Who are we..?

vikalp
for a sustainable future

is an Hindi word signifies 'Option' or 'Alternate', an alternative which leads towards a Green & Sustainable Future. At Vikalp we believe in deriving "Integrated Solutions". An integration of Art-Culture, Heritage & Nature into the design in such a way that the product is harmonized & remains indigenous.

The dream & desire for bringing Vikalp into existence was incorporated in the year 2012. The core team of Vikalp is comprises of individual intellectuals who bring together their expertise in field of Architecture, Landscaping, Energy Efficiency & Historical Conservation with Uncompromising Sustainability in all its aspects.

The team focuses in providing the best & diverse services in order to stand in the era of global competition and promote the passion for excellence to the clients. All the team members have worked with the leading consultancy firms of the nation in their respective fields & worked on various range of projects.
What we do...

- Architecture
- Landscaping
- Interior Designing
- Design Optimization & Research
- Sustainability
- Audit & Commissioning

Sustainability Services...

- Building Performance Simulation
- Daylighting Analysis & Simulation
- Thermal Modelling
- Natural Ventilation Analysis
- CFD Analysis
- Solar Analysis
- Building Design Optimization
- Artificial Lighting Design
- GRIHA/IGBC/USGBC Rating Certification
Design Competitions...

- IDA High Rise Residential Tower, Indore
- AKVN's Corporate Office, Indore
- Hindustan Aeronautical Limited Manufacturing Unit, Bangalore
- Ascendas ITPB, Bangalore
- Central Armed Police Forces Institute of Medical Sciences, New Delhi
- Punjab National Bank, New Delhi
- Vidhan Sabha for NRDA, Raipur
- Medical College & Hospital, Khandwah
- Dr Fixit Terrace Landscape Design
- Makhan Lal Chaturvedi University, Bhopal

Abhikalpan Office, Indore

Ar Keshav Sahay Saxena
Principal Architect & Managing Director
Objective...

Example Demonstration
Green Cell Knowledge Centre
Motivate Education

Ideas, Targets & Goals...

Daylighting
CO2 Sensors
Efficient Air Conditioning
Low Energy Materials
Solar Passive Strategies
High-Performance Glazing
Exterior Views
Task Lighting
Efficient Building Envelope
Efficient HVAC
Drought Tolerant Species
Gree Roofs
Solar Photovoltaic
Green Living
BEE 5 Star Equipments
Heat Island Effect
Efficient Air Conditioning
Task Lighting
Net-Zero

Optimization
Location & Climate...

The project is located in Indore, MP OR Malwa

- Indore falls under Composite Climatic Zone of India.
- The Summer starts from April to July with average high temperature of 40°C, brings Hot Winds from West, but nights becomes colder with a average temperature of 22°C.
- The Winter starts from December to February with average low temperature of 5°C, brings cold & chilling breezes from North.
- The average annual rainfall is approximately 800 mm (31 in), most of which falls during the Monsoon in July and August.

Site & Surroundings...

- Located in suburbs of Indore
- East-West Elongated Plot
- West Facing plot
- Having private Garden at North façade
- Narrow West side
- Very Well connected with city transportation system
- Walkable distance to the basic facilities
Passive Design Strategies...

- Natural & Cross Ventilation
- Buffer Spaces on South Façade
- Maximum use of Daylighting / North Light
- Terrace Garden
- External Shading
- Light Well
- High Thermal Mass
- Night Purge Ventilation
- Green Walls
- Recessed/Box Windows
- 100% views to Outdoors

Buffer Spaces...

- Office & Regularly Occupied Areas
- Regularly Occupied Area
- Stair Case
- Lift
- Meeting Room
- Toilet
- Other
- Basement
Light Well...

Natural Ventilation...
Daylighting...

Daylighting...
Views...

Building Systems...

- Centralized VRV 3 Inverter based Air-Conditioning, with HRV
- CO Monitoring System
- Daylighting & Occupancy Sensors
- Dimmable LED Lights
- BEE 5 Star Super Fans
- 10 kWp Solar Photovoltaic Installation
- Energy Metering
- Saint Gobain 154 & 144 DGUs
Lighting Design...

- The LPD achieved is 0.45W/sqft
- The entire lighting system is integrated with Daylight & Occupancy sensors
- Further to save lighting task lighting have been installed
Water Fixtures...

- Toto faucet of flow rate 1.5L/min
- Toto-Neorest AH wash-let dual flush 3.8/3.
- Roca w+w dual flush 3/6 liter
- Gebrit concealed cistern bolero square plate with 3/6 liter flushing and 2/4.5 liter flushing for TOTO squatting pan & DURAVIT (WC)
- Duravit Rbrick urinal 0.6litre/ flush

PEX System...
Rain Water Harvesting...

Root Zone Treatment...
Building Materials...

- 100% use of PPC
- Raw Kota Stone flooring except toilet
- Nerolac impressions Eco-Clean for interiors & Nerolac excel total for exterior surfaces
- The materials with recycled content were preferred like Engineered Marble (90%), Corean table tops (38%), SS Modular Furniture Bases (65%), Ply & MDF Boards (12%).
- The entire movable furniture installed in the project is salvage & refurbished furniture items.

Designer Products...


Education...

Occupant Well Being...
### SVA-GRIHA Scorecard...

<table>
<thead>
<tr>
<th>Criterion No.</th>
<th>Criterion Name</th>
<th>Maximum Points</th>
<th>Points Awarded</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Reduce UHIE and maintain native vegetation cover on site</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Passive architectural design and systems</td>
<td>4</td>
<td>4</td>
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<tr>
<td>3</td>
<td>Good fenestration design for reducing direct heat gain and glare while maximising daylight penetration</td>
<td>6</td>
<td>5</td>
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<tr>
<td>4</td>
<td>Efficient artificial lighting system</td>
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<td>2</td>
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<tr>
<td>5</td>
<td>Thermal efficiency of building envelope</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Use of energy efficient appliances</td>
<td>3</td>
<td>3</td>
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<tr>
<td>7</td>
<td>Use of renewable energy on site</td>
<td>2</td>
<td>2</td>
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<tr>
<td>8</td>
<td>Reduction in building and landscape water demand</td>
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<tr>
<td>9</td>
<td>Rainwater harvesting</td>
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<td>10</td>
<td>Generate resource from waste</td>
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<tr>
<td>11</td>
<td>Reduce embodied energy of building</td>
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<tr>
<td>12</td>
<td>Use of low-energy materials in interiors</td>
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<td>2</td>
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<tr>
<td>13</td>
<td>Adoption of green Lifestyle</td>
<td>4</td>
<td>3</td>
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<tr>
<td>14</td>
<td>Innovation</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Points**: 46 44

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**Thank You...**

Ar Keshav Sahay Saxena  
Principal Architect & Managing Director  
M Arch- Sustainable Architecture, LEED-GA*, IGBC-AP, GRIHA-Evaluator & Representative (MP)  

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