Inviting You to the nearest Future SKY CITY,

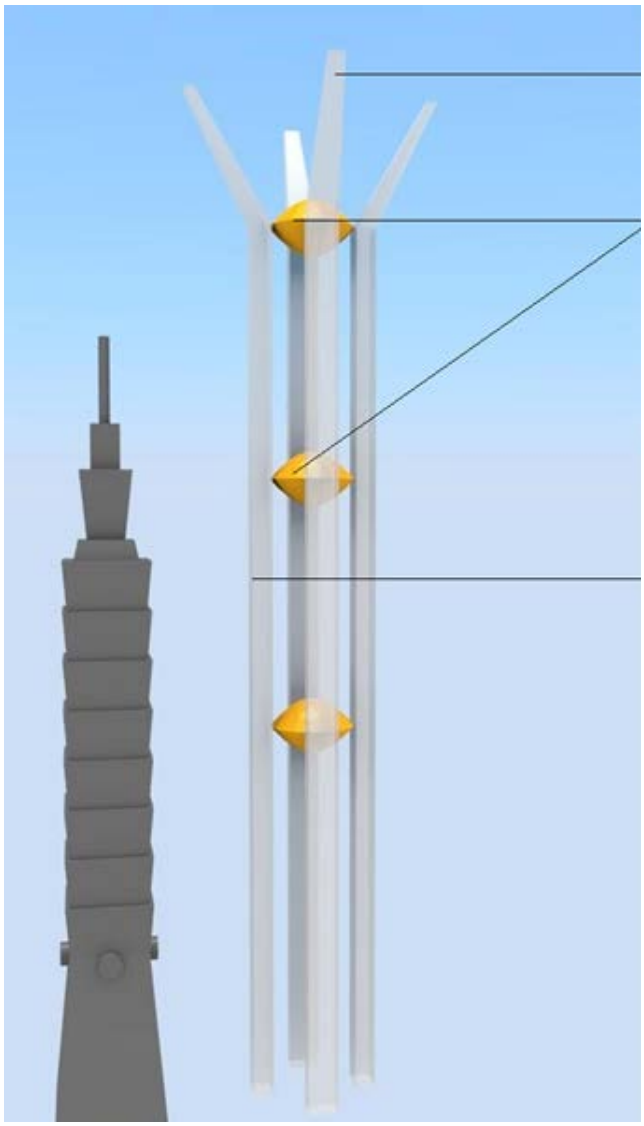
COREAN

(Creative, Operative, Reliable, Effective, Advanced and Noble) 300,

Hybrid Highest Buildings combined with Spatial Structures

10% of our Models

Main Features



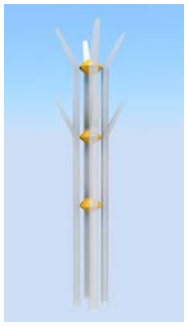
-Tilted, enlarged spaces connected to inverse dome

- Spaces for future transportation platforms, Exhibition, Stadium, or Entertainment, working as Tuned Mass Dampers as well

- Structural, Economic Benefits

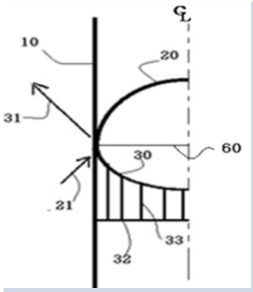
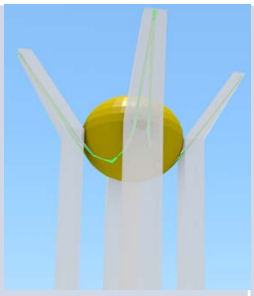
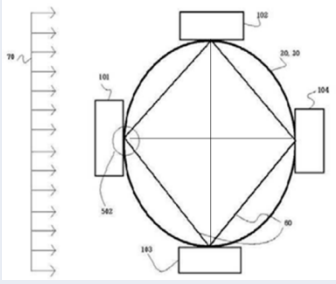
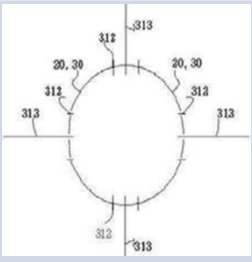
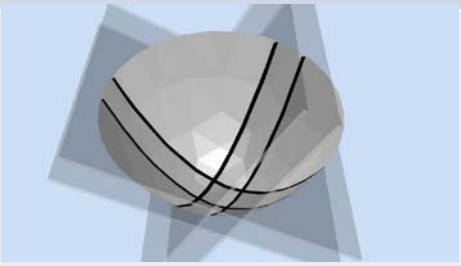
1) 250% Effective than Outrigger Braced Building
2) 200% Increased Space
3) 30% Decreased Drift
4) 80% Decreased Vibration
5) Increased reliability
6) Decreased Construction time and budgets

From the Committee of the development for the Hybrid Highest Buildings combined with Spatial Structures

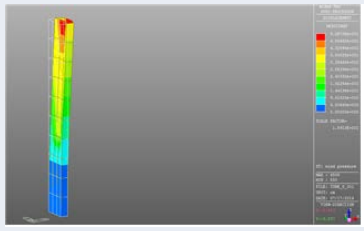
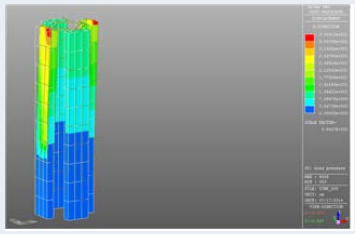
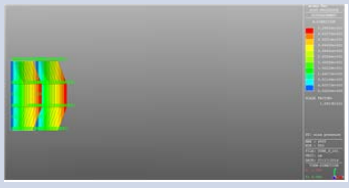
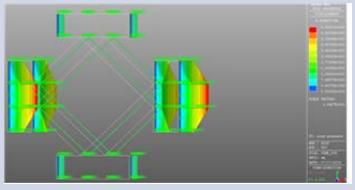
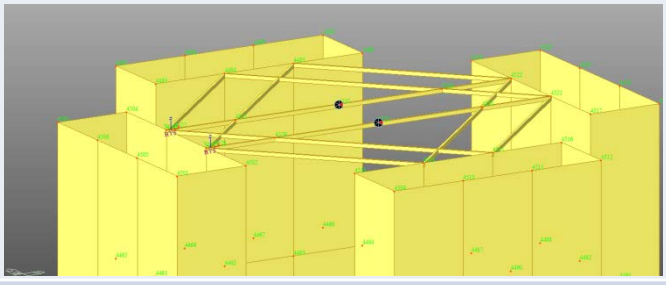
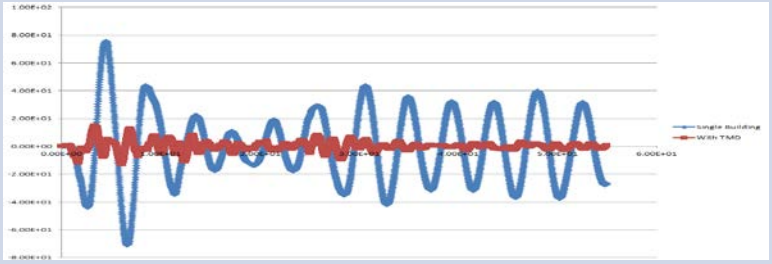


Contents of the Patent

Why do we need efforts for Outrigger?
How could we get more economic and stronger solutions?

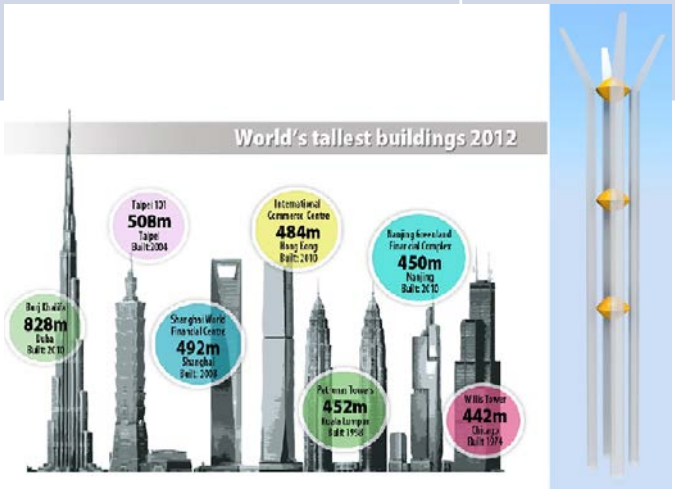
Geometric Design	Reason of the Performance and Benefits	Comments
 	Decreased Reactions by Combining Compressive Arch (Dome) and Tensile Cable (with Inverse Dome)	Half View: Horizontal forces of 21 and 31 are deleted
	Decreased Drift and Vibration due to the Use of difference of Inertia, Working as Tuned Mass Damper	Top View 4-9 Times higher Moment of Inertia for 102 and 103
	Weight of inverse Dome Equilibrated by Tilted additional Building Spaces	Bottom View
	Supported by Two ways: Dome and Tilted Buildings Increased Height, Safety, And Reliability	Bottom View

Verifications for Reduced Drift in Static and Dynamic Loads

Geometric Design	Reason of the Performance and Benefits	Comments
Government Equations proved 250% Stronger Drift reduction	With outrigger braced effects $y_{max} = \frac{W_o H^4}{8EI} - \frac{M_1 (H^2 - X_1^2)}{2EI} - \frac{V(H - X_1)^3}{3EI} + \frac{V}{K_{eo}}$ Without outrigger braced effects $y_{max} = \frac{W_o H^4}{8EI} - \frac{V(H - X_1)^3}{3EI} + \frac{V}{K_{eo}}$	M_1: Outrigger brace effects V: Dome with truss distribution effects
Structural Analysis for Static wind load and Seismic Forces Reduced Drift Of **30%** of the 50 story building with dome-truss	 	Due to the Use of difference of Inertia, Decreased Drift 30% in static And Seismic Analysis
	 	Top View See contact information In Page 4
If added Tuned Mass Damper against Earth Quake Loads		Effect of Added Stiffness and Mass of Dome and Inverse Dome Structure
Reduced Drift Of **81%** of the 50 story building with TMD		Effects of Distributed Drift due to Dome-Truss, And Added Tuned Mass Damper

Join to this Development Group 2021

Tasks	Contents	Process
Submission of Domestic Patent	Domestic Patent submitted Correction of Descriptions PCT international patent has been submitted.	Finished
Collecting Colleagues and Invest Funds For **Patent Rights and Exclusive Licenses**		On Going
Design for Pilot Test During 2021	Optimum design and Wind tunnel Tests are planned for Pilot Structures	On Going
Design for Real Site Until 2022	With additional patents	Planned
Construction Until 2024	30 month	Planned



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