



SRI VENKATESWARA COLLEGE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING



Report on
“CONCRETE DAY CELEBRATIONS 2022”

07.09.2022

Coordinator

Mr. A. Vijay Vignesh
(AP/Civil Engg.)

Convenor

Dr. R. Kumutha
HoD/Civil Engg.



SRI VENKATESWARA COLLEGE OF ENGINEERING

(An Autonomous Institution affiliated to Anna University, Chennai)

Pennalur, Sriperumbudur Tk – 602 117



DEPARTMENT OF CIVIL ENGINEERING

Report on “Concrete Day Celebrations 2022”

Date : 07.09.2022 (Wednesday)

Time : 11.30 A.M – 12.30 P.M & 1.30 P.M – 2.30 P.M

Mode : Online

Meeting Link: <http://meet.google.com/gav-ibhh-xyu>

Speaker

Dr. T. Palanisamy

Assistant Professor

Department of Civil Engineering

National Institute of Technology Karnataka,

Surathkal

Dr. S. Sindhu Nachiar

Executive Member - ICI Chennai Centre

Assistant Professor

Department of Civil Engineering

SRM Institute of Science & Technology, Chennai

Convenor & Organizing Secretary

Dr. R. Kumutha, Professor & Head/Civil Engineering

Coordinator

Mr. A. Vijay Vignesh, Assistant Professor/Civil Engineering

Target Audience: Students and Faculty members

Number of Participants benefited: 79

UG Students : 75

Faculty : 4

Lab Technicians : 0

Total No of Internal Participants – 32

Students – 30, Faculties – 2, Lab technicians – 0

Total No of External Participants – 47

Students – 45, Faculties – 2, Others - 0

Invitation - Online Guest Lecture - Concrete Day Celebration -reg

3 messages

HOD Civil SVCE <hodce@svce.ac.in>

Tue, Sep 6, 2022 at 12:18 PM

To: tpanisamycivil@nitk.edu.in

Cc: kumuthar@yahoo.co.in, Vijay Vignesh CVE <avijayvignesh@svce.ac.in>

Dear sir

Greetings of the day

On the eve of Concrete Day Celebration, we are pleased to invite you for a Guest Lecture on " Micro Characterisation of Concrete" through Online mode for our students and faculty members on 07.09.2022 between 11.30 am to 12.30 pm.

Kindly accept our invitation and pl share your profile with a photo to enable us to prepare the invitation.

--

Thanks and Regards

Dr.R.Kumutha**Professor and Head**

Department of Civil Engineering

Sri Venkateswara College of Engineering

Sriperumbudur - 602117

TN, India

Ph: 9894125626

[Web of Science Profile](#)[Scopus Author Profile](#)[Google Scholar Profile](#)

HOD Civil SVCE <hodce@svce.ac.in>

Tue, Sep 6, 2022 at 4:57 PM

To: tpanisamycivil@nitk.edu.in

Cc: kumuthar@yahoo.co.in, Vijay Vignesh CVE <avijayvignesh@svce.ac.in>

Dear Professor

Pl find attached the Invitation for the Program. The meeting link will be sent to you shortly.

[Quoted text hidden]

**Concrete Day 2022 -Expert Talks.pdf**

1025K

HOD Civil SVCE <hodce@svce.ac.in>

Wed, Sep 7, 2022 at 8:09 AM

To: Vijay Vignesh CVE <avijayvignesh@svce.ac.in>

Thanks and Regards

Dr.R.Kumutha

Professor and Head

Department of Civil Engineering

Sri Venkateswara College of Engineering

Sriperumbudur

Ph:9894125626

----- Forwarded message -----

From: **Dr. T Palani samy** <tpalanisamycivil@nitk.edu.in>

Date: Tue, 6 Sep 2022, 5:14 pm

Subject: Re: Invitation - Online Guest Lecture - Concrete Day Celebration -reg

To: HOD Civil SVCE <hodce@svce.ac.in>

Dear Madam,

I accept the invitation.
Thank you mam,



[Quoted text hidden]

--

With Regards,

Dr. T. PALANISAMY, BE (Civil),ME(Struct.),Ph.D (Struct.), MISTE., MICI.,

Assistant Professor,

Department of Civil Engineering,

National Institute of Technology Karnataka (NIT K),

(Institute of National Importance by the Government of India).

Surathkal,P.O. Srinivasnagar, Mangaluru – 575 025.

Karnataka - State, India.

Mobile Phone No: +91 9994862226, Office Phone : 0824 2473366, Inter - com : 3366.

Mail Id: tpalanisamycivil2000@gmail.com,

tpalanisamycivil@nitk.edu.in

<http://www.nitk.ac.in>

 **profile my profile for webiner dr t palanisamy 9994862226.pdf**
114K

**Accepted: Expert Lecture - "Concrete Day Celebrations 2022" @ Wed Sep 7, 2022
11:30am - 2:30pm (IST) (avijayvignesh@svce.ac.in)**

1 message

sindhus@srmist.edu.in <sindhus@srmist.edu.in>

Wed, Sep 7, 2022 at 1:21 PM

Reply-To: sindhus@srmist.edu.in

To: avijayvignesh@svce.ac.in

sindhus@srmist.edu.in has accepted this invitation.

[Join with Google Meet](#)

Meeting link

meet.google.com/gav-ibhh-xyu

Join by phone

(US) +1 361-245-0103

PIN: 720426363

[More phone numbers](#)

Attachments

 Brochure - Expert Lect...

 Brochure - BUILD-O-

 Expert Lecture - "Conc...

 Expert Lecture - "Conc...

Department of Civil Engineering in association with **Indian Concrete Institute (ICI)**, Chennai Centre cordially invite you for Expert Lecture as a part of **Concrete Day Celebrations** on 7th September 2022.

When

Wednesday Sep 7, 2022 · 11:30am – 2:30pm (India Standard Time - Kolkata)

Guests

avijayvignesh@svce.ac.in - organizer

sindhus@srmist.edu.in

HOD Civil SVCE

tpalanisamycivil@nitk.edu.in

[View all guest info](#)

Invitation from [Google Calendar](#)

You are receiving this email because you are subscribed to calendar notifications. To stop receiving these emails, go to [Calendar settings](#), select this calendar, and change "Other notifications".

Forwarding this invitation could allow any recipient to send a response to the organizer, be added to the guest list, invite others regardless of their own invitation status, or modify your RSVP. [Learn more](#)

 **invite.ics**
3K

Surathkal,P.O. Srinivasnagar, Mangaluru – 575 025.

Karnataka - State, India.

Mobile Phone No: +91 9994862226, Office Phone : 0824 2473366, Inter - com : 3366.

Mail Id: tpalanisamycivil2000@gmail.com,

tpalanisamycivil@nitk.edu.in

<http://www.nitk.ac.in>



2Feedback from Speaker.pdf

149K

Vijay Vignesh AP <avijayvignesh@svce.ac.in>
To: "Dr. T Palani samy" <tpalanisamycivil@nitk.edu.in>

Thu, Sep 8, 2022 at 4:07 PM

Thank you sir.!

--- Thanks and Regards ---

Vijay Vignesh

Assistant Professor - Civil Department,
Sri Venkateswara College of Engineering,
Sriperumbudur

[Quoted text hidden]

BROCHURE



S V C E Sri Venkateswara
College of
Engineering



(Autonomous - Affiliated to Anna University)
Pennalur, Sriperumbudur Tk., - 602117, Tamil Nadu

Department of Civil Engineering
in association with
Indian Concrete Institute (ICI) - Chennai Centre
jointly invite you for
Expert Lectures
on the eve of

"CONCRETE DAY CELEBRATIONS 2022"

Speakers

Session 1

**"Micro-Characterization of
Concrete"**

Time: 11.30 - 12.30 P.M.



Dr. T. Palanisamy

Assistant Professor
Department of Civil Engineering
National Institute of Technology Karnataka,
Surathkal

Session 2

**"Biomimicry - Providing a
Concrete Solution to a
Global Problem"**

Time: 01.30 - 02.30 P.M.



Dr. S. Sindhu Nachiar

Executive Member - ICI Chennai Centre
Assistant Professor
Department of Civil Engineering
SRM Institute of Science & Technology, Chennai

Registration Link:

<https://forms.gle/TmUtVM1i3bm2TxuB9>



Scheduled on
07.09.2022 (Wednesday)

Venue: Google Meet

Faculty Coordinator
Mr. A. Vijay Vignesh, AP/Civil

Convenor & Organizing Secretary
Dr.R.Kumutha
Head of the Department
Civil Engineering

Expert Lectures - "CONCRETE DAY CELEBRATIONS 2022" Civil Department - SVCE

Sri Venkateswara College of Engineering, Sriperumbudur
Department of Civil Engineering

Date: **07.09.2022 (Wednesday)**

Venue: **Google Meet**

Session 1: "Micro-Characterization of Concrete"

Session 2: "Biomimicry - Providing a Concrete Solution to a Global Problem"

Kindly fill this registration form and meeting link will be send through email.

avijayvignesh@svce.ac.in [Switch account](#)



* Indicates required question

Email *

Your email

Name of the Participant (Full Name) *

Your answer

Name of the College/Institution *

Your answer



Designation *

- Student
- Faculty
- Industry Professionals
- Other: _____

Mobile Number (Whatsapp No)

Your answer

Year of Study (for students) *

- UG - 2nd Year
- UG - 3rd Year
- UG - 4th Year
- PG Student
- Other: _____

Department (for faculty and industry professionals)

Your answer

Submit

Clear form

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Google Forms



PROFILE OF THE SPEAKER



Dr. T. Palanisamy is currently working as Assistant Professor in the Department of Civil Engineering at National Institute of Technology Karnataka (NITK), Surathkal, India. He has published 126 articles in journals and conference proceedings at National and International levels. He has delivered more than 186 key note lectures in various levels, sponsored by AICTE, CSIR, DRDO and DST etc.. He completed 04 funded projects from DST-SERB, DBT, AICTE etc., at present 01 funded project is going on with worth of 0.38 core for the “Development of concrete battery”. He registered 14 patents along with co-inventors. He received 17 awards including the most esteemed award of “Viswakarma award – 2018” by Planning Commission of India, New Delhi, “Best Faculty Award - 2017”, “Barath Rathana Mother Teresa Award - 2014”, “Dr. A.P. J. Abdul Kalam Gold Medal Award – 2015”. The Indian Concrete Institute honored him by award of “Outstanding Young Concrete Engineer”. Under his supervision 11 Ph.D was completed and 04 are pursuing. His area of research includes development of sustainable material for structural application and micro-characterization of the concrete.

BRIEF REPORT OF THE EXPERT LECTURE

Session 1:

Mr. A. Vijay Vignesh, Assistant Professor, Department of Civil Engineering, Sri Venkateswara College of Engineering has delivered the welcome address and introduced the speaker Dr. T. Palanisamy, to all the participants.

Dr. T. Palanisamy welcomed the gathering and gave a brief introduction about concrete in construction with suitable examples. He highlighted the chemical ingredients and composition of Portland cement. He also explained about the Strength development in the concrete at various time intervals. He later elaborated the process of formation of clinker during the manufacture of Portland cement and three phase system in concrete. He also briefed about the instruments like scanning electron microscope, transmit electron microscope. Atomic force microscope for analyzing microstructural characteristics of concrete. He later explained the microstructure of concrete in three aspects such as Hydrated cement paste, Pore structure, Interfacial transition zone (ITZ).

The speaker concluded the session and discussed on the queries raised by the participants. The session was interactive, and the questions raised by the participants were answered by the speaker. The session ended with a vote of thanks delivered by Mr. A. Vijay Vignesh, Assistant Professor, Department of

Civil Engineering, Sri Venkateswara College of Engineering. The participants also had appreciated the expert lecture.

Session 2:

Mr. A. Vijay Vignesh, Assistant Professor, Department of Civil Engineering, Sri Venkateswara College of Engineering has delivered the welcome address and introduced the speaker Dr. S. Sindhu Nachiar, to all the participants.

Dr.S.Sindhu Nachiar welcomed the gathering and gave a brief introduction about Biomimicry in civil engineering. Speaker also elaborated the various approaches in biomimicry such as top-down and bottom-up approach. She highlighted the advantages and applications of Biomimicry in civil engineering. She later explained about the various bio-mimicked structures with real-time examples. She also highlighted the biomedical applications of biomimicry in civil engineering with suitable examples.

The speaker concluded the session and discussed on the queries raised by the participants. The session was interactive, and the questions raised by the participants were answered by the speaker. The session ended with a vote of thanks delivered by Mr. A. Vijay Vignesh, Assistant Professor, Department of Civil Engineering, Sri Venkateswara College of Engineering. The participants also had appreciated the expert lecture.

Program Objectives

The objectives of the workshop are:

- To understand about the micro-characterization of concrete.
- To impart knowledge about the applications of Biomimicry in Civil Engineering.

The following Program Outcomes (POs) and Program Specific Outcomes (PSOs) are addressed for the Expert Lecture on “Concrete Day Celebrations 2022”,

Particulars	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Concrete Day Celebrations 2022	✓		✓		✓						✓	✓	✓	✓

- **Registration Link:** <https://forms.gle/8xZqLC7wd6JPxFeZ7>
- **Feedback Link:** <https://forms.gle/243DQRxijPQwUuzP8>

CURRICULAM VITAE

Dr. S. SINDHU NACHIAR, B.E., M.Tech., Ph.D., MIE., MISTE.,
Assistant Professor,
Department of Civil Engineering,
SRM Institute of Science and Technology,
Kattankulathur, Chengalpattu District. 603203.
Mobile : +91 9443021432
Email : sindhus@srmist.edu.in



Work Experience:

Assistant Professor – June 2011 to till date – SRM Institute of Science and Technology, Kattankulathur, Chengalpattu District.

Educational Details:

- Ph.D. in Biomimics in Structural Engineering, SRM Institute of Science and Technology, Kattankulathur, 2020.
Title : Feasibility studies on development of efficient structural systems through Biomimics
- M.Tech. in Structural Engineering, SRM Institute of Science and Technology, Kattankulathur, 2011.
- B.E. in Civil Engineering, Mepco Schlenk Engineering College (Anna University Affiliated), Sivakasi, 2009.

Research Interests:

- Biomimics
- Finite Element Analysis
- Concrete Technology
- Structural Stability

Research Publications and Patents:

Publications in Journals*	: 32
Publications in Conference Proceeding*	: 29
Patents Published*	: 02
Workshop/FDP/Seminars Attended	: 60
Online Courses Completed	: 40
Professional Body Life Member	: 05
*Details are given in Annexure	

Thesis Guidance:

Doctor of Philosophy	: 04 (On-going)
Master of Technology	: 23
Bachelor of Technology	: 25

Membership of Professional Society:

- Life Member in Indian Chapter - American Concrete Institute, 2022. (LM.2022.100)
- Life Member in Institution of Engineers, 2020. (M1710448)
- Life Member in International Association of Engineers, 2018. (No.221389)
- Life Member in Indian Concrete Institute, 2013. (LM 10148)
- Life Member in Indian Society of Technical Education, 2011. (LM 79537)

Achievements and Awards:

- Student Mentor - Tamilnadu (Kancheepuram) for All India Students Concrete Cube Test Competition 2022 organized by Indian Chapter-American Concrete Institute.
- Elected as Executive Committee Member for ICI Chennai Center for the period 2021-2023.
- Editorial Board Member for IEI Kattankulathur Local Center Bulletin from October 2020.
- Co-Chairperson for a session in 1st International Conference on Advances in Construction Materials and Management, Department of Civil Engineering, SRMIST, Kattankulathur.
- Reviewer of journal article in 1st International Conference on Advances in Construction Materials and Management, Department of Civil Engineering, SRMIST, Kattankulathur.
- Certified completion of Autodesk Revit Structure.
- Coordinator for Value Added Course on “Computer Applications in Analysis and Design of a Residential Building”, conducted by SRMIST, Kattankulathur, August - October 2022.
- Student Mentor for Indian Chapter-American Concrete Institute in Department of Civil Engineering, SRMIST, Kattankulathur, 2022.
- Won gold medal in Research Day 2022, conducted by SRMIST, Kattankulathur.
- Faculty Coordinator for Six Days Online STTP “Steel Concrete Composite Structures”, December 2021.
- Faculty Coordinator for various events conducted by ICI - Kattankulathur Local Centre.
- Participated in Disaster Management by Indian Red Cross Society.
- Represented college for SUMMER CAMP’07 conducted by Indian Institute of Technology, Kanpur.
- Won silver medal in zonal level volleyball tournament’07 held at Government College of Engineering, Tirunelveli.
- Won gold medal in zonal level volleyball tournament’08 held at G.U.Pope College of Engineering, Tuticorin.
- Won first in volleyball tournament conducted by Sports Development Authority of Tamil Nadu, Virudhunagar District.
- Won second prize in TECHNOVATION’08 conducted by Coimbatore Institute of Technology presenting on the topic Regional Empirical Model For Evaluating Evaporation Losses.

Annexure

Journal Publications:

- 1) **Sindhu Nachiar S**, Anandh S, Swathi K and Pennarasi G, “Optimization of thin spherical Shell Structure using FEM”, *Materials Today: Proceedings*, <https://doi.org/10.1016/j.matpr.2022.05.072>, May 2022.
- 2) Anandh S , **Sindhu Nachiar S**, Preethiba Mariappan and Sai Abeshek C S, “ Integrating Lean and Sustainability Approach for Construction Firms”, *Lecture Notes in Civil Engineering*, Vol.191, pp 393-400, January 2022.
- 3) Anandh S , **Sindhu Nachiar S**, Sai Abeshek C S and Preethiba Mariappan, “ Introducing Safety on Construction Industry along with Lean Construction Hypothesis”, *Lecture Notes in Civil Engineering*, Vol.191, pp 413-423, January 2022.
- 4) Pennarasi G, **Sindhu Nachiar S**, Anandh S and PT Ravichandran, “An Overview on Performance of Shell Structures”, *Journal of Chengdu University of Technology*, Volume 26, Issue 9, pp 1671-9729., September 2021.
- 5) **Sindhu Nachiar S**, Shilpa P, Satyanarayanan K S, Anandh S, “Modeling and Analysis of a pin jointed plane frame using Biomimicked structural elements”, *Materials Today: Proceedings*, <https://doi.org/10.1016/j.matpr.2021.06.313>, July 2021.
- 6) **Sindhu Nachiar S**, Anandh S and Mohamed Anas A, “Comparative Study in Seismic Analysis of Diagrid and Hexagrid Structural Systems”, *IOP Conf. Series: Materials Science and Engineering*, 1130(2021), 012006, April 2021.
- 7) **Sindhu Nachiar S**, Anandh S, Ajit Kumar, Abhinav Puskar and Fardeen Mohammed, “ Comparative Seismic Analysis of Conical and Pyramidal Frustum Shaped Commercial Building (G+6) at Janakpuri, Delhi”, *IOP Conf. Series: Materials Science and Engineering*, 1130(2021),012003, April 2021.
- 8) Anandh S , Preethiba Mariappan, **Sindhu Nachiar S** and Sai Abeshek C S, “ A Review on Lean Construction approach for Indian Construction Industry”, *Journal of Critical Reviews*, Vol.7(19), 2020
- 9) Anandh S, **Sindhu Nachiar S** and Prakash M, “An Investigation Process of Building Information Modeling in Construction Industry”, *Journal of Critical Reviews*, Vol.7(19), 2020
- 10) Anandh S , Sai Abeshek C S, **Sindhu Nachiar S** and Preethiba Mariappan, “ A Review on Introducing safety on Construction Industry with Lean Construction Hypothesis”, *Journal of Critical Reviews*, Vol.7(19), 2020.
- 11) Gillis Mary Gilbert, Anandh S, **Sindhu Nachiar S** and Prakash P, “Gender Egalitarianism in Workplace”, *IOP Conf. Series: Materials Science and Engineering*, 912(2020), 062067, September 2020.
- 12) Prakash P, Anandh S, **Sindhu Nachiar S** and Gillis Mary Gilbert, “A study on mechanical and durability properties of coconut shell concrete using coconut fiber and sawdust”, *IOP Conf. Series: Materials Science and Engineering*, 912(2020), 062068, September 2020.
- 13) **Sindhu Nachiar S**, Satyanarayanan K S, Lakshmi pathy M and Shilpa P, “A Review on Structures Mimicked from Nature and their Concepts”, *Journal of Critical Reviews*, Vol 7, Issue 04, July 2020.
- 14) **Sindhu Nachiar S**, Satyanarayanan K S, Lakshmi pathy M, “Study on the behavior of Tension members based on the concept of Biomimics”, *Materials Today: Proceedings*, Volume 34, 371-378, April 2020.
- 15) **Sindhu Nachiar S**, Satyanarayanan K S, Lakshmi pathy M, Sai Pavithra S “Study on the behavior of compression members based on the concept of Biomimics”, *Materials Today: Proceedings*, Volume 34, 518-524, April 2020.
- 16) **Sindhu Nachiar S**, Satyanarayanan K S, Lakshmi pathy M, “Biomimics: Skeletal System to Structural System”, *Indian Journal of Public Health Research and Development*, Vol 12, No 6, December 2019.
- 17) **Sindhu Nachiar S**, Satyanarayanan K S, Lakshmi pathy M, “Optimization of Steel Fiber in M40 concrete with varying aspect ratio and volume fraction”, *International Journal of Innovative Technology and Exploring Engineering*, Vol 8, Issue 7, May 2019.
- 18) **Sindhu Nachiar S**, Anandh S, Sai Pavithra S, Lakan Kumar Saini, Elina Thomas, Boojith C S, “Comparative Seismic Analysis of Conventional and RCC Tube in Tube Structure with Pentagonal and Hexagonal Geometry Subjected to Lateral Loads in Different Zones”, *International Journal of Engineering and Advanced Technology*, Vol 8, Issue 4, pp 894-896, April 2019.
- 19) Monica Lynn Rajan Babu, Dr. S. Senthil Selvan and **S. Sindhu Nachiar**, “Behaviour Of Cold Formed Columns Under Axial Loading With Steel Fiber Infilled Concrete”, *International Research Journal of Civil Engineering and Technology*, Volume 1, Issue 1, Nov2018, pp. 39-46.
- 20) **Sindhu Nachiar S**, Satyanarayanan K S, Lakshmi pathy M, “Experimental investigation on the behavior of Biomimicked Columns subjected to Compression”, *International Journal of Civil Engineering and Technology*, Vol 9, Issue 10, October 2018, pp 771-778.
- 21) **Sindhu Nachiar S**, Muthu Kumar S, Anandh S, “Effect of retrofitting on High Performance Geopolymer Concrete filled aluminium tubular section using Glass Fibre”, *International Journal of Engineering and Technology*, Vol 7, 2.33, August 2018, pp 1126-1128.
- 22) **Sindhu Nachiar S**, Anandh S, “Behaviour of foam concrete at high temperature”, *International Journal of Pure and Applied Mathematics*, Vol 118, No.24, pp 1-11. April 2018, Special Issue.
- 23) **Sindhu Nachiar S**, Anandh S, “Analytical Study on the behavior of Partially Infilled Frames using Finite element Technique by Heterogeneous Model”, *International Journal of Pure and Applied Mathematics*, Vol 118, No.24, pp 1-11. April 2018, Special Issue.
- 24) **Sindhu Nachiar S**, S Sivakamasundari, Debojyoti Paul, “Study on Flexural Behavior of RC Beam Using different starches as an admixture”, *International Journal of Pure and Applied Mathematics*, Vol 118, No.24, pp 1-12. April 2018, Special Issue.
- 25) **Sindhu Nachiar S**, Anandh S, Jeyem Veerarajan, “Study on behavior of Cellular concrete slab”, *International Journal of Engineering and Technology*, Vol 7, 2.12, April 2018, pp 420-424.
- 26) Anandh S, **Sindhu Nachiar S**, Jagannatan S, “ Study on Impact of Partial replacement of cement by textile sludge and GGBS in concrete”, *International Journal of Pure and applied mathematics*, Vol 119, No.7, March 2018, pp 1195-1201.
- 27) Yaswanth J V, **S Sindhu Nachiar S**, Anandh S, “Flexural behavior of ferro cement slab panels using carbon fibres”, *Journal of Industrial Pollution Control*, 33(s2), October 2017, pp. 1242-1245.
- 28) Victor Matangulu Shrestha, S Anandh and **S Sindhu Nachiar S**,” Experimental study on the strength parameter of Quarry Dust mixed Coconut Shell Concrete adding Coconut Fibre”, *IOP Conf. Series: Earth and Environmental Science* 80, July 2017, IOP Publishing, pp 1-7.
- 29) Prabhu Booshan S, **Sindhu Nachiar S** and Anandh S,” Comparative Analysis of RCC and Composite Structures With Different Vertical Irregularities”, *Pakistan Journal of Biotechnology* Vol. 14, June 2017. pp 279-282.
- 30) **Sindhu Nachiar S**, Prabhu Booshan S And Anandh S, “Comparative Analytical Study on Regular and Vertically Irregular RC Structures Using Response Spectrum Method”, *International Journal of Civil Engineering & Technology (IJCIET)*, Volume 8, Issue 4, April 2017, pp. 895–905.
- 31) Usha, **Sindhu Nachiar S**, “Experimental Study on the Properties of Concrete with Replacement of Cement by Quarry Sludge”, *International Journal of Engineering Research & Technology (IJERT)*, Vol. 5 Issue 03, March-2016, pp 813-817.
- 32) Vignesh S, Ramalinga Reddy B M, **Sindhu Nachiar S**, “Effect of Partial Replacement of Natural Sand With Gold Mine Tailings on Some Properties of Masonry Mortars”, *International Journal of Engineering Research & Technology (IJERT)*, Vol. 4 Issue 04, April-2015.

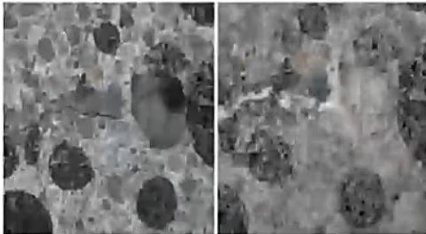
SNAPSHOTS OF THE EXPERT LECTURE

Indian Concrete Institute
Chennai Centre


SRM
INSTITUTE OF SCIENCE & TECHNOLOGY

Self-Healing Concrete inspired from Bones

- Self-repairing concrete utilizes a **limestone-producing bacteria**, which is normally dormant inside the concrete. When a crack emerges, it lets in air and moisture. This forces the bacteria out of dormancy, where they start to feed on the calcium lactate inside the concrete. They also consume oxygen, which converts the soluble calcium lactate into insoluble limestone. The limestone solidifies in the cracks, sealing them again. This process was **inspired by the ability of bones to self-heal after damage**.
- Henk Jonkers is a Dutch microbiologist who, together with the Tu Delft, developed **concrete that fills the cracks** that appear over time specialized microorganisms that are added cause this self-healing ability.




Self healing of Crack in Concrete



Self healing building

41



Sindhu S

REC Dr. T Palani samy is presenting

Microstructure of the Hydrated Cement Paste

- The term **hydrated cement paste** as used here refers to pastes made from portland cement and water.
- Anhydrous **Portland cement** is a gray powder composed of angular particles typically in the size range from **1 to 50 μm** .
- It is produced by pulverizing a clinker with a small amount of **calcium sulfate**, the clinker being a **heterogeneous mixture** of several compounds produced by high-temperature reactions between **calcium oxide and silica, alumina, and iron oxide**.

27

Dr. T Palani samy

12:16 PM | Expert Lecture - "Concrete Day Celebr..."

REC S Sindhu S is presenting

<p>> Agriculture Learning from Prairies How to Grow Food Sustainably</p>	<p>> Architecture Learning from Termite How to Create Sustainable Buildings</p>
<p>> Climate Change Learning from Human Lungs How to Sequester Carbon</p>	<p>> Energy Learning from Humpback Whales How to Create Efficient Wind Power</p>
<p>> Energy Efficiency Learning from Nature How to Create Flow Without Friction</p>	<p>> Human Safety Learning from Dolphins How to Warn People about Tsunamis</p>
<p>> Industrial Design Learning from Trees and Bones How to Optimize Strength and Materials</p>	<p>> Medicine Learning From Chimpanzees How to Heal Ourselves</p>
<p>> Natural Cleaning Learning from Lotus Plants How to Clean without Chemicals</p>	<p>> Transportation Learning Efficiency from Kingfisher</p>

Sindhu S (Presenting)

vrundani vaidya has left the meeting

1:52 PM | Expert Lecture - "Concrete Day Celebra...

Microstructure of the Hydrated Cement Paste.....

- After **some days**, depending on the **alumina-to-sulfate** ratio of the **Portland cement**, **ettringite** may become unstable and will decompose to form **monosulfoaluminate hydrate**, which has a hexagonal-plate morphology. **ie., Secondary ettringite formation (SEF)**
- Hexagonal-plate morphology is also the characteristic of calcium **aluminate hydrates** that are formed in the hydrated pastes of either undersulfated or high-C₃A portland **cements**.

A **scanning electron** micro-graph illustrating the typical morphology of phases prepared by mixing a calcium aluminate solution with **calcium sulfate** solution is shown in Fig.

hexagonal-plate morphology

Stage - II 30

- **Youtube Link 1:** <https://youtu.be/guEBmqgxjvo>
- **Youtube Link 2:** <https://youtu.be/mt0mJUbfbRE>

LIST OF PARTICIPANTS

S.No	Name of the Participant	Category
1	Dr. SRI HARSHA	FACULTY
2	HARSHITHA	UG STUDENT
3	SANJAY	UG STUDENT
4	Dr. NAGA SREENIVASA RAO	FACULTY
5	NITIN	UG STUDENT
6	PRASANTA	UG STUDENT
7	AADHAVAN	UG STUDENT
8	JENISHA	UG STUDENT
9	KIRAN KUMAR REDDY	UG STUDENT
10	ARULKUMAR	UG STUDENT
11	DANUSH	UG STUDENT
12	GURU PRAKASH	UG STUDENT
13	MUKESH	UG STUDENT
14	PRAVEEN KUMAR	UG STUDENT
15	SARAN	UG STUDENT
16	NISHANTH	UG STUDENT
17	SURESH	UG STUDENT
18	MAYAKKANNAN	UG STUDENT
19	BALAJI	UG STUDENT
20	DHAYEPULE VENKATA PRUDHVI RAJ	UG STUDENT
21	HARISH	UG STUDENT
22	YOGESH	UG STUDENT
23	DEEPAK	UG STUDENT
24	KARTHICK	UG STUDENT
25	SRISOWMIYA	UG STUDENT

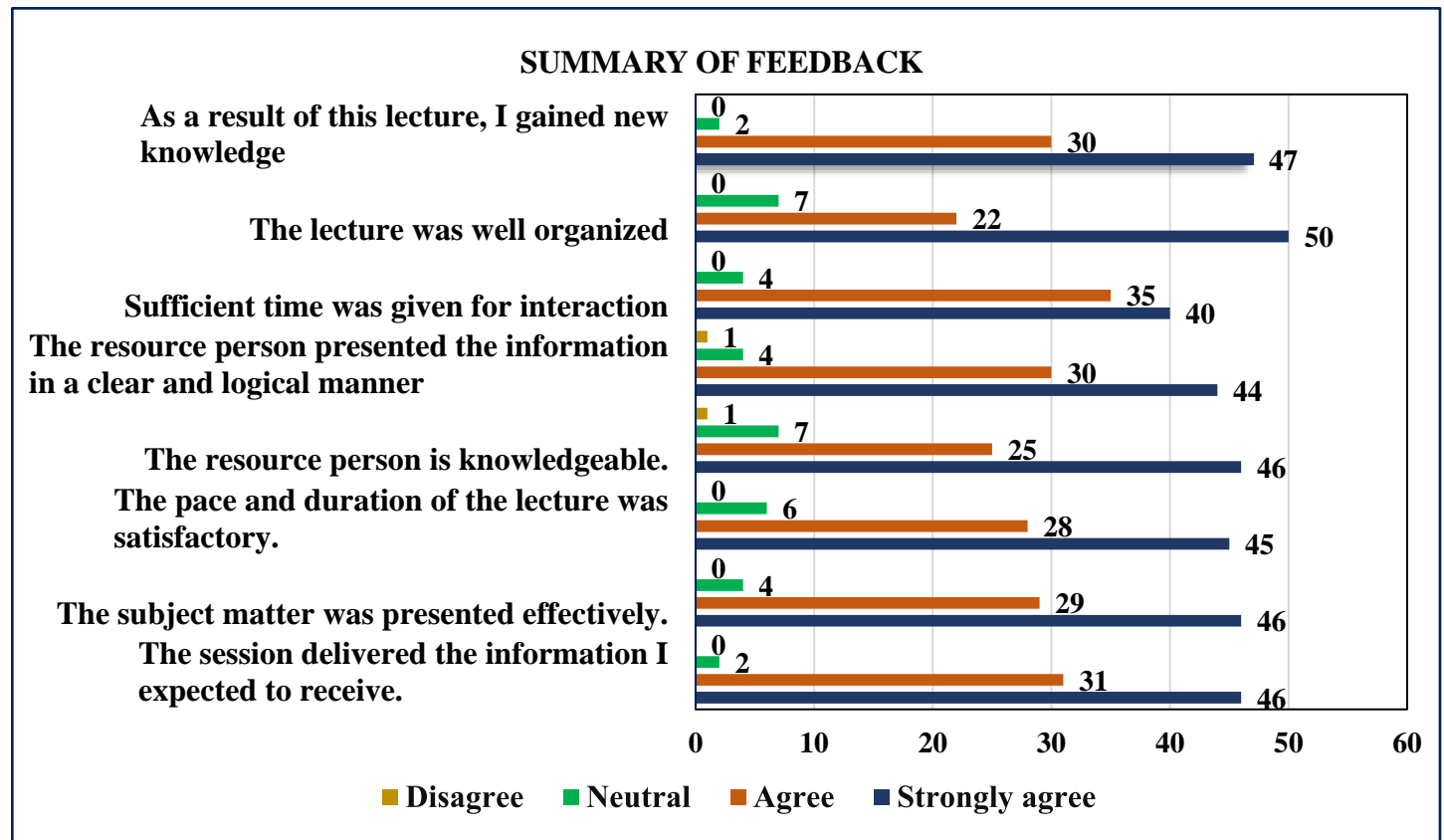
S.No	Name of the Participant	Category
26	ELANCHSURIYAN	UG STUDENT
27	VASANTHAKUMAR	UG STUDENT
28	SIVALINGAM A	UG STUDENT
29	GOMATHI	UG STUDENT
30	NAVEEN PRASATH	UG STUDENT
31	RAJAN MORESHWAR DAHAKE	UG STUDENT
32	SANJAI	UG STUDENT
33	NARENDRAN	UG STUDENT
34	SUNEEL	UG STUDENT
35	AVINASH	UG STUDENT
36	MUGUNTHAN	UG STUDENT
37	INIYARASU	UG STUDENT
38	JAISREE	UG STUDENT
39	VINTOHKUAMR	UG STUDENT
40	MD AL ZUBAIR BAGWAN	UG STUDENT
41	G. SABARISH	UG STUDENT
42	RAGA SUDHA	UG STUDENT
43	AMARANTH	UG STUDENT
44	HARITHARAN	UG STUDENT
45	KABILAN	UG STUDENT
46	VIGNESH	UG STUDENT
47	GOPINATH	UG STUDENT
48	KAVINSELVA	UG STUDENT
49	SNEHAL SANJAY CHAVHAN	UG STUDENT
50	NACHIYAPPAN	UG STUDENT
51	SARNI	UG STUDENT
52	SIDDHARTH	UG STUDENT

S.No	Name of the Participant	Category
53	PRAVEEN RAJ	UG STUDENT
54	PREM KUMAR	UG STUDENT
55	RAMANA	UG STUDENT
56	CHANDRAVASAN	UG STUDENT
57	KEERTHIVASAN	UG STUDENT
58	RANJANI	UG STUDENT
59	SANJAY	UG STUDENT
60	SHRIRAJ	UG STUDENT
61	AURUDRA ADISESHAI AH KRISHNA	UG STUDENT
62	PROMOTH	UG STUDENT
63	SARAVANAPANDI	UG STUDENT
64	HARI PRAKASH	UG STUDENT
65	HARISWARAN	FACULTY
66	RUBY FREYA	FACULTY
67	HARIDHARANI	UG STUDENT
68	HARIHARAN	UG STUDENT
69	ABISHEK	UG STUDENT
70	GOKUL	UG STUDENT
71	PRATHIBA	UG STUDENT
72	PUVIARASU	UG STUDENT
73	SHEIK MOHAMED ANAS	UG STUDENT
74	PADMAJA	UG STUDENT
75	KAVINMALAR	UG STUDENT
76	SANTHOSH KUMAR	UG STUDENT
77	SHANKARANARAYANAN	UG STUDENT
78	MOHAMED SHAFEEN	UG STUDENT
79	VIVEDHITHA VARSHINI	UG STUDENT

SUMMARY OF FEEDBACK

Speaker 1: Dr. T. Palanisamy

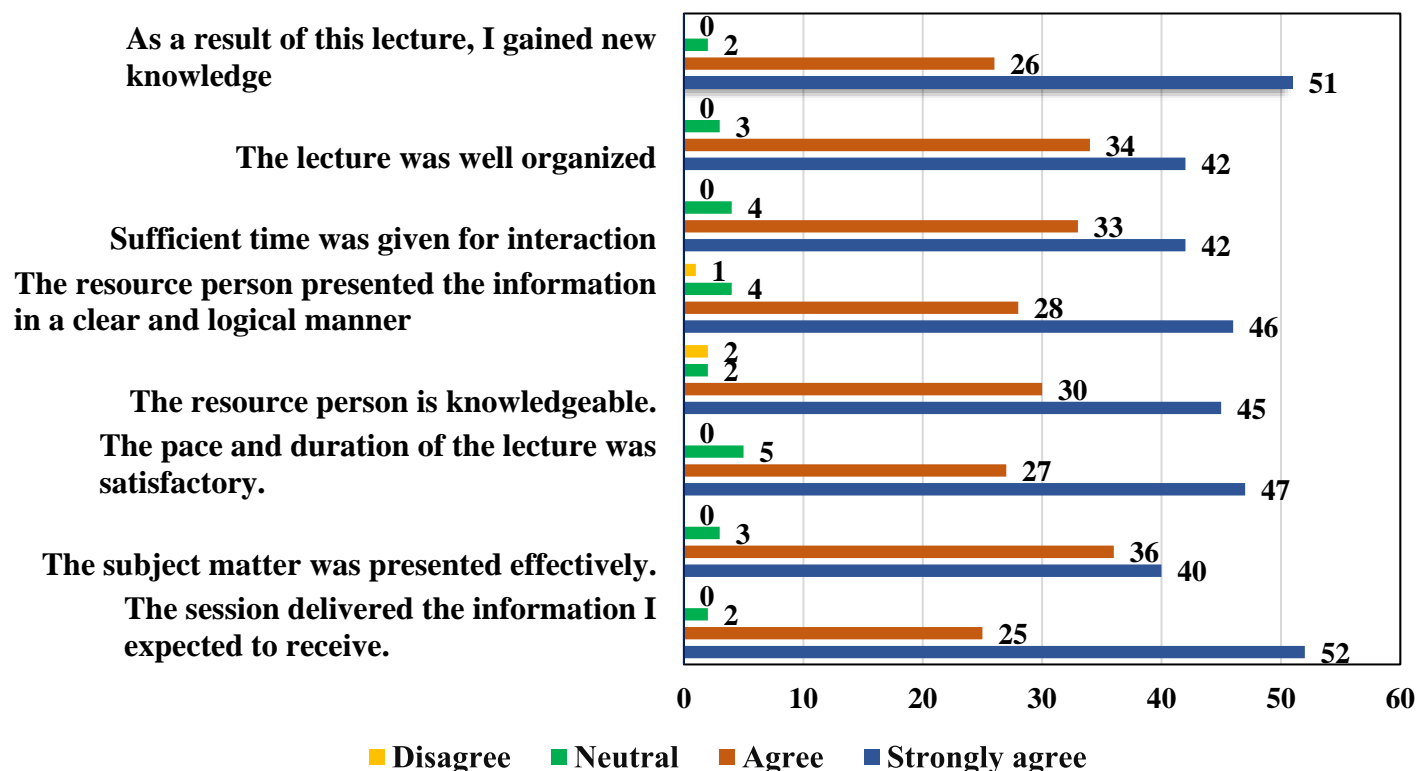
Total Number of respondents: 79				
Feedback	Strongly Agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive.	46	31	2	0
The subject matter was presented effectively.	46	29	4	0
The pace and duration of the lecture was satisfactory.	45	28	6	0
The resource person is knowledgeable.	46	25	7	1
The resource person presented the information in a clear and logical manner	44	30	4	1
Sufficient time was given for interaction	40	35	4	0
The lecture was well organized	50	22	7	0
As a result of this lecture, I gained new knowledge	47	30	2	0



Speaker 2: Dr. S. Sindhu Nachiar

Total Number of respondents: 79				
Feedback	Strongly Agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive.	52	25	2	0
The subject matter was presented effectively.	40	36	3	0
The pace and duration of the lecture was satisfactory.	47	27	5	0
The resource person is knowledgeable.	45	30	2	2
The resource person presented the information in a clear and logical manner	46	28	4	1
Sufficient time was given for interaction	42	33	4	0
The lecture was well organized	42	34	3	0
As a result of this lecture, I gained new knowledge	51	26	2	0

SUMMARY OF FEEDBACK



Feedback link - CONCRETE DAY CELEBRATIONS 2022- SVCE

Sri Venkateswara College of Engineering, Sriperumbudur
Department of Civil Engineering

Date: **01.11.2022 (Tuesday)**

Venue: **Google meet**

Kindly provide your valuable feedback.

Email ID *

suneel.merugu@gmail.com

First Name (Full Name) *

SUNEEL

Last Name (Initial) *

MERUGU

Mobile Number *

9963401312

Session 1: Dr. T. Palanisamy, Assistant Professor, Department of Civil Engineering, National Institute of Technology Karnataka, Surathkal

Please rate your satisfaction with the content of the workshop delivered by the speaker by indicating your level of agreement or disagreement with each of the following statements. *

	Strongly agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The subject matter was presented effectively.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The pace and duration of the lecture was satisfactory.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The resource person is knowledgeable.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The resource person presented the information in a clear and logical manner	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sufficient time was given for interaction	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lecture was well organized	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As a result of this lecture, I gained new knowledge	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Session 2: Dr. S. Sindhu Nachiar, Assistant Professor, Department of Civil Engineering, SRM Institute of Science & Technology, Chennai

Please rate your satisfaction with the content of the workshop delivered by the speaker by indicating your level of agreement or disagreement with each of the following statements. *

	Strongly agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The subject matter was presented effectively.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The pace and duration of the lecture was satisfactory.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The resource person is knowledgeable.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The resource person presented the information in a clear and logical manner	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sufficient time was given for interaction	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The lecture was well organized	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As a result of this lecture, I gained new knowledge	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Additional Comments/Feedback *

Excellent Program Organized by SVCE. Thank you for introducing a new topic Biomimicry to structures.

This form was created inside of Sri Venkateswara College of Engineering.

Google Forms



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College of
Engineering

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Sriperumbudur, Tamil Nadu | www.svce.ac.in



Indian Concrete Institute
Chennai Centre

Department of Civil Engineering

CERTIFICATE OF PARTICIPATION

THIS CERTIFICATE IS AWARDED TO

Mr. Hariswaran S

for participating in the Expert Lectures on the eve of "**CONCRETE DAY CELEBRATIONS 2022**" organized by the Department of Civil Engineering, Sri Venkateswara College of Engineering in association with Indian Concrete Institute (ICI) - Chennai Centre on 07.09.2022.

Mr. A. Vijay Vignesh
AP/Civil Engineering
Faculty Coordinator, ICI

Dr. R. Kumutha
Professor & Head/Civil Engineering
Convener & Organizing Secretary

Additional Feedback from the participants:

- The resource person presented the information in a clear and logical manner.
- Thanks For Workshop Session. I gained new knowledge.
- Excellent Program Organized by SVCE. Thank you for introducing a new topic Biomimicry to structures.
- Conduct more session like this and it's very helpful for me or in my career. Thank you



Prepared by

Mr. A. Vijay Vignesh (AP/Civil Engg.)
Coordinator



Approved by

Dr.R. Kumutha (HoD/Civil Engg.)
Convenor & Organizing secretary