

CONTOUR

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 /Department of Civil Engineering, MBC CET

 cedept@mbcpeermade.com

HoD's MESSAGE

Prof. Manoj Nallanathel

Civil Engineering is known as the home branch of engineering. Civil engineers have contributed a lot in the Nation and Universal building In the form of infrastructure, homes, Buildings, roads, bridges , rails, navigation etc. We mould our young civil engineers with technical excellence inculcated with ethical values. We are proud to make a note that our Alumina are working in different state government departments and renowned organizations.

In addition to the regular academic activity, the department also offers its services in the form of consultancy and testing to various departmental and private agencies. We also involve our students in our consultancy and material testing works so that they will get a real world exposure. The quality of services provided by the department is well acknowledged in the professional field.

We are sure that our students will prove themselves to be an asset to the organization they serve and the society.



Upcoming Events

March 18

Technical Invited Talk

March 19

Technical Invited Talk

April 18

Pre Conference Workshop

April 29

National Conference -
Developments and Innovations
in Civil Engineering (DICE '19)

What is sustainable engineering?

Sustainable engineering takes environmental engineering concepts to the next level by looking at the interactions between technical, ecological, social and economic systems and by avoiding shifting problems from one area to the other. Sustainability means living well within the ecological limits of a finite planet. Concepts such as life cycle thinking, industrial ecology and sustainable systems engineering are important elements in the education and work practice of a sustainable engineer.



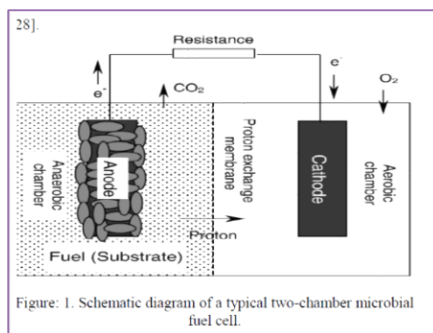
TRASH TO TREASURE!!

STUDY OF PLASTIC STABILIZED RAMMED EARTHEN PAVEMENT BLOCKS

Interlocking concrete blocks are ideal for footpaths, parking areas, gardens, etc. for easy laying, better look and finish. The project attempt to study and demonstrate the potential of reclaimed PET strips as soil reinforcement for improving engineering performance of the block. Class C fly ash is also used, as a replacement for cement in the paver block by increasing the density of packing in the paver block and help in further binding between the soil particles and plastic strips. The primary reason fly ash is used in soil stabilization applications is to improve the compressive and shearing strength of soils. Various tests on the soil such as the sieve analysis, standard proctor and specific gravity, and on further addition on the fly ash and plastic strips were conducted and test for its compressive strength is done.



Team: Ameer Suhail, Anitta Ann Oommen, Kevin M Alex, Rijo K George



ELECTRICITY PRODUCTION FROM FOOD WASTE LEACHATE USING MICROBIAL FUEL CELLS

Food wastes are the largest component of municipal solid wastes in many urbanized societies (30–55% by weight). These wastes represent a significant source of environmental pollution worldwide and when left unprocessed, emit greenhouse gases such as carbon dioxide (CO_2) and methane (CH_4) into the atmosphere. In the light of rapidly rising costs associated with energy supply and increasing public concerns with environmental quality, the conversion of organic wastes to energy is becoming an eco-friendly and economically attractive practice. Microbial fuel cells (MFCs) are new types of bioreactors that use exoelectrogenic biofilms for electrochemical energy production. They typically comprise two chambers: an anaerobic anode chamber and an aerobic cathode chamber separated by an ion conducting membrane. Anaerobic bacteria on the anode oxidise organic matter (substrates) and produce electrons and protons. The bacteria transfer electrons to the anode which passes through an external circuit producing current. The present study focus on the feasibility of bioelectricity generation in dual chambered microbial fuel cell, using canteen based food waste leachate as substrate. The food waste generated in the college campus will quantify and its physico-chemical characteristics will be analysed. A dual chambered microbial fuel cell will develop for the degradation canteen based food waste. Further, the performance of microbial fuel cell will evaluate under different substrate loading rate.

Team: Amal J S Luke, Rahul P Santhosh, Gladys Thomas, Sighin Sunny

CONGRATULATIONS!!!



Amal J S Luke, Rahul P Santhosh, Gladly Thomas and Sighin Sunny (S8 CE) received financial support from 'INNOVATE of KSCSTE' for their project entitled **"Electricity production from food waste leachate using microbial fuel cells"**.

Akshay Mohan, Alan Tom, Aneena Merin Sony and Richa Susan (S8 CE) have been shortlisted by the state jury of Young Innovators Program of Kerala Development and Innovation Strategic Council (K-DISC) for their project titled **"Rainwater harvesting using permeable pavement"**.

Anusree Krishna and Annie Thomas of S6 CE secured First place in Paper Presentation **"Flood Resistant Homes"**



Amal G Kumar, Yadhukrishnan V.B, Alwin Varghese, Aman Dileep Jan, Sherwin P Soy (S6 CE) secured First place in **Expedition survey** and Sherwin P Soy (S6 CE) Secured First place in **Oasis V.R** at Nakshatra, Saintgits College of Engineering.

Invited Talks Conducted:

BIM IT: BIMIT, Cad & BIM Training and Services is a new generation training centre with a focus on the BIM (Building Information Modelling) software Application training and services promotions. BIMIT is an Autodesk Authorised Training Center, Certiport Authorised Certification Center as well as Autodesk Academic Adoption Partner. A one day talk was conducted by BIM IT, on "**Introduction to BIM**" on 20/02/2019 for 6th and 8th semester students by Mr. Viju Antony. 75 students participated in the event.

St. Johns Group: St. JOHNS Group, an ISO 9001:2008 certified Institution, provide quality training and certification programs in AUTO CAD CIVIL, CIVIL QA/QC, QUANTITY SURVEY, and INTERIOR/EXTERIOR DESIGNING etc. to meet the ever growing demand for professionals in the Engineering field. The department organized a one day invited on "**Introduction to Civil 3D**" on 19/02/2019 for Final and Pre Final year students. 53 of our students participated in the session taken by Ms. Arsha B Raj.

CADD Centre: Being Asia's biggest network of skill training provider in Computer Aided Design (CAD), Computer Aided Engineering (CAE), and Project Management they host a wide array of courses, certifications, placement assistance and career planning tools to help students get the most from their education. A one day talk was conducted by CADD centre on "**Introduction to Civil Softwares**" for our students on 07/02/2019. The sessions were led by experts from CADD centre and about 100 students attended the program.

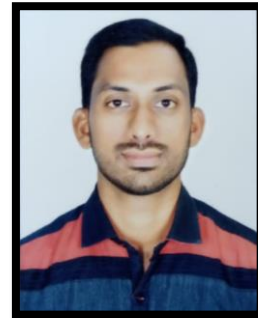
Welcome to the Civil Family!!!



Prof. MANOJ NALLANATHEL
HoD CE



Prof. Molsy Joseph
Assist. Prof.



Mr. Jojin K Abraham
Lab Staff

Staff Editor : Jithin P Zachariah

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