

CONTENTS			
Keynotes			
1	Major Challenges in Earthquake Risk Reduction in Asia <i>Pennung Warnitchai</i>		i
2	Seismic Vulnerability Assessment of Soft Brick Unreinforced Masonry Walls: Study of 2001 Gujarat Earthquake <i>Kolluru V.L. Subramaniam</i>		ii
3	Performance Evaluation of an Intelligent Structural Design in BIM Environment: Case of RC Wall-Slab Resisting Systems <i>Nouredine Bourahla</i>		iii
4	Blast Resistant Materials : Concrete and Glass <i>Dr. Mohammed Alias Yusof</i>		iv
Technical Papers			
S.NO	Paper ID	Topic	Page No.
1	RACEI-001	Analysis of Liquefaction of Soil using SPT data <i>K. SaiKiran, M. Sri Vidya and P.Dhanamma</i>	1
2	RACEI-002	A Study on the Flexural and Split Tensile Strengths of Steel Fibre Reinforced Concrete at High Temperatures <i>Dr. P. Jyotsna Devi, G. V. S. Siva Prasad, P. Manikanta and P. Gouthami Patnaik</i>	6
3	RACEI-003	Fast Track Construction of Aluminum Formwork in Monolithic Construction Process using Lean Techniques <i>Ajinkya Satish Ringe and Siddesh Pai</i>	11
4	RACEI-004	Fibre Reinforced Alkali Activated Composites exposed to Elevated Temperature <i>Chitra Shijagurumayum and Thokchom Suresh</i>	16
5	RACEI-005	Strength Characteristics of Ternary Blended High Strength Concrete with Varying Proportions of Recycled Aggregate <i>Bantu Rakesh and Prof V. Bhikshma</i>	21
6	RACEI-006	Effect of Infill in the Design of Earthquake Resistant Buildings <i>Mohd Muneeruddin Khan</i>	27
7	RACEI-007	Geotechnical Investigations for Restoration of Gas Pipeline Network across Godavari River <i>Prof. D. Babu Rao and Prof. Moinuddin Ahmed</i>	29
8	RACEI-008	Influence of Externally Bonded Basalt FRP Wraps of Varied Fibre Densities on Shear Strength of RC Beams <i>Toufeeq Anwar, Syed Jawwad Ahmed and Mohammed Rehan Ali</i>	33
9	RACEI-009	Study on Behaviour of Uniaxial Column Bonded with Basalt FRP Wraps <i>Toufeeq Anwar, Shaik Abdul Rafi and Syed Jawwad Ahmed</i>	40
10	RACEI-010	A Design of Concrete Bridge <i>NavyaSoni, P Dhanmma and T Raja Ramanna</i>	46
11	RACEI-011	Effect of Sugarcane Bagasse Ash on Fly Ash based Geopolymer	60

		<i>Nirmala Thoudam, Tanya Lairikyengbam and Suresh Thokchom</i>	
12	RACEI-012	Evolutionary Algorithms for Performance Based Topology Optimization of Continuum Structures. <i>KNV Chandrasekhar, Jagadeesh Bommisetty, Tirukovela Sai Keertan, Vuppu Naveen and Tangudu Manoj</i>	64
13	RACEI-013	A Review on Light Weight Vermiculite Concrete <i>M Preethi, P Ashveen Kumar and Mohd. Hamraj</i>	77
14	RACEI-014	Uses of Waterproofing Compound for Sustainable in Structural Buildings: A case study of Imphal city <i>Leishangthem Yaiphaba Meitei, Thokchom Kiranbala Devi and Thokchom Suresh Singh</i>	80
15	RACEI-015	Effect of Moisture Content on Shear Strength of the Stabilized Soil <i>M.Thillai Backiam and B.Jeyanth</i>	84
16	RACEI-016	Properties of Cement Incorporated Partially by Rice Husk Ash and Sugarcane Bagasse Ash <i>Tanya Lairikyengbam, Nirmala Thoudam and Suresh Thokchom</i>	88
17	RACEI-017	Study of the Effects of Increasing Storey Height of Building with Base Isolation System <i>Kalpna Maisnam and Sukumar Singh Ningthoukhongjam</i>	92
18	RACEI-018	Evaluation Studies of Existing Aqueduct on Kalwakurthy Main Canal of Mahatma Gandhi Lift Irrigation Scheme in Mahabubnagar District <i>S. Lokeswari, T Raja Ramanna, M Pratibha and K.V.R.Satya Sai</i>	96
19	RACEI-019	Effects on Strength of Concrete with Full Replacement of Sand by Stone Dust <i>Soibam Monika Devi and Th. Kiranbala Devi</i>	100
20	RACEI-020	Shear Performance of R.C Slabs Strengthened with Basalt FRP <i>Toufeeq Anwar, Syed Jawwad Ahmed, Syed Mushtaq Hashmi and Syed Jafer Hussaini</i>	103
21	RACEI-021	Study on Polypropylene Fiber Reinforced SCC using Granulated Steel Slag <i>Shaik Zameer and M Sridevi</i>	110
22	RACEI-022	Ceramic Tile Waste as Replacement of Aggregate in Cement Concrete – A Review <i>Irom Moses Singh, Chitra Shijagurumayum and Thokchom Suresh</i>	117
23	RACEI-023	A Note on Climate Change and Extreme Water Event <i>Dr. Sivakumar, Mahalingham B, Dr. P. Sreehari, Dr. R. Srinath, Priyadharshni Varma U. M and NiranjanaLogeswaran</i>	121
24	RACEI-024	Structural Performance of Self cured Recycled Aggregate Concrete with PEG6000 <i>Sankar Kumar Reddy Pullalacheruvu and Lakshmi</i>	127

		<i>Thotakura</i>	
25	RACEI-025	Structural Response of Repaired RCC beams in Flexure using Ferro Mesh <i>B. Vinod Naik and Dr. Hamraj</i>	132
26	RACEI-026	Non- Linear Static Analysis of Plan Irregular Buildings with and without Infill <i>Mohammed Wasiquddin Bilal and Yousuf Hussaini</i>	139
27	RACEI-027	Experimental Investigations on Ecofriendly concrete <i>Dr. Md. Abdullah Shariff and B Ravinder</i>	143
28	RACEI-028	Compressive Strength Characteristics of Concrete using GGBS <i>K. Pranay Deep and Dr. Mohd Hamraj</i>	151
29	RACEI-029	Durability of Recycle Aggregate Concrete using Chopped Basalt Fiber <i>Dr. Md. Abdullah Shariff and Mohammed Umer Ali Khan</i>	157
30	RACEI-030	An Experimental Study on the Bond Strength of Basalt FRP bars partially Replacing Coarse Aggregates with Steel Slag Aggregates <i>Syed Yousuf Hussaini, Toufeeq Anwar and Md Allauddin</i>	165
31	RACEI-031	Durability of Polypropylene Fibre Reinforced Concrete Partially using Recycled Aggregates and Manufactured Sand <i>Dr. Mohd. Abdullah Shariff and Syed Imran</i>	171
32	RACEI-032	Durability Study on Metakolin based Geopolymer Concrete <i>Varanasi Pranavi</i>	177
33	RACEI-033	Flexural Retrofitting of Preloaded RCC Beams with Basalt FRP <i>Syed Jawwad Ahmed, Toufeeq Anwar and Mohd Nadeem Uddin</i>	181
34	RACEI-034	Performance Evaluation of High-volume Fly Ash Concrete <i>A. Ram kumar and Dr. Hamraj</i>	185
35	RACEI-035	Self-Compacting Concrete using Recycled Asphalt Pavement and Recycled Concrete aggregate <i>Bhukya Chandra Shekar</i>	191
36	RACEI-036	Environmental seismic affects and vibrational control with Retrofitting of RC structures <i>Namrath Nandipati and Dr. Mohd. Hamraj</i>	197
37	RACEI-037	Performance of Flat Slab Building with and without Shear wall for Irregular Structure <i>Mohd Mahboobullah and Mohd Nazim Raza</i>	201
38	RACEI-038	Analysis and Design of a Multi Storied Building with Shear Wall by using STAAD PRO <i>Prof. Md Abdullah Shariff, Khaja Begum and Md Abrar Ullah Khan</i>	213
39	RACEI-039	Stabilization of Fine Aggregate with Waste Foundry Sand <i>Prof. Md Abdullah Shariff, Khaja Begum and Md Abrar Ullah Khan</i>	220

40	RACEI-040	Experimental Study on Flexural Behavior on Self Compacting Concrete <i>Sharath Paisa and Dr. Ashfaque Jafari</i>	225
41	RACEI-041	Study on Compressive Strength of Flyash based Geopolymer Concrete using Slag (GGBS) and Waste Foundary Sand (WFS) <i>T. Trisathi and M. Sridevi</i>	233
42	RACEI-042	Structural Application of Composite Materials <i>Mohammed Yahiya and Dr. S. Amaresh Babu</i>	239
43	RACEI-043	Seismic Evaluation of Soft Storeyed Buildings Subjected to Real Time Earthquake and Strengthening Methods <i>Gaja Sai Manoj Kumar and David Raju Vasimalla</i>	244
44	RACEI-044	Comparative Study of Concentric and Eccentric Bracing System for Steel Building <i>Mohd. Nazim Raza and MD. Mohiuddin</i>	249
45	RACEI-045	Long-term Strength Studies on Quaternary Blended Bacterial Self-Compacting Concrete (QBBSCC) <i>Sridevi.M, Dr. P. Srinivasa Rao and Dr. T. Seshadri Sekhar</i>	261
46	RACEI-046	<i>Comparative Study on Performance Level of RC Building through Bracings and Column Dimensions</i> <i>Md. Afsha Farheen and Syeda Husna Nooreen</i>	267
47	RACEI-047	Seismic behaviour of RC multistoreyed bulings using staggered shear walls and x-bracings at different positions in different soil conditions <i>Meer Nawaz Ali and Dr. Mohd Hamraj</i>	274
48	RACEI-048	Comparison of Steel Frame Asymmetrical Building with Different Sections of Diagrid Subjected to Seismic Loading <i>Mohd Abdul Haseeb, Mohd Nazim Raza and Syed Saif Uddin</i>	282
49	RACEI-049	Evaluation of Capacity of Round about at Necklace Road using Gap Acceptance Method <i>K. Smitha, K. Vamahi Krishna and B. Hari Priya</i>	290
50	RACEI-050	Influence of Velocity on Major Lift Irrigation Projects <i>M.Pratibha, S. Lokeswari and ARN Sharma</i>	294
51	RACEI-051	Analysis of M20 grade concrete using Silico manganese slag as a partial replacement of coarse aggregate <i>B. Udayasree and T. Raja Ramanna</i>	297
52	RACEI-052	Minimization of Torsional Parameters in Vertical Asymmetric Buildings <i>Md. Masihuddin Siddiqui and Mohammad Raihan</i>	304
53	RACEI-053	Assessment of Useful Life of Reservoir <i>Dr. Qamar Sultana and Dr.M. Gopal Naik</i>	314
54	RACEI-054	Alarming state of Air pollution in Delhi: Its causes, Effects and Measures to control it <i>Saharish Fatima and Dr.S.Amaresh Babu</i>	320
55	RACEI-055	Study of Variation of Watershed Characteristics <i>Dr. Qamar Sultana and Asma Sultana</i>	327

56	RACEI-056	Analysis of ground water quality and its management <i>Dr. Qamar Sultana, Mahammad Afrose, Mohammed Mashood Ali and Hussain Syed</i>	335
57	RACEI-057	Study of Physio-Chemical Parameters and Quality Assessment of Ground Water <i>Asma Sultana and Dr. Qamar Sultana</i>	340
58	RACEI-058	Self Healing of Cracks by GGBS Concrete With Calcium Hydroxide Solution as an Activator <i>Toufeeq Anwar, MD Moin Ul Bari and Mohammed Ismail</i>	345
59	RACEI-059	Evaluation of Strength Properties of Metakaolin based Ternary blended self compacting concrete of M30 grade. <i>Dr. Mohd. Abdullah Shariff, Kamaji Mahesh and Sandeep Nerella</i>	352
60	RACEI-060	Factors Affecting Construction Dispute through Arbitration for BOT Projects <i>Asra Fatima, Dr. Bellam Sivarama Krishna Prasad</i>	355
61	RACEI-061	Prediction of splitting tensile strength from compressive strength of fiber reinforced self compacting concrete using support vector machine <i>Mohan Lal Chowdary</i>	
62	RACEI-062	Flexible pavement Mix design characteristics for PMV 40 with addition of zycotherm as additive <i>Syed Shimroze, Abubakar Bashoeb, Zaheer Muneer Ahmed</i>	
63	RACEI-063	Stabilization of soil by using demolished waste acquired from construction site <i>Mohd Adeeb Ahmed Khan, Syed Abid ur Rahman, Mohd Abdul Moiz Hami, Mohd Furkhan</i>	
64	RACEI-064	Water conservation for religious places <i>Mohammed Safiuddin, Mohd Furkhan, Mohammed Abdul Muhib</i>	
65	RACEI-065	Shear Strength of Metakaolin blended Glass Fiber Reinforced Concrete <i>Toufeeq Anwar, Syed Mushtaq Hashmi, Ata Ullah Khan, Mir Salman Ali</i>	
66	RACEI-066	Study of strength properties with respect to spalling and bursting forces in concrete by adding nano silica, GGBS and crimped fibre <i>Touseeq Anwar Wasif, Mohd Nadeem Uddin, Toufeeq Anwar, Mohammed Murtuza Hussain</i>	
67	RACEI-067	Water scarcity explication <i>Mohd Furkhan, Mohd Abdul Shukoor Hamza Saberi, Mohammed Safiuddin</i>	
68	RACEI-068	Experimental Investigation on Compressive Strength of Geopolymer Concrete with Recycled Aggregate <i>Mr.V.Vinay Kumar, Dr.V. Bhikshma</i>	
69	RACEI-069	Characterization of Admittance Signatures of PZT Transducer for Structural Health Monitoring <i>Dharmiki Anusha Deevi, Akshay S.K. Naidu, B.D.V. Chandra Mohan Rao</i>	
70	RACEI-070	Expansive soil stabilization using RBI GRADE 81 & Terrazyme Enzyme <i>G.Naveenkumar, Prof.T. Sambaiha</i>	

		<i>& Prof. Moinuddin Ahmed</i>	
71	RACEI-071	Optimization of Water Supply Distribution Network Using Simulate Annealing – A Case Study <i>Prof. Ram Mohan Rao, Zameer Ahmed</i>	
72	RACEI-072	Non Metallic Materials application for sustainable infrastructure: Saudi Aramco’s Experience <i>Mirza M. Baig, Oscar Salazar, Gusai Aithan, Mohamed Mehthel</i>	
73	RACEI-073	Traffic Impact Assessment Studies for Proposed Developments in Hyderabad <i>Shakeel Ayjaz, Shoukat Iyaz</i>	
74	RACEI-074	Combined Effect Of Steel And Basalt Fibres On The Shear Strength Of Reinforced Concrete Beams <i>Mohammad Fasiuddin Aijaz, Syed Mushtaq Hashmi</i>	
75	RACEI-075	Behaviour of Steel Reinforcement and Performance of Concrete in Marine Environment – A Review <i>Pavan Kumar, Dr.Fouzia Shaheen</i>	
76	RACEI-076	Reservoir Sedimentation, loss in storage capacity <i>Asra Jabeen</i>	
77	RACEI-077	Investigation on the Properties of Concrete Containing Steel Fibers and Alccofine <i>Appeesu Mahendar, Dr. Fouzia Shaheen, Akula Rajani, Pavan kumar</i>	
78	RACEI-078	Structural optimization of 3D Rcc Structuer using Genetic Algorithm in Matlab <i>Syed Abdul Wahab, Mohammed Abuzar Emami, Dr.Mohd Hamraj</i>	
79	RACEI-079	Study on Mechanical Properties of Binary and Ternary Blended Recycled Aggregate Concrete <i>Shaista Begum, P.Kranti</i>	
80	RACEI-080	Rehabilitation of Reinforced Cement Concrete Exterior Column-Beam Joint by Using Carbon Fibre Reinforced Polymer (CFRP) <i>Prof. Md. Abdullah Shariff, Mr. T. Naveen Kumar, Mr. Thimmaiah Gari Aditya</i>	
81	RACEI-081	Feasibility Report of Green field Road project - A Case Study <i>K.Lakshmi, T.Govardhan</i>	
82	RACEI-082	Analysis of single cell RC box structure byvarying cushion depths <i>Karyakarte. Vrushali, B.D.V. Chandra Mohan Rao</i>	
83	RACEI-083	An Experimental Study on High Performance Concrete Using different admixtures as Fly Ash, Silica Fume, Copper Slag <i>G Krishnaparandhama, P Jagan, P Praveen chary, Manoj D</i>	
84	RACEI-084	Evaluation and design of pervious concrete <i>G. Narendra Goud, K Swetha, S Swathi, MD. Essa Khan, M. Saideep</i>	
85	RACEI-085	Classifying and Comparing the Effect of Mode Choice Behaviour on Residential Dissonance in TOD	

		Neighborhoods of Hyderabad Metro Rail <i>D. Akhila Priya, Dr. C. Naveen Kumar</i>	
86	RACEI-086	Effect Of Pile Configuration On Lateral Load Analysis Of Pile Groups In Sand <i>Dr. Moinuddin Ahmed, Prof. D. Babu Rao, Rafiuddin Ahmed</i>	
87	RACEI-087	Strength and Hydraulic Characteristics of Permeable Pavement <i>A.Sandeep Goud, Prof.Moinuddin Ahmad</i>	
88	RACEI-088	An Experimental Study on the Bitumen Mix Design with Different Type of Filler Materials <i>G Krishnaparandhama, P Praveen chary, Manoj Durairaj, P Jagan</i>	
89	RACEI-089	Configuration of Centres in Plan-Asymmetric Building using Genetic Algorithms <i>Muhammed Masihuddin Siddiqui, Prof. N. Murali Krishna</i>	
90	RACEI-090	Effect Of Coconut Aggregate As Partial Replacement Of Coarse Aggregate With Confinement On Shear, Flexure And Deflection Of Beams <i>Syed Mushtaq Hashmi, Syed Sameeduddin, Mohammed Rafi</i>	
91	RACEI-091	Effect of Curing Methods on Strength and Durability of Combined Ground Granulated Blast Furnace Slag and Fly Ash Based Geopolymer Concrete <i>Mohd Nazim Raza, Syed Mushtaq Hashmi, Shaik Faizuddin Arif</i>	
92	RACEI-092	Strength Studies On Fly Ash and GGBS Based Geo-Polymer Mortar Using Sodium Silicate Solution <i>Dr.G. Mallikarjuna Rao, Y. Anil kumar.</i>	
93	RACEI-093	Strengthening of RCC Corroded Beam in flexure using Basalt Fiber Sheets: A Review <i>Mohammed Abdul Aleem Khan, Syed Jawwad Ahmed</i>	
94	RACEI-094	Development of ANN Model for Forecasting of Trap Efficiency of Reservoir <i>Dr.Qamar Sultana and Dr. M. Gopal Naik</i>	
95	RACEI-095	Study On Behaviour Of Sfrc Reinforced With Crimped Fibre Subjected To Punching Shear <i>Mir Firasath Ali, Tauseeq Anwar Wasif, Toufeeq Anwar, Mohd Waleed</i>	
96	RACEI-096	Performance Study of Different Concrete Composites in Sewer Environments <i>Shilpa Mishra, Thimmaiah Gari Aditya, Shweta Kaushik , S.Praveen</i>	
97	RACEI-097	Evaluation and Improvement of Roundaboutsusing Empirical Approach <i>ShakeelAjjaz, Syed Omar Ballari</i>	
98	RACEI-098	Importance of Sustainable Transport in India <i>Shweta Kaushik, Shilpa Tiwari Mishra, S Praveen, T Aditya</i>	
99	RACEI-099	Gis As A Tool For Sustainable Development <i>Mrinal Gour</i>	

100	RACEI-100	Performance of Steel Fibres in Concrete <i>Lakshmi Thotakura, Sankar Kumar Reddy Pullalacheruvu, Radha Vaddepally</i>	
101	RACEI-101	Implementation of Code - Compliance Approach in Reinforced Concrete Frame Residential Building: A Case Study <i>R Sree Ranjani, R Prashanth Kumar</i>	
102	RACEI-102	Effect of Aspect Ratio on Nonlinear Performance of Soft Story Structure <i>C.Srilakshmi, Dr.A.Vimala</i>	
103	RACEI-103	Sense of Urgency for Continuous Capacity Building of Civil Engineers to Attain Seventeen Sustainable Development Goals of United Nations by 2030 <i>Mohammed Hussain</i>	
104	RACEI-104	Performance evaluation of an intelligent structural design process in BIM environment: case of RC wall-slab resisting systems <i>Prof.Nouredine Bourahla, Salim Tafraout, Yasser Bourahla</i>	
105	RACEI-105	Potential of Periodic Networks for Seismic Isolation of Civil Engineering Structures <i>Mohamed Anis Doufene, Nouredine Bourahla, Ali Bougressi</i>	
106	RACEI-106	An Experimental Study on Mechanical Properties of Concrete by Partially Replacing Sand with Granulated Blast Furnace Slag and Cement by Rice Husk Ash <i>Dr.Md. Abdullah Shariff, Dr.Md.Hamraj</i>	
107	RACEI-107	Durability Of Concrete By The Partial Replacement Of Cement With Nano Silica And Sugarcane Bagasse Ash For Chloride Attack And Sulphate Attack <i>Dr.Md.Abdullah Shariff, Dr.Md.Hamraj</i>	
108	RACEI-108	Seismic Effect on RCC Frame with Floating Columns, Consisting of In-fills with Openings <i>Dr.Hamraj, Dr. Md.Abdullah Shariff</i>	
109	RACEI-109	Intelligent Transportation Systems <i>J.Achyuth Kumar, Dr. Moinuddin Ahmed</i>	
110	RACEI-110	An Experimental Study on Compressive Strength of Concrete Incorporating Alccofine and Limestone Powder as a Partial Replacement of Cement <i>Dr. Mohd. Hamraj, Md.Abdullah Shariff & Kiranmayee</i>	
111	RACEI-111	Effect of Lateral Loads and Seismic Effect on Structures <i>Dr.Md.Hamraj, Dr.Md.Abdullah Shariff</i>	
112	RACEI-112	Experimental Investigation on Strength of Concrete with Partial Replacement of Cement with Limestone and Clay Ore <i>Dr.Md.Abdullah Shariff, Dr. Mohd Hamraj</i>	
113	RACEI-113	An Experimental study on High Performance Concrete by Partial replacement of cement with Fly ash and Bentonite Powder <i>Dr. Md.Abdullah Shariff</i>	

114	RACEI-114	Simulation of flow Characteristics of NACA 0015 airfoil using ANSYS-CFD <i>Suresh Musham, Prasanna S V S N D L, Suresh Kumar .N</i>	
115	RACEI-115	Optimization of PSWC Bars for Enhanced Flexural Performance of RCC Beams <i>Ahmed Abdul Ahad, S Raghavendran, M.S. Haji Sheik Mohammed</i>	
116	RACEI-116	Deriving Digital Elevation Model from SRTM Data <i>Prof.D. Ram Mohan Rao, Barkat Ali Khan</i>	
117	RACEI-117	A Systematic Approach of Last Planner System and Its Implementation in the Construction Industry <i>Dr. S M Abdul Mannan Hussain, Asra Fatima</i>	
118	RACEI-118	Effect of Zeolite and Silica fume on mechanical properties of High Strength Self-Compacting Concrete using Nano silica <i>D Pradeep Chandra, Dr B Narendra Kumar</i>	
119	RACEI-119	Seismic Vulnerability Assessment of Soft Brick Unreinforced Masonry Walls: Study of 2001 Gujarat Earthquake <i>Jayaprakash Vemuri, Tariq Anwar Aquib, Kolluru V.L. Subramaniam</i>	
120	RACEI-120	Design Of Mud Concrete Mix <i>Mohammed Safiuddin, Dr. Mohammed Ahmed Hussain</i>	