Dr. M.G.R

EDUCATIONAL AND RESEARCH INSTITUTE

(Deemed to be University with Special Autonomy Status)

Accredited by NAAC with 'A' Grade (CGPA 3.31 for 4 point scale)

An ISO Certified Institution

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF CIVIL 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 their Q2 issue of News letter "CIVIL CHRONICLE" for the year 2021.

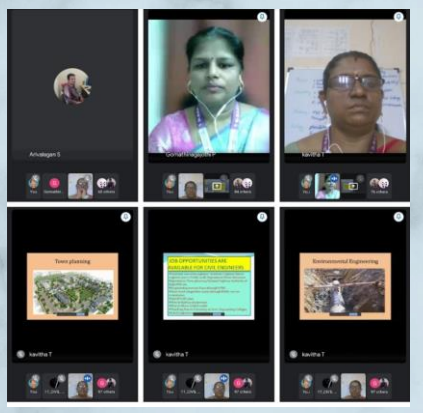
The most important aspect we could derive from this stupendous effort is that it brings out the various technical and analytical skills of the budding engineers.

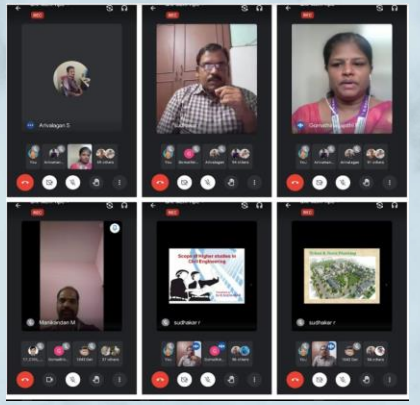
I also applaud the coordination and efforts behind the team to bring out this issue.

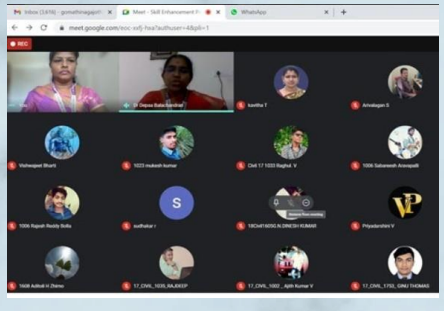
I wish them all success. Further I am glad to welcome students with more interest in bringing the article with more bright concepts and innovative ideas in the next issue.

DR.T.KAVITHA

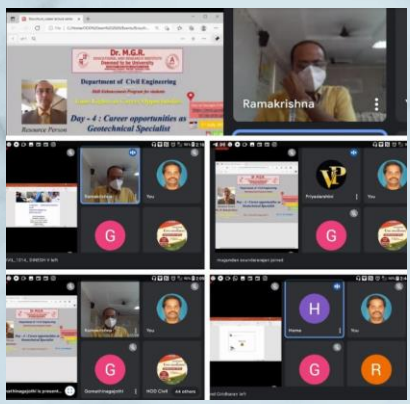
DEPARTMENT EVENTS








Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
Deemed to be University
Department of Civil Engineering
organizes
Skill Enhancement Program for students
on
Lime Lights on Career Opportunities
Day - 4 : Career opportunities as Geotechnical Specialist
Join us through G-Meet @ https://meet.google.com/yjq-qxui-gjq
1st July 2021
12.00 pm
Resource Person
Mr. D. Ramakrishna
Asst.Prof. Civil Engg.
Dr M G R Educational & Research Institute
Mrs. Gomathi Nagajothi P
Event Co-ordinator
Dr. S. Arivalagan
Head, Civil Engineering


Ramakrishna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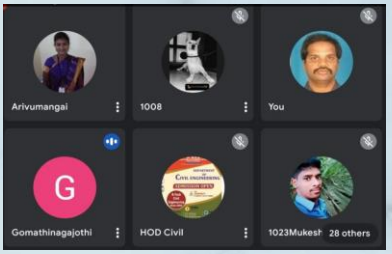
EDUCATIONAL AND RESEARCH INSTITUTE
Deemed to be University
Department of Civil Engineering
organizes
Skill Enhancement Program for students
on
Lime Lights on Career Opportunities
2nd July 2021
2.00 pm
Join us at G-Meet
meet.google.com/ryj-spbf-utv
Day -5 : Career Opportunities as Structural Engineer
Resource Person
Dr. A.Arivumangai
Assistant Professor, Civil Engg
Dr M G R Educational & Research Institute
Event Co-ordinator
Mrs. Gomathi Nagajothi P
Dr. S. Arivalagan
Head, Civil Engineering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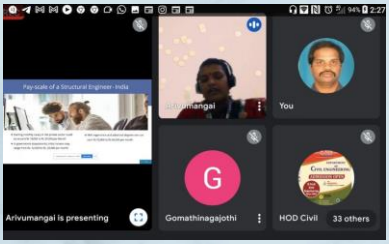
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Department OF EEE, CIVIL & CHEMICAL ENGINEERING

Solicits your presence on the inauguration of the

One week AICTE sponsored STTP

on

Applied Soft Computing and Vision Machine Techniques (Series IV)

through
Google meet
From10.00 am to 10.35 am on 31st May 2021

Er. A.C.S. Arun Kumar
President, Dr. M.G.R. Educational & Research Institute
Presides

Dr.T.Thyagarajan
Professor & Dean, Department of Instrumentation Engineering, MIT, Anna University
inaugurates and delivers the inaugural address

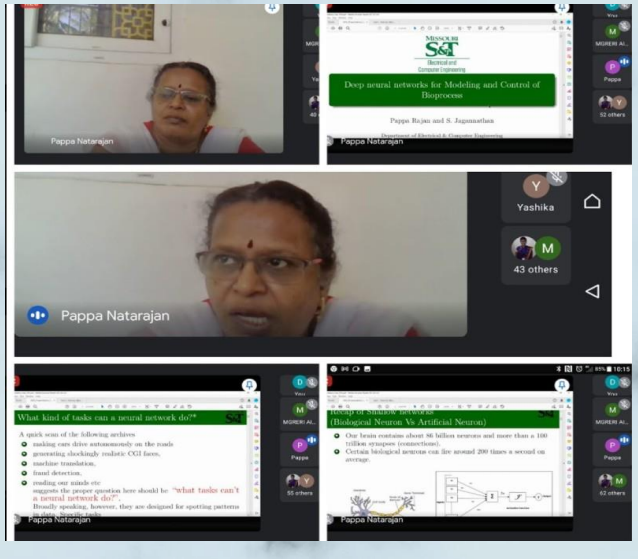
Dr. S. Geethalakshmi
Vice Chancellor, Dr. M.G.R. Educational & Research Institute
delivers the introductory address

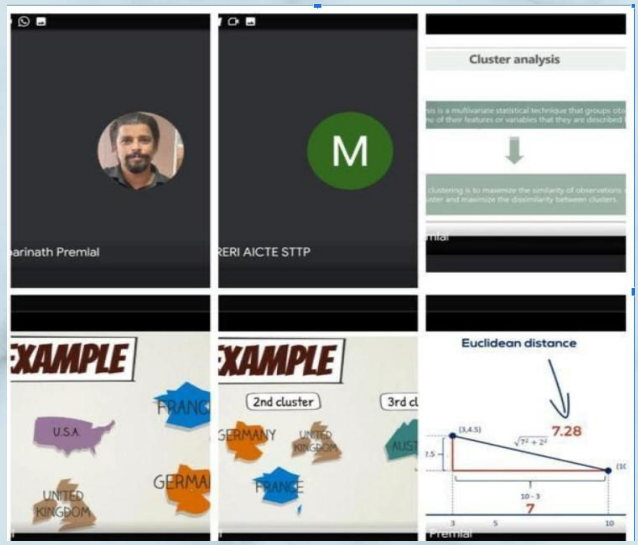
Dr.E.Sheeba Percis, Head-EEE | Dr.S.Arivalagan, Head-Civil | Dr.N.Jayachitra, Head-Chemical | Dr. C.B. Palanivelu, Registrar

STTP ON APPLIED SOFT COMPUTING AND VISION MACHINE TECHNIQUES – SERIES IV FROM 31ST MAY – 5TH JUNE 2021 by EEE, CIVIL and CHEMICAL DEPARTMENT

Faculty of E&T, Dr. M.G.R. Educational and Research Institute, Chennai under the benevolence of our Honorable President sir and Honorable Secretary sir is organizing series of webinars, FDP's andprofessional talks. We express our heartfelt thanks to Prof.Dr. S.GeethaLakshmi our Vice Chancellor madam for the constant support and guidance. In continuation with programs conducted.

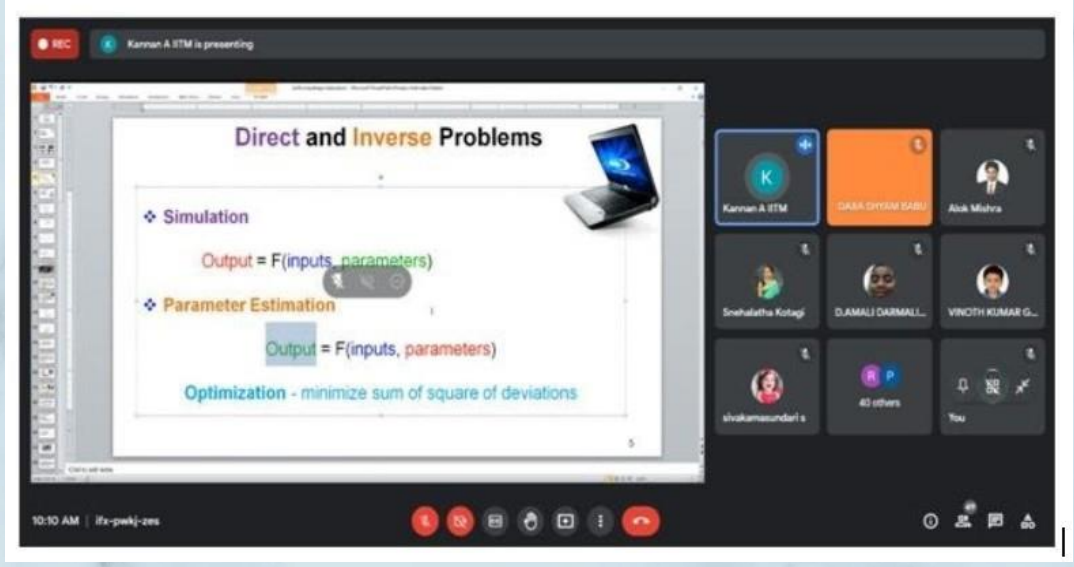
Soft Computing is based on some biological induced methods such as genetics, development, and behavior, the warm of particles, the human nervous system, etc. The journal of Soft Computing has more demand in the International market because this computing work on the real time application areas such as Fuzzy Logic, Expert System, Computational computing, and Artificial Neural network System. Our sincere thanks to our management for giving us the opportunity for conducting this webinar in a very successful manner.





STTP ON APPLIED SOFT COMPUTING AND VISION MACHINE TECHNIQUES – SERIES IV FROM 31ST MAY – 5TH JUNE 2021 BY EEE, CIVIL AND CHEMICAL DEPARTMENT

In the course of the lecture, we covered various topics like the history of deep learning techniques, the need for deep learning techniques, characteristics of deep learning techniques, and the necessity of deep learning methods. The architectures relating to CNN, RNN, etc., was discussed with simple examples like object recognition and classification. Her lecture concluded with a couple of queries raised by the participants which were answered by the resource person. Our sincere thanks to our management for giving us the opportunity for conducting this webinar in a very successful manner.



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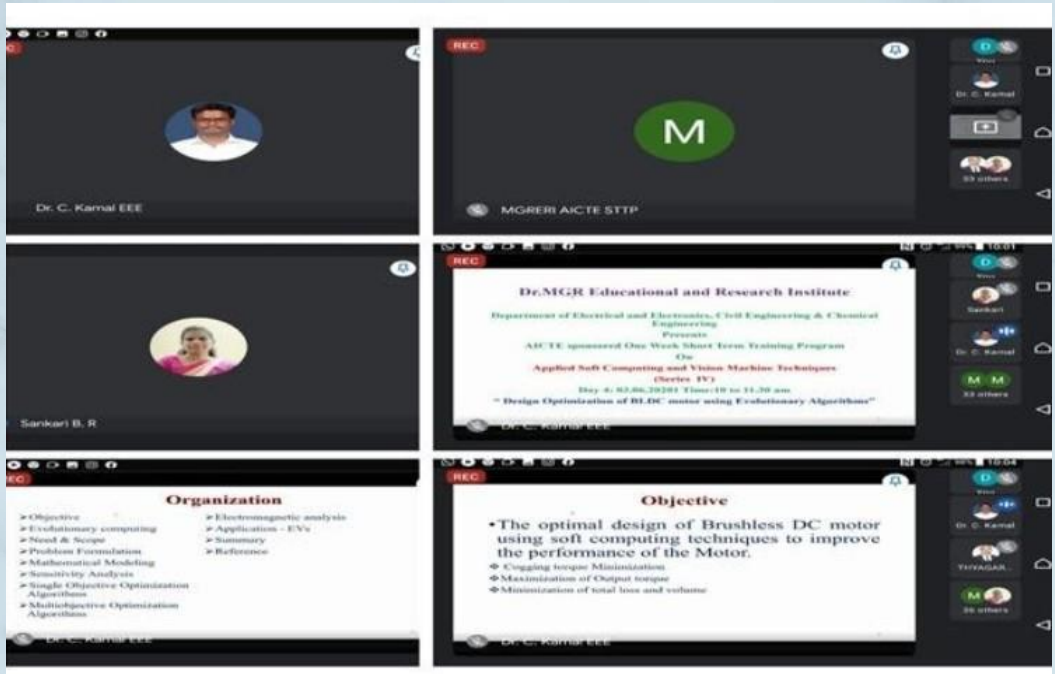
DATE: 02.6.21



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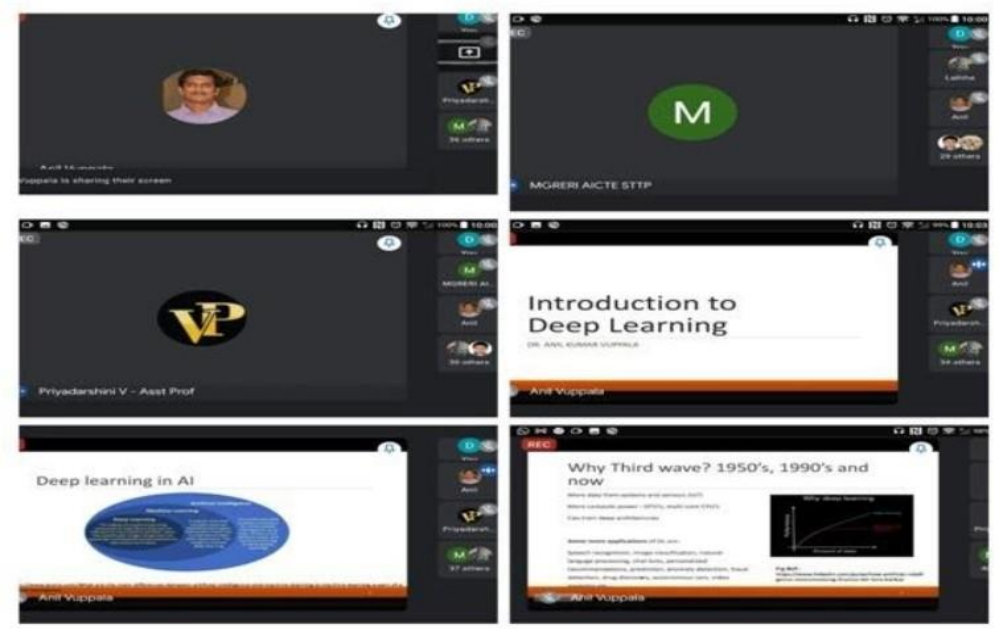

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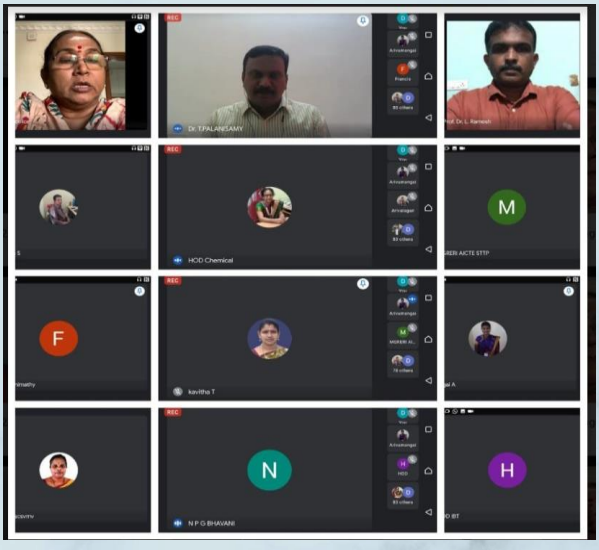
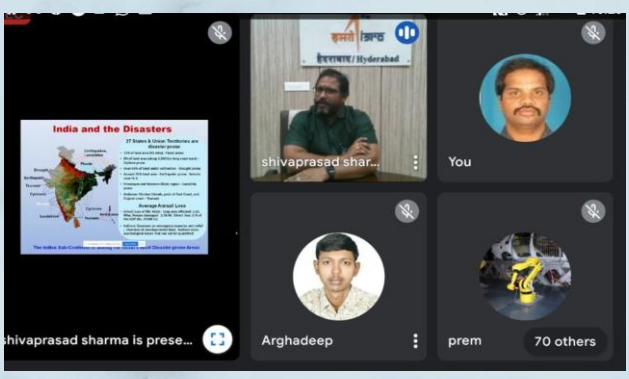


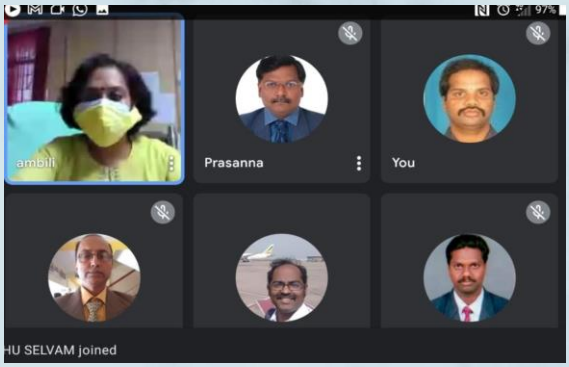
STTP ON APPLIED SOFT COMPUTING AND VISION MACHINE TECHNIQUES – SERIES IV FROM 31ST MAY – 5TH JUNE 2021 BY EEE, CIVIL AND CHEMICAL DEPARTMENT

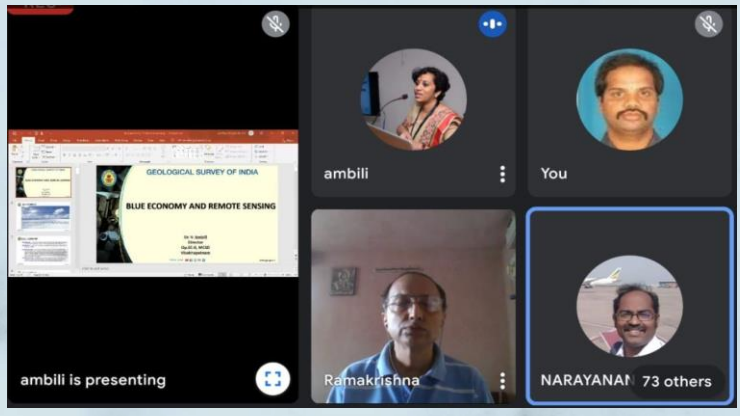
DATE: 05.6.21

Faculty of Engineering &Technology, Dr. M.G.R. Educational and Research Institute, Chennai under the benevolence of our Honorable President sir organizing awareness series on COVID19 pandemic titled "COWINWEWIN". As part of this awareness campaign, the session was organized by the Department of Civil Engineering on 16th June 2021 on the topic, "Debate on Covid'19 - Waste Management".

Dr. Manju explained about the nature of waste generated in hospitals and other care centers and Dr.Marimuthu explained clearly about the colour coded bins used for segregation of waste in Health care Sectors. After a detailed discussion on covid waste management, Dr.S.Arivalagan and Dr.T.FelixKala interacted with the Doctor couple about other general precautions to be followed during this pandemic. Then, Mrs.P.Gomathi Nagajothi, Assistant Professor/Civil threw some light on Bio-Medical waste generation and management scenarios in Tamil Nadu and across India with facts and statistics. After a detailed Q&A session, a formal vote of Thanks was proposed by Magic Association Convener for the department, Dr.M.Manikandan, Asst.Prof/Civil. We thank everyone for their constant support and encouragement.







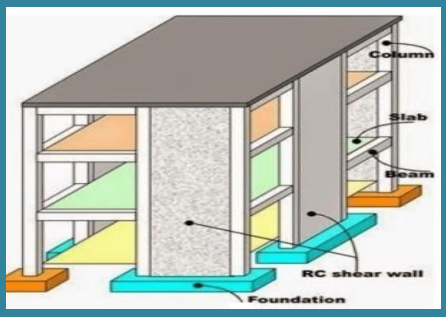
Title of the Event: FDP
(Advancements in Environmental Remote Sensing and Machine learning)
on 21.06.2021 venue: online

STUDENTS CORNER

Shear Wall – An Article

In Building Engineering, a Barbecue Wall is a Vertical Element of a System Designed to Withstand the Forces of Internal Aircraft, Usually Air Carriers and Earthquakes. In many Places, the International Building Code and the International Residential Code Regulate the Design of Structures.

Plywood is a Common Material used for Wood (Logging) Walls, but with the Advancement of Modern Technology



and Construction Methods, some Pre-Built options have made it possible to inject shaving Assemblies into Narrow Walls. That Cross both sides of the opening. Sheet Metal and Shear Panels with a Metal base in place of the Plywood of the Building. On the shaving Walls proved to provide Strong Earthquake Resistance.

Types of Shear Walls

- Reinforced Concrete Shear Wall
- Concrete block Shear Wall
- Steel Shear wall
- Plywood Shear Wall

The Barbecue Wall is Stronger on its main axis Than On Any Other Axis. It is considered to be the main structure that provides strong resistance to the direct and horizontal forces acting on its aircraft. Under this Combined Loading Condition, The Shear Wall develops Parallel Axial, Shear, Torsional and Flexural Strains, Leading to the Spread of Complex Internal Stress. In this Way, the loads are Transferred directly to the base of the Structure.

Slenderness Ratio

A Wall Thickness is defined as an active length function divided by an active thickness or radius of a wall section Gyration. It is closely related to the minimum boundary between what is considered "Slender" Or "Stocky".

Blending Effect of Shear Walls

In Real Structure systems, Shear Walls may serve as an integrated system instead of Single Walls depending on their arrangement and Interaction. Two Adjacent Wall Panels can be considered integrated when the optical connector transmits longitudinal shear resistance to conversion mode.

Analysis Methods

- Complete Feature Method
- Series Panel Model

Modeling Methods

Modeling Strategies have been Continuously reviewed over The Past two Decades, Ranging from Linear Static to Indirect Dynamics, Enabling Real-World Representations Of Global Behavior and various failures. Different ways to model haircuts range from Large Models such as modified Column Elements, to Smaller Models such as 3D Framed object Models.

CONCLUSION

- Shaving walls are therefore one of the most effective building blocks for combating strength during an earthquake.
- The construction of shear walls will provide maximum strength to the structures there by minimizing damage to the building and its interior.

Ganeshpandi S

ISEM M.Tech (CEM)

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Department of Civil Engineering

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