ANNAMALAI UNIVERSITY
Faculty of Engineering and Technology
Department of Civil Engineering

CITIZEN-21

(Civil EngineeringTechnical Innovative Magazine
Civil Engineers are proud to be a responsible Socio-techno Citizen)

VISION

To become School of Excellence in Civil Engineering With Conformity, Quality and Standard in teaching, research, training and consultancy towards producing globally competent Civil Engineers.

MISSION

M1: To Promote quality in education, research and professional training for satisfying the needs of industry and society.
M2: To provide state-of-the-art facilities and resources that contributes to a congenial learning environment.
M3: To establish Centers of Excellence in emerging areas of Civil Engineering for the students to acquire domain specific expertise and also facilitate Industry- Institution interaction.
M4: To inspire the students to pursue higher education and take competitive examinations and various career enhancing programs.
M5: To instill the professional ethics and their role forsustainable development and corruption-free country.

Hod's Desk

It is indeed very happy to bring out the Technical cum Innovative Magazine “CITIZEN“ by the Department of Civil Engineering, Faculty of Engg.and Tech., Annamalai University. It is expected to open up new views with inspiring deliberations on various aspects and challenges of Civil Engineering. I trust and wish that students will do their best with their involvement and intellect contribution to make the magazine meaningful which should eventually imbibe a great tradition.

Editor's Desk

It gives me immense pleasure to note that the Department of Civil Engineering, Faculty of Engg. and Tech., Annamalai University bringing out the Technical Magazine “CITIZEN” for the academic year 2020-21. I am sure this magazine provides an opportunity to the student’s and the Faculty of the Civil Engineering Department to project their talents through articles, reports of the various academic and extra curricular programmes.

About the Institution

The Faculty of Engineering and Technology (FEAT) was established in the year 1945, as the Second Engineering College of the composite Madras State. The FEAT proudly celebrated its Golden Jubilee in the year 1996 and Diamond Jubilee in the year 2005. The FEAT has eleven departments of study namely Chemical Engineering, Civil Engineering, Civil & Structural Engineering, Computer Science & Engineering, Electrical Engineering, Electronics and Communication Engineering, Electronics & Instrumentation Engineering, Information Technology, Mechanical Engineering, Manufacturing Engineering and Pharmacy.

About The Department

The Department of Civil Engineering presently offers undergraduate programme in B.E. Civil Engineering, Postgraduate programmes in Environmental Engineering, Water Resources Engineering & Management, Environmental Engineering & Management and Ph.D. in Civil Engineering. The Department has received financial assistance of Rs. 100 lakhs through UGC - SAP DRS Phase II. The Department has strong infrastructure with well-equipped laboratories under UGC - SAP, AICTE and other funding agencies. The Department has received grants through major and minor research projects for a tune of Rs.225 lakhs and till date produced 67 Ph.Ds in the last 15 years. The Department had MOU/Collaboration for student exchange programme with Fukii University, Japan. The centre for Environment, Health and Safety (CEHS) an integral part of the Department, is accredited as EIA consultant by QCI underNABET scheme for MoEF & CC for several industrial sectors. The centre has completed industrial consultancy projects for a tune of Rs.100 lakhs and also pursuing work for about Rs.300 lakhs.

Programme Educational Objectives (PEO'S)

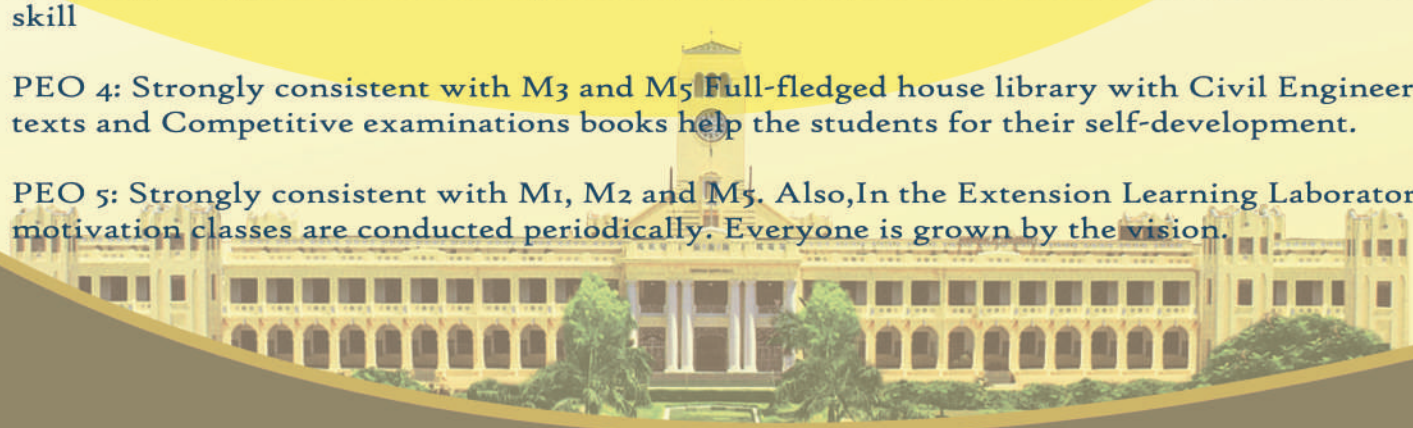
PEO 1: Strongly consistent with M1, M2 and M5 and moderately consistent with M3 & M4. Curriculum of program consists of sufficient number of core courses in theory related to Civil Engineering and Professional Elective Courses.

PEO 2: Strongly consistent with M1, M2, M5 and moderately consistent with M3 and M4. Adjunct faculty, expert lectures, laboratories equipped with state of art equipment, provide professional skills and knowledge. Civil Engineering extension learning programmes such as Survey camp, Professional Practices and Training, Field visit and Project improve the quality of learning

PEO 3: Strongly consistent with M1 Moderately consistent with M2, M3, M4 and M5. An exclusive soft computing laboratory with soft trainers in the background of Surveying, Planning, Design of Structural Engineering which support the students to enhance their soft skill

PEO 4: Strongly consistent with M3 and M5 Full-fledged house library with Civil Engineering texts and Competitive examinations books help the students for their self-development.

PEO 5: Strongly consistent with M1, M2 and M5. Also,In the Extension Learning Laboratory, motivation classes are conducted periodically. Everyone is grown by the vision.



In-house Events Organized

PREPARATORY CLASS FOR GATE-2020

AICTE sponsored PRERANA preparatory class for GATE 2020 was conducted by Dr.S.Bhakiyaraja, Research Associate, Centre for Atmospheric Research & Climate Change to the GATE aspirants in the Department of Civil Engineering.

AICTE Sponsored PRERANA GATE Coaching class was conducted by Dr.K.Vairamanickam, Former Professor & Head, Division of Mathematics, FEAT Annamalai University, to the GATE aspirants in the Department of Civil Engineering throgh online mode.

SCREEN SPR

Dr. B. KUMARAVEL, Associate Professor,
Dr. S. BHAKIYARAJA, Research Associate, CARE2 C
Er. D. SUGUMAR, Research Scholar

The Air quality modeling systems were imported from SCRAM of US Environmental Protection Agency (EPA). The suggested modeling system included SCREEN3, AERMOD, ADMS and CALPUFF were provided by EPA in the form of FORTRAN source codes. However, the programs were written as console applications, and they are inconvenient to the end users. It is necessary to develop a software tool which run in windows platform. SCREEN-SPR is a software package as similar to the USEPA SCREEN3 Model was developed in C# language and run on the Visual Basic platform which can be used as a tool for assessing the air quality impact of stationary source with preliminary estimation scheme (screening scheme). Also, the SCREEN SPR model is used to calculate the maximum Ground Level Concentration (GLC) of pollutant which prevail at the shortest downwind locations from the source under the combinations of various possible wind speed and its corresponding atmospheric sability classes for the given inputs such as source details and plant emission characteristics.

ARCHITECTURAL COMPOSITION OF MAHA BODHI BUDDHA VIHAR (MBBV)

Ms.P.Siva Pavithra, Final B.E., Civil Engineering

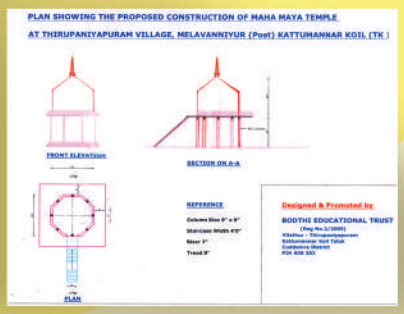
Maha Bodhi Buddha Vihar is situated on a plain terrain at Vilathur – Thirupaniyapuram, in the South Indian State, Cuddalore District. It was built in 2015 by Prof. Palanivelraja. The Maha Bodhi Buddha Vihar holds the relics of the Buddha at top and the holy mother of Buddha called Mahamayadevi @ Mahamayee at the ground. Maha Bodhi Buddha Vihar has provided beautiful and panoramic view of the surrounding landscape.

Scale and Geometry

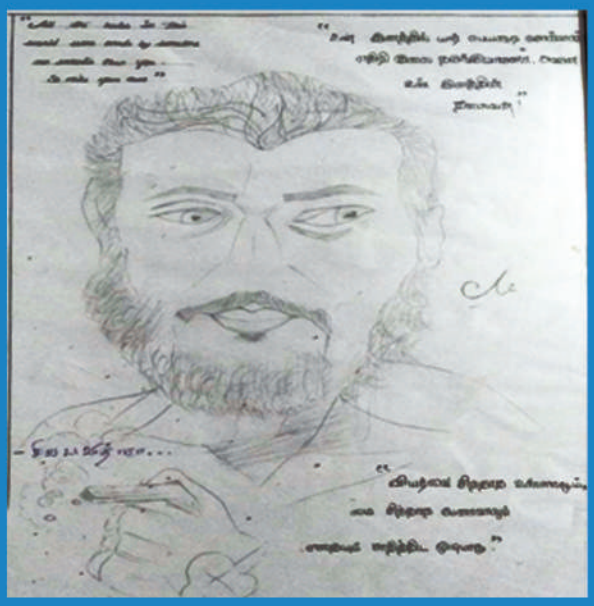
The Buddha statue is placed at the raised level because of it visible from distance. In front of the stupa, the staircase consist of 18 steps is built. The concept behind the 18 steps is to one could attain Buddha hood at 18 th step after crossed over all the 17 steps which describes Buddha's four Nobel truth(4), Nobel eight fold path(8) and five percepts(5) (Panchaseela).

Form and Proportion

Maha Bodhi Buddha Vihar is raised artificially for rendering it visible from a great distance. It is massive in size locating the stupa on elevated ground, effectively utilizing the opportunity afforded by this imposing site feature. The Maha Bodhi Buddha Vihar is visually accessible to the public.



Faculty / Students Art & Literary Gallery



வீராணம் நிரம்புமா ! விஞ்ஞானம் உதவுமா ?
மண்தோண்டி நீர் நிலையை காப்பாற்றி
நம்மூறு விவசாயம் காப்போமா ?
காவேரி புரளுமா !
கார்மேகம் பொழியுமா ?
ஊர்கூடி நீர் நிலையை காப்பாற்றி
முப்போகம் விவசாயம் காண்போமா ?

நெலம் வாங்கினோம் நீர வாங்கல
வானம் பொழியல பூமி வெளையல
வயல் நடவுக்கு கையில காசில்ல
எந்தன் தாலியும் அடகு கடையில
ஊருக்கு உணவிட்டு கையேந்தி நிக்கிறோம்
வாங்குன கடனுக்கு தூக்குல தொங்கறோம்
வெள நெலத்த காப்போம் வாங்க
வெள நெலத்த காப்போம் வாங்க
நீரது வாழ்வது
நெலம் காத்திட தண்ணீர் காப்போமா ?
வீராணம் நிரம்புமா ! விஞ்ஞானம் உதவுமா ?
மண்தோண்டி நீர் நிலையை காப்பாற்றி
நம்மூறு விவசாயம் காப்போம் வா...

மழ விரட்டிடோம் மாச பெருக்கிட்டோம்
காட அழிச்சிட்டோம் கார்பன வளர்த்திட்டோம்
வானத்த பார்த்திட்டு வெதய வெதச்சிட்டோம்
வெள்ளாம வெளயாம விதியைத்தான் நொந்துட்டோம்
வானிலையின் மாற்றத்தால
வானிலையின் மாற்றத்தால
மழையது மாறுது
புவி காத்திட நன் அறம் ஏற்போமா ?

அடி வீராணம் நிரம்புண்டி
விஞ்ஞானம் உதவும்டி
நம்மூறு விவசாயம் காப்போம்டி
காவேரி புரளுங்க
கார்மேகம் பொழியும்ங்க
ஊர்கூடி நீர் நிலையை காப்பாற்றி
முப்போகம் விவசாயம் காப்போம்ங்க....

- பேரா. சி. பவேரா

Editorial Board