



# K.S.R.M. COLLEGE OF ENGINEERING

(UGC-AUTONOMOUS)

Kadapa, Andhra Pradesh, India- 516 003

Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu.

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Date: 17.07.2021

To

**The Principal,**  
K.S.R.M.College of Engineering,  
Kadapa.

Respected Sir,

**Sub:** KSRMCE - (Civil Engineering Department) Permission to conduct a Webinar on “**Webinar on Design Philosophy of Earth Quake Resistance Structure**” – Req –Reg.

It is being brought to your kind notice that, With reference to the cited, the Civil Engineering Department is planning to conduct a Webinar on “**Webinar on Design Philosophy of Earth Quake Resistance Structure**” for B.Tech Civil students on 19<sup>th</sup> July, 2021 in Online mode from 4.15 PM -5.15PM. In this regard I kindly request you to grant permission to conduct the webinar.

Thanking you Sir,

Yours Faithfully,

*Ch. S.*  
Ch. Santosh Kumar  
Asst. prof in Civil dept.

*Forwarded to principal Sir*

*SAL*

*Permitted*  
*V. S. S. M. M. S.*  
*17/07/2021*



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17-07-2021

## Circular

All the B. Tech Civil students are here by informed that Department of Civil Engineering is going to conduct a Webinar on “Design Philosophy of Earth Quake Resistance Structure” on 19<sup>th</sup> July, 2021 in Online mode from 4.15 PM – 5.15 PM. Interested students may register their names with the coordinator.

### Resource Person:

Dr. P.JAGADEESAN,  
Professor,  
Gurunanak Institution Technical Campus,  
HYDERABAD

For any queries Contact,

### Coordinators

Mr. Ch. Santosh Kumar, Assistant Professor in CED

HoD

Head

Department of Civil Engineering  
K.S.R.M. College of Engineering  
(Autonomous)  
KADAPA - 516 003. (A.P.)

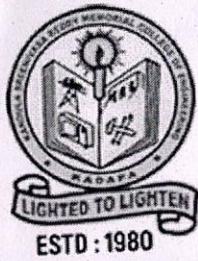


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## DEPARTMENT OF CIVIL ENGINEERING



**KSNR**  
lives on..

## WEBINAR ON Design philosophy of Earthquake Resistant Structures

SPEAKER

**Dr. P. JAGADEESAN**

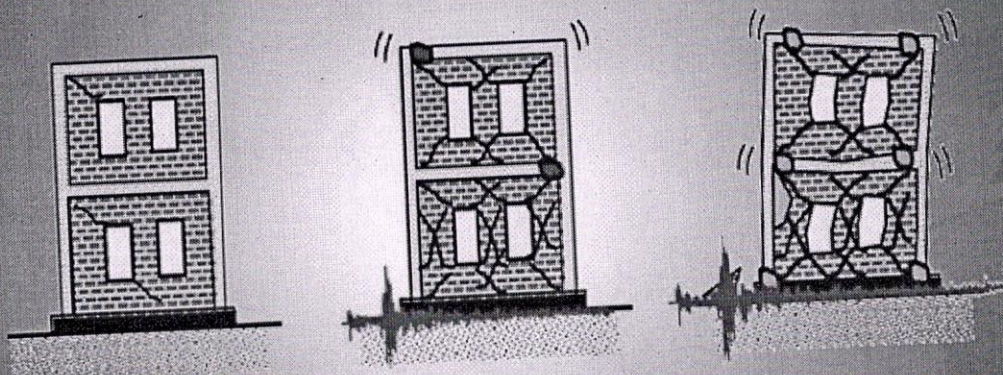
B.E, M.E, Ph.D

Associate Professor,  
Guru Nanak Institutions Technical Campus, Hyderabad.

DATE & TIME

19-07-2021, 04:15 pm to 05:15 pm

Coordinator : **Sri. Ch. Santosh Kumar,**  
Assistant Professor,  
Dept. of Civil Engineering, KSRMCE



f i t k s r m c e o f f i c i a l

**Dr. N. Amaranath Reddy**  
HoD

**Dr. V.S.S. Murthy**  
Principal

**Prof. A. Mohan**  
Director

**Sri. K. Chandra Obul Reddy**  
Management Member

**Smt K. Rajeswari**  
Correspondent,  
Secretary, Treasurer

**Sri K. Madan Mohan Reddy**  
Vice-Chairman

**Sri K. Raja Mohan Reddy**  
Chairman

VAISA  
AD AGENCY  
9848875439



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(AUTONOMOUS)

Kadapa, Andhra Pradesh, India -516003

## DEPARTMENT OF CIVIL ENGINEERING

### Webinar on Design Philosophy of Earth Quake Resistance Structure

19<sup>th</sup> July 2021

#### REPORT

**Speaker:** Dr. P. JAGADEESAN, Professor in Gurunanak Institution Technical Campus.

#### Design Philosophy of Earth Quake Resistance Structure:

Earthquake-resistant structures absorb and dissipate seismically induced motion through a combination of means: damping decreases the amplitude of oscillations of a vibrating structure, while ductile materials (e.g., steel) can withstand considerable inelastic deformation. If a skyscraper has too flexible a structure, then tremendous swaying in its upper floors can develop during an earthquake. Care must be taken to provide built-in tolerance for some structural damage, resist lateral loading through stiffeners (diagonal sway bracing), and allow areas of the building to move somewhat independently.

#### The Concept of the Webinar:

Experience in past earthquakes has demonstrated that many common buildings and typical methods of construction lack basic resistance to earthquake forces. In most cases this resistance can be achieved by following simple, inexpensive principles of good building construction practice. Adherence to these simple rules will not prevent all damage in moderate or large earthquakes, but life threatening collapses should be prevented, and damage limited to repairable proportions.



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DEPARTMENT OF CIVIL ENGINEERING



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## WEBINAR ON

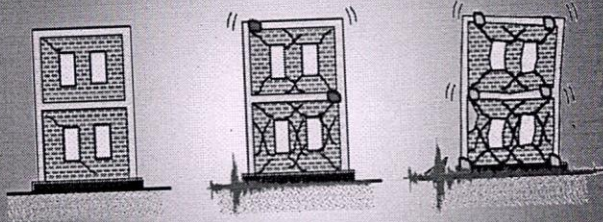
# Design philosophy of Earthquake Resistant Structures

### SPEAKER

**Dr. P. JAGADEESAN**

B.E, M.E, Ph.D

Associate Professor,  
Guru Nanak Institutions Technical Campus, Hyderabad.



### DATE & TIME

19-07-2021, 04:15 pm to 05:15 pm

Coordinator : **Sri. Ch. Santosh Kumar,**  
Assistant Professor,  
Dept. of Civil Engineering, KSRMCE

f @ t v ksrnceofficial



**Dr. N. Amaranath Reddy**  
HoD

**Dr. V.S.S. Murthy**  
Principal

**Prof. A. Mohan**  
Director

**Sri. K. Chandra Obul Reddy**  
Management Member

**Smt K. Rajeswari**  
Correspondent,  
Secretary, Treasurer

**Sri K. Madan Mohan Reddy**  
Vice-Chairman

**Sri K. Raja Mohan Reddy**  
Chairman

**Poster of the event:** Webinar on Design Philosophy of Earth Quake Resistance Structure.

### Zoom link:

<https://us02web.zoom.us/j/82712093962?pwd=dHlwY1JpdzZFNG1qWkQ3OVVlYkVlUT09>

### About the Speaker:

Dr.P.JAGADEESAN, Professor in Gurunanak Institution Technical Campus, HYDERABAD. His Qualifications are B.E. (Civil Engineering), M.E. (Structural Engineering), Ph.D. in Civil Engineering.

He has 14+years of professional experience in Teaching, 6+ years of experience as Head of Civil Department, 1+ years of Professional Experience in Construction Industry. He published 10 papers in International and National Journals & Published 12 papers in International and National Level Conferences. He Worked as Consultant of Structural Design.

He Certified In Architectural CADD & Technically Strong in STAAD Pro and SAP 2000. And technically guided the students for Funding Project. He Initiated and organized various National Level Symposium, Conferences and Workshop. He was Life Membership in ISTE, IEI.

## **The Sequence of the Webinar**

The Webinar was arranged by Department of Civil Engineering for the B.Tech V semester and VII semester Students and faculty of the department. The venue was organized thorough virtual mode using Zoom meeting pro application purchased by Department of Civil Engineering, KSRMCE. The webinar is conducted on 19<sup>th</sup> July, 2021 in Afternoon session from 4.15 pm to 5.15 PM, and the sessions were hosted by Dr. Amaranath Reddy (HoD), Sri. Ch. Santosh Kumar. A total of 71 students and the faculty members of Department of Civil Engineering were actively participated in the webinar.

### **Welcome speech:**

Sri. Ch. Santosh Kumar (Coordinator of the event), Assistant Professor, Dept. of Civil Engineering, KSRMCE expressed a very warm welcome to the HoD, faculty and students of the Civil Engineering Department. The coordinator introduced the guest of honors to the gathering, the brief of their education and professional experiences was read for the audience.

### **HoD's words:**

Dr. N. Amaranath Reddy, HoD & Associate Professor of the Dept. of Civil Engineering, KSRMCE addressed the gathering by welcoming the Guest of Honors Dr.P.JAGADEESAN, to the event. HoD shared about the dedication towards work and capabilities of speakers as his students and how they evolved to stand in this position by continuous improvement.

### **Presentation by the Guest:**

#### **Session (4.15 pm to 5.15PM, 19<sup>th</sup>July, 2021):**

The speakers explained the one day plan of action of this webinar. Session is majorly concentrated on origin Design Philosophy of Earth Quake Resistance Structure. It covers the Earth Quake Resistance Structure. The speakers explained about Seismic Effect On structures. The session ended with the explanation "flow of seismic inertia through all structure components".

Example : You are viewing Jagadeesan's screen View Options

- To elaborate this distinction, consider the analogy of an electric bulb (Figure 3). The illumination at a location near a 100-Watt bulb is higher than that farther away from it.
- While the bulb releases 100 Watts of energy, the intensity of light at a location depends on the wattage of the bulb and its distance from the bulb.
- Here, the size of the bulb (100-Watt) is like the magnitude of an earthquake, and the illumination at a location like the intensity of shaking at that location.

Figure 3: Reducing illumination with distance

Unmute Start Video Participants 71 Share Screen Chat Reactions Settings More Leave

## Presentation by speakers

You are viewing Jagadeesan's screen View Options

### Seismograph

Figure 3: Schematic of Early Seismograph

Figure 4: Some typical recorded accelerograms

Participants (71)

Find a participant

- ch.santosh(Me)
- HOD CE(Host)
- jagadeesan(Co-host)
- Ch. Santosh Kumar(Co-host)
- VamC
- LE102 Malik
- hyder ali khan
- Sudheer Kumar
- LE-117 DASTAGIRLD
- RE-106 HIMACHANDRASEKHAR BACHU
- RE-1C3 Ganga Swetha
- LE-105 VENUGOPAL REDDY
- 173 Palakondalah
- 209Y5A0120 G.Harini
- L Venkatalah
- 104 RGV

Unmute Invite Unmute Leave

## SEISMOGRAPH

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### Seismic Effect on Structures

Figure 1: Effect of Inertia in a building when shaken at its base

Figure 2: Inertia force and relative motion within a building

**Jagadeesan**

Participants (70)

Find a participant

- ch.santosh(Me)
- HOD CE(Host)
- Jagadeesan(Co-host)
- Ch. Santosh Kumar(Co-host)
- LE102 Malik
- hyder ali kher
- Sudheer Kumar
- LE-117 DASTAGIRLD
- RE-106 HIMACHANDRASEKHAR BACHU
- RE-1C3 Ganga Swetha
- LE-105 VENUGOPAL REDDY
- 173 Palakondaiah
- 209Y5A0120 G.Harini
- L.Venkataiah
- 104 RGV
- K.Niveditha

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## SEISMIC EFFECT ON STRUCTURE

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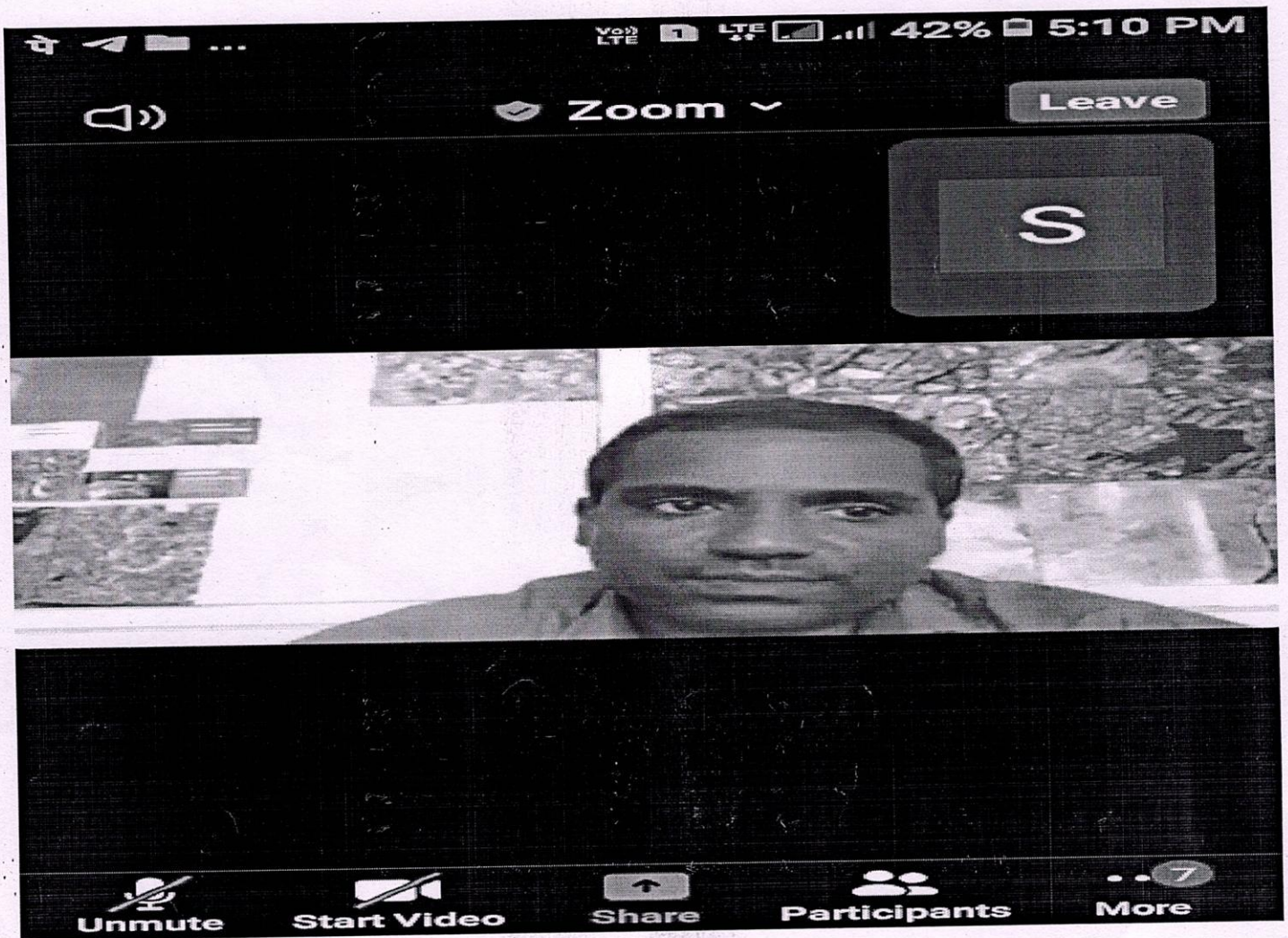
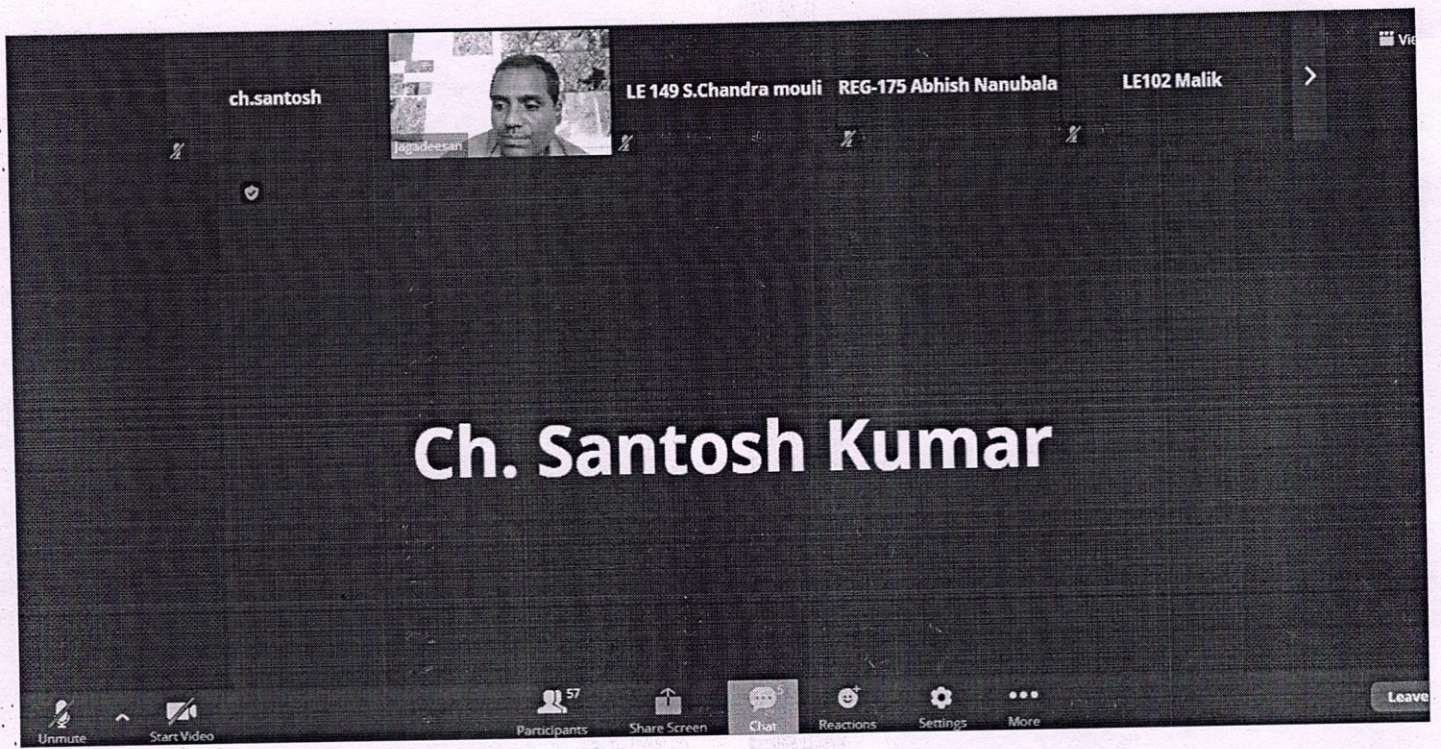
Figure 4: Flow of seismic inertia forces through all structural components.

(a) Partial collapse of stone masonry walls during 1991 Uttarkashi (India) earthquake

**Jagadeesan**

## FLOW OF SEISMIC INERTIA FORCES THROUGH ALL STRUCTURAL COMPONENTS





### **HoD's words at end of the Event:**

At the end of the webinar, Dr. N. Amaranath Reddy, HoD, Dept. of Civil Engineering, KSRMCE expressed his regard to the speakers for sharing his knowledge with the students. HoD wished the speakers to get a better position in future and also asked the speakers to present some more webinars to students of KSRMCE.

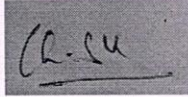
### **Vote of thanks:**

Sri. Ch. Santosh Kumar (Coordinator of the event) delivered vote of thanks by thanking all the students & faculty members for their active participation, (Especially HoD sir) for providing zoom online platform to conduct such events and organization of KSRMCE for encouraging to conduct such events. A total of 71 members containing students and faculty of Department of Civil Engineering, KSRMCE participated in this event

### **Suggestion/ Comments about the webinar:**

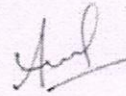
- Excellent Lecture
- Communication for good knowledge.
- It is very helpful for us, sir
- Thank you for giving lecture on Earthquakes..
- I would like to listen more webinars.
- Need to upgrade the online method.
- This webinar session is very useful to me thank you so much sir...for giving this pleasant webinar sir once again thanks a lot.
- Thank you sir for providing these kind of sessions please conduct more this kind of session's thank you sir.
- Thanks for explaining about earth quake sir. Still many of this webinar if you conduct is better to us sir.
- Make more live examples.
- Very good explanation.
- Excellent webinar class sir
- Good for students for learning

- IT'S HELP A LOT TO GAIN INFORMATION TO STUDENTS.
- Thank you for giving opportunity.
- Can u Show some videos & pie charts sir.



**Ch. Santosh Kumar**

**Coordinator**



**Dr. N. Amaranath Reddy**

**(HoD, Civil Engineering.)**



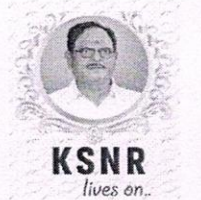
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## Department of Civil Engineering

**Name of the Event:** Webinar on “Design Philosophy of Earth Quake Resistance Structure”

### List of Participants

S.NO	Roll No.	Name of the student	Branch	Signature
1	209Y1A0144	M. Saiteja Reddy	Civil	M. Saiteja Reddy
2	209Y1A0128	K. Eswara Sai	Civil	Eswara Sai
3	209Y1A0133	K. Venkata Sampath	Civil	K. Venkata Sampath
4	209Y1A0134	K. Parvan Kumar Reddy	Civil	K. Parvan Kumar Reddy
5	209Y1A0135	K. Anesh	Civil	K. Anesh
6	209Y1A0151	N. Samodan	Civil	N. Samodan
7	209Y1A0141	M. V. Theerun	Civil	M. V. Theerun
8	209Y1A0137	M. Abhilash	Civil	M. Abhilash
9	209Y1A0131	K. Praveeth	Civil	K. Praveeth
10	209Y1A0129	K. Vishnu Vardhan	Civil	K. Vishnu Vardhan
11	209Y1A0139	M. Vishnu	Civil	M. Vishnu
12	209Y1A0130	K. S. Noor Mohammed	Civil	K. S. Noor Mohammed
13	209Y1A0145	M. Sneha	Civil	M. Sneha
14	209Y1A0144	M. Rahul	Civil	M. Rahul
15	209Y1A0149	M. Narendra Reddy	Civil	M. Narendra Reddy
16	209Y1A0142	M. Madhu Krishna	Civil	M. Madhu Krishna
17	209Y1A0143	M. Reddy Sai	Civil	M. Reddy Sai
18	209Y1A0138	M. Sureth	Civil	M. Sureth
19	209Y1A0150	N. Saleem	Civil	N. Saleem
20	209Y1A0137	P. Siva Sai Kumar	Civil	P. Siva Sai Kumar
21	199Y1A0144	S. Sadamini	Civil	S. Sadamini
22	199Y1A0143	R. Himabindu	Civil	R. Himabindu
23	199Y1A0145	S. Pavay Kumar Reddy	Civil	S. Pavay Kumar Reddy
24	199Y1A0120	K. Keetha	Civil	K. Keetha
25	199Y1A0102	B. Sampurna	Civil	B. Sampurna
26	199Y1A0127	M. Yagnasriya	Civil	M. Yagnasriya
27	199Y1A0122	K. Raghavartana	Civil	K. Raghavartana
28	199Y1A0106	C. Haritha	Civil	C. Haritha
29	199Y1A0108	D. Anusha	Civil	D. Anusha
30	199Y1A0130	Y. Prathyusha	Civil	Y. Prathyusha
31	199Y1A0118	K. Chaitanya	Civil	K. Chaitanya
32	199Y1A0101	B. Avinash	Civil	B. Avinash
33	209Y1A0144	M. Saiteja Reddy	Civil	M. Saiteja Reddy
34	209Y1A0151	K. Anesh	Civil	K. Anesh
35	209Y1A0135	M. V. Theerun	Civil	M. V. Theerun
36	209Y1A0129	S. Vishnu Vardhan	Civil	S. Vishnu Vardhan

37	209YFA0181	V.S.K. Jayanth	Civil	V.S.K. Jayanth
38	209YFA0189	S. Deepak	Civil	S. Deepak
39	209YFA0182	V. Venkata Ramana	Civil	V. Venkata Ramana
40	209YFA0182	A. JYOSHKA	Civil	A. Jyoshka
41	209YFA0117	D. Ananth	Civil	D. Ananth
42	199YFA0198	M. Naveen	Civil	M. Naveen
43	209YFA0139	M. Vishnu	Civil	M. Vishnu
44	209YFA0129	K. Vishnu Vardhan	Civil	K. Vishnu Vardhan
45	209YFA0117	D. Ananth	Civil	D. Ananth
46	209YFA0115	M. Subhakar Reddy	Civil	M. Subhakar Reddy
47	209YFA0117	Yashraj Namble	Civil	Yashraj Namble
48	209YFA0129	K. Guru Vinod	Civil	K. Guru Vinod
49	209YFA0138	Y. Venugopal	Civil	Y. Venugopal
50	199YFA0126	K. Keerthi	Civil	K. Keerthi
51	199YFA0101	B. Anirudh	Civil	B. Anirudh
52	209YFA0101	A. Supraja	Civil	A. Supraja
53	199YFA0118	K. Chaitanya	Civil	K. Chaitanya
54	209YFA0108	B. Pankaj Reddy	Civil	B. Pankaj Reddy
55	209YFA0147	M. Rahul	Civil	M. Rahul
56	199YFA0116	J. Venkata Sai	Civil	J. Venkata Sai
57	209YFA0131	K. Praveen	Civil	K. Praveen
58	199YFA0122	K. Naga Ratha	Civil	K. Naga Ratha
59	209YFA0124	G. Geeta Nandini	Civil	G. Geeta Nandini
60	209YFA0148	M. Sreenath	Civil	M. Sreenath
61	209YFA0105	B. Guru Sobitra	Civil	B. Guru Sobitra
62	209YFA0112	J. James	Civil	J. James
63	209YFA0119	E. Sandhya	Civil	E. Sandhya
64	209YFA0113	C. Subhash	Civil	C. Subhash
65	209YFA0115	C. Sravani	Civil	C. Sravani
66	209YFA0104	A. Venkata Subamma	Civil	A. Venkata Subamma
67	209YFA0128	K. Chaitanya Sai	Civil	K. Chaitanya Sai
68	209YFA0158	P. Lokanath	Civil	P. Lokanath
69	209YFA0127	K. Vijaya Kumar	Civil	K. Vijaya Kumar
70	209YFA0126	K. Souravi	Civil	K. Souravi
71	209YFA0119	M. Narendra Naik	Civil	M. Narendra Naik

Ch. S. S.  
Co-ordinator

A. S.  
HoD

Head  
Department of Civil Engineering  
K.S.R.M. College of Engineering  
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DEPARTMENT OF CIVIL ENGINEERING



## Feedback Form

Your feedback is crucial to ensure we meet your educational needs. We would appreciate it if you could take a few minutes to share your opinions with us so we can serve you better.

Course Title : *Webinar on Design philosophy of Earthquake Resistance structure.*  
Resource Person(s) : *Dr. P. Jagadeesan*  
Date(s) of the course : *19 July 2021*  
Name of the Student : *S. Pavan Kumar Reddy.*  
Roll No. : *19AY1A0145*

S. No.	Item Description	RATING (Please Tick the relevant)		
		LOW	MODERATE	HIGH
1	The content was Clear & Understandable			✓
2	The program was well-paced within the allotted time		✓	
3	The instructor was a good communicator			✓
4	The material was presented in an organized manner			✓
5	The instructor was knowledgeable about the topic		✓	
6	I would be interested in attending a follow-up, more advanced workshop on this same subject/any other			✓
7	Given the topic, was this workshop	Too Short	Right Length ✓	Too Long
8	In your opinion, was this workshop	Introductory	Intermediate	Advanced ✓
	<b>Please Rate the following</b>	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>
	a) Visuals		✓	
	b) Acoustics			✓
	c) Meeting space/Venue			✓
	d) Handouts			✓
	e) The Overall Program		✓	
9	What did you most appreciate/enjoy/think was best about the course? Any suggestions for improvement?	NO		

Please return this form to the instructor or organizer at the end of the course. Thank you.

*S. Pavan Kumar*  
Signature of the Student