The Department of Civil Engineering was started in the year 2011. The department boasts excellent infrastructure facilities and faculties rich in knowledge and experience.

The Department has fully equipped Labs with state-of-the-art equipment including Strength of Materials Lab, Soil Mechanics Lab, Environmental Engineering Lab, Concrete Lab, Highway Engineering Lab, Hydraulics Lab, Fluid Machinery Lab, Surveying Lab, and Computational Lab,. For better awareness and interest of a student, continuous interaction with reputed companies is being organized at frequent intervals in the form of special technical lecture/ workshop/ site visit or exchange of technical knowledge and on campus interview etc.

## PLACEMENT DETAILS

CONGRATULATIONS		
		
<b>B.Madhavan</b>	<b>K.Ramkumar</b>	<b>B.Kaviyarsan</b>
M/s V.R. Construction & Earthmovers Pallavaram, Chennai	M/s Ambikaa jai Builders Kumbakonam.	Chozha Foundations, Ashok Nagar, Chennai.
		
<b>S.Arulkumar</b>	<b>E.Harishankar</b>	<b>G.Suriya</b>
M/s Arudhra Construction Mayiladuthurai	M/s B <sub>2</sub> Construction Mayiladuthurai	M/s Ayyapan Construction Thiruvavarur
		
<b>R.Arunprasath</b>	<b>M.Ahamed Riyal Saliheen</b>	<b>K.Gunasekaran</b>
Contract works Rural Development, Kudavasal, Kadalangudi Panchayat	P&C Projects Pvt.Ltd Mugapperu, West Chennai	Shrivari Construction , Kumbakonam

## FACULTY PARTICIPATION DETAILS

S.No	Name of the faculty	Organised by	Name of Course
1	Mrs.S.Alarmelumangai	NPTL	Geotechnical Engineering Laboratory

## FACULTY PUBLICATION DETAILS

S.No	Name of the faculty	No of Publication	Title of the journal
1	R.Jayasankar	01	Prediction of long term pattern and its extreme event frequency of rainfall in Cauvery Delta Basin <b>(IJCRT, e-ISSN: 2320-2882 Volume 09, Issue 04: April 2021)</b>
2	S.Harikrishnan	01	Experimental Investigation on Replacement of coarse aggregate by coconut shell and bamboo in concrete <b>(IRJET, e-ISSN: 2395-0056 p-ISSN: 2395-0072, Volume 08, Issue 03: March 2021)</b>

## STUDENTS PUBLICATION DETAILS

S.No	Name of the Student	No of Publication	Title of the journal
1	R.V.Gopika Sri C.Surya N.Umashankar R.Parthiban	01	Prediction of long term pattern and its extreme event frequency of rainfall in Cauvery Delta Basin <b>(IJCRT, e-ISSN: 2320-2882 Volume 09, Issue 04: April 2021)</b>
2	K.Ramkumar S.Anusha B.Venkatash R.Arun Prasath	01	Experimental Investigation on Replacement of coarse aggregate by coconut shell and bamboo in concrete

## INFORMATION PAGE:

Mr.S.Kannan, Assistant Professor/ Civil

### INTRODUCTION OF INTERLOCKING BRICKS

Interlocking bricks are different from conventional bricks that do not require mortar for the construction of walls. These are designed in such a way that each brick can lock itself with others due to the key and lock mechanism. In this **civil engineering** article you will know about the pros and cons of interlocking bricks.

There are different types of interlocking bricks like interlocking paving bricks, interlock wall bricks, interlocking landscape bricks, interlocking retaining wall bricks etc.

### ADVANTAGES OF INTERLOCKING BRICKS

#### Earthquake Resistant

One of the significant benefits of interlocking bricks is they act as good earthquake resistance. There are various stresses on the structure due to earthquakes. Conventional bricks couldn't bear the **stress** as they cannot transfer the seismic load across the structure equivalently.

Only mortar can transfer the seismic loads, and if it fails, the whole structure will fail. At the same time, interlocking bricks are equipped to transfer the seismic forces equivalently across the whole structure because of the self-locking pattern.



## STUDENT CORNER:



Ms.A.Sneha  
II Year Civil  
AVCCE



Mr.R.Parthiban  
IV Year Civil  
AVCCE

## ALUMNI PAGES:



Our Alumni Received the **Star Achiever Award** by the National Integral Cultural Academy for his contribution and achievements in the Field of Construction on 23.01.2021.

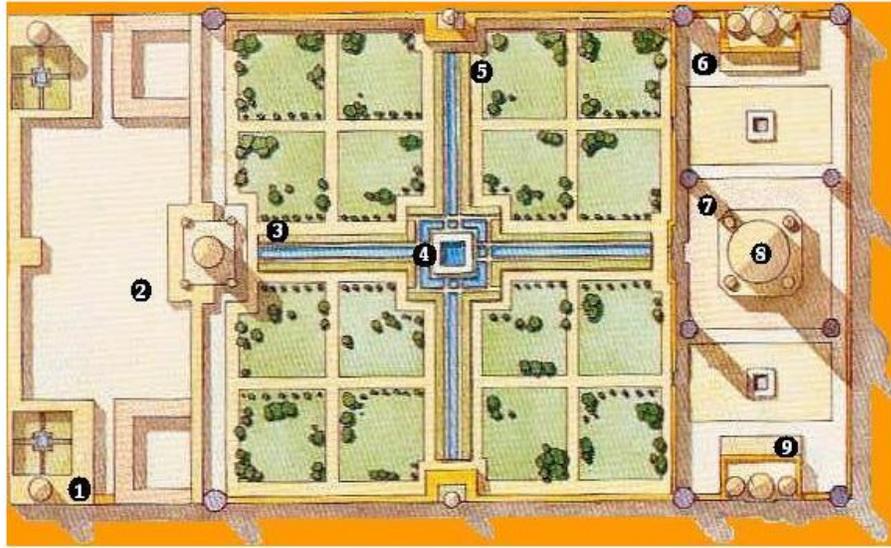
Thanks to AVCCE, the faculty of Civil Engineering has always been supportive and inspiring guides, and also challenging taskmasters.



Mr.M.Selvam  
Quality Engineer,  
Angel construction, Pagalkot,  
Karnataka.

TECHNICAL DATA  
TAJ MAHAL, AGRA

Name : Taj Mahal , Agra



Taj Mahal was constructed over a period of twenty-two years, employing twenty thousand workers. It was completed in 1648 C.E. at a cost of **32 Million Rupees**. The construction documents show that its master architect was **Ustad 'Isa**, the renowned Islamic architect of his time. The documents contain names of those employed and the inventory of construction materials and their origin. Expert craftsmen from Delhi, Qannauj, Lahore, and Multan were employed. In addition, many renowned Muslim craftsmen from Baghdad, Shiraz and Bukhara worked on many specialized tasks.

The mausoleum is a part of a vast complex comprising of a main gateway, an elaborate garden, a mosque (to the left), a guest house (to the right), and several other palatial buildings. The Taj is at the farthest end of this complex, with the river **Jumna** behind it. The large garden contains four reflecting pools dividing it at the center. Each of these four sections is further subdivided into four sections and then each into yet another four sections. Like the Taj, the garden elements serve like **Arabesque**, standing on their own and also constituting the whole. The **minarets** have an octagonal base and cylindrical body tapering to an eight-sided open pavilion. The body of the minarets is sectioned by three balconies which create shadows and interest in an otherwise plain design. An exquisite band of marble inlay and geometric patterns sporting the chevron design encircle the minaret below the top balcony. The summit of the **gold gilded finial** perched on the top of the dome of the **Taj Mahal reaches two hundred and twenty feet [67 meters]** above the ground. At the top sits a lotus bud and under this is a water pot. This arrangement was adapted to the Islamic domain from the 12th century. Its function is purely decorative, accompanying the form of the dome.

**Any suggestions:**

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