



Bureau of Energy Efficiency



सत्यमेव जयते
Government of India
Ministry of Power



german
cooperation

DEUTSCHE ZUSAMMENARBEIT

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

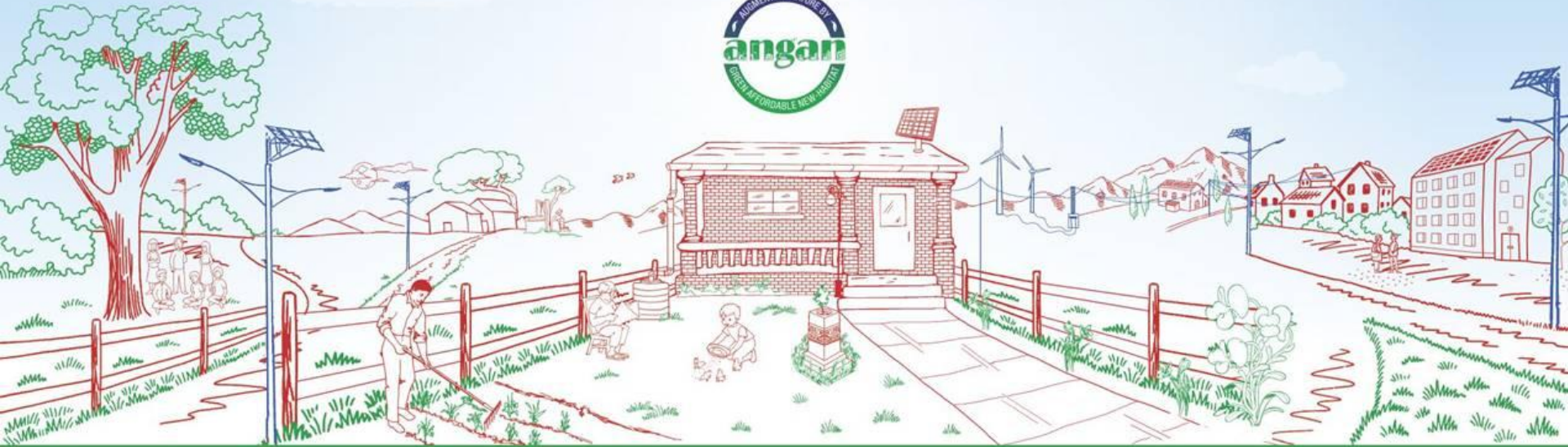
ANGAN

Augmenting Nature by Green Affordable New-habitat

A Courtyard for Revolutionary Change in Building Energy Efficiency

An International Conference on Building Energy Efficiency

9th-11th September, 2019 | Hotel The LaLIT, New Delhi





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THIS PRESENTATION WAS SHARED BY

Ar. Neeraj Kapoor

Managing Director, Kalpakrit Sustainable Environments Pvt. Ltd.,
New Delhi

FOR THE SESSION:

“Emerging Construction Practices & Technologies”

DURING ANGAN 2019

Knowledge Partner



Event Partner



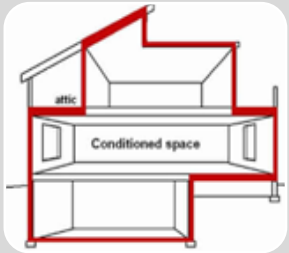


Emerging Construction Practices and Technologies

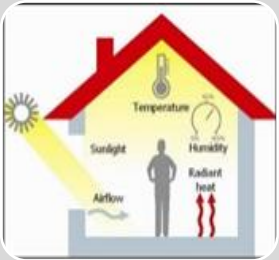


Kalpakrit Sustainable Environments Private Limited

BUILDING SYSTEMS



Building Envelope Systems
Wall & Roof Construction | Glazing



Comfort Systems
Fresh Air Ventilation | Cooling System



Lighting Systems
Fixtures and control system

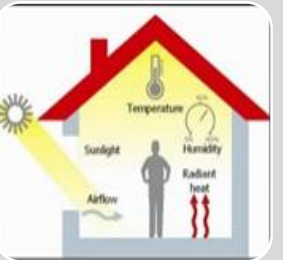


BUILDING SYSTEMS


Emerging Construction Practices and Technologies under the following building systems:



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THEN

Red Clay Brick Wall



AF	EIM	FE	FC	RP
----	-----	----	----	----

NOW

AAC Wall



AF	EIM	FE	FC	RP
----	-----	----	----	----



THEN



NOW



AF

EIM

FE

FC

RP

AF

EIM

FE

FC

RP



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PARAMETERS OF ASSESSING, FOR WHAT'S EMERGING



AFFORDABLE (AF)

Degree to which something is reasonably priced.



ENVIRONMENTAL IMPACT MITIGATION (EIM)

Degree to which impact on environment is reduced.



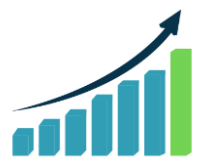
FEASIBLE (FE)

Readily available and easy to implement



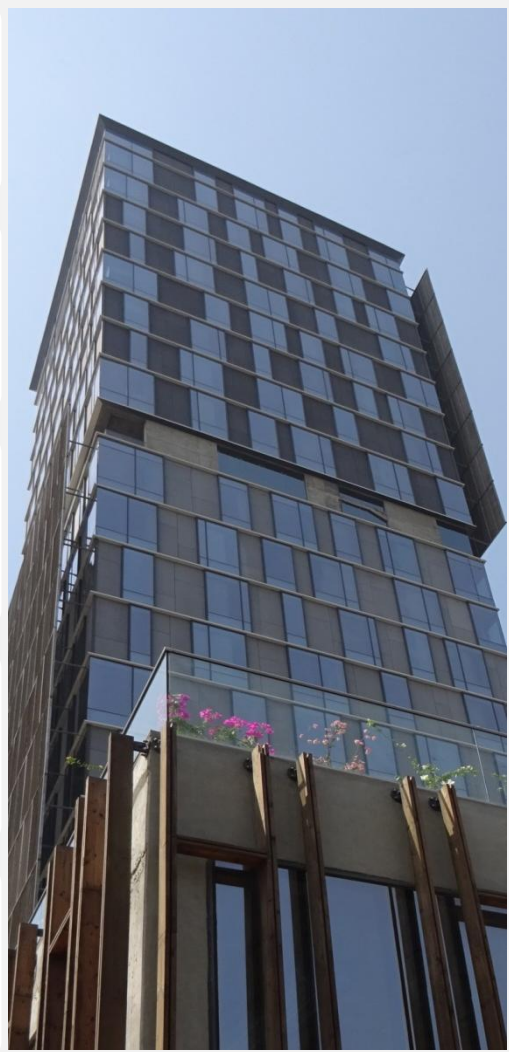
FAST CONSTRUCTION (FC)

Takes less time for implementation




REPLICABLE (RP)

Ability to replicate



PARAMETERS OF ASSESSING, FOR WHAT'S EMERGING


Parameters of emerging construction practices and technologies



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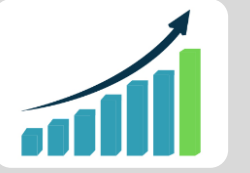
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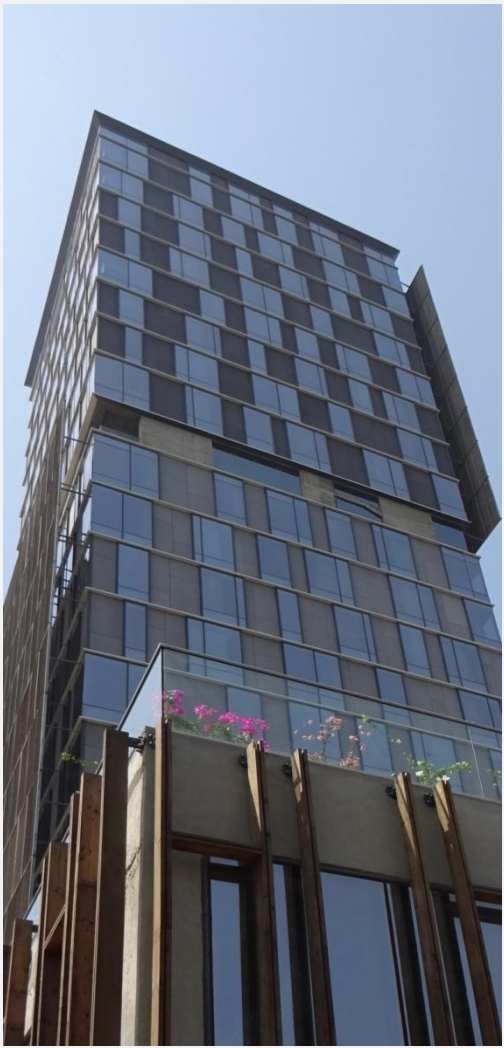
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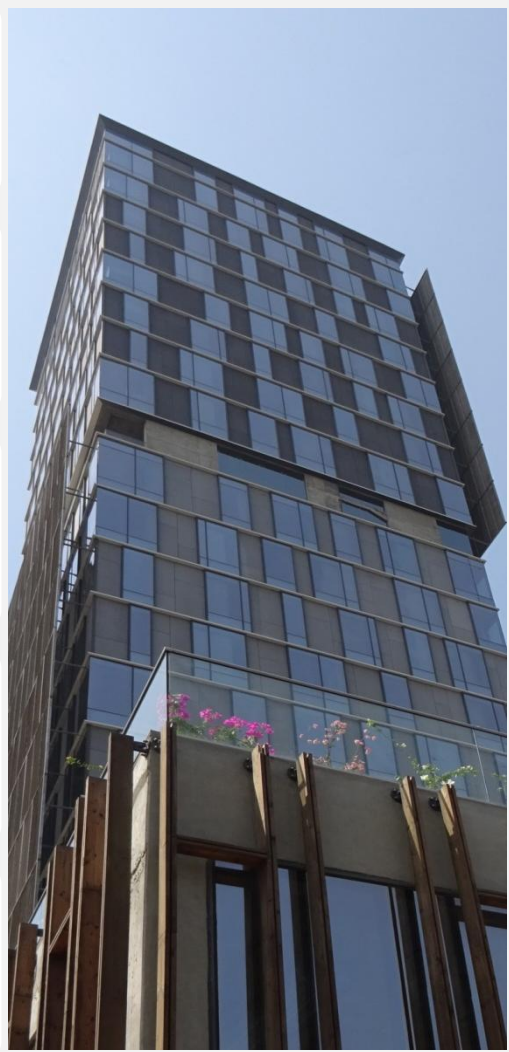
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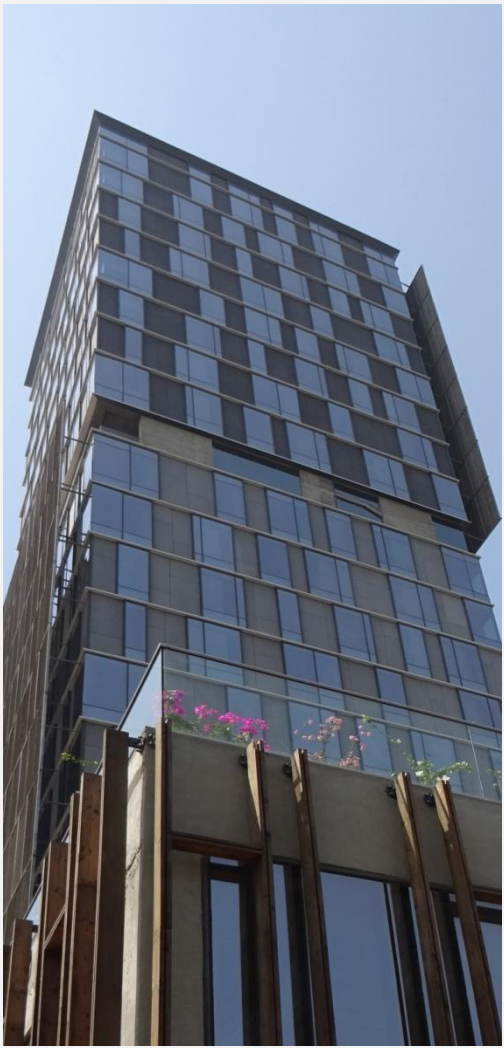
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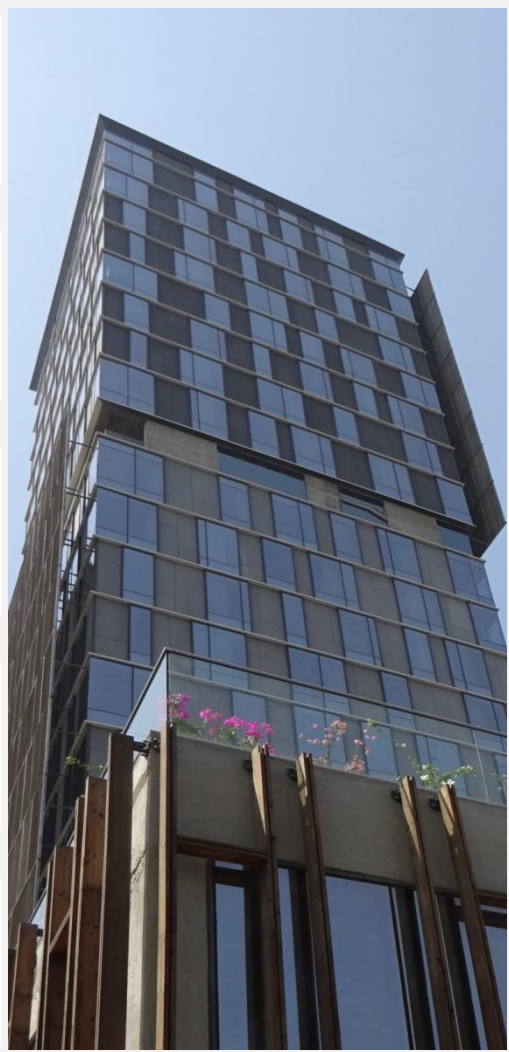
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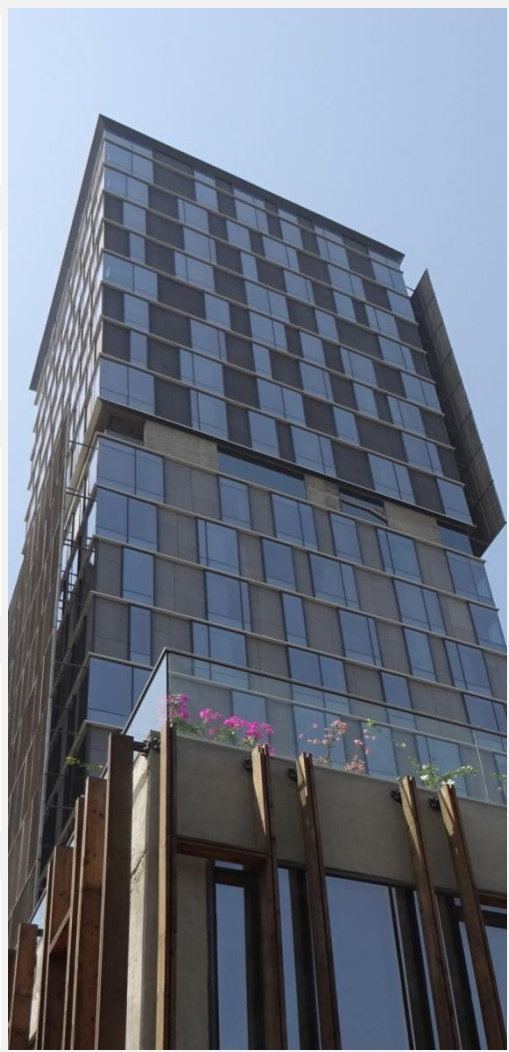
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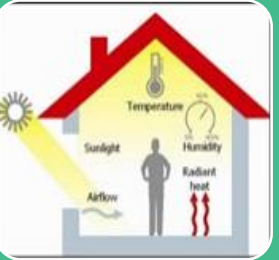


BUILDING SYSTEMS


Emerging Construction Practices and Technologies under the following building systems:



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Lighting Systems
Fixtures and control system



SO, WHAT'S EMERGING ?



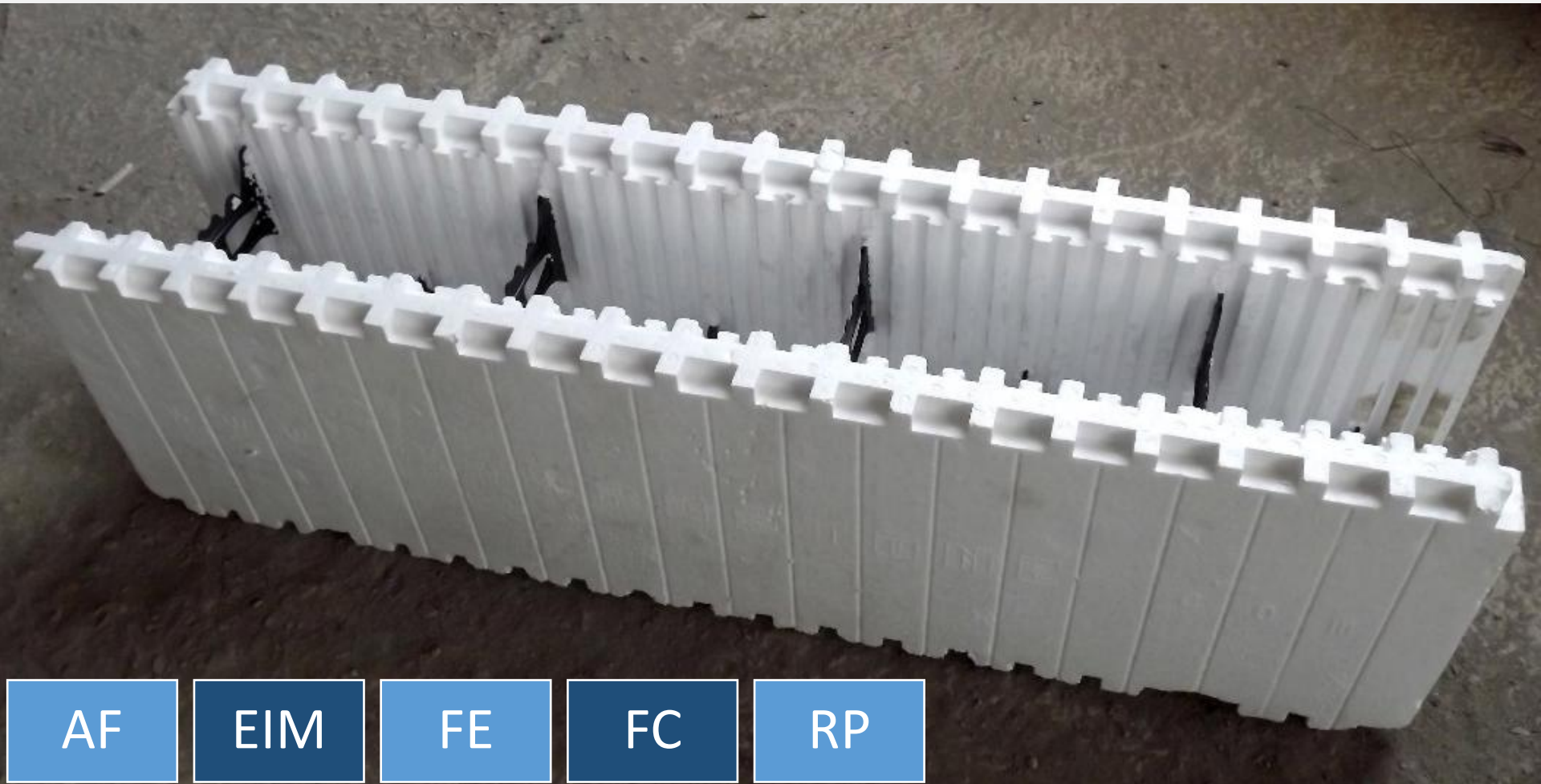
BUILDING



Building Envelope

EMERGING WALL CONSTRUCTION TECHNOLOGIES

1. Insulated Concrete Formwork®



AF

EIM

FE

FC

RP



Building Envelope



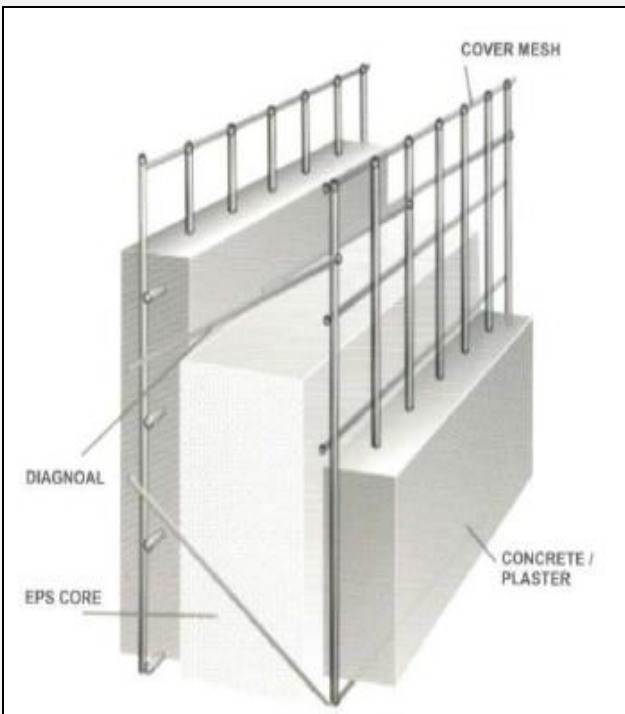
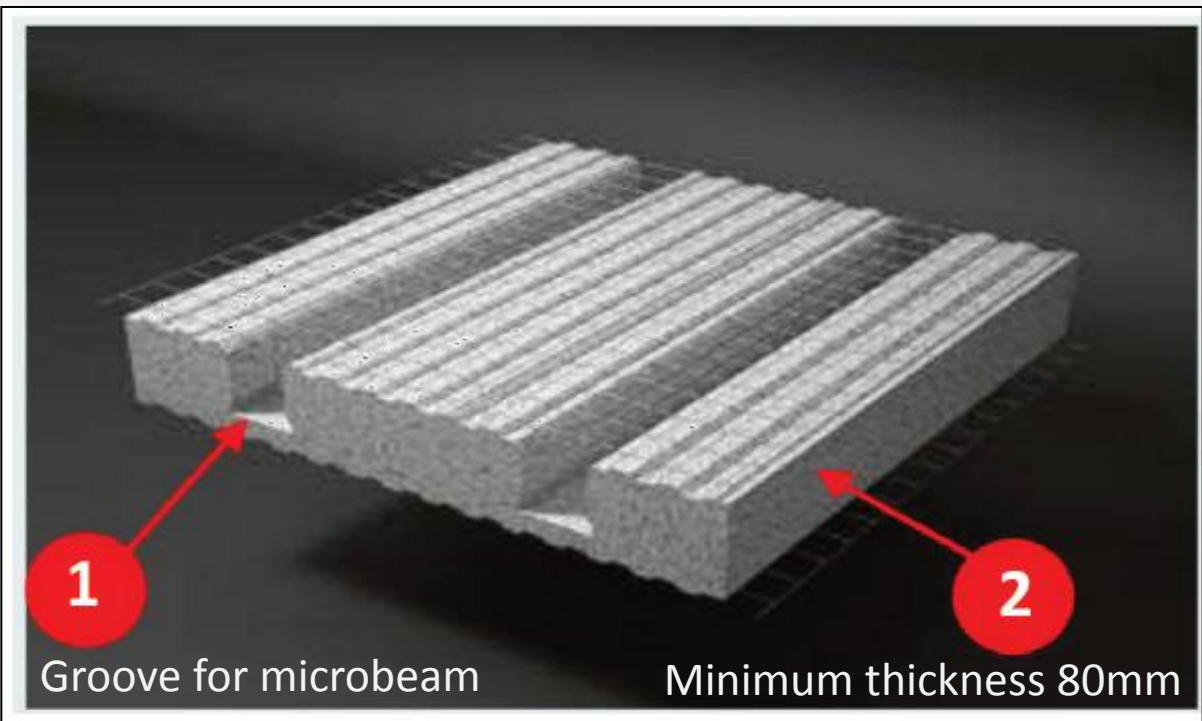
Building Envelope



Building Envelope

2. Structural Concrete Insulated Panel®

components – a) Expanded Polystyrene sheet b) Galvanized Steel Mesh



AF

EIM

FE

FC

RP



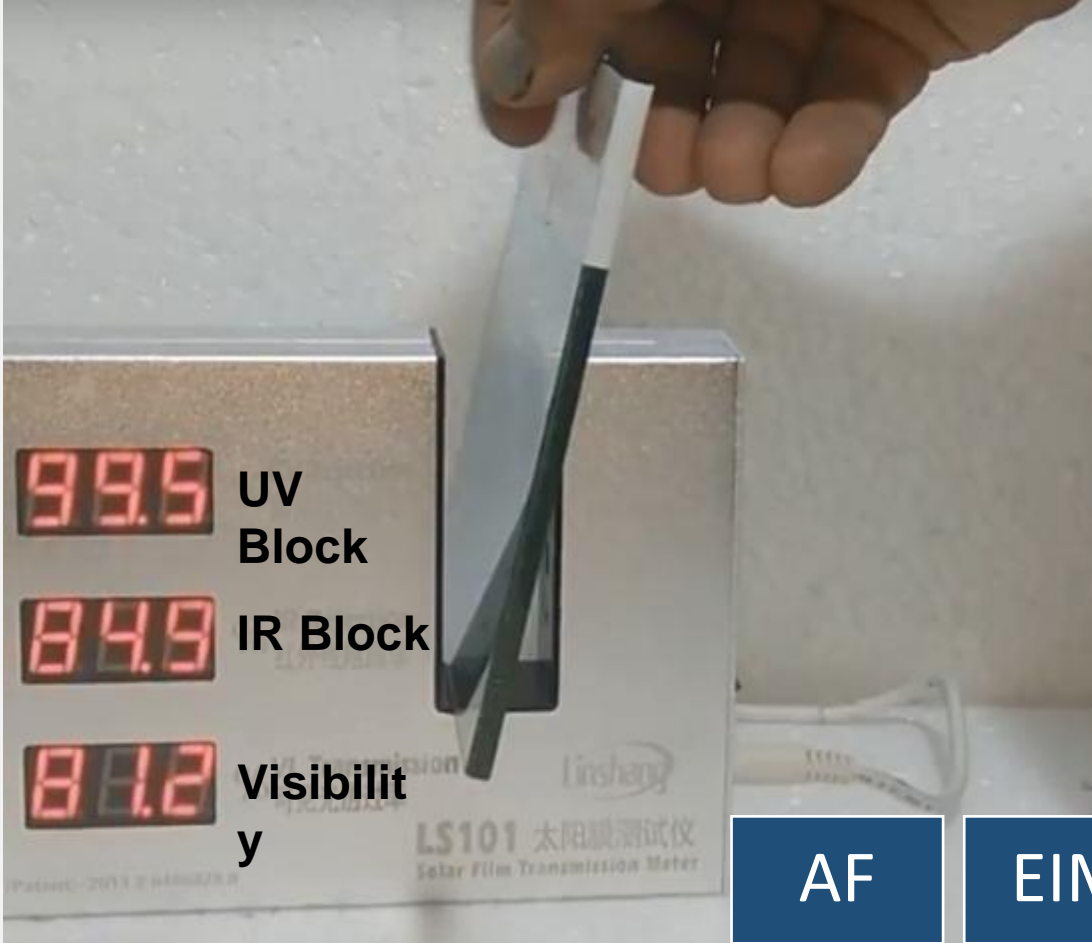
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Building Envelope



Building Envelope

3. Nano Modified Anti Heat Coating for Glass surface



AF

EIM

FE

FC

RP



LIGHTING SYSTEMS



Lighting & Daylighting Systems

SMART LIGHTING SYSTEM – ADAPTIVE TO CIRCADIAN CYCLE

- Different lighting scenes
- Different colour scenes



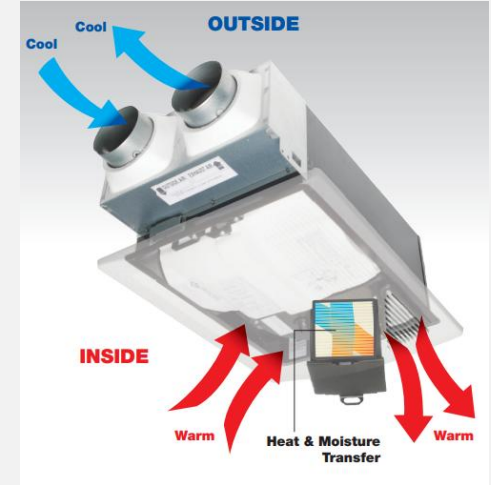
COMFORT SYSTEMS



Comfort Systems

FRESH AIR VENTILATION

ERV BALANCED AIR SOLUTION



AF

EIM

FE

FC

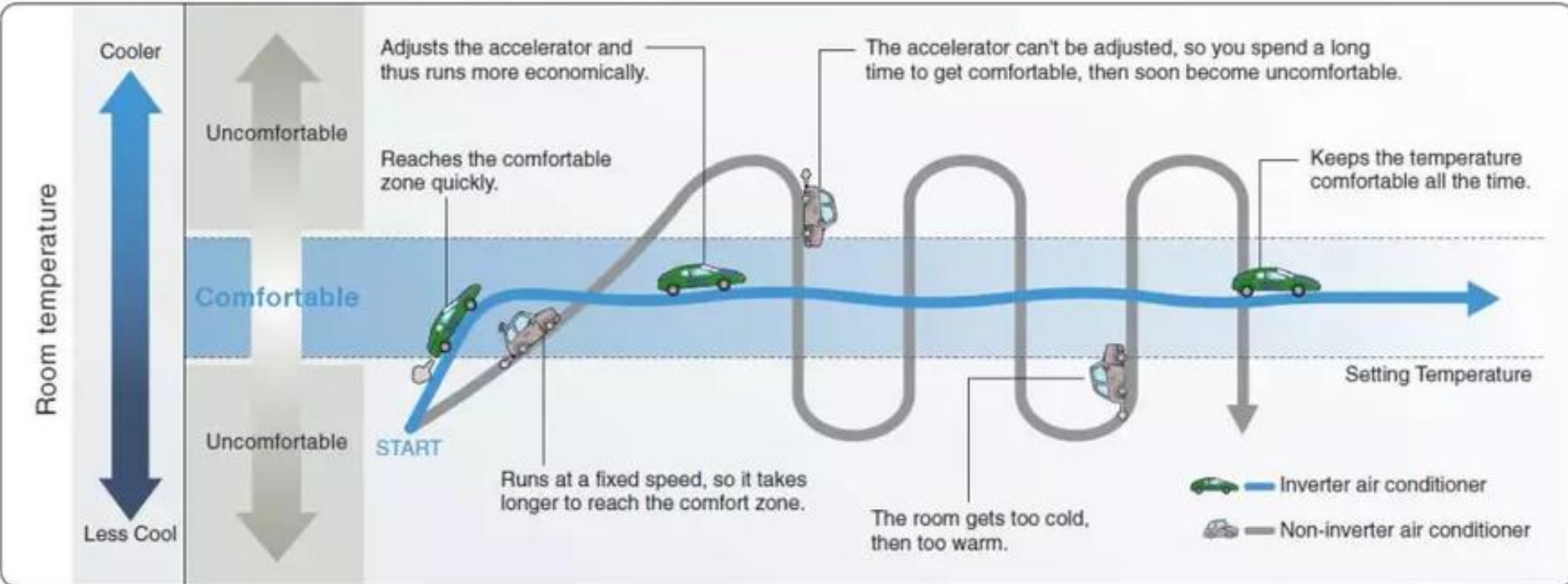
RP



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Comfort Systems

INVERTER CONTROL REFRIGERATION



<https://www.bijlibachao.com>

AF

EIM

FE

FC

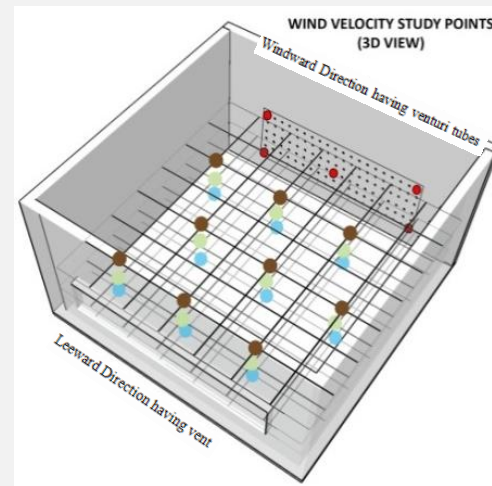
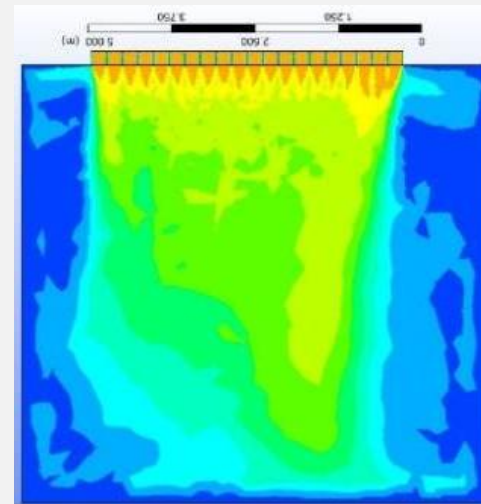
RP



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Comfort Systems

Venturi tubes applied as 'Jali'



AF

EIM

FE

FC

RP



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Thank you

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