iJRASET
International Journal For Research in
Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 9 **Issue:** X **Month of publication:** October 2021

DOI: https://doi.org/10.22214/ijraset.2021.38442

Comparative Analysis of RC BuildingUsing Dampers and with Shear Wall under Wind Load: A Review

Bashar Iqbal[1], Dr. Savita Maru[2]
[1]*Post-Graduation Student,* [2]*Prof, Dept. of Civil Engineering, Ujjain Engineering Collage Ujjain, India*

Abstract: The requirement of tall building in recent years increase the construction to satisfy the need of human beings. Very tall buildings located in high velocity wind area are highly sensitive therefore calculation and analysis of wind load is very impotent. Due to change in climatic condition the basic wind speed are increases. The main aim of this paper is to introducing the different techniques which is used to reduce the effect of wind load or lateral loads.
Keywords: wind analysis, comparative analysis, TMD (tuned mass damper),friction damper, shear wall

I. INTRODUCTION

Wind is the term utilized for air moving and is normally applied to the regular flat movement of the environment. or then again in other word wind is the development of air caused by uneven heating of the earth by the sun and the world's own revolution. Winds range four light breezes to regular perils like storms and cyclones. Today the development of tall structure particularly in huge urban areas, which are dealing with the issue of absence of separating for lodging, is profoundly respected Due to utilization of lightweight material with exceptionally high adaptability. It ought to be noticed that height is regularly joined by an expands the affectability of the constructionto dynamic powers like breeze. Three procedures use to decrease impact of wind load on tall structure are.

A Tuned Mass Damper (TMD), additionally called a "consonant safeguard", is a gadget mounted to a particular area in a construction, to decrease the abundancy of vibration to an OK level at whatever point a solid sidelong power, for example, a seismic tremoror high breezes hit. There are two fundamental kinds of TMD; the Horizontal TMD which is typically found in thin structures, correspondence pinnacles, towers and so forth. The other kind is the Vertical TMD, which is generally applied in long range flat constructions like extensions, floors and walkways. The two sorts have comparablecapacities, however there may be slight contrasts as far as system.

Friction damper fundamentally utilized under seismic stacking to lessen the seismic vibration in tall structure. Rubbing dampers are intended to have moving parts that will slideover one another during a solid seismic tremor. At the point when the parts slide over one another, they make grating which utilizes a portion of the energy from the seismic tremor that goes into the structure.

Shear wall is a primary part in a supported cement outlined construction to oppose sidelongpowers, for example, wind powers. Shear dividers are for the most part utilized in tall structures subject to sidelong wind and seismic powers.

II. LITERATURE REVIEW

A.U.Weerasuriyan and M.T.R.Jayasinghe. [1998] In this exploration they investigated for 183 m tall structure. The administering load noticed for load blend of 1.2DL+1.2Q+1.2W and for this mix, bowing second has greatest with regards to 35% in section and about 48% for the shafts. Nonetheless, section most extreme pivotal burden variety is in the scope of 10%. Australian Standards gave higher breeze loads in zone 1 as a result of they utilized higher landscape stature multiplier and a significance factor for cyclonic district, zone1. The utilization of higher territory stature multiplier in cyclonic area can be defended due to higher danger level are needed to plan structures in cyclonic locales. In any case, the utilization of significance factor 1.1 may prompts more traditionalist breeze load plan and subsequently it is prescribed not to utilize it with higher landscapestature multiplier. Euro code additionally inferred higher breeze stacks because of higher pressing factor coefficient esteems utilized by the code.

M.D.Wijeratne, M.T.R.Jayasinghe.[1998] the researcher applied the breeze power of 33 m / s and 38 m / s to the structure of a building in Sri Lanka. The construction consists of 40, 50 and 60 floors with 160 m 200 m and 24 0 m height separately with a breathing ratio of stature. They located the greatest avoidance for 40 stories - 239mm, 50 stories - 340mm and for 60 stories - 478mm. They saw that the redirection was excessively huge, so they applied some shear dividers and tried to reduce the maximum evasion from 96mm to 212mm. The structure with unusually low ground wind rates will allow architects to choose less inflexible primary structures that could have an unacceptably high speed increase even at lower wind speeds. for tall structure for the post-debacle wind speed given for the area. Utilizing a higher breeze speed will force the lead planner to choose appropriately hardened building frames with low buoyancy demonstrations.

Bogusz Bienkiewicz, Munehito Endo et. al..[2001] In this examination they investigation paper of two structure for wind power, havingthe various measurements that breeze initiated interior power (bowing second) in the casing calculation. That power created the 90% pinnacle bowing second in the two edges. In a first structure bowing second comes 31.2 KN.m at the tallness of 6.1m and in second structure it was 32.4 KN.m at the stature of 9.45m.which is greatest in both construction. Consequences of a continuous between research center similar investigation of approach stream, wind pressures on low structures and interior breeze prompted stacking are introduced. The biggest inconstancy in the research center breeze pressures and in the related (processed) wind-prompted inside stacking (bowing second) in underlying casings. This inconstancy was fundamentally credited to contrasts in the methodology streams utilized in actual displaying of wind pressures on tried structures, done by the taking an interest research centers. The changeability in the methodology streams brought about a huge measure from the distinctions in the along-wind disturbance forceinferred by various experimental models, characterizing the objective breeze openings and utilized by the research facilities. A subsequent similar between research center review is wanted to address various issues distinguished in the continuous endeavors.

Li Jian Zhou, Ming Kang Shan & et. al. [2012], This paper set up three-dimensional estimation modular of three huge space shear divider constructions of various thickness, utilizing limited component programming ANSYS to dissect the breeze burden and vertical heaps of the inside power. What's more, break down the dislodging, interior power dissemination design. Under the breeze burdens and vertical heaps of three unique thickness mass of the bigger space divider structure.

Bianca R. Parv and Monica P. Nicoreac.[2012] In this investigation of construction they have examined 25floor structure having the tallness of 87.5m for the level consistently conveyed load, from wind, following up on both side heading is 28kn/mand 24 kn/m by comparable section technique and FEM strategy. they discovered max. Disfigurement at Umax is 1.3cmfor ECM and 1.2 for FEM and Vmax is 12.05cm and 10.70cm for ECM and FEM individually.

Swati D. Ambadkar, Vipul S. Bawner [2012] In this paper they examined 40m celebrated structure at 50m/s wind power is 65.322KN. twisting second is 97.823 KN-M and miss happening is 105.147 mm. As the breeze speed builds My, Mz esteem additionally expands as indicated by the class as contrast with Mz esteems My qualities increments all the more quickly. As the breeze speed builds Fy, Fz esteem Fy esteem expanded all the more quickly. Relocation increments as the breeze speed increments for different kinds of opening, classification

Rajib Kumar Biswas , Md.Meraj Uddi & et. a. [2013] In this paper Comparative Analysis of a 15 Story Flat Plate Building with and Without Shear Wall and Diagonal Bracing Under Wind and Seismic Loads. To expand sidelong solidness of level plate structure and to is likewise worried aboutsegment pivotal burden and to survey our design with exceptional elements like shear dividers and inclining supporting. In present work, a 15 celebrated level plate articles of clothing building have been displayed utilizing programming bundle STAADPro for limit the uprooting of the design under horizontal stacking. This document from Seismic Quake Zone II in Bangladesh. This model is considered in the weakest circumstances where we took the wind speed as 26 kmph and the earthquake load was taken according to the Bangladesh National Building Code (BNBC).

R. Vijayasarathy, V. Finney H. Wilson,[2013] In this review Application of Tuned Mass Damper in Structures under Seismic Excitation. This paper makes an endeavor to comprehend the current information on Tuned Mass Damper in underlying frameworks and their applications in seismic tremor designing. The examination work done bydifferent scientists and their decisions have been talked about exhaustively

Mohit Sharma, Savita Maru [2014] Exploratory review performed on G+ 30 celebrated ordinary structure model in STAAD Pro. These structures have a standard width of 25m x 45m with a height of 3.6m and a foundation depth of 2.4 m. and all the objects chosen to assemble included the grandeur of the 114 m erection. The robust and robust analysis was carried out on PCs with the help of STAAD-Pro boundary application software for planning in accordance with IS-1893-2002-Part-1 for zones-2 and 3 and the mail end results completed above.

Sandeep Tembhurkar, Valsson Varghese[2014] This paper present an investigation of wind burdens to choose the plan basic boundary of a multistoriedstructure. The huge of this work is to gauge the plan loads gauge dependent on the essential breeze speed and different elements of a design. Said Elias and Vasant Matsagar,2014 In this paper, the 76-story structural design is shown as the shear type structure and the wide range of space on each floor, and floor dampers (TMDs) are identified from different surfaces / floors. Appropriate opportunities for the introduction of TMDs and their spectrum regulators are significantly based, varied, on the type of shape and frequency of non -regulatory and regulatory structures. There is a reason that d-MTMDs are more potent in regulating the wind that induces tremor than STMDs and MTMDs put at higher levels.

Farhana Naznin, Partha Pratim Das & et.al. [2015] This paper features a survey on the rule and utilizations of base segregation and tuned mass damper. The vibration control idea with base isolators and tuned mass dampers is a uninvolved method of controlling the reaction by giving even adaptability, energy dispersal and inflexibility against parallel burdens.

Haruna Ibrahim, Daha S. Aliyu [2015] This review was made to concentrate on the viability of utilizing Tuned Mass Damper for controlling vibration of an edges structure. This report proposes a uninvolved control of vibration of single levelof opportunity and multi-level of opportunity primary casings exposed to dynamic (wind) excitation and an overall comprehension of the underlying elements through MATLAB recreations. Primer outcomes on the detached control of the primary reaction of single level of opportunity (SDOF) and two dimensional multi-storied edges utilizing Tuned Mass Damper (TMD) are introduced. At initial a mathematical examination was created to research the reaction of a shear building fitted with a tune mass damper. Then, at that point one more mathematical was created to examine the reaction of a 2D casing model fitted with a Tuned Mass Damper and afterward without Tuned Mass Damper (TDM). From the review it was discovered that, tuned mass damper can be successfully utilized for vibration control of designs. Tuned mass damper (TMD) was more viable while damping proportion of the design is less. Slowly expanding the mass proportion of the tuned mass damper outcomes in continuousdecrement in the uprooting reaction of the design. It is additionally seen that because of expansion in tuned mass damper damping proportion, the development of tuned mass damper is likewise diminishes.

A Kale, S. A. Rasal,[2015] In this paper concentrate on four unique states of same region multistorey model is produced and tried by the ETABS under the rule of IS-875- Part3 and IS1893-2002-Part1. The conduct of 15, 30 and 45 story building has been examined. The Dynamic impacts additionally find by Response range strategy. Every one of the boundaries like Story uprooting, Story float, Base shear, Overturning minutes, Acceleration and Time period are determined. Subsequent to looking at the all structure shape results we can reason what area is helpful and either seismic or wind impact is basic. In this paper creator take six models of building hurling 25 story is considered having 8 straights in X and Y course with plan measurement 40X40m and story stature 3.5m. The structure is kept symmetric both way are examined as exceptional second opposing edge utilizing identical static investigation and dynamic reaction range examination. In model initially Bare casing model without bracings anyway masses of infill dividers are remembered for the model. In second uncovered casing model with V bracings. In third model full infill model without bracings. In fourth model full infill model with V bracings. In fifth model structure has one gull block infill brick work divider in all accounts without propping with ground delicate story. An in 6th structure has one full block infill brick work divider in all accounts with V propping with ground delicate story.

Priyanka Soni, Vikky Kumhar & et . al. [2016] study and analysis of different functional studies with the improvement of the separation of the segments and their behavior towards the adjacent loads. While different separation resist important parts of the adjacent loads at the bottom of the structure and the load -bearing edge on the upper parts of the building are suitable for sensitive high -rise buildings, buildings comparable to the developed nature in India, Such as India base floors are used for brakes and motor vehicles or officers and tops are used for private purposes. Shear dividers are primary frameworks which give strength to structures from horizontal burdens like breeze, seismic burdens. These underlying frameworks are built by supported cement, pressed wood/lumber unreinforced stone work, built up workmanship at which these frameworks are sub isolated into coupled shear dividers, shear divider outlines, shear boards and staggered dividers.

Shaikh Muffassir 1, L.G. Kalurkar 2[2016], in this review complete fifteen no. Of building model are ready and investigation for wind load by utilizing ETABS. 2015. The breeze is performed for various tallness, for example, 20m, 50m, and 80m what's more, near study reasons that the composite structure are bigger pliable and more susceptible as contrast with RCC structure and the composite choice is better then RCC multistory structure. Furthermore the comparison of various arrangement shows that the reactionof boundary like uprooting , story solidness base reaction and the time pried under impact of wind.

S. Elias , R. Rupakhety & et.al.[2016], Is concentrate on presents examination of a benchmark building introduced with tuned mass dampers (TMDs) while exposed to wind and tremor loads. Diverse TMD plans are applied to diminish dynamic reactions of the structure under wind and quakes. *e coupled conditions of movement are formed and tackled utilizing mathematical techniques. *e uncontrolled structure (NC) and the controlled structure are exposed to a bunch of 100 tremor ground movements and wind powers. *e adequacy of utilizing distinctive different TMD (MTMD) plans instead of single TMD (STMD) is introduced. Ideal TMD boundaries and their area are researched. For a tall construction like the one concentrated here, TMDs are observed to be more compelling in controlling speed increase reaction than relocation, when exposed to wind powers. It is seen that MTMDs with equivalent firmness in every one of the TMDs (generally considered for wind reaction control), when improved for a given construction, are powerful in controlling speed increase reaction under both breeze and tremor powers. Be that as it may, if the gadget isplanned with equivalent mass in each floor, it is less successful in controlling wind induced floor speed increase. therefore, with regards to multihazard reaction control, circulated TMDs with equivalent stiffness’s ought to be liked over those with equivalent masses.

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 9 Issue X Oct 2021- Available at www.ijraset.com

Ashish Kumar Gupta, DSaleem Akhtar & et .al. [2016], In this paper, seismic investigation has been done on G+ 10 stories working in Zone IV. The investigation has been finished considering shear mass of RCC and steel plate. Boundaries like hub load, uprooting, Overturning second, firmness and so not really settled for various area of shear divider.

Ashwini A. Gadling, Dr. P. S. Pajgade*[2016],* In this paper, the examination and plan of RCC shear dividers with and without openings to concentrate on more detail scientific outcomes and presume that Changing the situation of shear divider will influence the fascination of powers, so that divider should be in legitimate position. On the off chance that the components of shear divider are huge, significant measure of flat powers are taken by shear divider. Giving shear dividers at sufficient areas generously decreases the relocations because of tremor. In spite of the fact that shear limit and lateral firmness of the shear divider are diminished on account of the openings, the flexibility and energy-scattering limit can be improved and the seismic practices of the shear divider affected by the edge imperative, the size, the area of opening etc. The sheardivider situated at center of building gives avoidance in reasonable breaking point however most extreme base shear. Thus, it is more helpless against tremor. Story float of building gave openings in shear divider is more noteworthy than shear divider without openings. Time-frame is straightforwardly corresponding to the openings in shear divider. As space of openings expansions in shear divider, time-frame is additionally increments. Recurrence diminishes with expansion in openings.The pliability and shear strength of the shear divider with openings is exceptionally influenced by support given around openings. xi. Contrasted and normal shear divider, the explores on pre-assembled composite shear divider with limit casingsand openings are moderately less.

Tharaka Gunawardena, Shiromal Fernando & et. al. [2017] The reactionof tall structure to wind powers is a cricital plan model and it required both regular powers based just as execution based arrangement. This paper examines these difficulties and the designing arrangement that they need to effectively plan a tall structure which isn't just steady, protected and solid under wind stacks yet in addition performs superbly giving usable and exceptionally practical plan.

Mahesh Ram Patel, R.C. Singh [2017] the effect of wind speed and initial response of construction outlines on slanting soils has been evaluated. Think about different casing calculations. Mixing is considered with heavy loads. For the combined mix, 10 cases in different wind chimes were studied. STAAD-Pro v8i software was used for causal analysis. The results accumulated up to the value of power, Shear power, second, Story-wise float and Analysis are studied to evaluate the effects of differences in design features.

Nicola Longarini, Luigi Cabras & et. al.[2017], In this paper primary upgrades for tall structures under wind loads similar review heas been done based on this examination the conduct of an exceptionally slim structure is researched under wind burden to fulfill both strength and usefulness plan measures. In this two strategies (I) pressure mix strategy (PIM) with limited component demonstrating, and (ii) high recurrence power balance (HFFB) procedure are utilized. the lift region and around the significant pressure plate part

Sonali Pandey, Krishna Murari & et.al.[2017], In this paper planned to concentrate on the different exploration turns out accomplished for working on the exhibition of shear divider and finding its best situation in a structure. Shear dividers have ended up being extremely effective in opposing solid quake up until now.

Vikrant Trivedi, Sumit Pahwa,[2018], This review centers around static and dynamic examination of a 20 story structures by utilizing STAAD-professional Vi8 under wind burden to further develop uprightness and solidness of design.This paper is to comprehend arrangement of global stander and contrast them and Indian stander. In this paper a similar investigation of wind load examination of RC building utilizing three unique codes is done will be done according to IS875 (part 3):1987, IS875(part 3):2015,ASCE 7-05, and AS\NZS 1170(part2)- 2011. Wind not really settled dependent on blast factor technique and basic blast loads are determined. In this work a tall structure with various area of shear divider with various shapes has been dissected. Four models were made with shear divider at various area. Every one of the four models were displayedon STAAD.PRO V8i. Direct static investigation was performed for all models. For reaction range investigation, reaction spectra of IS 1893:2002 was chosen and the reaction range examination was performed. For time history examination reference seismic tremor information of EL CENTRO quake was chosen, this reference information was made viable with IS 1893: 2002 and time history investigation was performed. Results acquired from all the three investigation of each models. Information got by STAAD.PRO V8i was utilized to interpretative the outcomes and a correlation were made for all the Four examination.

Reşitpaşa Mahallesi, Katar Caddesi & et. al. [2018], This article present an original methodology for effectively creating mechanical models of structures coordinated with contact dampers to work on their mathematical reproduction, and utilizing the created approach, erosion damper-based detached control and afterward mass driver-based powerful dynamic vibration control systems are applied on a seismically invigorated, three-story building reenactment model, and the outcomes are contrasted with survey the vibration lessening level accomplished by the aloof control approach. The recreation results uncover that removal and speed increase reaction decreases in dynamic control are, by and large, better than those in uninvolved control yet the thing that

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 9 Issue X Oct 2021- Available at www.ijraset.com

matters isn't simply huge. These discoveries, thus, support firmly the utilization of grating damper-based inactive vibration control components as solid options in contrast to dynamic control strategies in primary assurance against quakes.

Madhu sudhan rao.kondapalli,[2018], This review targets contrasting differentboundaries, for example, story float, story shear and story uprooting of a structure under horizontal burdens dependent on essential situating of shear dividers. Straightstatic investigation has been embraced in this paper. The product utilized is ETABS.

Aiswaria G.R., Dr. Jisha S.V. [2018] investigated the impact of across and along wind loads following up on tall structure according to IS 875 (Part-3):2015 situated in landscape classification IV, tallness fluctuating from 90 m to 240 m by thinking aboutthe impact of impedance. From this review, most extreme base shears and base minutes incited by across and along wind loads were contrasted with figure the overseeing wind load part following up on tall RC outlined structure. Results shows that the if there should be an occurrence of long body direction for upto the stature of 150 impact of along wind power is overseeing while for short body direction across wind power is administering for every one of the structures.

Mohd Ismail Zabeeh, S. M. Hashmi,[2020], This paper Study on Seismic and Gust Wind Effects on G+30 Residential Mivan Structure Using Different Stiffness Modifiers for Structural and Non Structural Walls. Constructions ought to be planned with the end goal that they can oppose seismic quake and wind blast impacts impelled avoidances and interior powers. Primary firmness modifiers are significant elements which gives the conduct of construction subsequent to breaking due seismic or wind powers on the designs. In this review, effects of Stiffness Modifiers on structures, floats, dislodging, modular mass support, time-frame, recurrence are analyzed. Building models, which have same number of floors with various firmness modifiers according to codal arrangement of IS 16700-2017 are delivered by a FEM PC program and computations are made. Results are contrasted and defends are given and keep away from hurtsbrought about by Stiffness Modifiers under seismic quake loads are examined.

Fatemeh Rahimi, Reza Aghayari & et.al. [,2020], This paper presents a functioning, aloof, semi-dynamic and crossover control frameworks of TMD utilized for safeguarding structures against powers initiated by quake or wind, and gives an examination of their effectiveness, and similar benefits and weaknesses. Notwithstanding the significance and late progression in this field, past survey studies have just centered around one or the other latent or dynamic TMDs. Subsequently this audit covers the hypothetical foundation of a wide range of TMDs and examines the underlying, logical, reasonable contrasts and the economicaspects of their application inprimary control

Ubair Gul Khan Mirza Aamir Baig,[2020], This paper presents a blueprint of state of the art measures to diminish essential response of tall designs, including a discussion of collaborator damping devices for directing the seismic quake and wind-starteddevelopment of constructions. To ensure the helpful execution of tall constructions, distinctive arrangement changes are possible, running from elective assistant systems to the utilization of detached and dynamic control contraptions. Inert tuned mass damper (TMD) is comprehensively used to control helper vibration under wind load yet its reasonability to diminish quake started vibration is a creating strategy.

III. CONCLUSIONS

After reading the previous research and review papers of work related to static wind load on tall building I have reached this conclusion. Previous researches and test are performed for different tall structure with different cross-section for improve its durability against wind effect has been done and also the analysis of structure with tuned mass damper (TMDs) to reduce the effect of wind on ETABs software.

1) The literatures survey in the performance of building structure when subjected to wind load suggests that the requirement of establishing a methodology for study the response of building against wind load.
2) As of now the dampers are used in tall buildings to reducing the effects and vibrations of earthquake but in this work tuned mass damper (TMDs) and friction damper (FDs) are check under wind or lateral loads.
3) In this theses work tuned mass damper (TMD) is check in RC tall building with and without share wall under static wind analysis, same with friction damper (FD) check with and without share wall under static wind load.
4) For the analysis of building on wind load a rational and realistic method such asstatic analysis method must be considered.

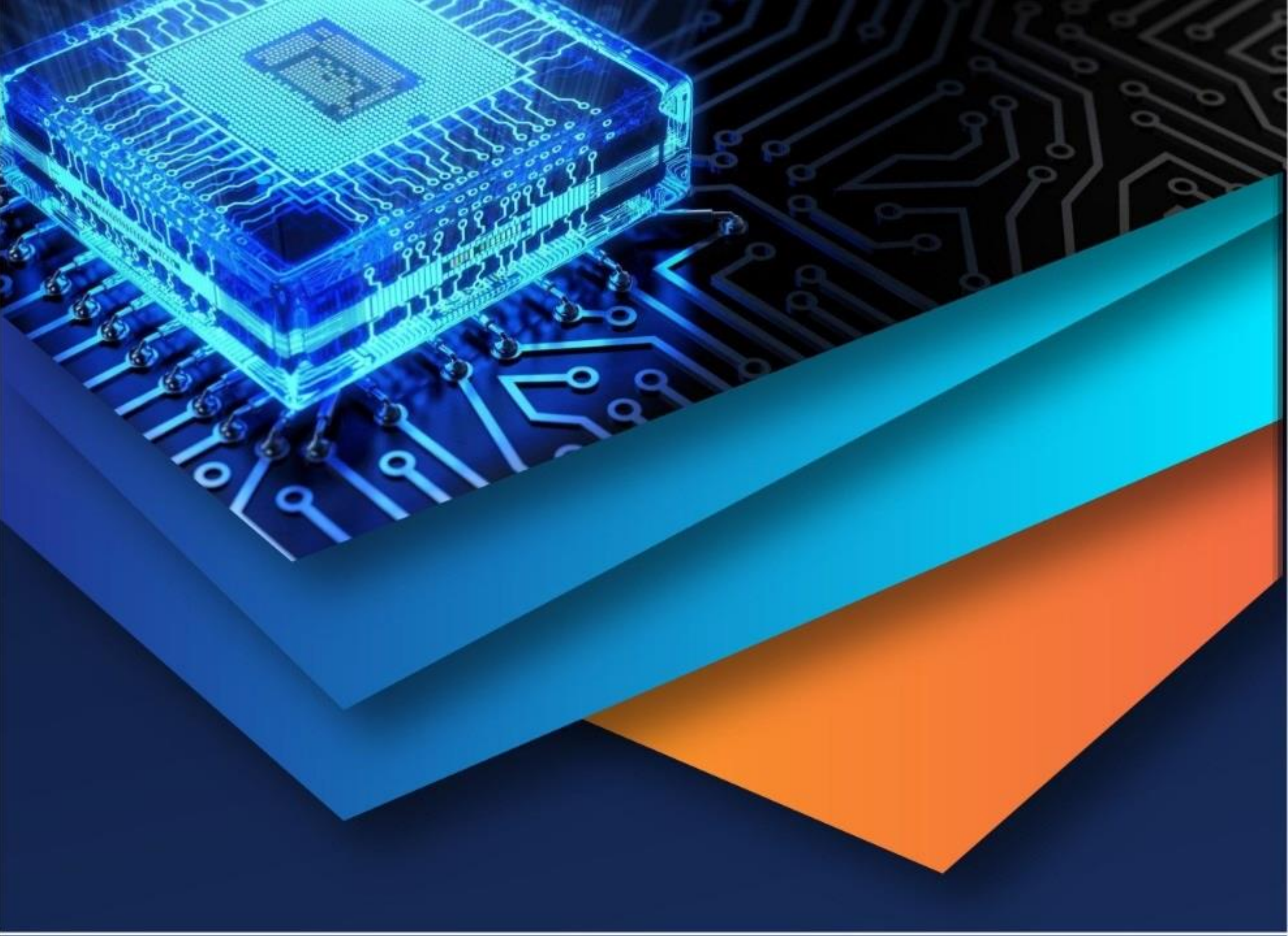
IV. FUTURE SCOPE

After review the various literature the following are the key area to be work out in future which are as follows:

A. Comparative Analysis of RC Building Using Dampers and with/without Shear Wallunder Wind Load
B. Codal comparison of RC Building Using Dampers and with/without Shear Wall underWind Load
C. Material comparison of RC Building Using Dampers and with Shear Wall under WindLoad

REFERENCES

[1] "A comparative study of wind standard for tall building" By 'A.U.Weerasuriyan andM.T.R.Jayasinghe',1998.
[2] "Wind loads for high-rise building constructed in Sri Lanka" By 'M D Wijeratne and M T R Jayasinghe' ,1998.
[3] "Comparative inter-laboratory study of wind loading on low industrial building", By 'Bogusz Bienkiewiczl, Munehito Endol, Joseph A. Main, and William P. Fritz*,2001.
[4] "The Analysis of Large space shear wall structure under Wind Load Force" By 'Li Jian Zhou, Ming Kang Shan, Jin Zhou He, Yuan Gang Fan',2012,
[5] "Global Structure Analysis of Central core Supported Tall Building Compared With Fem", By 'Bianca R. Parv and Monica P. Nicoreac,2012.
[6] "Behaviour of multi-storied building under the effect of wind load" By ' Swati D. Ambadkar, Vipul S. Bawner', 2012.
[7] "Comparative analysis of a 15 story flat plate building with and without shear wall and diagonal bracing under wind and seismic load" By 'Rajib Kumar Biswas 1, Md.Meraj Uddin 2 , Md. Arman Chowdhury 3 , Md. Al-Imran Khan4,2013.
[8] "Application of Tuned Mass Damper in Structures under Seismic Excitation" By'R. Vijayasarathy1 , V. Finney H., 2013.
[9] "Dynamic Analysis of Multi-storied Regular Building" By 'Mohit Sharma Dr. Savita Maru', 2014.
[10] " Critical analysis of frame building structure by wind force" By Sandeep T., Dr. Valsson V., 2014.
[11] "Wind response control of 76-storyes benchmark building with distributedmultiple Tuned Mass Dampers" By 'Said Elias and Vasant Matsagar', 2014.
[12] "application of tuned mass damper in structure under wind load" By 'Farhana Naznin1 , Partha Pratim Das2 and Nayanmoni' 2015.
[13] "Seismic & Wind Analysis of Multi-story Building" By 'A. A. Kale, S. A. Rasal'2015.
[14] "response spectrum analysis of building" By Ashwini A. Gadling.,2016.
[15] "Comparative study on wind analysis of multi-story RCC and composite structure for different plan configuration" By 'Shaikh Muffassir, L.G. Kulukar'2016
[16] "Parametric study of optimal design parameters of tuned mass dampers for mitigation of seismic response of building" By 'S. Elias , R. Rupakhety , and S. Olafsson',2016."Analysis of tall building with shear wall of RCC and steel plate" By 'Ashish Kumar Gupta Dr. Saleem Akhtar, Dr. Aslam Hussain,2016.
[17] "Analysis and design of RCC shear walls with and without openings" By 'Ashwini A. Gadling, P. S. Pajgade*2016.
[18] "Wind analysis and deaign of tall buildings" By 'Tharaka Gunawardena1, Shiromal Fernando 2, Priyan Mendis' 2017.
[19] "Analysis of a tall structure using STAAD pro providing different wind intensities" By 'Mahesh Ram Patel, R.C. Singh'2017.
[20] "Structure improvement for tall building under wind load, comparative study" By 'Nicola Longarini,1 Luigi Cabras,2 Marco Zucca,1 Suvash Chapain,3and Aly Mousaad Aly'2017.
[21] "A review on shear wall in high-rise buildings" By 'Sonali Pandey , Krishna Murari ,Ashish Pathak ,Chandan Kumar' 2017.
[22] "Wind analysis of multi-story building : A review" By 'Vikrant Trivedi-1, Sumit Pahwa,2018.
[23] "comparative study on wind load analysis using different standards" By 'Md ahesan Md hameed, Amit Yennawr', 2018.
[24] "A review paper on appropriate location of shear in building to reduce reinforcement consumption by STAAD.Pro Vi8" By 'Madan Singh, Rajiv Banerjee, Syed Aqeel Ahmad, Anwar Ahmad', 2018.
[25] "Analysis of RC building by using friction damper" By 'Reşitpaşa Mahallesi,Katar Caddesi, Teknokent ,2018.
[26] "Optimum location of shear wall in a building" By 'Mr.Madhu sudhanrao.kondapalli,2018.
[27] "analyzed the effect of across and along wind loads acting on tall building" By 'Aiswaria G.R., Dr. Jisha S.V',2018.
[28] "Study on Seismic and Gust Wind Effects on G+30 Residential Mivan Structure Using Different Stiffness Modifiers for Structural and Non Structural Walls" By 'Mohd Ismail Zabeeh, S. M. Hashmi',2020.
[29] "Application of Tuned mass damper for structure vibration control: A state of the art review" By 'Fatemeh Rahimi, Reza Aghayari, Bijan Samali',2020.
[30] "Behaviour of tall building using tuned mass dampers" By 'Ubair Gul Khan Mirza Aamir Baig',2020.



10.22214/IJRASET

INDEX COPERNICUS 45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY