



SRI VENKATESWARA COLLEGE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING



Report of Webinar on
“Structural Failures – Causes and Research Needs”

20th March 2023



SRI VENKATESWARA COLLEGE OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING



Report of Webinar on "STRUCTURAL FAILURES – CAUSES AND RESEARCH NEEDS"

Date : Monday, 20th March 2023

Time : 10:00 am - 11:30 am

Mode : Online through Google Meet – students assembled in classroom

Meeting Link: Meeting URL: <https://meet.google.com/vwe-uvmi-mae>

Speakers

Dr. Mohammad Abdul Mannan

Professor

Department of Civil Engineering

Universiti Malaysia Sarawak (UNIMAS)

Convenor

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

Coordinator

Ms. Ruby Freya, Assistant Professor/ Civil Engineering

Target Audience : Students and Faculty members

Number of Participants attended online meeting :79

Number of Participants submitted feedback :37

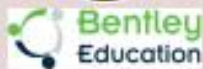
Students : 31

Faculty : 6

BROCHURE



DEPARTMENT OF CIVIL ENGINEERING
(Recognised Research Centre by Anna University)



CORDIALLY INVITES YOU FOR A WEBINAR ON

Structural Failures Causes and Research Needs

20th March 2023 - 10:00 to 11:30 am

DR. MOHAMMAD ABDUL MANNAN
PROFESSOR
DEPARTMENT OF CIVIL ENGINEERING
UNIVERSITI MALAYSIA SARAWAK (UNIMAS)

[Click to Register](#)

[Click to Join the Webinar](#)

COORDINATOR
MS. RUBY FREYA
Assistant Professor / Civil Engineering

CONVENOR AND ORGANISING SECRETARY
DR. R. KUMUTHA
Professor and Head / Civil Engineering

PROFILE OF THE SPEAKER

Mohammad Abdul Mannan [Professor, Dr., Engr, Fellow (ICE, UK), Fellow (IEB, Bangladesh)]



- Professor Mannan obtained
 - **BSc in Civil Engineering with First Class in 1986** (Rajshahi University, Bangladesh),
 - **MSc in 1994** (UKM, Malaysia) and
 - **PhD in 2001** (UMS, Malaysia).
- He **started his career as lecturer** at Bangladesh Institute of Technology, Rajshahi (now RUET) in 1986.
- He served as **design engineer** at AJP, consulting firm, Kuala Lumpur, Malaysia from 1994 to 1998 to design several structural and infrastructural projects including 25-storey Tower and RM60million infra.project.
- He served as **academician** at Universiti Malaysia Sabah, UMS **for 13 years** (1999 to 2012).
- **Now, he is at Universiti Malaysia Sarawak, UNIMAS, Malaysia since May 2012.**

SALIENT FEATURES IN HIS CAREER:

He has obtained/ guided/ organised/ served in Ministry technical panel on research grant/ international forum etc

- 1) **Excellent Scientist award** from Ministry of Education, Malaysia:2 times (2004 & 2005)
- 2) **Commendable service award** from Universiti Malaysia Sabah, UMS:2 times (2010 & 2011)
- 3) **Best invention awards** on research from national and International:3 times
- 4) **Gold Medal awards** on research from national and international expo:15 times
- 5) **Guided 10 PhD students** and ongoing 4 PhD students
- 6) **Organising secretary of International conference**, CONTEC for 2 times (2001 & 2003)
- 7) **Served as technical panel** on TechnoFund grant, Ministry of Science, Technology and Innovation, Malaysia (2006) and Ministry of Education, Malaysia as Technical panel on Research proposal (2020 and 2022).

- 8) **Coordinator/MoU-UNIMAS & KICT** (Korea Institute of Civil Engineering and Building Technology), **South Korea**
- 9) **Coordinator / MoU - UNIMAS & SRM IST, India**
- 10) **Coordinator / MoU - UNIMAS & Voronezh State Technical University (VSTU), RUSSIA**
- 11) **Coordinator on collaborative research with University of Leeds, UK** through British Council on 'Housing for low-income families' through Universiti Malaysia Sabah, UMS
- 12) **Technical adviser**, Research Team, Department of Civil Engineering, **University of Lome** □, **Togo**, West Africa, on 'Lightweight concrete technology' (2005)
- 13) **Adviser to research proposal of TWAS grant** (the academy of sciences for the developing world), **Italy** (2007)
- 14) **Technical panel** of many international and national conferences
- 15) **Adviser to research proposal for Ministry of Education, Brunei Darussalam** (2008)
- 16) **Editorial board member/Reviewers** of several journals
- 17) **Accumulated Research grant**: 33 nos. national and international grants with amount of RM3 million
- 18) **NINE national and international patents filing**
- 19) **Book Author**: Oil Palm Shell: Lightweight concrete and Structures published by NOVA Science, USA
- 20) **Keynote speakers**: Sharing research thoughts at several international and national platforms
- 21) **Publication**: More than 130 publications and obtained h-index of 22, i10-index of 33 with citations of around 2,800.
- 22) **Fellow of Institution of Civil Engineers, UK**, Ref. no. 90088653
- 23) **Fellow of The Institution of Engineers, Bangladesh**, Ref. no. F/9586

Brief Report of the Webinar

The webinar started with a welcome note by Ms. Ruby Freya, Assistant Professor, Civil Engineering, and the coordinator of this program. She welcomed and gave a brief introduction about the speaker to the participants. The internal participants were connected through the video conferencing at the classroom. The external participants were connected through google meet.

Dr. Mohammad Abdul Mannan, Professor, Engr, Fellow (ICE, UK), Fellow (IEB, Bangladesh)], Department of Civil Engineering, Universiti Malaysia Sarawak, UNIMAS started his lectured by defining what a structural failure means. He highlighted that most errors are only due to human errors. They may be due to ignorance / error of knowledge, careless and negligence / errors of performance and greed / errors of intent.

The errors possible during the design process and how it can be avoided was explained in detail. The failures during inspection, service and maintenance was also briefed along with case studies of a few structural failures. The violation of bye-laws and codal provisions are also important causes for the failure. Cracks, anchorage failures, pullout failures, etc. were also discussed.

He also concluded stating the importance of courses like Study of Structural Failures and Formwork Design should be in the curriculum.

The speaker concluded the session and answered all the queries from the participants. The student and faculty participants from host as well as other institutions participated in the webinar. The session ended with a vote of thanks delivered by Ms. G. Harshavarthani, final year student of Civil Engineering. The participants also appreciated the webinar being well organized.

SNAPSHOTS DURING THE WEBINAR

Recording | Engineering Special Issue is presenting





Fig 44



Engineering Special Issue

You

10:46 AM | Webinar on Structural Failures, SVCE

Recording | Engineering Special Issue is presenting

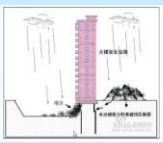



Fig 51
The building began to shift and the concrete pillars were snapped due to the uneven lateral passageways.
The building began to tilt.



Engineering Special Issue

You

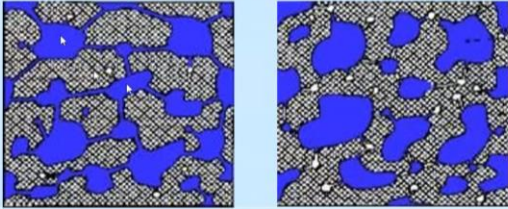
People

- Mute all
- Add people
- Dr.Piyush Vishwakarma
- Dr.R .Shanmugam
- Engineering Special Issue
- Engineering Special Issue Presentation
- GANGESH KUMAR THAK...
- GOGULA CHEZHIAN N...
- Gowtham Subramanian
- HEMALATHA R CE

10:47 AM | Webinar on Structural Failures, SVCE

Recording | Engineering Special Issue is presenting

Capillary pores [Ref. Internet]



High Permeability	Low Permeability
(Capillary Pores Interconnected in C-S-H Framework)	Capillary Pores (Segmented and only Partially Connected in C-S-H Framework)

- Capillary pores with average radius ranging from 5 to 5,000 nm.
- Capillary pores are the most significant means of transport of ions if they are interconnected and filled with pore solution.
- Chloride transport can take place in concrete by (i) Diffusion, (ii) Sorption, (iii) Capillary suction, and (iv) Migration etc

Fig. 67

You

10:50 AM | Webinar on Structural Failures, SVCE



LIST OF PARTICIPANTS

S.No.	Name of the Participant	Name of the Institution/Industry	Category
1	Raja M A	Thamirabharani Engineering College	Faculty
2	Dr. Piyush Vishwakarma	Lingaya's Vidyapeeth Delhi Ncr	Faculty
3	N Sathish	Sri Venkateswara College of Engineering	Faculty
4	Avinash S	Sri Venkateswara College of Engineering	Student
5	Guru Prakash K	Sri Venkateswara College of Engineering	Student
6	Hemalatha R	Sri Venkateswara College of Engineering	Student
7	Ramanan B B	Sri Venkateswara College of Engineering	Student
8	E.Senthilkumar	Muthayammal Engineering College, Rasipuram, Namakkal Dt.	Faculty
9	Praveen Raj.A	Sri Venkateswara College of Engineering	Student
10	Puviarasu S	Sri Venkateswara College of Engineering	Student
11	Baala Subramaniyan .K	Sri Venkateswara College of Engineering	Student
12	Praveen Kumar D	Sri Venkateswara College of Engineering	Student
13	T Lalith Kumar	Sri Venkateswara College of Engineering	Student
14	G.Harshavarthani	Sri Venkateswara College of Engineering	Student
15	S.Gowtham	Stg	Student
16	Dr.R.SHANMUGAM	Muthayammal Engineering	Faculty
17	Prem Kumar S	Sri Venkateswara College of Engineering	Student
18	Vinnu Vikram.N.D	Sri Venkateswara College of Engineering	Student
19	Amaravathy U	Sri Venkateswara College of Engineering	Student
20	N.M.Santhosh Kumar	Sri Venkateswara College of Engineering	Student
21	Rithick R	Sri Venkateswara College of Engineering	Student
22	Monica. V	Sri Venkateswara College of Engineering	Student
23	Arun M	Mahendra Engineering College	Faculty
24	Reheka Shivakumar	Sri Venkateswara College of Engineering	Student
25	Prathiba. S	Sri Venkateswara College of Engineering	Student
26	Senthil Serma Kumar R	Sri Venkateswara College of Engineering	Student
27	Jayasurya J	Sri Venkateswara College of Engineering	Student
28	Naresh U	Sri Venkateswara College of Engineering	Student
29	Manimaran A	Sri Venkateswara College of Engineering	Student
30	Siddharth J U	Sri Venkateswara College of Engineering	Student
31	Syed Afrideen.M	Sri Venkateswara College of Engineering	Student
32	Gokul K	Sri Venkateswara College of Engineering	Student
33	Vivedhitha Varshini	Sri Venkateswara College of Engineering	Student
34	Aurudra Adisheshaiah Krishna	Sri Venkateswara College of Engineering	Student
35	Arshiya A S	Sri Venkateswara College of Engineering	Student
36	A.Vignesh	Sri Venkateswara College of Engineering	Student
37	Kavinmalar K	Sri Venkateswara College of Engineering	Student



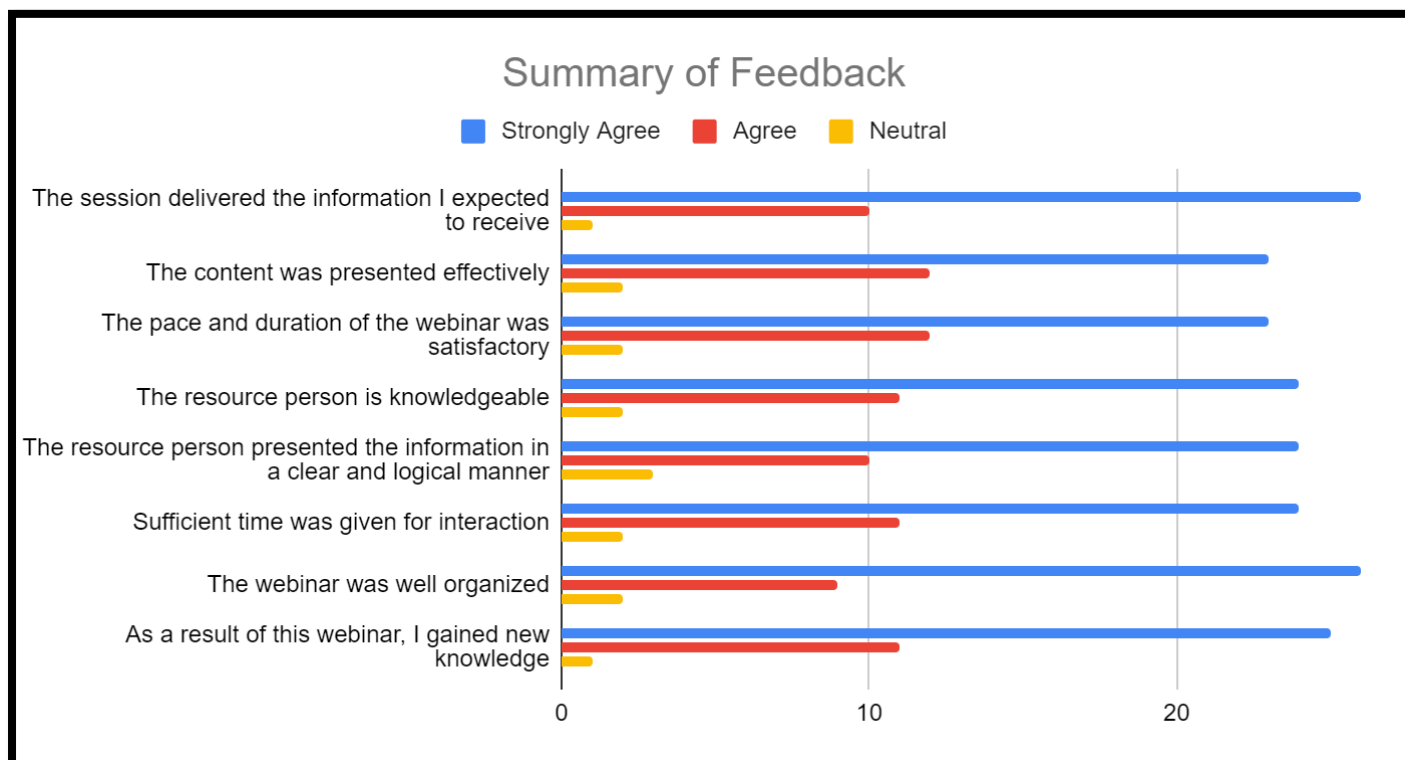
	A	B	C	D	E	F
1	First name	Last name	Email	Duration	Time joined	Time exited
2	21CE008,Manikandan		mani*****@svce.ac.in	47 min	10:20 AM	11:08 AM
3	2-21CE001 Adchayaa .B		badc*****@svce.ac.in	24 min	10:18 AM	10:42 AM
4	2 - 21CE002 Divithkumar		govi*****@svce.ac.in	50 min	10:17 AM	11:08 AM
5	2-21CE003 Divya.R		raja*****@svce.ac.in	29 sec	10:21 AM	10:21 AM
6	2-21CE004, Gokulnath C		c.go*****@svce.ac.in	32 min	10:17 AM	10:48 AM
7	2-21CE010 pavithran.S		pavi*****@svce.ac.in	33 min	10:17 AM	10:50 AM
8	2-22CE504 Parasuram. V		ramv*****@svce.ac.in	44 min	10:23 AM	11:08 AM
9	2 - 22ce509srimathik		cesr*****@svce.ac.in	6 min	10:18 AM	10:24 AM
10	2-22CE512 Susidharan.k		sus*****@svce.ac.in	48 min	10:19 AM	11:07 AM
11	308 Shantha Gowtham S		2020ce0942@svce.ac.in	8 sec	10:00 AM	10:00 AM
12	3 - 20CE001 - Aadhavan.G		gaad*****@svce.ac.in	5 min	10:32 AM	10:37 AM
13	Dr.R.Sathia		sathiamunish@svce.ac.in	22 min	10:05 AM	10:28 AM
14	Dr.R .Shanmugam		shan*****@svce.ac.in	57 min	10:10 AM	11:08 AM
15	Dr Prasath		itsp*****@svce.ac.in	52 min	9:58 AM	10:50 AM
16	Vijay Vignesh CVE		avijayvignesh@svce.ac.in	58 min	10:09 AM	11:08 AM
17	20CE004 Amamath	Achari	acha*****@svce.ac.in	24 sec	10:22 AM	10:22 AM
18	Barkat	All	bark*****@svce.ac.in	17 min	10:00 AM	10:18 AM
19	Dr.M.Veerapathran	AP CIVIL	veer*****@svce.ac.in	17 min	9:58 AM	10:15 AM
20	2-22CE501	Aravinth	arav*****@svce.ac.in	47 min	10:21 AM	11:08 AM
21	Hari Datt	Bhatt	hari*****@svce.ac.in	3 min	9:58 AM	10:01 AM
22	2-22ce502	Bhavankumar.a	bhav*****@svce.ac.in	50 min	10:18 AM	11:08 AM
23	SATHISH N	Bio	nsathish@svce.ac.in	1 hr 1 min	10:06 AM	11:07 AM
24	02 AURUDRA ADISE	CE	2020ce0384@svce.ac.in	21 min	10:08 AM	11:08 AM
25	12 PRAVEEN RAJ A	CE	2020ce0334@svce.ac.in	10 sec	9:53 AM	9:53 AM
26	13 PREM KUMAR S	CE	2020ce0568@svce.ac.in	12 min	10:03 AM	10:15 AM
27	15 PUVIARASU S	CE	2020ce0357@svce.ac.in	58 min	10:01 AM	10:59 AM



	A	B	C	D	E	F
53	ARUN.M	MECAAP/CIVIL	arun@****.info	1 hr 5 min	10:05 AM	11:08 AM
54	Mahamood ul hasan	N	maha*****@**	1 hr 14 min	9:53 AM	11:08 AM
55	Keerthanadevi	P	keer*****@	6 min	10:44 AM	10:50 AM
56	Dashrath	Panchal	dspa*****@***.co	50 min	10:11 AM	11:01 AM
57	2 - 21CE009	P M NIRMAL PRAGA	math*****@***.com	34 min	10:17 AM	10:50 AM
58	2-21CE011	Prasanth	mpra*****@***	49 min	10:19 AM	11:08 AM
59	2-21CE012,	Prethiviraj	pret*****@***.cc	44 min	10:18 AM	11:01 AM
60	21CE013	RAHULRAJAN D	rajr*****@***.com	35 min	10:32 AM	11:08 AM
61	Vijay	Rathi	vija*****@***.in	20 min	10:21 AM	10:57 AM
62	Gokulakannan	S	goku*****@	35 sec	10:50 AM	10:50 AM
63	MANIKANDAN	S	dr.m***@***.com	53 min	10:14 AM	11:08 AM
64	Shalini	S	shal*****@***	49 min	10:19 AM	11:08 AM
65	2_21CE014	SAKTHIVEL.A	sakt*****@***.co	24 min	10:20 AM	10:44 AM
66	Mr. Rohan Sadashiv	Sawant	sawa*****@***.cc	46 min	10:22 AM	11:08 AM
67	Abhiraj	Singh	abhi*****@***	3 min	10:11 AM	10:14 AM
68	Engineering	Special Issue	spec*****@***.co	1 hr 27 min	9:38 AM	11:06 AM
69	Gowtham	Subramanian	subt*****@***.com	1 hr 5 min	10:02 AM	11:08 AM
70	2-21CE016	Sujith km	suji*****@***.com	51 min	10:17 AM	11:08 AM
71	3 - 21CE503 - Elanc	suriyan AV	elan*****@***	20 sec	10:15 AM	10:15 AM
72	2-22CE511	SURYA	22ce*****@***.co	49 min	10:19 AM	11:08 AM
73	2-21CE017	surya .S	bala*****@***	26 min	10:17 AM	10:43 AM
74	2-21CE018	Swetha k	swet*****@***.c	6 min	10:21 AM	10:28 AM
75	GANGESH KUMAR	THAKUR	gang*****@***.i	1 hr 5 min	10:00 AM	11:05 AM
76	Mrs. MARY	TREASA SHINU.N.M	shin*****@***.com	39 min	10:04 AM	10:43 AM
77	Niravkumar Baldevb	Umrvia	nira*****@***.c	29 min	10:39 AM	11:08 AM
78	Dr Neethu	Urs	neet*****@***.edu	47 sec	9:58 AM	9:59 AM
79	Dr. Piyush	Vishwakama	drpi**@***.com	54 min	10:12 AM	11:06 AM
80	2-22CE503	V Neshapriyan	vvls*****@***.com	49 min	10:19 AM	11:08 AM

SUMMARY OF FEEDBACK

Total Number of respondents: 37				
Feedback	Strongly Agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive	26	10	1	-
The content was presented effectively	23	12	2	-
The pace and duration of the webinar was satisfactory	23	12	2	-
The resource person is knowledgeable	24	11	2	-
The resource person presented the information in a clear and logical manner	24	10	3	-
Sufficient time was given for interaction	24	11	2	-
The webinar was well organized	26	9	2	-
As a result of this webinar, I gained new knowledge	25	11	1	-



Additional comments/feedback from participants:

- Very good session.
- It was very informative.
- It was very useful.

FEEDBACK FROM PARTICIPANTS – SAMPLE RESPONSE

<https://forms.gle/fRxxXQF6H8notXZf7>



37 responses View in Sheets

Not accepting responses

Message for respondents

This exam is not currently accepting submissions. Please check back again later.

Summary Question Individual

antojosephraja@gmail.com < 1 of 37 >  

Responses cannot be edited

Sri Venkateswara College of Engineering

Department of Civil Engineering

Feedback Form – International Webinar on “Structural Failures - Causes and Research Needs”
Date : 20th March 2023,
Time: 10 am,
Speaker: **Dr. MOHAMMAD ABDUL MANNAN**, Professor, Department of Civil Engineering, Universiti Malaysia Sarawak (UNIMAS)

* Indicates required question

Email *

antojosephraja@gmail.com

Name of the Participant *

Raja M A

Name of the Institution/Industry *

Thamirabharani Engineering college

Mobile number (Whatsapp) *

9489170657

Please rate your satisfaction with the organisation/content of the webinar 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 webinar 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 webinar was well organized	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As a result of this webinar, I gained new knowledge	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are you interested in attending such programs organised in future by the Department of Civil Engineering of SVCE *

Yes

No

FEEDBACK FROM SPEAKER

<https://docs.google.com/forms/d/1iy7dIPWVhmwYrvWEvbu0ZpQ8seICoqcDCe965KSY-IY/edit#responses>

1 response

 Link to Sheets



Accepting responses

Summary

Question

Individual

Feedback Form – International Webinar on " Structural Failures - Causes and Research Needs"

Date : 20th March 2023,

Time: 10 am

Name

1 response

Mohammad Abdul Mannan

Email

1 response

mannan@unimas.my


Designation

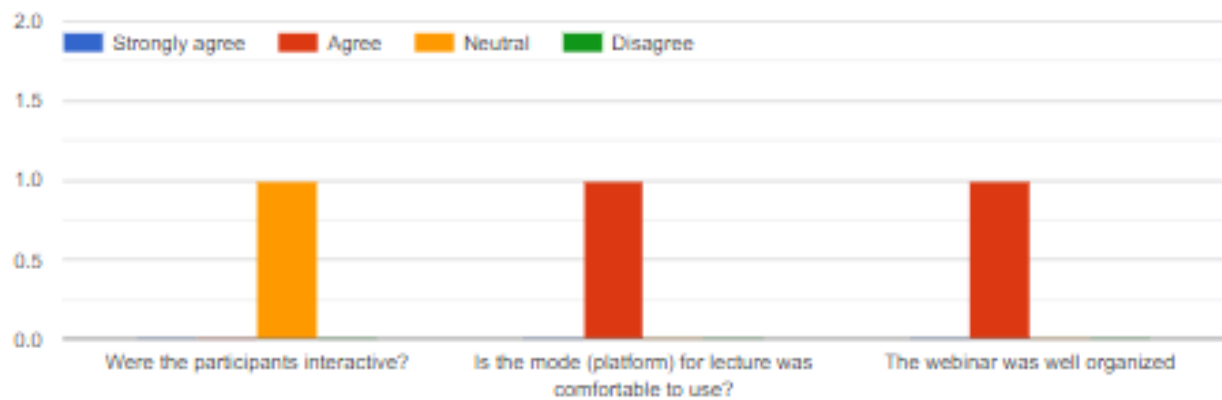
1 response

Professor, Dr

Please rate your satisfaction with the organisation of the guest lecture by indicating your level of agreement or disagreement with each of the following statements.

How satisfied were you with the event?

 Copy



Are you interested in interacting with our institution in future ?

 Copy

1 response



Additional comments / feedback

1 response

SVCE has very good plan on such activity.

SAMPLE PARTICIPANT CERTIFICATE

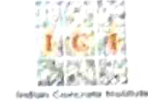
Sri Venkateswara
CE College of
Engineering



Bentley
Education

DEPARTMENT OF CIVIL ENGINEERING

(Recognised Research Centre by Anna University)



**INSTITUTION'S
INNOVATION
COUNCIL**

Certificate of Participation

This certificate is presented to

DR. PIYUSH VISHWAKARMA

for attending the Webinar on "Structural Failures - Causes and Research Needs",
delivered by **Dr. Mohammad Abdul Mannan**, Professor, Department of Civil Engineering,
Universiti Malaysia Sarawak (UNIMAS), held on 20th March 2023.


Ruby Freya

Coordinator
Assistant Professor / CVE


Dr. R. Kumutha

Convenor & Organising Secretary
Professor & Head / CVE

Prepared By



Ms. Ruby Freya (AP/Civil Engg.)

Coordinator

Approved By



Dr. R. Kumutha (HoD/Civil Engg.)

Convenor