AVIT
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY

ACCREDITED BY NAAC

APPROVED BY AICTE

VINAYAKA MISSION'S RESEARCH FOUNDATION
(Deemed to be University under section 3 of the UGC Act 1956)

ACADEMIC YEAR (JUNE-DEC) 2021

NEWS LETTER

DEPARTMENT OF CIVIL ENGINEERING

VOLUME 7– ISSUE 2

DECEMBER 2021

Our Sincere thanks to

Dr.A.S.Ganesan, Honourable Chancellor, VMRF- DU
&

Message from Principal

Dr.G.SELVA KUMAR
PRINCIPAL –AVIT

A challenging year has come to an end with a lot of remarkable achievements and many lessons learnt. It is important that our enthusiasm has sustained throughout the year despite the Covid19 situation and has left us asking for more in the forthcoming Academic Year.

I am very pleased to state that the Department of Civil Engineering is coming out with their 7th issue of the Department Newsletter for the academic year 2020-21. It was highly appreciable to note that such initiatives taken by the faculty members of Civil Engineering are extremely motivating their students towards academic achievements and other related progress.

The faculty members along with their HOD are striving hard towards the overall development of the department and students so that they turn out to be successful professionals. I sincerely congratulate and appreciate their creditable efforts taken to excel in all spheres of the academic learning.

"Live as if you were to die tomorrow. Learn as if you were to live forever"

Message from Vice Principal [Academics]

Dr.S.P.SANGEETHA,
Vice Principal (Academics),

Greetings to you all! I am happy that Department of Civil Engineering has come up with the 7th issue of the Newsletter .I believe that the newsletter will serve as a window through which the complete profile of the academic and co-curricular activities, achievements and progress made during the stipulated period can be viewed.

We at AVIT are committed to creating an ambience for nurturing innovation, creativity and excellence in our students. We aim to prepare the young engineers to confidently and competently face the challenges of intensifying competition by imparting high quality technical education coupled with appropriate training and wide exposure to the state-of-art practices.

Our educational programmes lay emphasis on all round personality development and also in inculcating human values and professional ethics which help our students become more humane and socially alive to lead a meaningful life. My wishes to the Department Head and Editors of the Newsletter.

Anyone who has never made a mistake has never tried anything new."

Message from Vice Principal [Admin.,]

Mr.L.PRABHU
Vice Principal (Administration),

I feel privileged about the department of Civil Engineering publishing departmental newsletter for the academic year 2020-2021. This will benefit all the students as they can now be desired for greater heights by knowing about their department's achievements. All the key events like Seminars, Workshops, Conferences, Placement programs, Technical and Cultural events etc are well highlighted. This will benefit all the students as they can now be desired for larger heights by knowing about their department's achievements. This will also enhance professional activities and social networking for present and days to come in the department.

Students were exhibited a great enthusiasm and have contributed significantly to the inter and intra college activities. The editorial team has originated something that will continue to help and guide present and upcoming students of the Department. Personally, I feel that faculty and students of AVIT should set standards and create environment so that they outshine in their areas of welfares.

"You will either step forward into growth, or you will step backward into safety."

Message from Vice Principal [PT studies]

Dr.D.Vijendra Babu
Vice Principal (Part Time Studies),

I am very glad to know that Department of Civil Engineering is bringing a Newsletter for the benefit of the Students, Faculty Members & Society at large. It gives me immense pleasure in seeing the articles by Faculty and Students on latest trends in Civil Engineering.

I wish the Newsletter should carry many more useful information and Faculty and Students should make use of these Opportunities to express their views and to update their Knowledge

"The highest Education is that which does not merely give us Information but makes our Life in Harmony with all existence"

- Rabindranath Tagore

Message from HOD's Desk

Dr.R.Divahar
Head of Department– Civil, AVIT

Greetings! It is a great pleasure in publishing this newsletter highlighting all the activities and events held during the even semester of the academic year 2020-2021. I am happy to report that, we, the Department of Civil Engineering, organized several virtual events in a wide range of topics (both academic and extra-curricular) to benefit the student and faculty members.

It's our pride to mention here that department of civil engineering has been granted with Rs.3.9 Lakhs by AICTE for the 'Short-Term Training Program" and organized an International Conference in this academic year. Our faculty members also engaged actively in continuous learning to keep them abreast with the latest technological advancements. Also, the department has excelled publication and patents filing with quite an impressive quantity.

Our department extended the support in mentoring the students and faculty by conducting skill development program, workshops, guest lectures and faculty development program. I thank all the faculty members and students for their support in organizing and conduct-

"Your attitude, not your aptitude, will determine your altitude."

ABOUT DEPARTMENT

The Department of Civil Engineering was established in the year 2008 and has grown into a full-fledged department with specializations in all the major areas of Civil Engineering. The Department is striving to foster a strong partnership with the industry to ensure relevancy in curricula and prepare our graduates for the market challenges of today and beyond. Most of our alumni hold senior positions in industries as well as in academic institutions, both in India and abroad. The high quality research work being pursued by the faculty and students is very evident from the large number of research papers being published in referred journals.

In recognition of expertise and commitment in development of the department in developing new technologies, project proposals are being sent for the funded projects has been submitted. As part of the academic plan, the department conducts International conferences, National conferences, Faculty Development Programs, Guest lectures, Seminars, Inplant training, Industrial visit and Internship training for student's development , organised with industrial partnerships. Students of the department are highly enthusiastic and actively participate in various co curricular and extracurricular activities apart from giving their best in academics.

Furthermore, final year students are encouraged to undertake industry –based projects to address some of the problems and challenges faced by the local industries. All the laboratories of the department are well equipped with advanced and sophisticated equipments to satisfy the

ACADEMIC EXCELLENCE 2020-2021

OUR DEPARTMENT
UNIVERSITY RANK HOLDERS

Ms.Vani

Batch– 2017-2021

CGPA Secured- 9..477

Programme– UG Civil Engineering

Mr..Happy Sarkar

Batch – 2019-2021

CGPA Secured- 8.925

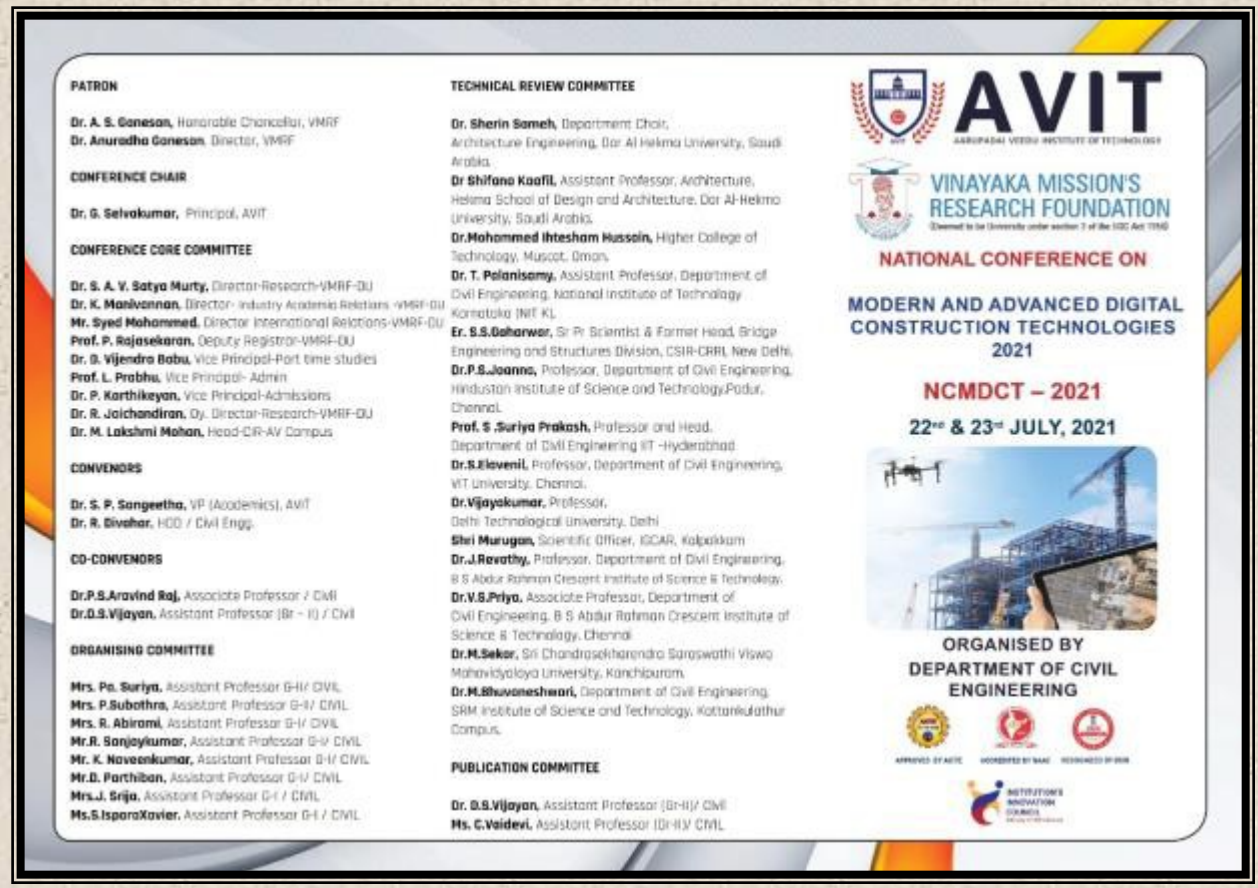
Programme – PG Civil

[Construction Engineering & Management]

" A good scientist is a person with original ideas. A good engineer is a person who makes a design that works with as few original ideas as possible"

STUDENT WELFARE PROGRAM (JUNE-DEC)2021

NATIONAL CONFERENCE ON "MODERN AND ADVANCED DIGITAL CONSTRUCTION TECHNOLOGIES" (NCMDCT-2021)



PATRON

Dr. A. S. Ganesan, Honorable Chancellor, VMRF
Dr. Anuradha Ganesan, Director, VMRF

CONFERENCE CHAIR

Dr. G. Selvakumar, Principal, AVIT

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Dr. K. Manivannan, Director- Industry Academia Relations -VMRF-DU
Mr. Syed Mohammed, Director International Relations-VMRF-DU
Prof. P. Rajasekaran, Deputy Registrar-VMRF-DU
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Prof. L. Prabhu, Vice Principal- Admin
Dr. P. Karthikeyan, Vice Principal-Admissions
Dr. R. Jaichandiran, Dy. Director-Research-VMRF-DU
Dr. M. Lakshmi Mohan, Head-CIR-AV Campus

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Dr. R. Divahar, HOD / Civil Engg.

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Dr.D.S.Vijayan, Assistant Professor (Gr - II) / Civil

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Ms.S.IsparaXavier, Assistant Professor G-I / CIVIL

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Er. S.S.Goharwar, Sr Pr Scientist & Former Head, Bridge Engineering and Structures Division, CSIR-CRRI, New Delhi.
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Prof. S .Suriya Prakash, Professor and Head, Department of Civil Engineering IIT -Hyderabad
Dr.S.Elavenil, Professor, Department of Civil Engineering, VIT University, Chennai.
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Dr.V.S.Priya, Associate Professor, Department of Civil Engineering, B S Abdur Rahman Crescent Institute of Science & Technology, Chennai
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Dr.M.Bhuvaneshwari, Department of Civil Engineering, SRM Institute of Science and Technology, Kattankulathur Campus.

PUBLICATION COMMITTEE

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Ms. C.Vaidevi, Assistant Professor (Gr-II)/ CIVIL

AVIT
ARUNAPADAI VEEDU INSTITUTE OF TECHNOLOGY

VINAYAKA MISSION'S RESEARCH FOUNDATION
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NATIONAL CONFERENCE ON

MODERN AND ADVANCED DIGITAL CONSTRUCTION TECHNOLOGIES 2021

NCMDCT – 2021

22nd & 23rd JULY, 2021

ORGANISED BY
DEPARTMENT OF CIVIL ENGINEERING

ABOUT THE INSTITUTION

Arupadai Veedu Institute of Technology (AVIT) was established in the year 1998 as an affiliated institution under the University of Madras. Later it was affiliated to Anna University, Chennai. In 2004, the institution attained the status of university under the ambit of Vinayaka Mission's Research Foundation (VMRF) – Deemed to be University Salem under sec.3 of UGC act 1956.AVIT is approved by All India Council for Technical Education (AICTE) and Council of Architecture (COA), Govt of India. The institution is located on Rajiv Gandhi Salai (Old Mahabalipuram Road) and is committed to impart quality education to the students from different socio-economic backgrounds.

The institution offers under-graduate programmes in 12 different disciplines including B.Arch and seven post-graduate programmes including Master of Business Administration (MBA) in Full-time (Regular) mode. The institute is also offering five undergraduate programmes and six post graduate programmes in Part-Time (Regular) mode. The institution is NAAC accredited.The University has introduced Structured Choice based Credit System (SCBCS) for all the programmes and adopted Outcome based Education (OBE).The institution has introduced Skill based learning, Research based learning in the Teaching and Learning process.

ABOUT THE DEPARTMENT

The Department of Civil Engineering was established in the year 2008 and has grown into a full-fledged department with specializations in all the major areas of Civil Engineering. The department has produced several eminent engineers who have made significant contributions in the planning and execution of Civil Engineering projects in India as well as abroad.

The syllabi of the department have been tremendously augmented with many advanced courses. All faculty in the department are well qualified having their highest degrees from reputed institution. The faculty of the department continues to strive loftier by exploring new frontiers of knowledge, imparting the latest technical knowledge to the students and conducting high quality of research.

The departmental activities embrace Planning, Design, Construction and Management. The department is also very active in conducting conferences, workshops, short term seminars etc. The department has been constantly involved in a range of consultancy projects. Students of the department are highly enthusiastic and actively participate in various co-curricular and extracurricular activities apart from giving their best in academics.

All the laboratories of the department are well equipped with advanced and sophisticated equipments to satisfy the training needs of the students and to meet the research and consultancy requirements of the department.

ABOUT THE CONFERENCE

National Conference on Modern and Digital Construction Technologies - 2021 aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Modern Construction Techniques and Systems.

It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Modern Construction Techniques and Systems.

Technical Papers are invited from the following field of Civil Engineering also.

- Structural Engineering
- Construction Project Management
- Water Resource & Engineering
- Environmental Engineering
- Remote Sensing
- Transportation Engineering
- Geotechnical Engineering
- Coastal Engineering, Etc.

IMPORTANT DATES:

- **Registration Starts from - June 18, 2021**
- Last date for Abstract submission- **July 10, 2021**
- Last date for Full manuscript submission- **July 17, 2021**

 # QUALITY PAPERS WILL BE PUBLISHED IN SCOPUS INDEXED JOURNALS OR PROCEEDINGS (AGAINST ADDITIONAL PUBLICATION COST)

Registration Fees : Rs.300 / paper (Up to 3 Authors).

Additional author - **Rs.100 / author.**

Registration Link

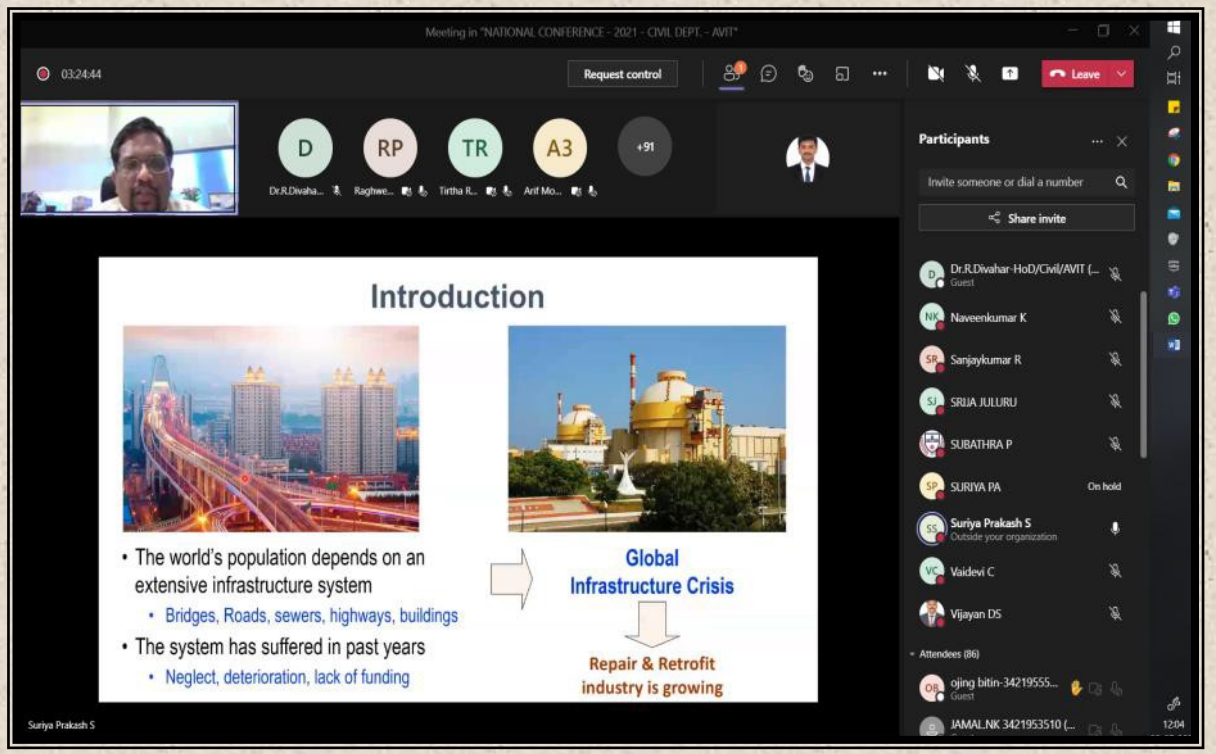
https://tinyurl.com/ncmdct21

Registration QR Code

ONLINE PAYMENT DETAILS

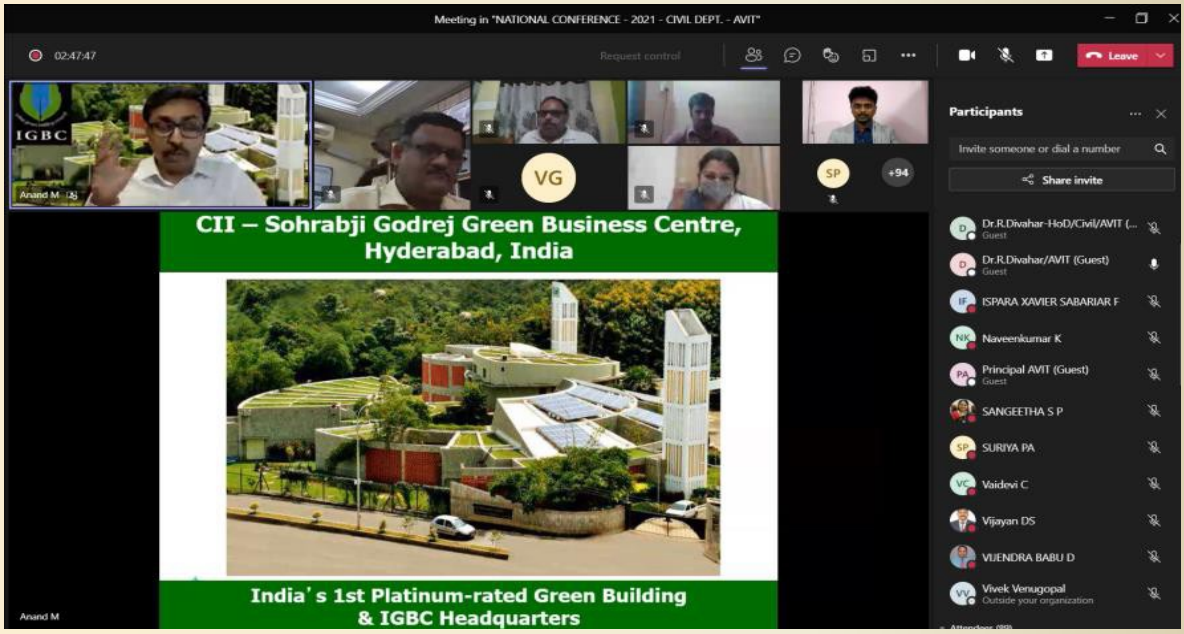
Bank Name	: ICICI BANK LTD
Bank Account Name	: Arupadai Veedu Institute of Technology
Bank Account Number	: 027805C03561
Bank IFSC Code	: ICIC0000279
Branch	: Chennai Kilpauk

Mail ID : sttp.civil.avit@gmail.com
Whatsapp Number : +91 99402 98500

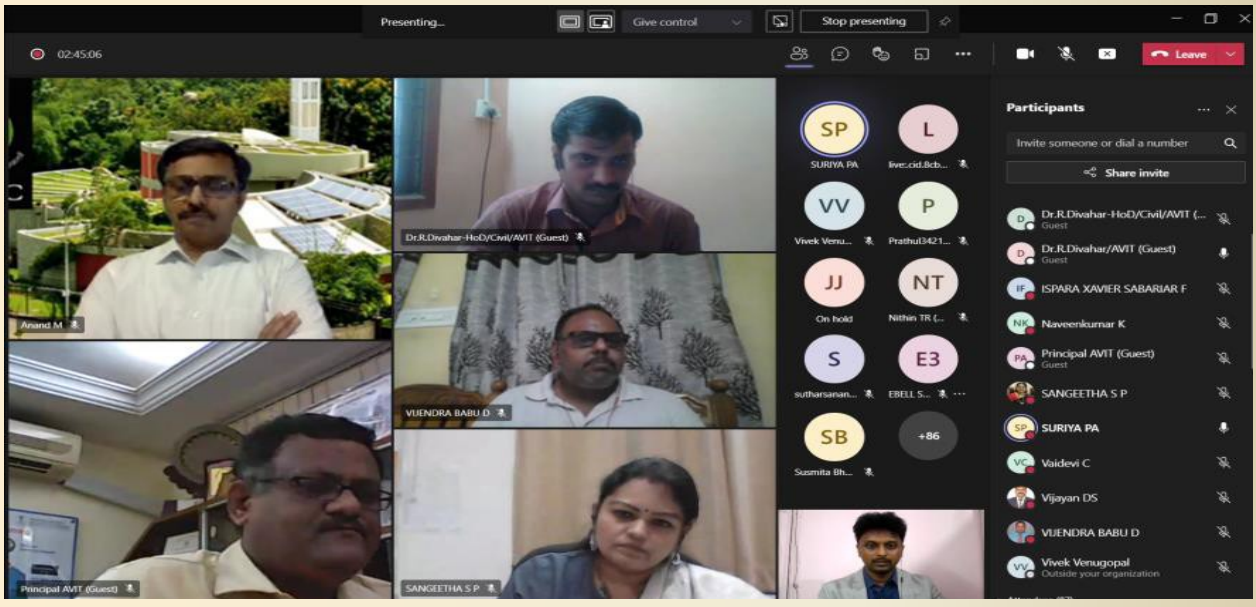


Department of Civil Engineering, Aarupadai Veedu Institute of Technology organized an "National Conference On Modern And Advanced Digital Construction Technologies - 2021 " - NCMDCT – 2021 on 22nd and 23rd July 2021. This national Conference organized by the Department of Civil Engineering, Aarupadai Veedu Institute of Technology, VMRF. Digital advancement is one of the most competitive aspects in the field of construction The conference had various themes namely Innovations in materials and structures, Renewable energy applications, Concrete technology, Durability study, Smart materials, Energy Efficient Buildings, Sustainability and Life cycle assessment, Monitoring and Structural assessment, Building Information Modelling, Green Building and Green Architecture. The eminent keynote speakers of the national Virtual Conference were from the various parts of the world The technical session of day-1 (22.7.2021) begin with the presentation by the Keynote speaker conference Er. S.S. Gaharwar, Sr. Pr. Scientist & FMR Head, Bridge Engineering & Structures Division, CSIR-Central Road Research Institute, New Delhi on the topic "Accelerated Bridge Construction Techniques" which was then followed by Dr. S. Suriya Prakash, Head & Professor, Department of Civil Engineering, Indian Institute of Technology, Hyderabad who presented on the topic "Efficient Assessment and Strengthening Techniques for Civil Infrastructures". The session was then continued with presentation by the delegates

The resource person gave an overview of strengthening of civil infrastructure, the design of FRP strengthening under different loading conditions and case studies. Various topics such as retrofit strategies, condition assessment of concrete structures,r epair techniques and material advancements are high-



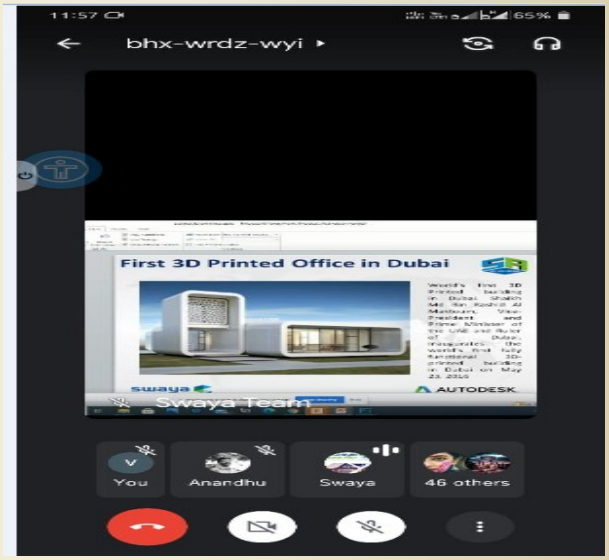
The technical session of day-2 (23.7.2021) was started with a presentation by Dr S. Mohan, Chair Professor, Environmental &Water Resources Engineering Division, Department of Civil Engineering, IITM, Chennai on the topic “Green building”. The talk was an enthralling testimony and was well received by students and experts alike . More than 100 research papers were received and after a PEER review, 80 papers were selected to be published in the conference proceedings. Out of 80 p per presentation, a best paper from each core subtheme was selected for recognition as best paper presented.



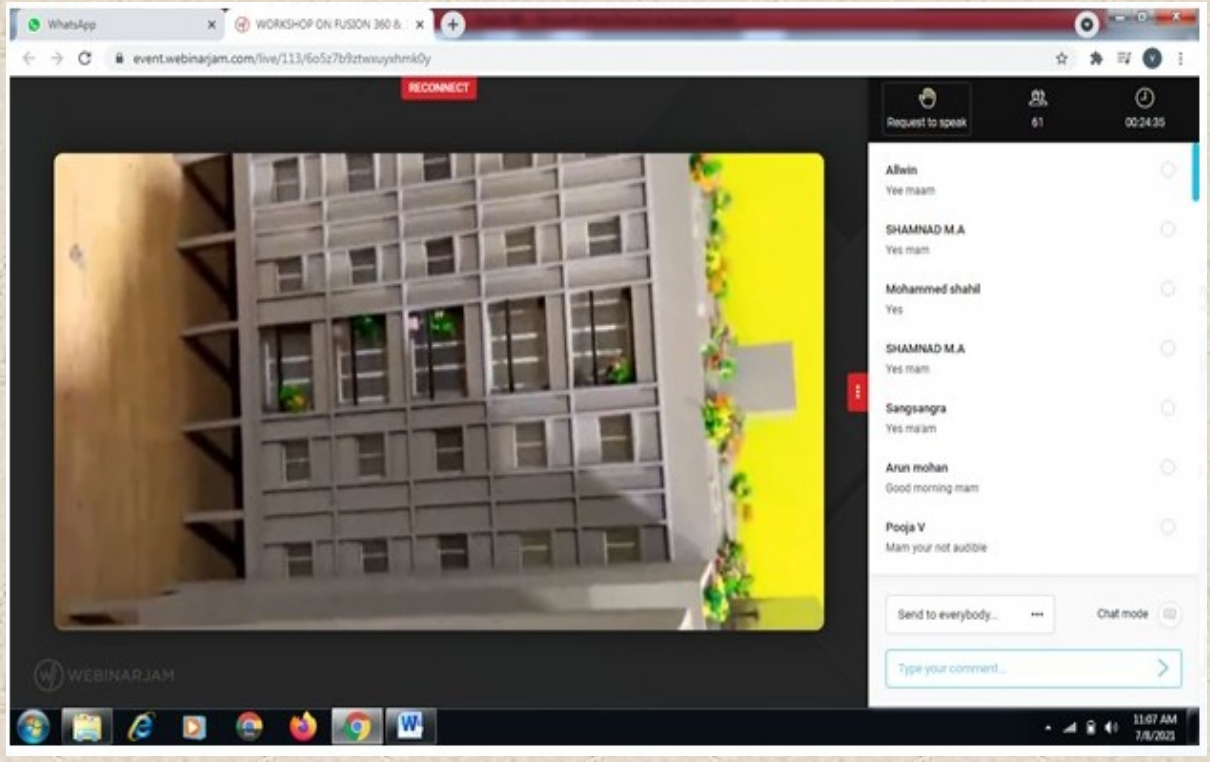
Workshop on "Fusion 360 with 3D Printing"

Department of Civil Engineering in Association with Swaya Cadd Tech, Auto desk Organized a "3 Days Workshop on Fusion 360 with 3D Printing" for II, III and IV year UG students & PG students on 6th – 8th July 2021

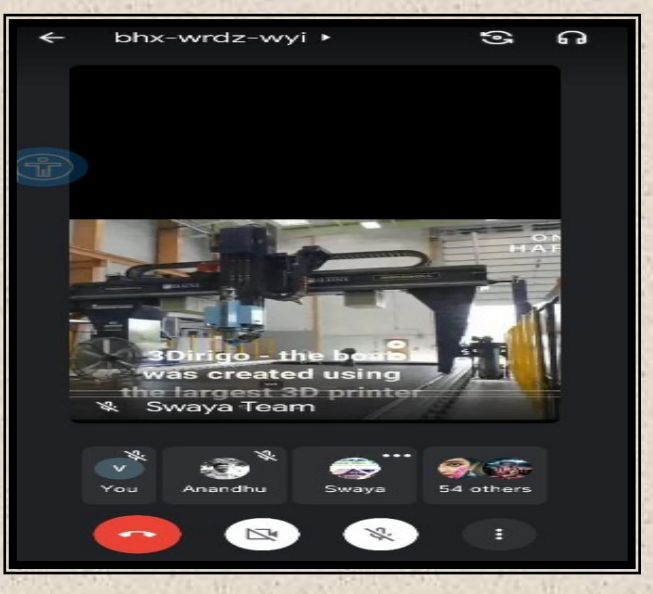
On day 1 The resource person Er.Vishali gave a lecture on Fusion 360 software along with many case studies is showed in pictures and videos. Apart from this general field models are explained with images. and introduced the additive manufacturing to the student and aware them of the Importance and application of the 3D Printer. On day 2 The resource person explained how to do models on Fusion 360 software with buildings using Archi Cad, BIM and Revit Architecture which are built in. The students learned on how to design, scan, model and print the 3D model in the printers with various configurations. Students themselves modelled in the AUTODESK FUSION 360 software and then exported to stl file in CURA software and printed.

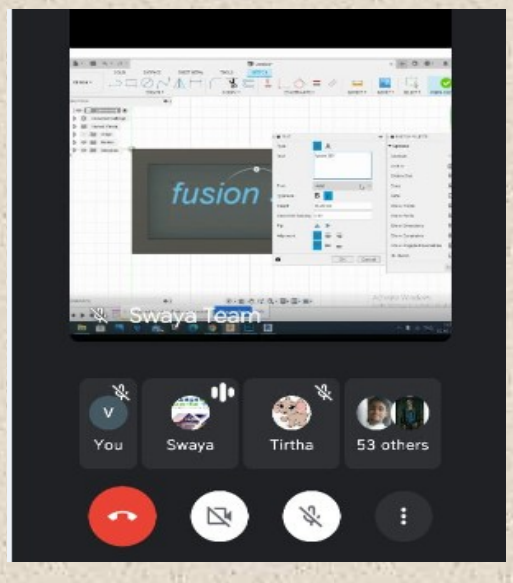


Workshop on "Fusion 360 with 3D Printing"



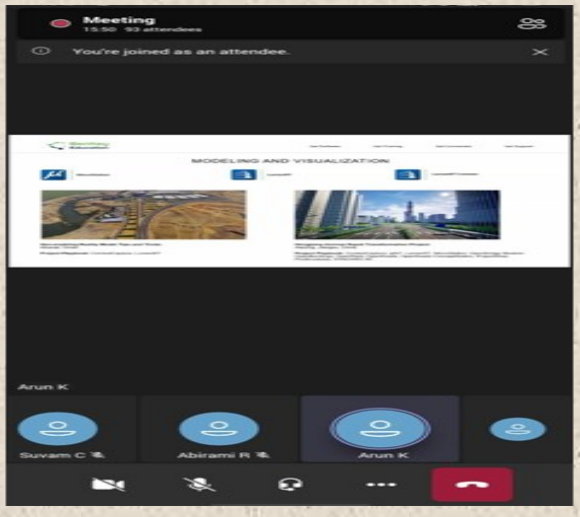
On day 3 The resource person Ms. Surthi conducted an Industrial Virtual Tour & showed 3D printing machine model CJP & FDM. Explained about it and showed printed models like 3 inch & 6 inch figuring with architectural building models . She detailed on the principles of working of 3D printer, materials used for printing, giving input designs for printing and other related aspects. She explained the utility of 3D printer in the design and fabrication of engineering products, development of architectural output, machining parts etc. The 3D printing technology will help in rectifying the mistakes in the design, and improving the same for effective output. She demonstrated the use of 3D printers by printing few different objects After completion of the workshop, students were come to know about the use of 3D Printer for industrial applications. They have studied all the fundamental modules of the 3D Printer





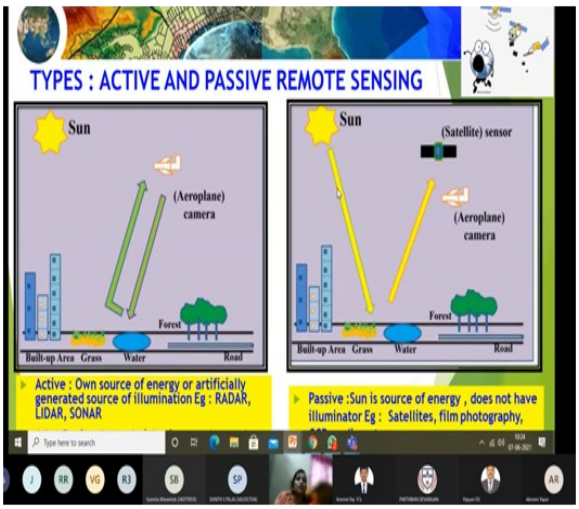
Webinar on "Inspired and Influenced by young minds-Bentley Design Challenges"

Department of Civil Engineering organized a Webinar on "Webinar on Influenced by young minds - Bentley Design Challenge" for II, III and IV year UG students on 2nd June 2021 . Dr. R. Divahar (HOD- Civil Engineering) delivered the welcome address and expressed his word of gratitude to the guests and the gathering. Dr.S.P.Sangeetha, Vice-Principal (Academics) delivered the special address and briefed the gathering regarding significance and necessity of the program. The resource person Mr. Arun Kumar expressed the advantages of the Bentley systems software to the students and faculty members. He explained about the free software access for the students and professors. A brief tour of the Bentley systems' current trend and their initiations on student development education programs were given by a short Video presentation Mr. Suvam Chatterjee explained and demonstrated the OpenRoad Software package of Bentley in detail to the students and participants. All the features and advantages of the OpenRoad and other software packages of Bentley with the students



Guest Lectures

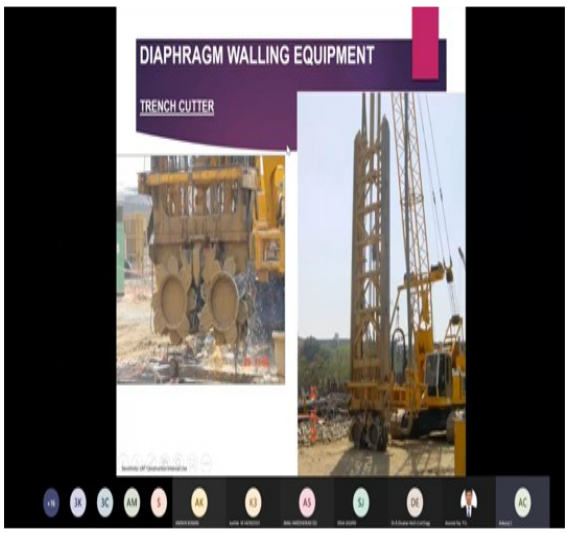
Department of Civil Engineering organized a Guest Lecture on 'Opportunities and Applications in the Field of Geoinformatics' for II-, III- and IV-year UG students on 07th June 2021 .The Chief guest and the resource person Mrs.K.Sangeetha delivered lecture on " Opportunities and Applications in the field of Geoinformatics" . The major highlights in this topic covered was to cite a few career option ideas and explained in detail, one career option as to pursue Master in Geoinformatics. Throughout the lecture, the speaker shared some of important aspect of why we need to choose Geoinformatics as career option and also different branches in Geoinformatics was elaborated in detail. Further, the different opportunities in and around India was presented clearly by the speaker and the real time applications was explained in detailed story maps.

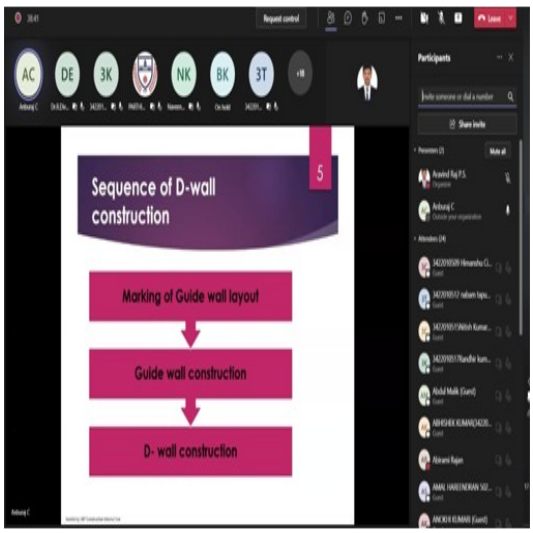


Guest Lectures

Department of Civil Engineering organized a webinar on '**Various Execution Methods of Tunnel Construction**' for II, III and IV year UG students on 17th September 2021 .

The technical session was giving a wide view of tunnel construction in the underground Metro line construction. A detailed explanation of execution of 'diaphragm wall' was projected in term of design and execution perspective with appropriate examples through site drawings and photos. The methodology of diaphragm wall execution, 'top-down' construction, and 'bottom-up' construction were explained with detailed explanations and with wonderful animation for easier understanding. The speaker nourished all the budding engineers with his 10 years of expertise knowledge in the metro construction.





STUDENT WELFARE PROGRAM(JUNE-DEC)2021

Guest Lecture

AVIT
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VINAYAKA MISSION'S RESEARCH FOUNDATION
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Institution Innovation Council (IIC) - AVIT &
Ganesan Incubation and Entrepreneurship Centre (GIEC)

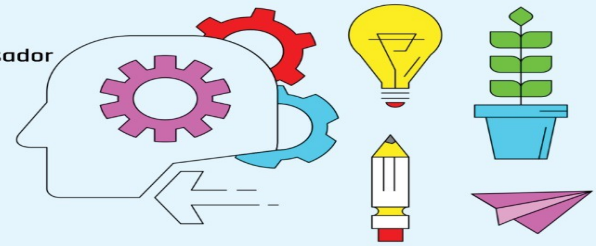
INSTITUTION'S INNOVATION COUNCIL

WEBINAR ON
INNOVATION THROUGH DESIGN THINKING

Date : 30.11.2021 (Tuesday) **Time : 10:00 AM to 12:15 PM**
Venue : Digital Classroom - Civil Engineering

Resource Person

Ms. Pa. Surya
IIC - Innovation Ambassador
Design Thinking

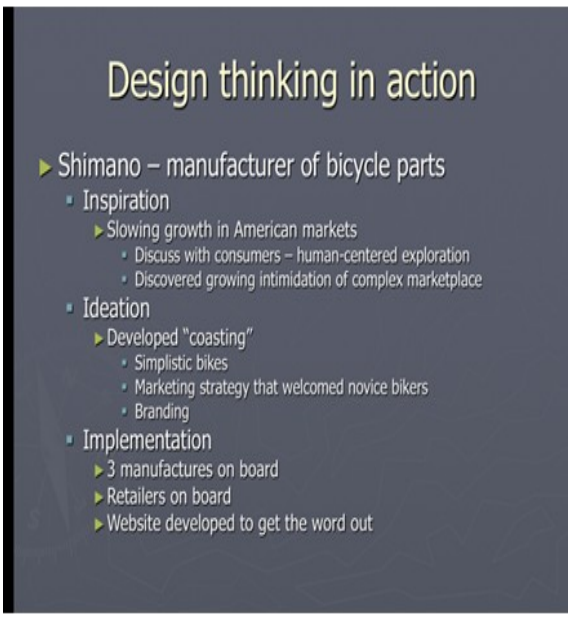


Dr. G. Selvakumar, Principal, AVIT

Mr. R. Praveen, President - IIC / AVIT

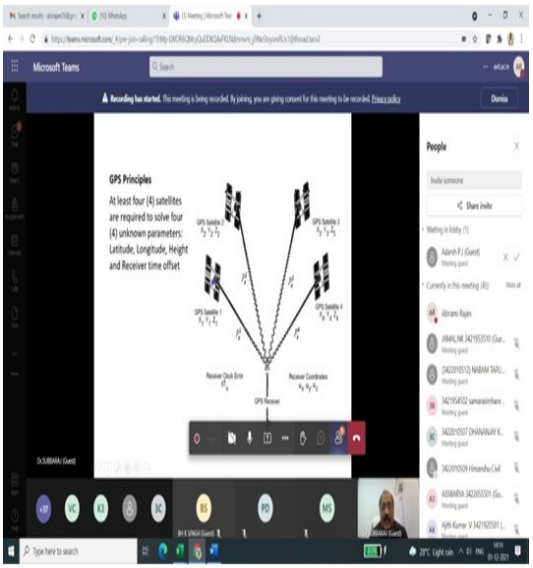
For Admission Contact @ +91 87545 52018, +91 97894 81724, +91 87545 41024

Institution Innovation Council (IIC) - AVIT & Department of Civil Engineering organized Webinar on "Design Thinking" for II, III and IV year UG students on 30th November 2021 The resource person, Pa.Suriya, Assistant Professor - II gave an introduction about Design Thinking. She also presented about the Innovation ideas and how to develop the product/Process in effective manner. The event was concluded with a questionnaire and feedback session among the participants



Guest Lecture

Department of Civil Engineering organized a Webinar on 'Global positioning system' for II, III and IV year UG students on 01st December 2021The Chief guest and the resource person Dr. L. Subbaraj gave a lecture on global positioning system. He briefed about the procedures for handling GPS, Location -Determining a position navigation, Navigation- getting from one location to another, Tracking- monitoring object or personal movement, Mapping- creating maps of the world and Timing - bringing precise timing to the world, with live site example. Several satellites and its applications were also discussed.



Guest Lecture

. Department of Civil Engineering organized a seminar on "Benefits for Students Community of AVIT through Bentley Education" for III and IV year UG students on 21st December 2021 . Mr. Arun Kumar addressed the students with the opportunities available in the industry for the civil engineers and the required skill and knowledge to conquer the desired field openings. The access terms for the software by the students and faculty of AVIT are explained in detail during the sessions. A brief tour of the Bentley systems' current trend and their initiations on student development education programs were given by a short Video presentation Need of engineers skilled in Staad Pro., OpenRoad, etc., software package of Bentley are disseminated to the budding engineers of the department. Students were interacting with Mr.Arun and the session went really productive and interactive

FACULTY CONTRIBUTION IN RESEARCH(JUNE-DEC)2021

Journal Publication Detail 2021

Authors Name	Paper Ti			care)
Dr.S.P.sangeetha				
Arvindan Sivasuriyan	Practical Implementation of Structural Health Monitoring in Multi-Story Buildings	Buildings-MDPI	2021	Scopus
R.Divahar	Analysis of surface water quality in kalingarayan canal by numerical modeling using computational fluid dynamics (cfd)	Environmental Engineering & Management Journal	2021	Scopus
Arvindan Sivasuriyan	Development of Smart Sensing Technology Approaches in Structural Health Monitoring of Bridge Structures	Advances in materials science and engineering	2021	Web of science
D.S.Vijayan	Experimental Investigation on the Ecofriendly External Wrapping of Glass Fiber Reinforced Polymer in Concrete Columns	Advances in materials science and engineering	2021	Web of science
Vinod Vijaykumar	Factors Influencing Urban Placeidentity And Its Role In Anchoring The Delineation Of Precints	Design Engineering	2021	Scpous
Vinod Vijaykumar	Form Based Regulations As An Effective Tool To Build Green Cities And Improve Quality Of Living	Oeconomia Copernicana	2021	Scopus
Aravind Raj P S,	Study of Self Depuration Capability of River Pamba	Journal of Physics Conference Series	2021	Scopus
. Subathra	Performance of Pellucid Concrete by using Optical Fibers	Journal of Physics Conference Series	2021	Scopus
Dr.S P Sangeetha	Decolorization of Textile Wastewater with Activated Carbon made of Coconut Shell	Journal of Physics Conference Series	2021	SCOPUS

FACULTY CONTRIBUTION IN RESEARCH(JUNE-DEC)2021

Journal Publication Detail 2021

Scopus

Authors Name	Paper Title	Journal-name	Year	Indexed in (Scopus/Web of science/Pubmed/ UGC care)
S Ispara Xavier,	Design of Water Distribution System for Thirumitta code Grama Panchayat	Journal of Physics Conference Series	2021	SCOPUS
S Ispara Xavier,	Characteristics Study on Leachate Samples of Laloor, Thrissur	Journal of Physics Conference Series	2021	Web of Science
D. Parthiban,	Study on Engineering behavior of conventional cement concrete by partially replacing sea shell as Fine aggregate	Journal of Physics Conference Series	2021	Scopus
S Ispara Xavier	Control of Environmental Pollution by Utilizing Wastes from Industry on Fly Ash Based Geopolymer Concrete	Journal of Physics Conference Series	2021	Scopus
Arvindan Sivasuriyan,	Health Assessment Of Dams Under Various Environmental Conditions Using Structural Health Monitoring Techniques: A State-Of-Art Review	Environmental Science and Pollution Research	2021	Scopus
Sreeja Mole S. S	Biodegradation of P-nitro phenol using a novel bacterium Achromobacter denitrifacians isolated from industrial effluent water	Water Science and Technology	2021	Scopus

Books Published Detail 2021

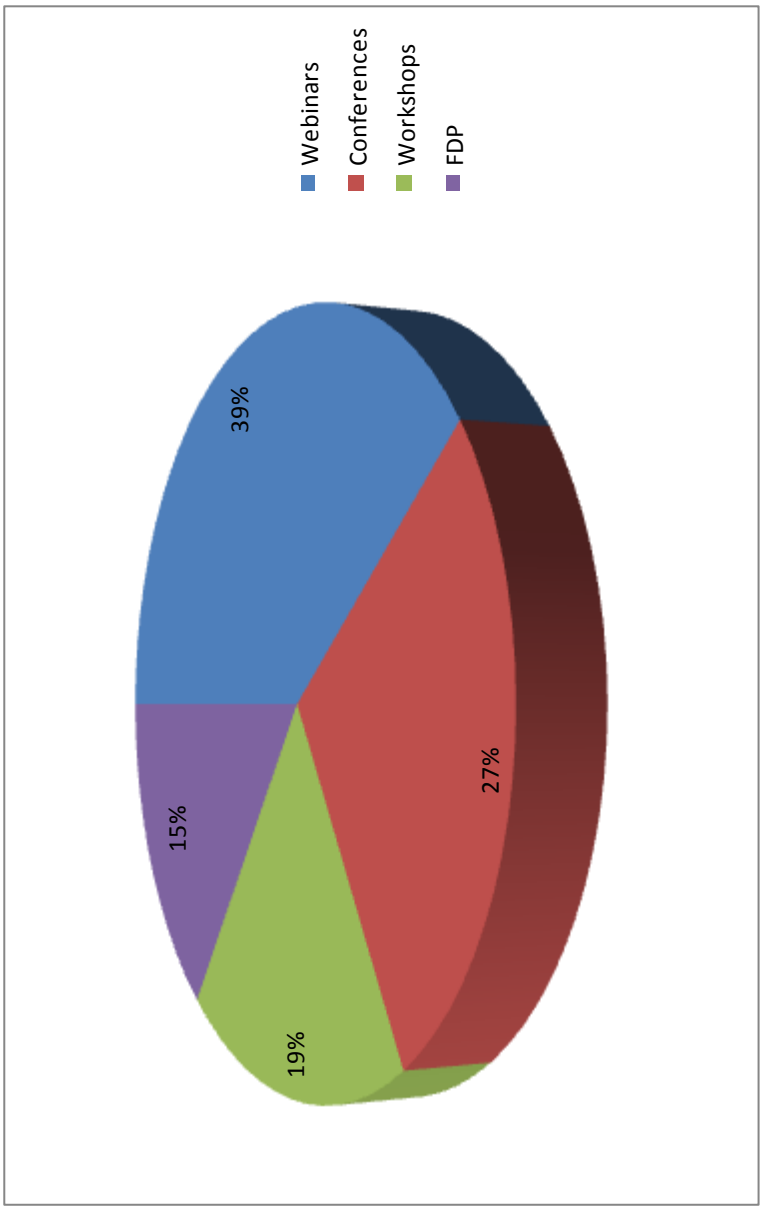
S.no	Authors-name	Book Name/Title	Book Publisher Name
1	D.S.Vijayan,S.Aravindan,A.Paul makesh	Construction Materials and Techniques	Notion Press
2	D.S.Vijayan, A.Mohan, D.Pathiban	Building Foundational Engineering	Notion Press
3	Daniel C, Bindu Swetha Pasuluri, D.S. Vijayan, V.J.K Kishor Sonti, V. Lakshmi Prasanna Editors	Innovative Teaching and Learning 'Process during COVID 19	Ior International Press

Book Chapters Published Detail 2021

S.no	Authors-name	Book Chapter Tilte	Book Name/Title	Book Publisher Name	Year
1	P. Gajalakshmi, J. Revathy, S. Anusha, D. S. Vijayan	Resilient Infrastructure	Behaviour of Doubly Symmetric Built-Up Cold-Formed Steel Beams	Lecture Notes in Civil Engineering book series	October 2021
2	Vaidevi.C, Vijayan D.S, Nivetha.C, Kalpana.M	Resilient Infrastructure	COVID-19 Future Proof Infrastructure	Lecture Notes in Civil Engineering book series	October 2021

FACULTY PARTICIPATION(JUNE-DEC)2021

Events participation by Faculties



Faculty participation List (JUNE-DEC)-2021

FACULTY PARTICIPATION (JUNE-DEC)2021

Faculty Participation

Ministry of Education Government of India

MoE's INNOVATION CELL (GOVERNMENT OF INDIA)

INSTITUTION'S INNOVATION COUNCIL

MoE'S INNOVATION CELL MIC INNOVATION AMBASSADOR

This is to certify that

VAIDEVI C

of

Aarupadai Veedu Institute of Technology, Tamil Nadu

has undergone Innovation Ambassador training (Advanced Level) conducted by MoE's Innovation Cell & AICTE during the period from 30th June - 30th July 2021 in online mode.

Prof.Anil D.Sahasrabudhe
Chairman, AICTE

Dr. Abhay Jere
CIO, MoE's, Innovation Cell

Date of Issue: 30-07-2021

E-certificate No : 1889

Dr.C.Vaidevi ,Assistant Professor –II attended Innovaton ambassador Training organised by MoE's Innovation Cell & AICTE on July 2021

F.No AICTE/FDP-SI/OnlineWorkshop/201/70961

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Dr. P.S Aravind Raj from Aarupadai Veedu Institute of Technology, Chennai has participated and successfully completed the 5-day online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education(AICTE) from 28 June, 2021 to 2 July, 2021.

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

Dr.P.S.Aravind Raj, Associate Professor -Civil, have attended a 5 days FDP on Inculcating Universal Human Values on Technical Education on July 2021 by AICTE

Research Achievements

Dr.S.P.Sangeetha, VP-Academics-AVIT, was awarded Excellence in Reviwing by Journal of Engineering Research and Report

Dr.R.Divahar,HOD –Civil was awarded Incredible researcher of India by Record Owner on September 2021

FACULTY PARTICIPATION (JUNE-DEC)2021

Faculty Participation

St. PETER'S INSTITUTE OF HIGHER EDUCATION & RESEARCH

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

Mrs.R.ABIRAMI of AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY has participated in the Online International Conference on "Sustainable Construction (ICSC 2021)" organized by Department of Civil Engineering,St. Peter's Institute of Higher Education and Research, Chennai, on 15.06.2021 and presented paper titled "An Experimental Study on Characteristics of Sisal Fibre Concrete Treated with Na2Co3"

Dr.P.Asha
Convenor

Made for free with Certify'em

Mrs.R.Abirami, Assistant Professor, Civil-AVIT, has participated in International Conference and Presented a paper on topic "An Experimental Study on Characteristics of Sisal Fibre Concrete" on June 2021

ATAL

AICTE

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training And Learning (ATAL) Academy

Certificate

This is certified that S.P.Sangeetha, Professor of Aarupadai Veedu Institute of Technology participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "3D Printing Technology" from 2021-7-12 to 2021-7-16 at Govt. Engineering College Jhalawar, (Rajasthan).

Adviser-I, ATAL Academy

Coordinator

Dr.S.P.Sangeetha, VP-Academics-AVIT, have completed FDP on "3D Printing Technlogies" conducted by AICTE Training and learning (ATAL) Academy on July 2021

FACULTY PARTICIPATION (JUNE-DEC)2021

Faculty Participation

ICSMC 2021

An International Conference on Structures, Material and Construction 2021

Organised By - Department of Civil Engineering JUIT, Waknaghat

In Association With

JUIT/ICSMC2021/11/2021/021

30th Sept 2021

Certificate of Appreciation

We are pleased to award this certificate to *Dr. R. Divahar* from *Aarupadai Veedu Institute of Technology, Vinayaka Mission's Research Foundation, Tamilnadu, India* for his/her research contribution and presentation for Paper ID *029* entitled *Mechanical Properties of Alccofine with low calcium silicate based High-Strength Concrete* in the First International Conference on Structures, Material and Construction held at Jaypee University of Information Technology, Waknaghat, Solan, Himachal Pradesh, India during 12th – 13th November 2021.

Dr. Tanmay Gupta
Conference Chair, ICSMC 2021

Prof. (Dr.) Ashish Kumar
Professor and Head CED,JUIT Waknaghat, Solan, HP, India

Prof. (Dr.) Ashok Kumar Gupta
Dean, Academies& Research, JUIT, Waknaghat, Solan, HP, India

Dr.R.Divahar, HOD-Civil, attended "International Conference on Structures, Material and Construction "at Jaypee University of Information TechnologyHimachal Pradesh, India during 12th November 2021

AMET

ACADEMY OF MARITIME EDUCATION AND TRAINING

Deemed to be University Under Section 3 of UGC Act 1956

Department of Naval Architecture and Offshore Engineering

Certificate

OF PARTICIPATION

This Acknowledges That Mr.R.SANJAY KUMAR, Assistant Professor of Aarupadai Veedu Institute of Technology has participated in the National Seminar on "Coastal Hydrodynamics and Structures" held on 4th June 2021.

This certificate is electronically generated and signature is not required

Certificate No. TZUG1I-CE000068

Made for free with Certify'em

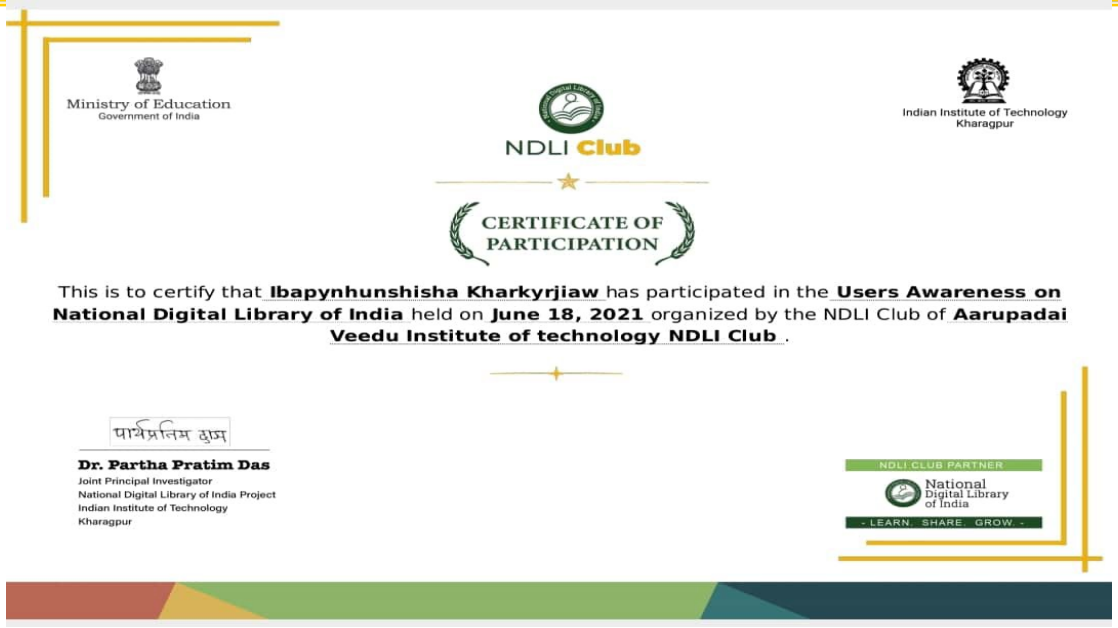
Mr. R.Sanjay Kumar, Assistant Professor -Civil, have attended a National seminar on "Coastal Hydrodynamics and Structures on 4th June "2021

FACULTY PARTICIPATION (JUNE-DEC)2021

Atal FDP Participation 2020-2021

SL. No	Name of the Faculty	Title of the Faculty development programme
1	Mr.R.Sanjay Kumar	Sustainability Engineering
2	R.Abirami	Construction Technology
3	Dr.S.P.Sangeetha	Infrastructure Engineering
4	Ms.Vaidevi.C	Concrete Technology and Sustainable Construction Practices
5	P.Subathra	Smart Cities
6	R.Abirami	Smart Cities
7	D.Parthiban	GIS & Remote Sensing
8	P.Subathra	Waste Technology
9	C.Nivetha	Waste Technology
10	C.Vaidevi	Waste Technology
11	D.Parthiban	Smart Cities
12	D.S.Vijayan	Environmental Geotechnology
13	D.Parthiban	Environmental Geotechnology
14	Pa.Suriya	Environmental Geotechnology

Student Participation


Ministry of Education
Government of India

NDLI Club

Indian Institute of Technology Kharagpur

CERTIFICATE OF PARTICIPATION

This is to certify that **Ibapynhunshisha Kharkyrjiaw** has participated in the **Users Awareness on National Digital Library of India** held on **June 18, 2021** organized by the NDLI Club of **Aarupadai Veedu Institute of technology NDLI Club** .

पार्थप्रतिम दास

Dr. Partha Pratim Das
Joint Principal Investigator
National Digital Library of India Project
Indian Institute of Technology
Kharagpur

NDLI CLUB PARTNER
National Digital Library of India
- LEARN. SHARE. GROW. -

Ms.Ibapynhunshisha Kharkyrjiaw IV Year Civil has participated in Users Awareness on National Digital Library on June 18,organised by NDLI CLUB

STUDENT PARTICIPATION (JUNE-DEC)2021

Student Contribution

Ms.Ibapynhunshisha Kharkyrjiaw ,IV year Civil Engineering has participated in the National Level Webinar on Yoga Theme:A Rejuvenation of Mind,Body and Soul

Mr.Kryshanlanki Khynriam,IV Year Civil has completed training on STAAPro from INTERNSHALA

FACULTY COLUMN

EVALUVATING THE IMPACT OF A BUS BAY TO MINIMIZE TRAFFIC

With the rapid rise of urbanisation today, land rehabilitation, along with urban sprawl and new town construction, has become an important aspect of city development. Roadway capacity constraints and traffic are at the forefront of transportation professionals' concerns. The project focused on improving the technical, aesthetic and economic aspects of an area through improvement proposals. Hence for, the detailed designs and drawings for various elements of the project such as road alignment, signals, footpath, intersection and other traffic regulating aids of the junctions are analysed. This project examined traffic improvement operation plan for Kanjikuzhi area, a town in Kottayam in the state of Kerala through engineering, management and control measures by considering the quality and safety of traffic. The design considerations, construction methods, and material requirements used in the design and implementation of a bus bay.Strict enforcement of traffic laws and harsh sanctions will not suffice to resolve the ongoing situation. Only a shift in the mindset of cyclists, drivers, and other road users who recognise their duties would result in a transformation. Transit is an essential component of liveable communities. It cuts travel time, eases traffic, minimises road debris, and gives commuters and law enforcement officers peace of mind. As a result, strategic placement of bus stops near significant destinations provides a viable transportation option to automobiles by making the entire journey more enjoyable.

By
R.Abirami,Assistant Professor-I/
Civil Department

BACTERIAL CONCRETE

Concrete in most structures is defined to crack in order to let embedded steel reinforcement take over tensile stresses. Crack formation is also a typical phenomenon related to durability. Bacterial concrete (or) self healing concrete fills up the cracks developed in structures by the help of bacterial reaction in the concrete after hardening. Types of bacteria its mechanism and preparation of bacterial concrete is discussed many researchers.In modern days the use of technology has taken the standards of construction to a new high level. Different types of procedures, methods and materials are used to attain a very good, sustainable and economic concrete construction. Self healing may be a possible solution to reduce manual intervention. Hence using bacteria is **Lysibacillus Fusiformis** added various concentration of 10ml,20ml and 30ml, if the mineral admixture for **micronized biomass silica**(MBS) in various % for 6%,12% and 18% that can be replaced with cement in concrete for superior durability performance.For key aspects that determine effectiveness of bacterial self-healing have been highlighted and discussed. Test will be conducted based on strength, durability and corrosion rate at 1, 7, 14, 28,180 and 365 days of age were estimated. Hence its analysis to the scanning process of corrosion rate in steel structure and bacteria self-healing formation process.

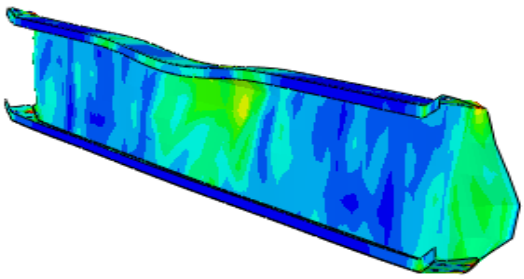
By
N.Nageswari, Research Scholar/Civil Department

FACULTY COLUMN

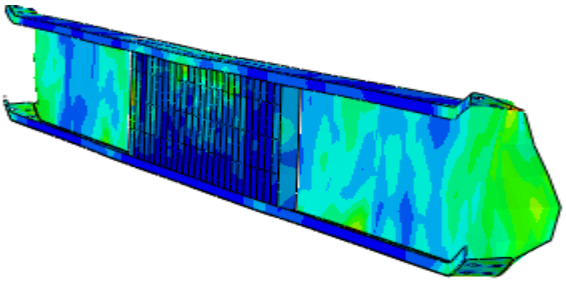
NON-LINEAR DYNAMIC ANALYSIS OF COLD-FORMED STEEL STUD WALLS SUBJECTED TO BLAST LOADING

Blast is a pressure disturbance resulting from rapid release of energy. The need for safer solution for blast resistant structure has been increased nowadays considerably due to blast events occurring over the past few decades. Present day research focuses on developing wall systems that are capable of withstanding different levels of blast threats. Cold-Formed Steel (CFS) studs have found to possess suitable strength and ductility and hence are used in the construction of blast-resistant walls. Early researches have shown that the incorporation of cold-formed steel stud walls in structures and the failure mechanism of such structures were found to depend on the section properties, connection details and the type of sheathing material. The mitigation of failure of such structures will be made possible only by strategically strengthening the structure at critical locations In the present study, parameters such as midpoint deflection, energy dissipation and plastic deformations have been investigated numerically for various charge weights. As predicted, the provision of honeycomb stiffener in conventional cold formed steel stud wall panels, is found to reduce the deformation. The numerical results show that the effectiveness of the honeycomb stiffener increases as the magnitude of blast pressure increases. In conventional studs, the web gets crushed easily and densification of core occurs and transfer of load to bottom plate is non-uniform whereas in the stiffened studs, the load is effectively transferred to the bottom stud, thus enabling global energy dissipation to occur through every component thereby decreasing the possibility of concentrated dissipation of energy at a local zone

According to numerical results, the dynamic response of the panel, as expected, are drastically dependent on explosive weight and with the increase of the charge weight. It can be concluded that, for the stud wall to perform satisfactory against the uncertainties of a blast event, it is recommended to provide the stiffener throughout the stud length.



Model 1, 0.75kg TNT exposure



Model 2,0.75kg TNT exposure

Deformation of stud in model 1 and model 2

By
J.Srija,Assistant Professor-I/Civil Department

Social and Industry Connect Events

Institution Innovation Council (IIC) - AVIT & Department of Civil Engineering organized Webinar on "Session on Accelerators / Incubation - Govt. Funding Schemes, Opportunities for Students & Faculties, Early stage Entrepreneurs" for II, III and IV year UG students on 26th June. The Chief guest Mr.E.Mohan gave a lecture on Introduction about quality of Entrepreneurs and described about the different Opportunities Early stage Entrepreneurs. He also presented about the Govt. Funding Schemes for Accelerators / Incubation in effective manner. The event was concluded with a questionnaire and feedback session among the participants and guest speaker.

Student Achievements

INDIAN SOCIETY FOR TECHNICAL EDUCATION
TAMIL NADU SECTION

40. KAVYAA.S
SONA COLLEGE OF TECHNOLOGY
SALEM

41. SUSMITA BHOWMICK
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY
PAIYANOOR

42. SATHYA.R
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY
PAIYANOOR

Ms.Susmitha Bhowmick,passed outstudent has received Best Student Award from ISTE

STUDENT'S COLUMN

GEOGRID

- A geogrid is geosynthetic material used to reinforce soils and similar materials. Geogrids are commonly used to reinforce retaining walls, as well as subcases or subsoil below roads or structures. Soils pull apart under tension. Compared to soil, geogrids are strong in tension. Geogrids improve the structural integrity of soils in roadways, walls and slopes by reinforcing and confining fill materials and distributing load forces. Geogrids are the answer for designers, developers and contractors facing the challenges posed by sloping ground and soft subgrades.
- Geogrids help soils stand at virtually any desired angle in grade separation applications. In retaining wall and slope applications, geogrids can be combined with a wide variety of facing elements to produce the desired aesthetics for any project.

Geogrids provide support for the construction of access roads, highways, berms, dikes and structure applications that previously required the use of expensive over-excavating or piling methods on weak subgrades

By
Rakesh Kumar,
Civil III Year

ACID RAIN MODEL

By
Laxmi Kumari,
Civil II Year

STUDENT'S COLUMN

By
Laxmi Kumari,Civil II Year

Methods of Retrofitting of Building

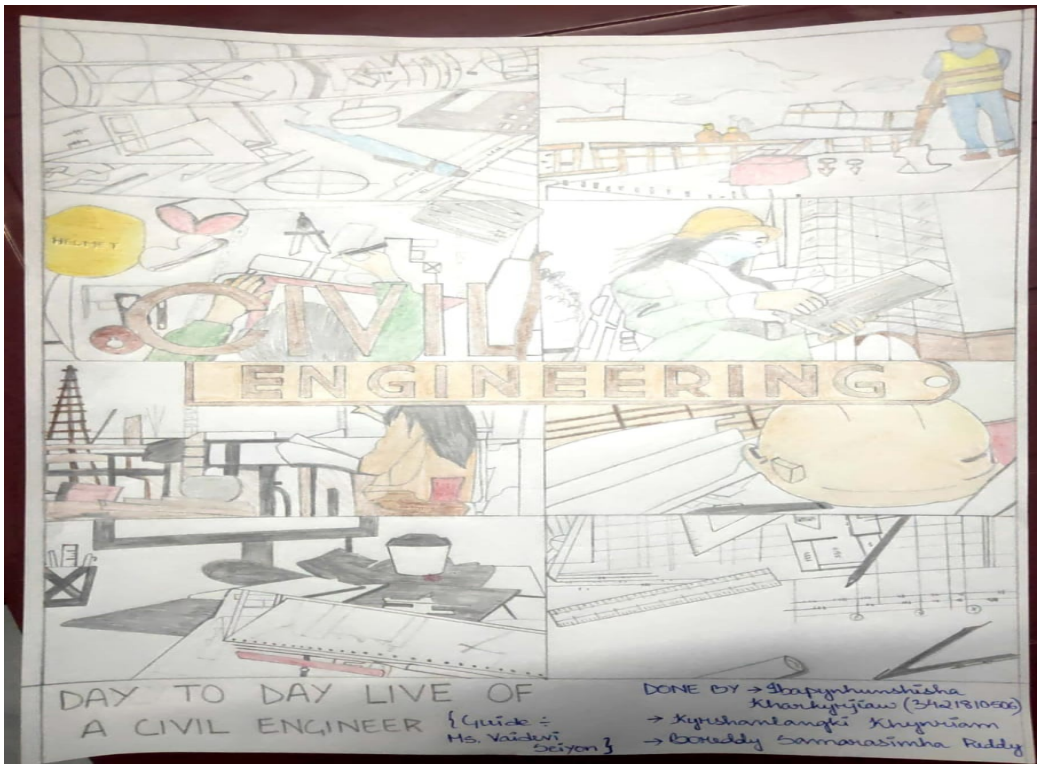
Retrofitting of RCC structural members is carried out to regain the strength of deteriorated structural concrete elements. The strength deficiency of concrete structural members can be due to poor workmanship, design errors, and deterioration due to the aggression of harmful agents. The main goal of retrofitting is to stabilize the current structure of buildings and make them earthquake resistant.

The following are the most common method of retrofitting a building

a. Adding New Shear Wall
b. Adding Steel Bracing
c. Wall Thickening Technique
d. Base Isolation Technique
e. Mass Reduction Technique
f. Jacketing Method
g. Fiber Reinforced Polymer
h. (FRP)Epoxy Injection Method

By
Karthik ,Civil IV Year

STUDENT'S COLUMN



By
B Samarasimha Reddy ,Civil IVYear

PLASTIC ROADS

Plastics are the non-biodegradable materials and so a means to degrade our environment. Plastic wastes have proved to be a source of health hazard as it is toxic in nature. Plastic waste is a big nuisance in today's world. So, this plastic waste should be reused to eliminate the threat to the surroundings. Plastic coated aggregates have proved to offer better resistance to abrasion and wear and tear. Moreover the bond between these plastic coated aggregates and the bitumen is also very strong due to increased contact area between plastic (polymers) and bitumen. Such roads show better performance and have increased life spans

- The addition of waste plastic modifies the properties of bitumen
- The modified bitumen shows a good result when compared to standard results
- The optimum content of waste plastic to be used in the range of 5 to 10%
- The problems like bleeding are reduced in hot temperature region
- Ultimately improves the quality and performance of roads
- Material cost of the project is also reduced

By
Abhishek Kumar Civil II Year

Alumni Testimonial

I am very proud and blessed to be a part of AVIT college as it has taught me many lessons for life. I have learnt to be disciplined towards my studies and carrier. Thanks to the AVIT, The teachers here are the best as they are friendly and motivating, has always been supportive and inspiring guides and also challenging taskmasters

Mr. Raghavendra Pratap /Civil-2017-2021

I had immense pleasure studying in AVIT college. AVIT has excellent faculty members, their method of teaching is very friendly and with the positive mind set they always motivate every child. We have learnt a good behaviour and many lessons for life after joining here. They motivate us to participate in all the cultural and sports events but on the other end they will keep us focused towards our studies. I would also like to say that this is the very good platform for learning and carrier development. I thank each and every staff members for making our college life memorable

Ms.Susmitha Bhowmick /Civil-2017-2021

I had a great experience with AVIT. I liked mostly the module pattern of academic teaching with the best visiting faculties from all over India and also from abroad. I got the practical knowledge of various subjects which is the best part of our programme. I got placement through my university campus, thats a biggest gift from AVIT, it shows that our AVIT not only focuses in their academic but also in their 100% placements.

"Never stop fighting until you arrive at your destined place - that is, the unique you. Have an aim in life, continuously acquire knowledge, work hard, and have perseverance to realise the great life"- A. P. J. Abdul Kalam

EDITOR
Ms.J.Srija, Assistant Professor, Civil Engineering

GUIDELINES BY
Dr. S. P. Sangeetha, VP (Academics)
Dr.R.Divahar, HoD– Civil

For any suggestions/requests, send us through mail at: **hodcivil@avit.ac.in**