

DEPARTMENT OF CIVIL ENGINEERING
CHRIST COLLEGE OF ENGINEERING, IJK



CIVIL വിദ്യാർത്ഥി

A CIVIL ENGINEER'S MONOLOGUE ★ ISSUE ONE - JULY 2020

LOCKDOWN SPECIAL

DEPARTMENT OF CIVIL ENGINEERING

VISION

A Centre of Excellence for moulding technically competent and socially committed Civil Engineering professionals through quality technical education and practical training.

MISSION

- 1. To impart quality education in Civil Engineering domain.**
- 2. Encourage students to do higher education and research.**
- 3. To create competent professionals who are capable of upholding ethical values and leadership qualities and principles of sustainable development.**

Program Specific Outcomes (PSOs)

- 1. Inculcating in students with innovative design concepts and managerial skills in Civil Engineering to prepare cost effective solutions.**
- 2. The ability to recognize the need of the society like housing, transportation, sanitation, waste management, irrigation and use of renewable energy for a sustainable environment.**

Program Educational Objectives (PEOs)

- 1. Graduates will be able to tackle the multiple responsibilities of analysis, design and construction of traditional and modern infra structures in compliance with various codes of practices to meet the current technical challenges.**
- 2. Graduates will be able to pursue higher education and research.**
- 3. Graduates will be able to understand the needs of the society and will be committed in developing optimal solutions.**



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INDIA'S FIRST CURRENCY STERILIZER

- PAW CURRENCY
STERILIZER
- UV RAYS &
SANITIZER
SPRAYS



When the whole world was staying locked and running worried behind the threat of Corona, Alfin David and Subal Vinayan were not ready to remain just calm. These pre-final Civil Engineering students at Christ College of Engineering decided to utilize their locked time and run ahead of the threat by developing what possibly is India's first currency sterilizer. With the Department and college management to hold their back, they began their research; and after a month of painstaking hardwork; came up with this innovative product that can sterilize and clean any type and amount of currency notes and coins. Named 'PAW currency sterilizer', it is designed to provide -

a double level sterilization, primarily through UV rays and secondarily through sanitizer sprays. "The wide spread transmission of the SARs Covid-19 virus is not just through human contact, but through material contact as well. If it's something that changes hands frequently like currency notes or coins, the risk increases exponentially. This gave us the initial idea," says Alfin David. "Even though similar products exist in countries like China, those are very expensive and can only sterilize currency notes. We plan to launch our start-up through this and provide an affordable product to our customers at only one by third of the existing rate," Subal adds. **CONTINUED ON PAGE 2 >**

The young inventors are now in talks with investors for starting mass production. They feel confident that their PAW sterilizer will be beneficial in Banks, Shops, Petrol Pumps etc... where large amounts of currency changes hands randomly.

The Team Behind : (from left) Alfin David, Prabhasankar V.P (Asst. Prof), Fr. John Paliakara CMI (Exe. Director, CCE), Joy E.T (Technical staff), Subal Vinayan.



PROJECT TEAM



THE COMPANY



THE PRODUCT

IN BRIEF

CIVIL - WIZ FOR VIDEO LECTURES

An Youtube channel named 'Civil-Wiz' was created to bridge the gap between students, faculty and public during the lockdown period. As a beginning, Comprehensive video lectures, prepared by all the faculty of the Department were uploaded in the channel. The contents of these lectures were designed so as to help an aspirant prepare for Engineering job exams.

AWARENESS CAMPAIGN

In light of the rapid spread of COVID-19, students and faculty of department came together to create awareness videos. The ideas of staying safe by staying home, social distancing, proper mask disposal etc... were conveyed. Two videos were published in this context.

Abhiram Thumparathy (S6 CE), Bharath Sharma (S4 CE), Sreekanth S Pillai and Thanmay Thampi (S2 CE) gave leadership to the initiative.

CIVIL PUN DIT

SHOW YOUR KNOWLEDGE

What is the young's modulus of elasticity of a high strength concrete ?

ANS : 30GPa

HOD'S DESK



Ms. KRISHNAPRIYA M.G

Civil engineers are the inevitable part of ever developing infrastructure facilities of a country; including design, construction and maintenance of physically built environments. Civil engineers are those who are responsible to keep human safety and environment protection throughout their design as well as construction practices. This is one of the few areas of engineering in which the engineer often deals directly with the public and public agencies in every phase of major projects. Civil engineers have immense opportunities in industry, consulting firms and government sectors for a distinguished career life.

I am very happy to bring out the first issue of our departmental newsletter "Civil-o-Peedika" as a special Lockdown Special Edition. The name signifies - (in Malayalam) a hypermart for -

Civil engineers are inevitable part of ever developing infrastructure facilities of a country including design, construction and maintenance.

Civil Engineering. It also gives a nod to Wikipedia, which is the first source of modern day web wisdom in anything. I appreciate the team behind for their unrelenting effort to release the first newsletter for our department. It is a technical platform to highlight the works done by faculties as well as students and this issue focuses on our major academic and non-academic achievements during this lockdown period. Our department, with its multifaceted faculties, effectively trains our students to become Civil Engineers who can serve the society competently and ethically as planners, designers, constructors and operators. Department of Civil Engineering, CCE is also putting all the efforts to encourage the students in extra-curricular and co-curricular activities which are essential for personality development, nurturing of team spirit and development of organizational skills.

ROAD TO SUCCESS

Ft. JOY PAPPYAPPILLY CMI

Road to success is always under construction.' Creative, innovative and constructive thoughts always push a person to the path of success even under adversity and crisis. The pandemic COVID-19 continues to wreak havoc across the globe. It has become a social crisis rather than merely a disease today. The unfolding scenario presents unprecedented challenges for virtually every realm of our society. The vision to success must be followed by-

venture. It is not enough to stare up the steps; we must step up the stairs. As engineers and engineering students, it is our duty to find solution to the problems rather than live with the problem or overlook the problem. At this juncture, we, faculty members and students of Christ College of Engineering, are on the right track by coming up with many useful products and rendering meaningful services at the right time to the society to effectively confront and overcome the problems created by COVID-19.

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We all like to have successful careers. Nobody wants a forgettable career. As we know there is no short-cut to success. Path to success is neither smooth nor swift. Everybody has to go through the grind. There is no magic wand which can work wonders overnight. On your journey do not always expect victories; failures are also part and parcel of life. So if you miss anything in life don't close your eyes with tears because it may hide some beautiful things present right in front of you. Ups and downs are realities in life. They are important to keep us going. Even the straight line in an ECG means we are not alive.

Man cannot be judged or measured by latitude or altitude, but through his attitude. There is a saying by Louis Nizer "A man who works with his hands is a labourer. A man who works with his hands and mind is a craftsman; and a man who works with his hands, mind and with his heart is an artist." I truly believe that engineers should fall in the last category. Excellence also can only be achieved when a performer takes pride in his/her work. The quality of work is directly related to the worker's attitude and tenacity. So in your life journey, try to work with your hands, your mind and with your heart, to ensure that you are on the road to achieve success in your career.



FR. JOY PAYYAPPILLY CMI

പച്ചക്കുറി



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 Online classes
 ട്രോപ്പ് ഇന്റർനെറ്റ്
 ട്രോപ്പിൻ അടർത്തേണ്ട
 അഡ്മിൻമാരി...

/ p_oo_chan

DO YOU KNOW HIM?



Mokshagundam Visvesvaraya was born on 15 September, 1861, near Chikkaballapur in South Karnataka. He went on to become India's most prolific Civil Engineer, dam builder, economist, statesman, and can be counted among the last century's foremost nation-builders. His birth date is celebrated as the Engineer's day across India.



THE CITY TOMORROW

AMEEN ZAMAN, S4 CE

“A change is only possible if the pain of staying is more than the pain of changing”. A quote we all can easily relate and understand.

On considering the above statement/quote in the context of sustainability, let's have brief look on the idea & relevancy of a sustainable city. Now it's obvious to have questions about the concept of sustainable cities, if people don't find issues with the cities they live in. Not only but also the next immediate question would be 'why cities'?

Since the millennium or even before that, the world have been witnessing the mass migration of people to cities, and is estimated that by end of this century the proportions will rise around to three quarters. Not to mention that most of the city-dwellers will be in the new cities of Asia. In light of such information, cities are considered as the hotspots of greenhouse gas emissions, high carbon footprints, solid wastes, and the other unpleasant levels of waste. Thus the significance of sustainable cities rises, where they provide people with high quality of living environment without huge amount of natural resources. In other words, it is about designing cities which makes them a good place to live as well as being more efficient.

To give an illustration, let's see some of the measures taken by (or changes made by) the top sustainable cities in the world. Cycle-to-work policy made cycling as the primary mode of transportation in many cities, which deal with growing traffic congestion. Moreover,

it's good for health, environment and uses limited space. Similarly switching to electric cars, solar powered buildings, dedicated bus lanes, carpools, bans on harmful environmental products are the widely accepted initiatives in these cities.

However, such strides are usually possible and see results if the concerned authorities can carry out these plans, provided with the necessities and facilities ensuring its smooth execution. For instance, cycle to work is convenient if the commuters are assured with safe-cycle lanes and proper parking lots. Moreover, switching to electric cars is only practical if the cities are provided with enough charging points.

To that end, it is evident mentioned likely to be for a city, -

easy

**CONTINUED ON
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which is part of a self-sufficient, developed Nation. And that can be accounted for one of the key reasons why many developing countries lag behind, ultimately the reason why people don't desire or is concerned about a change.

But despite being a developing country India had become part of OPCC (One Planet City Challenge), ICLEI (Local Governments for Sustainability), and was the first developing country to join these initiatives. And hopefully all this initiatives will eventually result in the leap to an idyllic, climate resilient and zero carbon cities.



AMEEN ZAMAN, S4 CE



INTERNATIONAL WEBINAR ON DIGITAL PROJECT DELIVERY

Civil Department, CCE in collaboration with Bentley Systems International organised a webinar on "Digital Project Delivery & Digital Twins" to introduce the concepts of digital infrastructure possibilities to students, scholars as well as industry professionals. The session was handled by Mr. Craig Garret, Digital Advancement Academies Manager - Hub Speaker, Bentley systems and Mr. Arun Mathews, Hub - coordinator, Bentley Systems. The webinar was organized on 20th June 2020, as part of the Department's Industry - Institute interaction initiative.



CIVIL FACTS



CIVIL ENGINEERS CREATED THE SLIPPERINESS OF A WATER SLIDE

By designing the pumping system to discharge the correct amount of water to the flume, civil engineers made the fun of waterparks. Basically, we created waterparks.

"MILLENNIUM FORCE"

The rollercoaster, located in Cedar Point, Ohio, reaches a height that is longer than a football field (310 ft) and a velocity that is faster than a cheetah (92 mph).

"ICE HOTEL" IN NORWAY

Civil engineers participate in the constant rebuilding of the hotel. It is now 22 years old and is rebuilt every year in a short amount of time.

ASSOCIATION CELEBRATION AMIDST LOCKDOWN

What the unexpected lockdown since mid-March took away was not just class hours and campus life; but the hardwork and planning of the entire department students and staff, who had been preparing for an extravagant Department Association Day on March end. But the lockdown constraint couldn't lock the enthusiasm and spirit of students and RACE (Receptive Association of Civil Engineers) decided to conduct an online association celebration.

An aptly titled 'CIVILANTINE', the online association celebration by RACE was organized during May 2020. The events included technical and non-technical competitions such as Idea Pitching, Sustainable Design Project, Engineering Drawing and Bottle Art. The events and rules were formulated such that the students may stay home. The students made the programme live and grand by participating extensively.

An expert panel of judges valued the entries and the prizes were announced after the event.



WINNERS

1. *Idea pitching – first prize shared*
Alfin David, Subal Vinayan, Joseph Oxan (S6 CE)
Shihas M S, Bestin Biju, Manu E P (S4 CE)
2. *Design Project – Alfin David (S6 CE), Asmi Nelson (S2 CE)*
3. *Engineering Drawing – Asmi Nelson (S2 CE), Sayooj Rajesh (S4 CE),*
4. *Bottle Art – Sayooj Rajesh (S4 CE), Anitta Anto (S8 CE)*

ENVOTECH CLUB INAUGURATED

Technology is all about how we build an environment that's sustainable. Abiding by this quote, the 'EnvoTech Club CCE' was founded under the Department of Civil Engineering, with a motive to provide a common platform for technical activities related to environment preservation. The objective of the club is to become an honorary group of students aimed at practicing energy conservation and environment

protection through technical projects. The inauguration of the club was held on 13th July 2020 by Dr. Jai M Paul (Professor, MACE, Kothamangalam). He also gave a talk on 'Role of Engineers in Sustainable Development' to the club members and students.

Technology is all about how we build an environment that's sustainable.

The club is being led by Ms. Nicy Varghese (S6 CE), Mr. Ameen Zaman (S4 CE) as student coordinators and Ms. Vinitha Sharon, Mr. Prabhashankar V. P as the faculty coordinators.



ADORNING THE ACADEMIA ONLINE EXPERT TALK SESSIONS

Anytime is a good time to learn. Whether it is class room or home, live or online, day or night; what matters is how better knowledgeable you are each day. With that in mind, the department launched Expert E-talk sessions, bringing together various experts and resource persons around the world and connecting them to our students as well as external participants.

The inaugural expert session was taken by Mr. Sasikumar Therayil (Structural and Foundation Consultant, Thrissur) on the topic 'Structural Planning'. It was organized via Google Meet on 13th June 2020. The event was a huge success and received excellent feedbacks. This was then followed by a second session on 'Sustainable Transport Solution for Cities' by Mr. Amegh Gopinath (Technical Expert – GIZ, GMBH) on 27th June 2020. This session had a whopping 150+ participants and even from outside state. The same participation was sustained for the third session on 'Earthquake Response of Unreinforced Masonry Buildings' by Dr. Jacob Alex Kollerathu Asst. Prof, School of Engineering and Technology, CHRIST (Deemed to be University, Bengaluru). It was organized on 11th July 2020. The department is planning on continuing the series at least till the lockdown ends.

“The idea is to make the students/scholars better prepared on the happenings and possibilities outside the classroom. We also wanted to give them an idea of the various areas in Civil Engineering outside the syllabus”, says Ms. Angitha Sasidharan, Asst. Professor and Faculty Coordinator of the lecture series. E-certificates were provided to the participants.



CIVIL-O-PHILE FOR ENGINEERING EXAM CRACKING

Civil Engineering graduates find huge opportunities in public sector jobs through cracking engineering entrance exams such as GATE, IES, PSC, SSC, RRB etc... The syllabus, pattern and level of each exam differ and it becomes difficult for an aspirant to keep track of the questions, solutions and the preparation materials in an organized manner. To tackle this, Civil Engineering Department of CCE came up with an effective solution by developing an android application.

The 'Civil-o-phile' android application is aimed at students and graduates to help them crack competitive exams in the domain of Civil Engineering. Model exams of GATE, SSC and PSC are conducted in the app at scheduled intervals and aspirants can attempt it from their homes itself. Ranking and solutions are provided after the exam. It also has an interface for learning by linking to the -

comprehensive video lectures which are uploaded by the Department Staff at regular intervals. "There are a large number of Govt. Job aspirants locked at home, unable to prepare for exams. We wanted to do something for their benefit", says Ms. Niranjana M.S, Asst. Professor and Staff Coordinator of Civil-o-phile.

Currently the application is in trial run within the student community. It will be made public once ready. The app is developed and maintained by Mr. Siva Jyothis, final year civil engineering student at CCE.



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