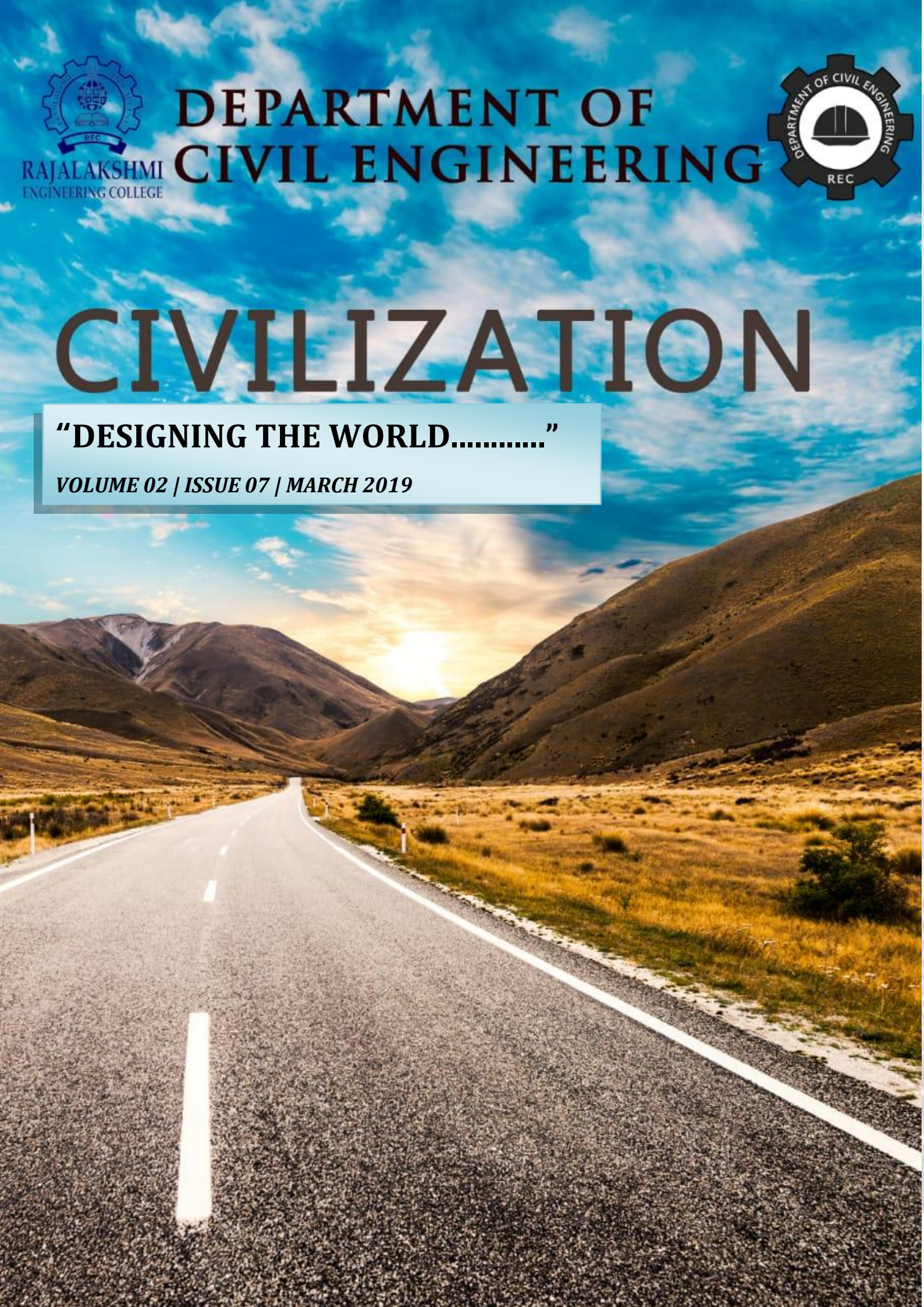
RAJALAKSHMI ENGINEERING COLLEGE

DEPARTMENT OF CIVIL ENGINEERING

CIVILIZATION

"DESIGNING THE WORLD....."

VOLUME 02 | ISSUE 07 | MARCH 2019



VISION

To be a Department imparting knowledge in Civil Engineering education, research, entrepreneurship and Industry outreach services for creating sustainable infrastructure and enhancing the quality of Life with professional and ethical values.

MISSION

- ***To provide an effective learning environment enabling to be a competent Civil Engineer.***
- ***To motivate research and Entrepreneurial initiatives in the Field of Civil Engineering.***
- ***To inculcate ethical values to serve the society with high order Professionalism.***

PLASTIC-FREE WORLD IS ALL THE FUTURE DESERVES!

Let us admit ourselves about the immense pollution that we have been causing to this precious planet of ours ever since the inception of Man Kind. We do have our own requirements which grow day by day. One such requirement which made us push the world to its limits of acceptance is the usage of PLASTICS!!!! Not the oddest of the words that we come across in our daily lives. Perhaps the most frequently used material, is how we can reshape the definition. With the Tamil Nadu State Government bringing the ban on Plastics-usage from 1st of January 2019, the usage of plastics hasn't been cut down on a larger scale. So I believe the discussion of its effects is vital as on date since many haven't adapted to the ban imposed. Henceforth, let us take a look at how this material has shown us what it really could.

A study by the University of California Santa Barbara's National Centre for Ecological Analysis and Synthesis found between 4.8 and 12.7 million metric tons of plastic materials end up in the oceans every year. *The amount of plastic pollution to enter the ocean each year will massively increase by 2025.*

"Half of the 300 million tons of plastic produced each year is used only once."

- More than 40 percent of plastic is used to create packaging, including the hundreds of billions of plastic bags used around the globe. Each minute, one million of them are used, and the *typical bag is used for 15 minutes before being discarded, according to Plastic Oceans.*
- It takes plastic a *very long time to breakdown* in the ocean. Even then, it continues to break up into smaller and smaller fragments. Pieces from a one-litre bottle can eventually end up on every mile of beach on every continent.

- Tiny fragments called ***micro plastics*** float in the ocean. They are often not easily seen with the naked eye, nor does satellite imagery pick them up as a giant collection of garbage. Although the occasional pair of shoes or fishing equipment may be seen, the water generally looks cloudy from the small suspended plastic particles.
- Chemicals in plastic, such as BPA, can be absorbed by the human body. Some can trigger various health effects and even to alter hormones. High exposure can increase the risk of heart disease and diabetes, according to a study, while tests on animals have shown the potential for damage to developing brain and reproductive systems.
- Plastics can be ingested by marine animals that are eventually caught as seafood and consumed by people. When buried in landfills, plastics can release chemicals that find their way into groundwater.
- Phthalates are also found in human bodies and come from food packaging, vinyl flooring, wall coverings, and medical devices. Premature infants are often exposed to these compounds when treated in neonatal intensive care units.
- Plastic takes anywhere from *500 to 1,000 years to degrade*, so one can argue that every piece of it ever produced, except for what has been incinerated, is still in existence. Much of what is in lakes and oceans is smaller than two-tenths of an inch, and a great deal of it is even microscopic.

"The amount of plastic being produced is increasing exponentially. In the past decade, more of it was produced than compared to the entire century before that. Only five percent of the products produced with it is recovered."

- People unknowingly discard and disperse tiny plastic particles. Tiny beads in toothpaste, facial scrubs, and other toiletries can be found in waters all over

the world and contribute to the problem of plastic pollution that cannot be easily seen.

Scientists estimate that 1 million seabirds are killed by consuming plastics every year, as are 100,000 mammals. In fact, 44 percent of marine bird species have been studied to show that such materials have affected them in some way.

We could infer from the above list of facts about plastics that, the world (people) as a whole is solely responsible for bringing things back to a descent shape through a gradual elimination of plastics usage. It was fair on ancestors' part that they avoided producing these kinds of materials though they found all its merits in place. So it's time for us to contemplate on this matter.

Mr. Aanandh N. and Mr. J. Jasper Daniel

Assistant Professor(s)

Source: Environmentalhealthnews.org

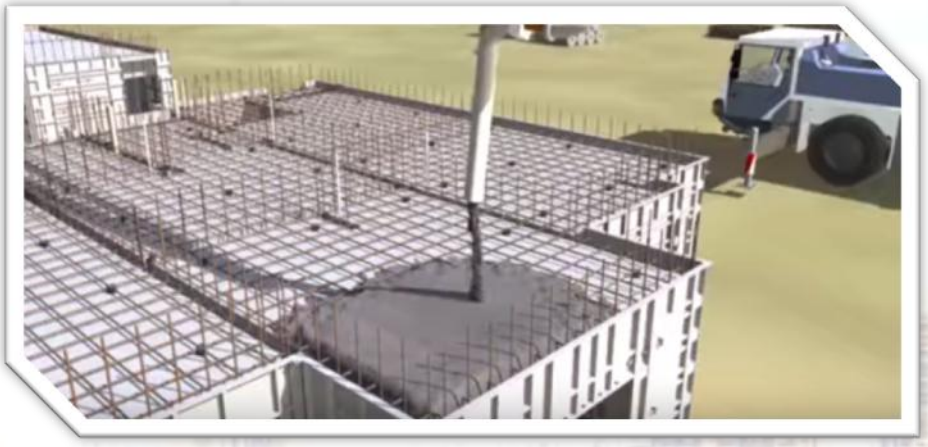
MIVAN - FORMWORK

The traditional mode of construction for mass housing with large load bearing structures like RCC- frames, roof and floor Slabs may be inadequate because of rapid rate of construction. Most of the time, poor quality control will lead to total collapse of the building. *Eg: Moulivakkam building collapse during construction.*

Mivan construction method - For mass housing works, with good quality, easy for operation with skilled labour, fast rate of construction and durable structure in cost effective manner. This method of construction is adopted at different places in the world and an emerging trend in India.

In these systems *traditional column and beam construction is eliminated* and instead walls and slabs are cast in one operation at site by use of specially designed, easy to handle (with minimum labour and without use of any equipment) **light**

weight pre-engineered aluminium forms. Rapid construction of multiple units of a repetitive type can be achieved with a sort of assembly line production by deployment of a few semi-skilled labours. The entire operation essentially comprises fitting and erecting the portion of shuttering as already determined (the optimization in use is determined by appropriate planning) and then carrying out concreting of the walls and slabs. Props are so designed that they stay in position while de-shuttering of slabs and/or takes place. The dimensional accuracy of the formwork is of high order. Therefore any possibility of errors does not rise.



Civil engineers not only build but also enhance the quality of life. Their creativity and technical skill help to plan, design, construct and operate the facilities essential to life. It is important for civil engineers to gain knowledge on latest construction tools. MIVAN serves as a *cost effective and efficient tool to solve the problems of the mega housing project all over the world*. MIVAN aims to maximize the use of modern construction techniques and equipments on its entire project.

Mr. P. Krishna Kumar,

Assistant Professor

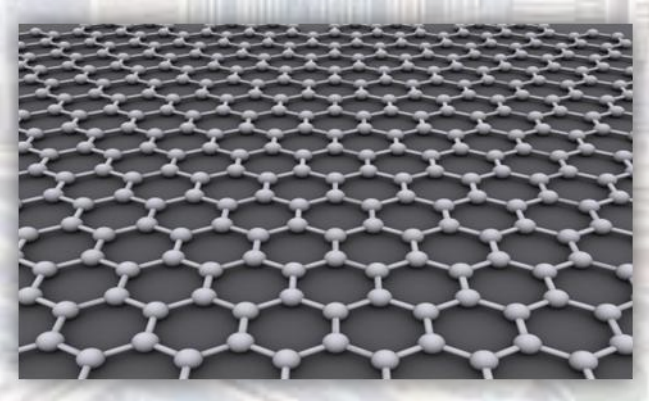
Graphene: A Wonder Material

Graphene is an allotrope of carbon consisting of a single layer of carbon atoms arranged in a hexagonal lattice. Graphene, a carbon sheet of *one-atom thickness*, is believed to be the strongest material ever known to mankind and has a large

specific area possesses *excellent thermal and electrical conductivities and possess high Young's modulus*. These are held together by a backbone of overlapping sp2 hybrids bonds. This nanocrystal is a basic building block for all other graphitic materials; it also represents a conceptually new class of materials that are only one atom thick, so-called two-dimensional (2D) materials.

Graphene has emerged as one of the most wonder working nano materials because of its unique combination of superb properties. It is optically transparent, yet so dense that it is impermeable to gases – not even helium, the smallest gas atom, can pass through it. In 1980, we knew of only three basic forms of carbon, namely diamond, graphite, and amorphous carbon. Then, fullerenes and carbon nanotubes were discovered and, in 2004, Andre Geim and Konstantin Novoselov, two physicists from the University of Manchester, demonstrated Graphene. (for which they received the Nobel Prize in 2010)

Graphene is *200 times stronger than steel*, yet *incredibly lightweight and flexible*. Because of the strength of covalent bonds between carbon atoms, graphene has a very high tensile strength and flexural strength too. It can be used in a wide range of applications, from aerospace engineering to digital electronics and biomedicine.



Graphene

Mrs. S. Stella

Professor

KNOW YOUR CODES [INDIAN STANDARDS]

Codal provisions are adopted for effective and accurate design of Civil Engineering structures. Concrete and steel being essential materials for construction of Civil Engineering structures, behave in different manner. So, its design also differs. In this article, we'll be having a look of important codal provisions used in design and construction of Civil Engineering Structures.

Loads:

The structures are designed for load acting on them. Loads are categorized as dead load, live load, wind load, snow load and earthquake load.

- IS 875 (Part 1): 1987 – Code of Practice For Design Loads (Other Than Earthquake)For Buildings And Structures – Part 1 *Dead Loads* – Unit Weights of Building Material And Stored Materials (Incorporating IS 1911 : 1967)
- IS 875 (Part 2): 1987 – Code of Practice for Design Loads (Other Than Earthquake) For Buildings And Structures – Part 2 *Imposed Loads*
- IS 875 (Part 3): 2015 – Design Loads (Other than Earthquake) for Buildings and Structures – Code of Practice – Part 3 *Wind Loads* (Third Revision)
- IS 875 (Part 4): 1987 – Code of Practice For Design Loads (Other Than Earthquake) For Buildings And Structures – Part 4 *Snow Loads*
- IS 875 (Part 5): 1987 – Code of Practice For Design Loads (Other Than Earthquake) For Buildings And Structures – Part 5 *Special Loads And Combinations*

RCC Concrete Mix Design:

IS 10262:2009 is used to design the *mix proportion of constituents in concrete*. This codal provision has been revised this year (2019), considering the development

in Concrete Technology in India over years. IS 10262:2019 includes mix proportioning for High Strength Concrete, Self Compacting Concrete, Mass Concrete, PPC concrete and GGBS Cement concrete. The revised code book also specifies the guidelines for choosing water reducing admixtures.

RCC Design:

IS 456:2000, covers the specifications for *quality control standards of materials to be used in construction*. It also covers the fresh and hardened properties that concrete should possess. This code covers the guidelines for production and placing of concrete mix. It highlights the specifications for designing structural members like beams, columns, slabs, footing as per Limit State Design method.

For design and construction of earthquake resistant structures, the following codes are adopted:

- IS 1893 (Part 1):2016 – Criteria for Earthquake Resistant Design of Structures : General provisions and buildings.
- IS 1893 (Part 2):2014 – Criteria for Earthquake Resistant Design of Structures : Liquid Retaining Tanks.
- IS 1893 (Part 3):2014 – Criteria for Earthquake Resistant Design of Structures : Bridge and Retaining Walls.
- IS 1893 (Part 4):2014 – Criteria for Earthquake Resistant Design of Structures : Industrial Structures including stack like structures.
- IS 4326:2013 – Earthquake Resistant Design and Construction of Buildings – Code of Practice.
- IS 13920:2016 – Earthquake Resistant Design and Construction of Buildings – Code of Practice.

Steel Design:

In recent days many commercial and almost all industrial buildings are constructed using steel. *IS 800:2007* code is used for designing steel structures as per *Limit State Design*. Industrial buildings roof members should be designed for wind loads acting on them.

Mrs. Vedhanayaghi V.J.

Assistant Professor

CABKOMA

The Komatsu Seiten Fabric Laboratory, based in Japan has created a new material called the CABKOMA Strand Rod. It is a *thermoplastic carbon fibre composite*.

The CABKOMA Strand Rod for *seismic reinforcement* is a thermoplastic carbon fibre composite. It uses carbon fibre, which is an advanced material, as the interlining, while its outer layer is covered with synthetic fibre and inorganic fibre. It is finished by impregnation with thermoplastic resin.

The strand is the *lightest* seismic reinforcement and is very aesthetically pleasing. A single strand of CABKOMA Strand Rod of 160 meter length weighs only 12 kg which is 5 times lighter compared to a metal rod.

- Its tensile strength is high, while it is the lightest seismic reinforcement in the world.
- Delicate but strong structural body
- Superb aesthetic quality that achieves lightness

For the rehabilitation projects, the rods are inserted and adhesively bonded into end fittings called rod bearing jigs for attachment to a rooftop anchor structure and into the ground, around the exterior perimeter of the building. They are also used to bolster seismic resistance within the interior, notably, forming lattice shear walls between building columns, with rods oriented at 45° angles.

Mrs. S. Yugasini

Assistant Professor

THERMAL BRIDGING

A thermal bridge, also called a cold bridge, heat bridge or thermal bypass, is an area or component of an object which has higher thermal conductivity than the surrounding materials, creating a path of least resistance for heat transfer. Thermal bridges result in an overall reduction in thermal resistance of the object. The term is frequently discussed in the context of a building's thermal envelope where thermal bridges result in heat transfer into or out of conditioned space.

Thermal bridges in buildings may impact the amount of energy required to heat and cool a space, cause condensation (moisture) within the building envelope and result in thermal discomfort. In colder climates (such as the United Kingdom), thermal heat bridges can result in additional heat losses and require additional energy to mitigate.

There are strategies to reduce or prevent thermal bridging, such as *limiting the number of building members that span from unconditioned to conditioned space and applying continuous insulation materials to create thermal breaks.*

Heat transfer occurs through three mechanisms: convection, radiation, and conduction. A thermal bridge is an example of heat transfer through conduction. The rate of heat transfer depends on the thermal conductivity of the material and the temperature difference experienced on either side of the thermal bridge. When a temperature difference is present, heat flow will follow the path of least resistance through the material with the highest thermal conductivity and lowest thermal resistance; this path is a thermal bridge. Thermal bridging describes a situation in a building where there is a direct connection between the outside and inside through one or more elements that possess a higher thermal conductivity than the rest of the envelope of the building.

Surveying buildings for thermal bridges is performed using *passive infrared thermography* (IRT) according to the International Organization for Standardization (ISO). Infrared Thermography of buildings can allow thermal signatures that indicate heat leaks. IRT detects thermal abnormalities that are linked to the movement of fluids through building elements, highlighting the variations in the thermal properties of the materials that correspondingly cause a major change in temperature. The drop shadow effect, a situation in which the surrounding environment casts a shadow on the facade of the building, can lead to potential accuracy issues of measurements through inconsistent facade sun exposure. An alternative analysis method, *Iterative Filtering (IF),* can be used to solve this problem.

In all thermo graphic building inspections, the thermal image interpretation if performed by a human operator, involving a high level of subjectivity and expertise of the operator. *Automated analysis approaches, such as Laser scanning technologies*

can provide thermal imaging on 3 dimensional CAD model surfaces and metric information to thermo graphic analyses. Surface temperature data in 3D models can identify and measure thermal irregularities of thermal bridges and insulation leaks. Thermal imaging can also be acquired through the use of unmanned aerial vehicles (UAV), fusing thermal data from multiple cameras and platforms. The UAV uses an infrared camera to generate a thermal field image of recorded temperature values, where every pixel represents radiative energy emitted by the surface of the building.

Frequently, thermal bridging is used in reference to a building's thermal envelope, which is a layer of the building enclosure system that resists heat flow between the interior conditioned environment and the exterior unconditioned environment. Heat will transfer through a building's thermal envelope at different rates depending on the materials present throughout the envelope. Heat transfer will be greater at thermal bridge locations than where insulation exists because there is less thermal resistance. In the winter, when exterior temperature is typically lower than interior temperature, heat flows outward and will flow at greater rates through thermal bridges. *At a thermal bridge location, the surface temperature on the inside of the building envelope will be lower than the surrounding area*. In the summer, when the exterior temperature is typically higher than the interior temperature, heat flows inward, and at greater rates through thermal bridges. This causes winter heat losses and summer heat gains for conditioned spaces in buildings.

Despite insulation requirements specified by various national regulations, thermal bridging in a building's envelope remains a weak spot in the construction industry. Moreover, in many countries building design practices implement partial insulation measurements foreseen by regulations. As a result, thermal losses are greater in practice that is anticipated during the design stage.

Thermal bridges can occur at several locations within a building envelope; most commonly, they occur at junctions between two or more building elements. Common locations include:

- Floor-to-wall or balcony-to-wall junctions, including slab-on-grade and concrete balconies or outdoor patios that extend the floor slab through the building envelope
- Roof/Ceiling-to-wall junctions, especially where full ceiling insulation depths may not be achieved
- Window-to-wall junctions
- Door-to-wall junctions
- Wall-to-wall junctions
- Wood, steel or concrete members, such as studs and joists, incorporated in exterior wall, ceiling, or roof construction
- Recessed luminaries that penetrate insulated ceilings
- Windows and doors, especially frames components
- Areas with gaps in or poorly installed insulation
- Metal ties in masonry cavity walls

Structural elements remain a weak point in construction, commonly leading to thermal bridges that result in high heat loss and low surface temperatures in a room.

Mr. M. Manoharan

Assistant Professor

DEPARTMENTAL ACTIVITIES

STUDENT ACHIEVEMENTS

STUDENT NAME	ROLL NO.	CLASS	PROGRAM NAME	EVENT NAME	HOST INSTITUTION	DATE
THARUN VARSHAN K. C.	201628064	III B	CEA FEST'19	AQUANOMICS	IIT MADRAS	08-03-2019 TO 09-03-2019
VIREN DAVE	201628071			MASTER BUILDER EVENT		
SURYA NARAYANA MURTHY S.	201628060					
SWETHA G.	201628061					
UNISH KUMAR V.	201628066			DEBATE		
YOGESH V.	201628075			QUIZ		
DAWN ADAIKALADASS	180601019	I A		DEBATE		
LATIKA M.	180601037			QUIZ		
				CASE STUDY		
				AQUANOMICS		
				WORKSHOP ''3D PRINTABLE CONCRETE''		
				AQUANOMICS		
SANDHYA J.	201628046	III B	VIDHANAM'19	TECHNICAL QUIZ	MEENAKSHI COLLEGE OF ENGINEERING	11-03-2019
SITHRUBI T.	201628054					
AISHWARYA M.	201628001	III A	COSMOS	TOTAL STATION WORKSHOP	CHENNAI INSTITUTE OF TECHNOLOGY	08-02-2019
SATYA PRIYA K.	201628027					
SANDHIYA P.	201628045	III B				
SAROJINI R.	201628048					
SHYAM KUMAR K.G.	201628052					
KAVIYA PRIYA E.	201628079	III B	ONE DAY SKILL DEVELOPMENT PRACTICAL WORKSHOP ON ''SOIL	WORKSHOP	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY	09-02-2019

			REINFORCEMENT AND SPECIAL CONCRETE MATERIALS''			
SITHRUBI T.	201628054	III B	CIVILISATION'19	CONFLOAT	ANNA	04-03-2019
DAWN ADAIKALADASS	180601019	I A	KARIGAALA 2K19	CADD CONTEST	CHENNAI INSTITUTE OF TECHNOLOGY	22-02-2019

AADIL NAZIR HUSSAIN, AAKASH K (REG. No.002) and DHANUSH S **of** II Year A Section bagged the Third Prize in ConFloat 2019 event organized at Anna University on

CONFERENCE PUBLICATIONS BY FACULTY

S. No.	Paper Authors	Paper Title	Proceedings Page no	Conference Name	Host Institution	Date
1	V.J. Vedhanayaghi, K. Divya Susanna, S. Muthulakshmi, S. ArunBharathi	Experimental Study On Alternative Material For Conventional Fine And Coarse Aggregate In Concrete	65-66	International Conference on Sustainable Environment and Energy, ICSEE'19	Hindustan College of Technology and Science	21/02/2019 to 22/02/2019
2	P. Anuradha, Eswary Devi T, M. Jothilakshmi	Soil Fibre Reinforcement	66			
3	S. Muthu Lakshmi, R. Rishikesan, S. Vijay Gokulavasan, S. Sunil Babu, A. K. Nafeel, K. Bharadwaj Balaji	Enhancement Of Strength Characteristics Of Clayey Sand Using Flyash And Geonet	64			
4	M. Manoharan, R. Haripraba, S. Muthulakshmi,	Experimental Investigation On The Usage Of Vermiculite Waste In	67			

	M. Ammaiappan, N. Aanandh	Concrete				
5	Dr. S. Geetha, Dr. M. Selvakumar	A Composite for the Future - Concrete Composite Reinforced with Shape Memory Alloy Fibres	123	9th International Conferenceon Materials Processingand Characterization (ICMPC- 2019)	Gokaraju Rangaraju Institute of Engineering and Technology	08/03/2019 to 10/03/2019
6	Dr. M. Selvakumar, Rameez Mohamed N M, Pranav Amirthan, Saran kumar, Rohith I	Optimization of Latex concrete with Hybrid Fibres	113	International Conference on Sustainable Environment and Civil Engineering, ICSECE'19	Easwari Engineering College	28/03/2019 to 29/03/2019
7	Dr. S. Geetha, Balaji. J, Arjun Shishir Bajjuri, Anuman Surya M. S, Krishnaraj V	Self Healing Capacity of Concrete using Shape Memory Alloys	45			
8	Dr. S. Geetha, S. Nithyasri, I. Subhashini, G. Tejasri	3D concrete Printing MatrixReinforced with Geogrids	357			

CONFERENCE PUBLICATIONS BY STUDENTS

PAPER AUTHORS	PAPER TITLE	CONFERENCE NAME	HOST INSTITUTION	DATE
SATHYASHRIYA K AND SNEHA KASTURI RANGAN of III YEAR B SECTION	Plastic Bottle bricks using different industry wastes as filler material	International Conference RICE'19	Saveetha Engineering College	16-03-2019

ARJUN SHISHIR BAJJURI of IV YEAR A SECTION	Experimental investigation on the usage of vermiculture waste in concrete	International Conference ICSEE'19	Hindustan Institute of Technology and Science	21-02-2019
HARISH D. of IV YEAR A SECTION	Experimental study on alternative material for conventional fine and coarse aggregate in concrete			

FDPs & WORKSHOPs Attended by FACULTY

S. No.	Faculty Name	Title	Host Institution	Sponsoring Agency	Category	Date
1	Mrs. T. Eswary Devi	Writing Scientific Research Paper	SSN College of Engineering	--	Workshop	25/01/2019
2	Mrs.V.J.Vedhanayaghi	Goal Setting	Sri Kanyaka Parameswari Arts & Science College for Women	ICT Academy	FDP	26/02/2019 to 28/02/2019

GUEST LECTURES ARRANGED

S. No.	Topic	Name of the Speaker	Designation	Organization	Students strength	Year/Section	Date
1	Seminar on Career Guidance	Mr. V. Prabhu	Senior Manager	Penetron India	120	IV A&B	13/02/2019
2	Introduction to CADD	Ms. Janani / Ms.M.Meghala / Ms.Anusha / Mr. Dinesh Kumar	Branch Managers	CADD Center	70	I A & B	15/02/2019
3	Non Destructive Testing	Mr. C. Bhuvanesh	Design Engineer	Dynamiq Engineering Research	115	II A&B	19/02/2019

				Center			
4	Grid Foundation	Mrs. V. Goutami Lavanya	Senior Engineer	L & T Construction	90	III A&B	22/02/2019
5	Repair & Rehabilitation of Structures	Mr. K. Aravindh	Manager (Technical Services)	HITECH Concrete Solutions.	85	IV A&B	27/02/2019
6	Higher Studies at BITS Pilani	Dr. A. Vasan	Professor	BITS Pilani Hyderabad	50	IV A&B	28/02/2019
7	Unsymmetrical Bending of Beams	Dr. K. Chinna Raju	Professor	Anna University, Chennai	118	II A & B	13/03/2019
8	Stress Distribution	Mr. R. Arivazhagan	Associate Professor	Meenakshi Sundararajan Engineeering College, Chennai	118	II A & B	18/03/2019

INDUSTRIAL VISITS ARRANGED

S. No.	Company Visited	Sector	Year/Section	Student Strength	Date
1	Kamarajar Port Limited	Public	III A&B	61	30/01/2019
2	Public Welfare Department(PWD,Chennai)	Govt	II A	53	
3	Public Welfare Department(PWD,Chennai)	Govt	II B	60	31/01/2019
4	Public Welfare Department(PWD,Chennai)	Govt	II A	53	
5	Ranipet Tannery Effluent Treatment Company Ltd.	Private	III A&B	59	12/02/2019

JOURNAL PUBLICATIONS

S. No.	Authors	Title	Journal Name	Volume	Month & Year	Issue	Page From
1	Mrs. A. J. Jeyaarthi, Mr. S. Premkumar, Mr. N. Mahamood Ul Hasan, Mrs. M.	Study the effect of sand pile in improving the CBR of expansive clay subgrade soil	International Journal of Research and Analytical Reviews	Volume VI	January 2019	Issue 1	206 to 213

	Hemavathy, Mrs. M. Gouthampriya						
2	Mrs. Stella.S, Dr. A. Rose Enid Teresa	Experimental Investigation of Concrete By Partially Replacing Coarse Aggregates With Rubber Waste	Journal of Applied Science and Computing	Volume VI	March 2019	Issue 3	1468 to 1474
3	Dr. A. Rose Enid Teresa, Mrs. S. Stella, Mr. J. Jasper Daniel	Evolution of Structural Health Monitoring System - The State -of - the - Art Review	Journal of Applied Science and Computing	Volume VI	March 2019	Issue 3	2838 to 2842

PLACEMENT RECORD

The Department takes immense pleasure in sharing the list of placed students during the academic year 2018-19.

NO.OF STUDENTS PLACED	ROLL NO.	NAME OF THE STUDENTS	COMPANY NAME	TOTAL NO. OF STUDENTS PLACED
6	201528050	KOUSALYA R	TCS	35
	201528062	MOHANRAJ R		
	201528086	N M RAMEEZ MOHAMED		
	201528102	STEPHANIE A P		
	201528107	TEJASRI G		
	201528114	VIGNESH R		
1	201528063	MOHAN RAM KUMAR R	HOME FIRST FINANCE COMPANY INDIA LTD	
5	201528107	TEJASRI G	JT CONSTRUCTIONS	
	201528100	S SOWMIYA		
	201528065	V MONICA		
	201528101	SRUTHI N S		
	201528120	SNEHA R		
9	201528017	BHARADWAJ BALAJI K	BESTEN ENGINEERS AND CONSULTANTS PVT LTD	
	201528033	GOKUL P		
	201528034	HARIHARAB B		
	201528041	JANANI V S		
	201528044	KARTHICK N		
	201528048	KEERTHANNA P B		

	201528067	NAVNEETHKRISHNAN P		
	201528089	ROSHINI A		
	201528102	STEPHANIE A P		
4	201528044	KARTHICK N	ARCHIT BUILDERS PVT LTD	
	201528089	ROSHINI A		
	201528052	LAKSHMI M		
	201528073	PAVITHRAN U		
4	201528068	NAVEENA R	NEXGEN DESIGNS	
	201528045	KARTHIK E		
	201528031	DOMMARAJU BALAJI		
	201528052	LAKSHMI M		
2	201528089	ROSHINI A	RDC CONCRETE	
	201528062	MOHANRAJ R		
3	201528048	KEERTHANNA P B	SPEC	
	201528035	HARIKRISHNAN S		
	201528078	PRAVEEN KUMAR A		
1	201528003	AKASH K	SRIRAM CONSTRUCTIONS	

EDITORIAL BOARD MEMBERS

STAFF INCHARGES

1. Mr. N. AANANDH, A. P.

2. Mr. M. MANOHARAN, A. P.

STUDENT INCHARGES

- *Naresh R*
- *Mithran K*
- *Shyam kumar K G*
- *Sandhya P*
- *Sathyashriya K*
- *Viren Dave*
- *Sneha Kasturi Rangan*

Please send us your feedback to

(***civilozine@rajalakshmi.edu.in***)