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PACEtimes

PERI IT Association of Civil Engineers

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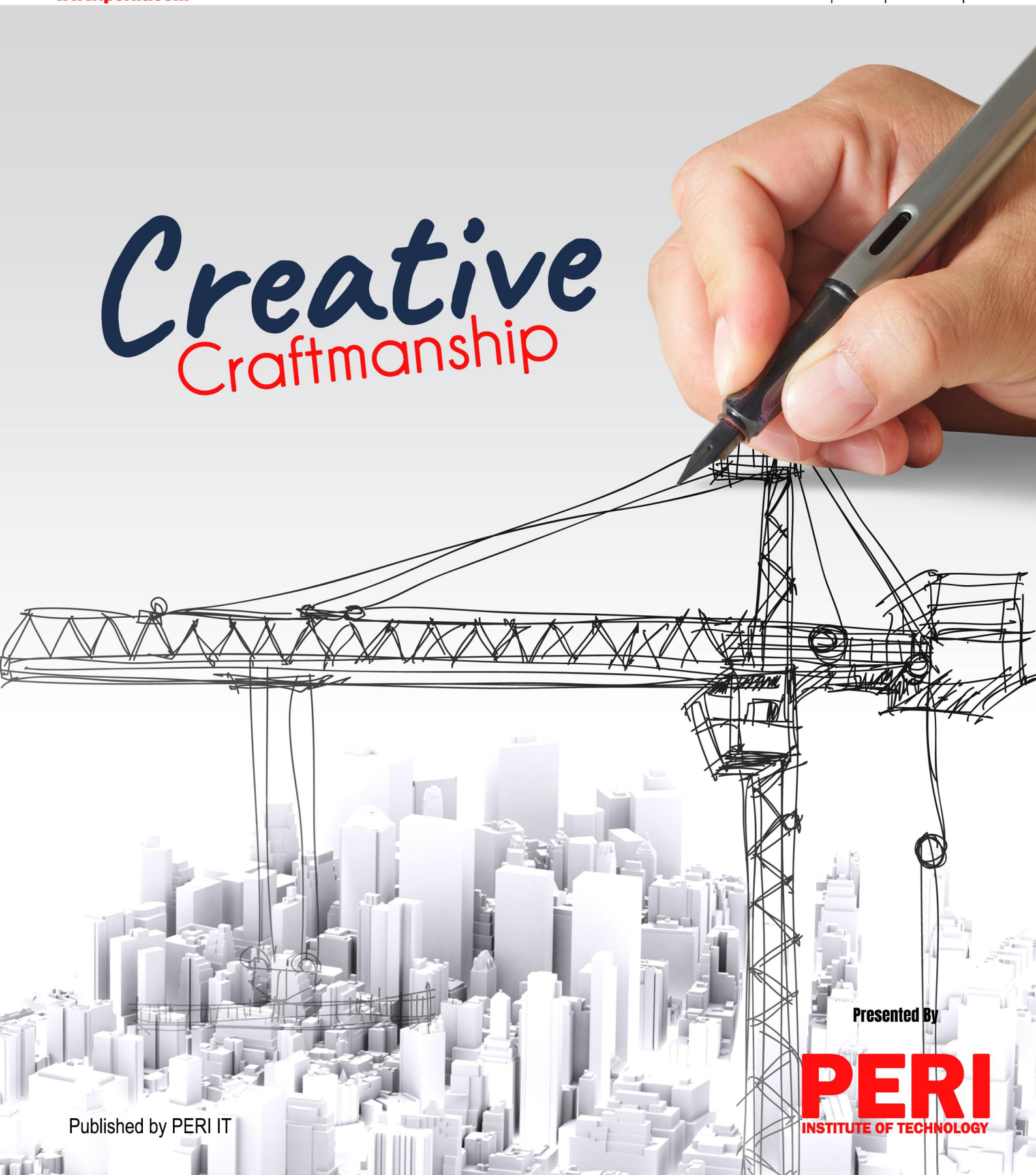

Creative Craftmanship

Presented By

PERI INSTITUTE OF TECHNOLOGY

Published by PERI IT

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ABOUT THE ASSOCIATION

PERI IT Association of Civil Engineers (PACE) is an association formed in PERI Institute of Technology for the benefits of students in Department of Civil Engineering. The main aim of the association is to improve both the technical and non-technical skills of the students so that they will come out in flying colours and excel in their field of engineering.

CHAIRMAN

Mr. Saravanan Periasamy

I am proud to have students from civil engineering department to come up with such a good collection of information.
I would like to encourage them to continue their good work

COO

Mr. Sasikumar Veerarajan

I congratulate all the students who have put their effort in bringing forth this newsletter of their department and also I like to congratulate all the faculty members and the HOD for motivating their students towards this fulfilment

PRINCIPAL

Dr. R. Palson Kennedy

I am very happy to know that civil department come up with their newsletter. It's first of its kind in PERI IT. This forum will offer opportunity to students to exchange their ideas and views. I congratulate the whole team for their effort in release of Newsletter.

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CONFERENCES

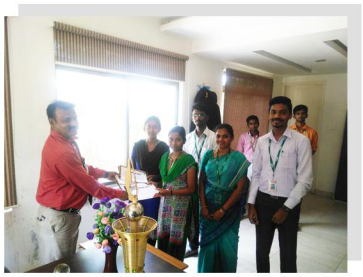
SHANMUGA SUNDARAM.C, ANISH KUMAR.P, DIVYA.B of final year presented a paper on *"An Experimental study on Bacterial self-healing Concrete"* at the national conference at SRM University and won the 2nd place.

ARAVINDHRAJ.P, SHATEESH.B, VIKRAMADITHAN.S of final year had presented their paper *"Improvement of bitumen performance with marble dust and crumb rubber"* at SRM University.

AARTHI.V.R, AISHWARYA S.P, GAYATHRI.P presented their project *"An Experimental study of brick and hollow block masonry wall using nylon Fibre"* at SRM University.

ARUNKUMAR.M, ABINAYA.M, ANANDHEESWARAN.B of final year presented *"Strength properties of concrete using crumb rubber with partial replacement of fine aggregate"* at SRM University.

TECHNICAL EVENTS



1. ANIRUDHAN.R, SURYA.S of second year presented a paper on *"Remote sensing and GIS applications"* and got 1st place at National Symposium conducted at SAACE.

2. KHARATMOLE GAYATHRRI, JEEVITHA.N of second year presented a paper on *"Experimental Investigation of interlocking hollow blocks using waste steel slag"* and got 1st place at National Symposium conducted at B.S Abdur Rahman University.

3. SHARVESH.R, YUVARAJ.K of second year had presented a paper titled *"High performance concrete"* At DACE.

4. RANJTH KUMAR.N, FAIJUR RAHMAN.B of second year had presented a paper on *"Ultra-high performance concrete"* at DACE.

5. SHRE SHINIKA.G, PREETHI.M of second year presented a paper on the topic *"Bitumen block"* at DACE.

6. NITHISH RAJA.N.S, THARVESH, MOHAIDEEN.N of second year presented a paper on the topic *"Fly-ash concrete"* at DACE.

7. KALEEL.J, GOWTHAM.B, SANTHOSH.K.S.S, SAMSURYA.S, SEHUALTAF.M, BALAJI.K, VIGNESH.S, VELU.M, SAT ISH.P, VEERABAGHU VENKATESH.M, VIKRAM.S, HENSON.S, SARAVANA KUMAR.S, KAMALESH.S, T.DILIP KUMAR of third year had participated in a workshop on *"Precast structures"* Conducted at SRM UNIVERSITY.

8. SARAVANAN.E, HARIHARASUDAN.P, PAVITHRA.K, SIVARAMAN.M, SADAM HUSSAIN.I, VEERABAGHU VENKATESH. M of third year participated in a workshop on *"Non Destructive Testing on Concrete"* at VIT UNIVERSITY. BAGHU VENKATESH. M of third year participated in a workshop on "Non Destructive Testing on Concrete" at VIT UNIVERSITY.

9. VIKRAM.S of third year took part in a workshop on the topic *"Foundation Analysis"* at SRM UNIVERSITY.

10. ESTHER METILDA.J of third year had attended workshops on *"Design and Analysis of RC structures"* at L&T Heavy Civil Infrastructure and "Civil Sensors" at UNIQ Technologies.

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TOP 10 CONSTRUCTION COMPANIES IN INDIA

1 . GMR Group
2 . Lanco Infratech Limited
3 . Man Infraconstruction Limited
4 . Atlanta Limited
5 . Simplex Infrastructures Limited
6 . IVRCL Limited
7 . Hindustan Construction Co. Limited
8 . Ramky Infrastructure Limited
9 . IL&FS Engineering and Construction Company Limited
10 .Gammon India

TITBITS

Carpet area:

It refers to the total usable area within the four walls of an apartment or commercial space, as the case may be. In other words, it refers to the area for which a carpet can be laid if required by the owner.

Plinth area:

It refers to the area entire carpet area along with the thickness of the external walls of the apartment. It obviously includes the thickness of the internal wall and columns, if any, lying within the four wall of an apartment. (Commercial space is not taken into account in calculating the plinth area).

J.ESTHER METILDA
Civil 3rd year

FROM EARTH TO SKY-JEDDAH TOWER

- Other Name: Kingdom Tower
- Structure Type: Building
- Country: Saudi Arabia City: Jeddah
- Status: Under Construction
- Structural Material: Concrete, Steel
- Proposed: 2011 Completion: 2020
- Owner/Developer: Jeddah Economic Company
- Architect: ADRIAN SMITH & GORDON GILL
- Height: 1,008 m
- Top floor: 630 m
- Observatory: 637.5 m
- Floors above Ground: 167
- The estimated cost of for the tower has been nearly US $ 1.2 billion
- JEC used latest technologies for high rise buildings foundation construction 270 pi les were Cast-in-situ reaching 105m below the natural ground level and with diameter that varies between 1.5 *1.8 m
- Earthing and Lightning prevention systems were installed into the Raft-Piling foundation
- The Jeddah Tower will be containing 80,000 tons of steel in it
- The Jeddah Tower will be having 59 elevators which will travel at a rate of 35KPH
- The Jeddah Tower will be so big that it will not be possible to even see a complete view of if in one rendering through naked eye

M.VEERABAGHU VENKATESH
Civil 3rd Year

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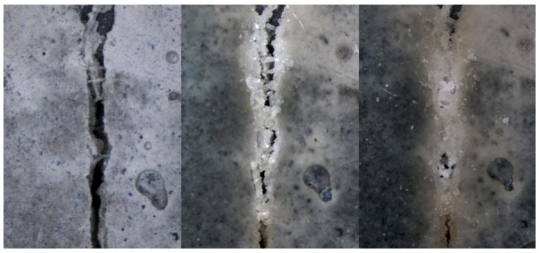
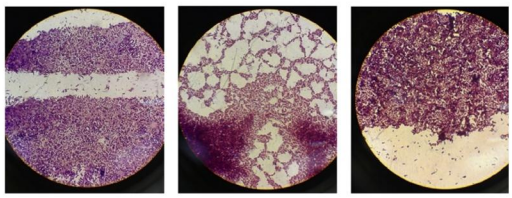
NON TECHNICAL EVENTS

DIVYA.B, ANISHKUMAR.P,SHANMUGASUNDARAM of final year from he Department of Civil Engineeringat PERI INSTITUTE OF TECHNOLOGY are working on finding biological activities that happens in self-healing concrete or Bio concrete. The research group predicts that the presence of bacteria in concrete may lead to sealing of cracks that arise due to porosity and permeability of the hardened concrete. They also found that the inclusion of calcium lactate in the concrete mix as a food source for bacteria leads to a higher strength of concrete.



BEFORE AND AFTER HEALING



MICROPHOTOGRAPH OF BACILLUS SUBTILIS STRAINS

- **SENTHIL KUMARAN. R** of third year has participated in All Indian National Football junior championship and won 3rd place held at Pune.
- **SENTHIL KUMARAN. R** of third year has participated at SSN trophy for Football and won 3rd place.
- **PANDIYARAJAN.D** of final year has participated in zonal KHO-KHO and won 2rd place held at SAACE.
- **RAKESH.K** of third year has participated in Basket Ball tournament and won 2rd place held at SAACE.
- **SHIVARAMAN.T** of third year has participated in KABBADI tournament held at LVCE.
- **DIVAKER.D** of Second year has participated in KABBADI tournament held at LVCE & SAVEETHA
- **LOGESH.R** of second year has participated in Cricket tournament held at SAVEETHA
- **SANTHANAKRISHNAN** of second year has participated in Drums held at ETHIRAJ
- **ATHISH.R.R** of second year has participated in Football tournament held at SAVEETHA
- **BALAJI.K** of second year has participated in Athletics held at SAIRAM

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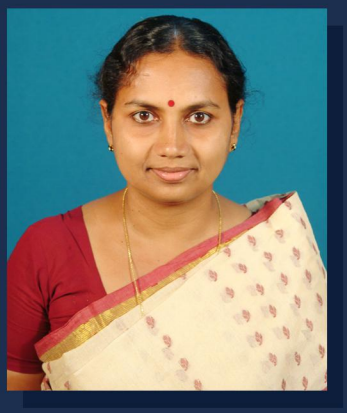
"WASTE IS NOT 'WASTE' BUT A MISPLACE RESOURCE"



LIGY PHILIP was born to C.V. PHILIP and THEYAMMA on 16th May 1968in Valavoor. She obtained her B.Tech Degree in Civil Engineering from Mahatma Gandhi University, Kottayam, 1990. Her masters and Ph.D were from Indian Institute of Technology, Kanpur (1991-1997). After completing her studies, she joined as a faculty in IIT Kharagpur (1998-2001). Since 2001, she is a faculty in the Department of Civil Engineering in IIT Madras.

Q1. Usually in your era, women must have a hard time to select engineering as their careers. What drove you to choose civil engineering?

A1: I was interested in civil engineering. At that time the things around me made me choose this as my career. And I am the first engineer in my family.

Q2. Did you plan on specialization in a particular field?

A2: I clearly planned that I must enter into academics after my B. Tech. I went to a Governmental organization for one year as a site engineer in Kerala state. It took nearly 10 months for me to get admit ted for next course. And then I took Environmental Engineering.

Q3. Did you face any issues while pursuing engineering?

A3: If you are sincere, if you are commit ted, if you are good there is no problem at all. I am heading the engineering unit of IIT Madras full construction maintenance not less than 5% lady faculties. There are many queries, mails. It all depends upon your own interest.

Q4. Do you have suggestions about a particular field that the students can pursue?

A4: That purely depends upon your interest and talent. Look around and learn which field needs more at tent ion at least in India and then select your field of interest.

Q5.What are the teaching methods that you employ to the students of IIT?

A5: I get involved in many industries, government, social consultancies. I take my students to all my projects. So they get exposed to many things. But theory is more important. Basic theory is the best practice. Because when I was doing B. Tech there was no practical exposure, so we learnt the best of theory.

Q6. The thing about civil engineering that you like the most, and the least?

A6: I enjoy my work. Most of the time I will spend with students and projects etc. Do what you like. Do not make others force or pushing you. Try to convince yourself what you want to do, develop the interest and excel in it.

Q7. "Waste is not 'waste' but a misplaced resource". True?

A7: Yeah that is what we are doing in our own campus, we are taking all waste water and treating with best technology, we have dual pipe line system in the entire campus, around 8 lakhs litres of water are recycled and used for flushing, gardening, conditioning etc. and remaining we are selling out for construct ion purposes so the treated water is better than the normal tap water. Commercial and residential buildings almost 90% of water can be recycled and used. It is mandatory that apartment having 20 houses should have recycling system. The waste water from the washing machine is treated and recycled itself for the next turn in Godrej Company. We have some of the toilet systems thee solid wastes are separated and liquid wastes are recycled and solid wastes are treated with solar so that your toilet water is not getting wasted. So think of the best thing and do it.

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HOW TO MAKE A CONSTRUCTIONSITE SAFE

1. Perform a thorough walk through of the site
2. Train all personnel in worksite safety and operating procedure either on-site or at a training facility
3. Identify and mark any hazardous materials
4. Inspect equipment to be sure it is working properly
5. Use harnesses and other safety equipment when performing roof work or working on scaffolds
6. Provide personal protective equipment to all employees, including hard hats, safety goggles and boots, work gloves, ear plugs (or another form of protect ion) and face masks
7. Prepare for emergencies.
8. Protect the public by barricading the construct ion site during work hours

M.Vignesh
AP/ Civil

DEPARTMENT TOPPERS

II Year: SHRE SHINIKA.G - 8.9
III Year: VARUNA.V - 7.9
IV Year: PANDIYARAJAN D - 8.1

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LEARN TO LEARN ENGINEERING - A MASTER STUDENT

To study well and learn any subject is to learn how to think with discipline within that subject. It is to learn to think within its logic.

Idea # 1: Make sure you thoroughly understand the requirements of each class, how it will be taught and what will be expected of you.

Idea # 2: Become an active learner. Be prepared to work ideas into your thinking by active reading, writing, speaking, and listening.

Idea # 3: Think of each subject you study as a form of thinking.

Idea # 4: Become a questioner. Engage yourself in lectures and discussions by asking questions. If you do not ask questions, you will probably not discover what you do and do not know.

Idea # 5: Look for interconnections. The content in every class is always a SYSTEM of interconnected ideas, never a random list of things to memorize. Do not memorize like a parrot. Study like a detective. Always relating new learning to previous learning.

Idea # 6: Think of your instructor as your coach. Think of yourself as a team member trying to practice the thinking exemplified by your instructor.

Idea # 7: Think about the textbook as the thinking of the author. Your job is to think the thinking of the author. For example, role-play the author frequently. Explain the main points of the text to another student, as if you were the author.

Ideal # 8: Consider class time as a time in which you PRACTICE thinking (within the subject) using the fundamental concepts and principles of the course. Do not sit back passively, waiting for knowledge to fall into your head like rain into a rain barrel. It won't.

Idea # 9: Relate content whenever possible to issues and problems and practical situations in your life. If you cannot connect it to your life, you do not know it.

Idea # 10: Figure out what study and learning skills you are not good at. Practice those skills whenever possible. Recognizing and correcting your weaknesses is strength.

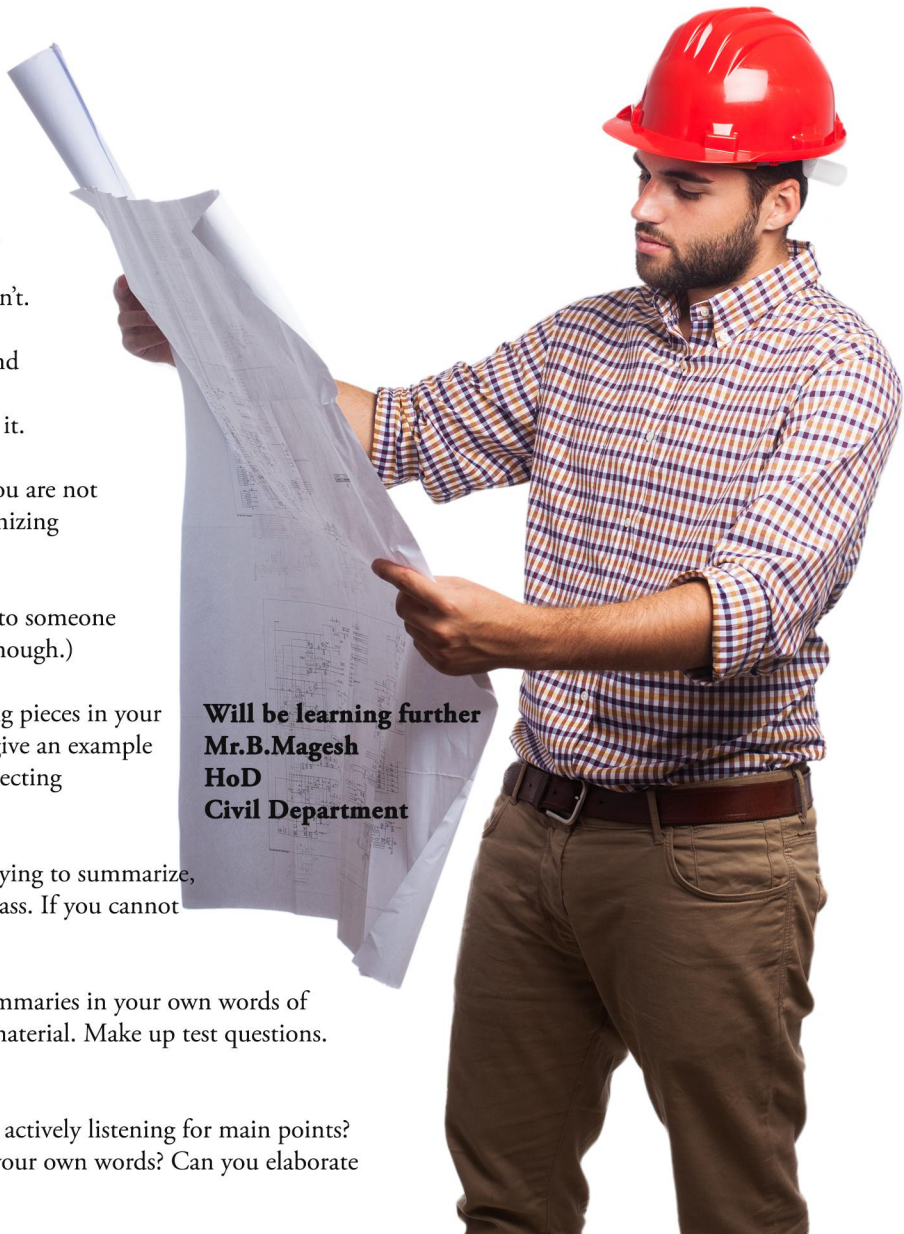
Idea # 11: Frequently ask yourself: Can I explain this to someone not in class? (If not, then you haven't learned it well enough.)

Idea # 12: Routinely ask questions to fill in the missing pieces in your learning. Can you elaborate further on this? Can you give an example of that? If you do not have examples, you are not connecting what you are learning to your life.

Idea # 13: Test yourself before you come to class by trying to summarize, orally or in writing, the main points of the previous class. If you cannot summarize main points, you haven't learned them.

Idea # 14: Use writing as a way to learn by writing summaries in your own words of important points from the textbook or other reading material. Make up test questions. Write out answers to your own questions.

Idea # 15: Frequently evaluate your listening. Are you actively listening for main points? Can you summarize what your instructor is saying in your own words? Can you elaborate what is meant by key terms?



Will be learning further
Mr.B.Magesh
HoD
Civil Department

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TOP 10 CIVIL ENGINEERING WEBSITES

- www.asce.org
- www.civilengineer.webinfolist.com
- www.aboutcivil.org
- www.civilsimplified.com
- www.steelconstruction.info
- www.efunda.com/ home.cfm
- www.steel-insdag.org
- www.dlubal.com/ en-US
- www.thestructuralengineer.info
- www.nptel.ac.in

J.ESTHER METILDA

Civil 3rd year

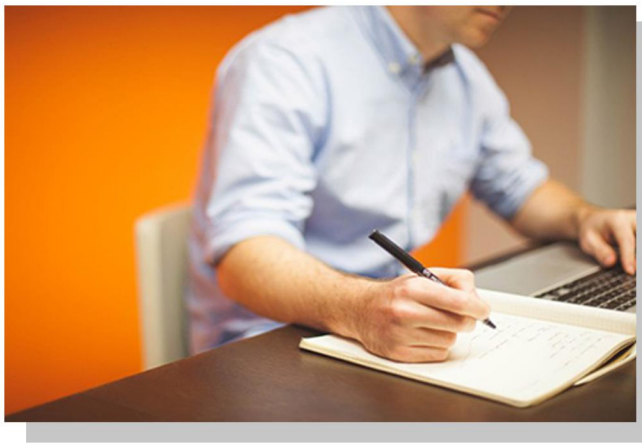
EDITORIAL COMMITTEE

Head of the Department: Mr MAGESH.B

Chief Editorial Head: Mr VIGNESH.M, & Mrs NAMITHA JACOB - AP/ CIVIL

Student Coordinators:

1. VEERABAGHU VENKATESH.M - Civil 3rd year
2. KALEEL.J - Civil 3rd year
3. ESTHERMETILDA.J - Civil 3rd year
4. ANIRUDHAN.R - Civil 2nd year



"DON'T MEMORIZE LIKE A PARROT. STUDY LIKE A DETECTIVE"

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