

ಕಮ್ಮವಾರಿ ಸಂಘ (ರಿ) 1952

K. S. GROUP OF INSTITUTIONS



K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

DEPARTMENT OF CIVIL ENGINEERING

NATIONAL CONFERENCE
ON
ADVANCES IN STRUCTURES
AND MATERIALS



NCASM - 15 PROCEEDINGS

Monday, 27" April 2015

CHIEF ADVISOR

Dr. H. Maheshappa

Vice Chancellor, VTU, Belgavi

CHIEF PATRONS

Sri.Y. Ramachandra Naidu,

Sri K. Venkatesh Najdu

Sri. D. Rukmangada

President, KSGI

Secretary, KSGI

Treasurer, KSGI

CONVENER

Dr. S. N. Sridhara, Principal/Director

ADVISORY COMMITTEETECHNICAL COMMITTEE

Dr. K E Prakash

Dr.S.Raghunath

Registrar, VTU, Belgavi

Professor BMSCE, Bengaluru

Dr. H.G Shekarappa

Dr. M V Rama Rao

Registrar (Evaluation) VTU, Belgavi

Professor, VCE, Hydearbad

Dr.S.Raghunath

Dr P. Bhanumurthy

Professor, BMSCE

Professor, JNTU, Anantapur

Dr.ManamohanKalgal

Dr MangalaKeshav

VP, Ultra tech, Bengaluru

Professor BMSCE, Bengaluru

ErP.Surya Prakash

Dr Rajeeva S.V

President ACCE

Professor, KSSEM

Dr V Ramachandra

Dr VijayalakshmiAkella

VP south, ICI

Professor, KSSEM

ORGANIZING COMMITTEE

Mr. Vijay Arekal

Mr. Veerendra Kumar

Dr. Vyshali

Mr. AnanthPadmanabha

Ms.Supriya M.D

Ms. VeenaTeggeli

Ms. Parvathy

Ms . Anitha

Ms. Rachana

Mr. Girish

Mr. Gopal Rao

Mr. Shreyas

Mr. Varadaraj

Mr. Vinod

Ms. Vasantha Lakshmi

Editorial message

It is my pleasure to present the proceedings of the National Conference on Advances in Structures and Materials NCASM-15 held at K S School of Engineering and Management on 27th April 2015.

I would like to express my appreciation to Sri Y Ramachandra Naidu, President, Sri K.Venkatesh Naidu, Secretary and Sri D. Rukmangada, Treasurer of K.S Group of Institutions for their continuous support and encouragement. My sincere thanks to Dr S Raghunath, Dr M.V Rama Rao, Dr P.Bhanumuthy and Dr Mangala Keshava for making the editorial process easier and smoother.

Attending an academic/professional Conference often means a chance for faculty to gain useful knowledge in both teaching and research. The purpose of this conference is not only to discuss the structural systems and their applications, but also to discuss advances in materials, trends and critical issues related to Structural Engineering.

This is the first year of conducting the conference and we are positive that we will be conducting in the future years ahead. This year we received far more submissions than we had expected. This Volume contains about thirty four refereed papers with more than fifty authors contributing to the conference. These papers have been gone through a rigorous double-blind review process.

The best papers will be considered for publication in the coming issues of International reviewer with ISSN No 2395-1575 an online Journal.

Finally, I would like to sincerely thank everyone for active participation in NCASM -15. Without the support from Principal Dr S .N Sridhara and Faculty of Civil Engineering this would not have been possible. In addition the committee will greatly appreciate to receive ideas to improve the quality of NCASM in future.

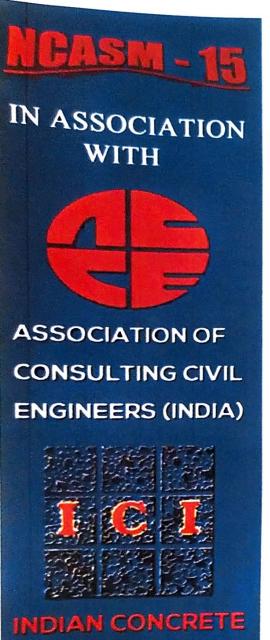
We wish you enjoy the conference and look forward to seeing you again in the future NCASM conferences.

Dr VijayalakshmiAkella
Prof and Head
Department of Civil Engineering
K S School of Engineering and Management
Bengaluru
hod.civil@kssem.edu.in

CONTENTS

SI.No	Title	Page No	
1	Advances in Structures and Materials –Keynote Address by Er. Surya Prakash		
2	Review Paper Concretes for Today and Tomorrow- by Dr. Manamohan R Kalgal		
3	Shock Table Characterization for Response Spectrum Modulation by Dr. Raghunath S et. al		
4	Analysis of a Space Truss By Nonlinear Interval Finite Element Approach by Dr. M. V. Rama Rao et.al		
5	Dynamic Analysis of Reinforced Concrete Buildings with and Without Opening in Masonry Infill by Arpitha M et. al		
6	Parametric Study On Behavior Of Concrete Shell Roof Under Seismic Loading Conditions By Girish et.al		
7	Dynamic Behaviour of Reinforced Concrete Buildings with and Without Opening in Masonry Infills by Satish Pawar et. al		
8	Experimental Study on the Effect of Adding Styrene Butadiene Rubber (SBR) Polymer on Hybrid Fibre Reinforced Concrete by Harshith et. al	53	
9	Study On Workability And Mechanical Properties Of Self Compacted Concrete Using Glass Fibre, With Ggbs And Metakolin by Akmal Ali Khan et. al	58	
10	Study on open-source simulation software for heterogeneous traffic by Savitha B.G et.al		
11	Dynamics Soil Structure Interaction of Reinforced Concrete Buildings with and Without Opening in Masonry Infill Arpitha M et. al		
12	Experimental Study of Early-Aged Thermal Cracks and Crack Assessment due to Internal Restraint by Sushma M et. al		
13	Experimental and numerical simulation of ballistic impact on glass fibre reinforced plastic composite panels by Sajjala Kavitha et. al		
14	Dynamic Response of a Multi-Story Building Under Blast Load by Priyanka et. al		
15	Structural Condition Assessment and Feasibility Study by Kavya M et. al	91	
16	Flexural Behavior of Concrete Filled Steel Tube Beams by Swaroop.S.K et. al	94	
17	Assessment of Structural Soundness and Repair of the Building using NDT – A Case Study by Trishankar M et. al		
18	An experimental study on setting characteristics of geopolymer paste, optimization of geopolymer mortar and microstructural analysis to correlate the compressive strength of geopolymer mortar by Naga Anusha T et.al		
19	Impact Behaviour of Geopolymer Ferrocement Slabs by Manoj Kumar Reddy J M et. al		
20	Evaluation of Strength and Workability Characteristics of Concrete Using Manufactured Sand as Fine Aggregate by Rajeeth T J by et.al	116	

Sl.No	Title		
21	A Review on the Utilization of Bottom Ash as Partial Sand Replacement in Concrete by Vikas R Nadig et. al.		
22	Feasibility of rubber dam by Er. Shivaprasad. G. Sajjanar		
23	Explication of Stress-Block Parameters from Different Codal Provisions by Manish Parekh et. al		
24	Alternatives To River Sand And Its Application In Mortar by Shrinath et .al		
25	Analytical Study on Cold-Formed Steel Single and Built up Sections under Axial Compression by Jojin James et. al		
26	3D Seismic Analysis of Multi-Story Building with and without Shear Wall by Santosh.S.K et. al		
27	Effect of Masonry Infill on Commercial Electrical Wall by Saltoshis, Ret, al		
	Effect of Masonry Infill on Compressive, Flexural Strength and Cost Analysis of GFRG Panels by Mahesh Kumar C L et. al		
28	Compatibility of Structural Slab-Flooring and Roofing System with Regard to Different Span Ranges by Dr.Prakash.P et. al		
29	Dynamic Analysis of Masonry Infill in RC Frames by Rachana et. al		
30	Dynamic Effect of Torsional Irregularity on Unsymmetrical RC Framed Buildings by Pallavi N et. al		
31	Influence of Soft Storey and Shear Wall on Typical RC Building When Subjected to Modal Excitation by Rakshit DM et. al		
32	Influence of Soil-Structure Interaction on the Natural Period of a Typical RC structure Resting on Isolated footing by Gopalakrishnan N et. al		
33	Studies on the Influence of Re-Entrant Corners on the Dynamic Characteristics of a Typical RC Infill Frames by Abdul Raheem et. al		
34	Study on Modal Parameters of RC Structures Resting on Raft Foundation Considering Soil Flexibility by Vijila Balakrishnan et. al		



INSTITUTE





K S SCHOOLOF ENGINEERING AND MANAGEMENT

No. 15, Mallasandra, off Kanakapura Road, Bengaluru - 560062

DEPARTMENT OF CIVIL ENGINEERING

NATIONAL CONFERENCE ON ADVANCES IN STRUCTURES AND MATERIALS

NCASM - 15

27TH APRIL 2015

nis is to certify thatSUSHMA · M		of
J.S.S.E.M	BENGALURU	has
Published and Presented a paper titled. Thermal Cracks and Crack Assessme	Experimental Study o	f Early Aged
in the National Conference on Advances		

Co-ordinator

Dr. Vijayalakshmi Akella S.N. Sridhara Chief Co-ordinator

