Dr. M.G.R

EDUCATIONAL AND RESEARCH INSTITUTE

(Deemed to be University with Special Autonomy Status)

Accredited by NAAC with 'A' Grade (CGPA 3.51 for 4 point scale)

An ISO Certified Institution

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OFCIVIL ENGINEERING

CIVIL CHRONICLE

Vision

To achieve the pinnacle of success in the area of sustainable constructions and green technologies, thus stimulating economic growth and making the society abetter place to live in.

Mission

To produce graduates who possess technical competence in their chosen specialty area of Civil Engineering with integrity and commitment.

To prepare them to serve and contribute as innovators, professional engineers, and leaders in the global community.

Program Educational Objectives (PEOs)

The Educational Objectives of the Civil Engineering program are designed to produce skilled Engineers who could effectively contribute to the Civil Engineering profession with an ability to meet its current and future challenges.

To apply fundamental technical knowledge and skills to find creative solutions to technological challenges and problems in various areas of basic sciences and engineering.
To analyze, design and use skills in order to formulate and solve Civil Engineering problems.

To practice Civil Engineering in a responsible, professional and ethical manner and implement eco- friendly sustainable technologies for the benefit of industry and society.

To create knowledge through research and development in Civil Engineering and allied fields and modernize the teaching levels.

To make students professionally competent by enhancing their communication skills, team spirit, leadership and also to prepare them for lifelong learning through innovative and research activities.

Program Outcomes (POs)

- Understanding the fundamentals in the Engineering field Creation of an ability to develop problem solving attitude
- Designing, implementing the current technology and performing and conducting experiments by changing the parameters and interpreting the results
- Development of the environmental knowledge through innovative ideas by using current technology
- Facing the problem in the society and solving them
- An ability to understand the environmental impact and sustain in the environment
- Understanding legal, security and social issues and responsibilities Working in team thereby exploring multidisciplinary talents
- Communicating effectively in the societal activity such as public speaking, in conference etc.
- Developing interest in the individual to have an open mind to learn and accept things in the entire life
- Applying the software skills, managerial skills, for the industrial issues and also an ability to manage the finance

Program Specific Outcomes (PSO)

The Specific objectives of the Civil Engineering program are designed to produce skilled engineers who could effectively contribute to the Civil Engineering profession with an ability to meet its current and future challenges. The Civil Engineering department is committed to produce Civil Engineers with the potential:

- To apply fundamental technical knowledge and skills to find creative technological solutions
- To function as an individual or in a team to find solutions for civil engineering problems of multi disciplinary nature in the context of environmental and sustainable development

FROM THE HOD'S DESK

I am pleased to know that our Civil Engineering Department is once again successful in bringing third issue of News letter "CIVIL CHRONICLE" for the year 2021, Q3 Issue.

A Technical Magazine such as this is required for growth and progress of departmental activities, including publishing articles, papers, research activities etc. I am sure that this type of publishing technical magazine will prove its mettle by providing an opportunity for bringing out the writing talent which bears immense potentiality of sharpening Students' communication skill as part of their overall personality development and also will direct their creativity to new dimensions of mature expression.

I appreciate and congratulate all the contributors, the editorial board and students for bringing out such a technical News letter.

DR.T.KAVITHA

DEPARTMENT EVENTS

- **National Level Polytechnic Meet BRIDGE – 2021,Platform :Zoom Meet**

  Date: 28th July 2021 Time : 11.00 am

- **Subject Lecture on "Estimation and Quantity Surveying" by Dr.T.Edwin D Thangam**

- **Subject Lecture on "Composite Materials" by Dr.T.Felixkala**

- **Guest Lecture on "Industrial Waste Management" by Dr.A.Latha**

- **Subject Lecture on "Building Materials" by Dr.S.Arivalagan**

Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
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Maduravoyal, Chennai - 600 095. Tamilnadu. India.
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University with Special Autonomy Status

Faculty of Engineering & Technology
Department of Civil Engineering
Welcomes you for the
Subject Lecture on
"Building Materials"

By
Dr. S. Arivalagan
Joint Registrar - Infrastructure
Dr. M.G.R. Educational and Research Institute

Date: 06th September 2021 Time: 2.00 PM Venue : Through – Google Meet

- **Interdisciplinary Lecture on "Smart Materials and its Applications" by Mr.N.Lakshminarayanan**

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Faculty of Engineering & Technology
Department of Civil Engineering
Welcomes you for the
Interdisciplinary Lecture on
"Smart Materials and its Applications"

By
Mr. N. Lakshminarayanan
Assistant Professor in Electronics & Communication Engineering
Dr. M.G.R. Educational and Research Institute

Date: 23rd September 2021 Time: 10.00 AM Venue : Through – Google Meet

STUDENTS CORNER

USE OF SCRAP GRANITE AS AGGREGATES IN PAVEMENT CONSTRUCTION

– A Research Article

Granite, a recurrent igneous rock, is one of the hardest stones which are being used since ancient times in many buildings, monuments, as ornamental stones and etc. Granite provides hardness, fire resistance, frost resistance and it is one of the toughest substances. This stone is obtained through a series of processes which produces some considerable amount of wastes in the form of dust as well as stones, which is to be disposed of properly.

Apart from this, granite waste is produced from demolition of existing buildings, cutting it to required size in shops. These wastes increases every day, which are non–biodegradable and needs a larger area to be disposed off. At the same time, the construction activities have increased now-a-days which is in high need of natural resources. The natural resources are depleting due to over exploitation as they are non–renewable. To overcome these two problems we need every alternate source possible in the construction field which is discussed here.

Recent studies involve partial or full replacement of coarse aggregates by various materials, especially waste materials. These studies prove that the replacement can be effective simultaneously reducing the waste generation. In this project a detailed examination on the application of crushed scrap granite stones as replacement for the coarse aggregates in concrete or the aggregates in base course in the construction of both flexible and rigid pavement is provided. As a result, the granite wastes generated are being used in pavement construction as aggregates, which in turn reduce the waste production simultaneously reducing the need of natural resources for aggregate as these wastes will be used as an alternate resource for aggregates.

ELAVARASI E

II Yr M.Tech (Structural Engineering)

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Department of Civil Engineering

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