

Cover Letter: ABHISHEK S KHANNA

Respected Sir/Madam,

Many Greetings!

I am Abhishek S Khanna, having a Bachelor's degree in **Mechanical Engineering**, post graduation in **Advanced Computing**, qualified **LEED Green Associate** and a **MS Architecture (Sustainable Design)** candidate from University of Minnesota.

With 9.5 years of experience in AEC industry, I have built a strong foundation and good analytical skills in **HVAC** design, interdisciplinary **coordination, energy modeling, BIM, green buildings** by working on variety of projects like **K-12 Schools, Stadium, Offices, Retails, Residential, Hospitals, Hotels etc.**

I have contributed to multimillion dollar projects by working with world's 8th best international design firm, Dar Al-Handasah Consultants as per ENR. Few noteworthy projects I have worked on are Princess Nora Bint Abdulrahman University, Riyadh (World's largest university for women), Al Khor Stadium, Doha, Qatar for FIFA 2022.

Strong designing experience and advanced modeling techniques learnt at University of Minnesota led me to the opportunity to work for USGBC's GBCI contracted company where I reviewed more than 500 LEED projects & had frequent technical discussions with GBCI team. Few remarkable projects on which I have worked are Schools in Ohio, Tech offices in California, NASA office buildings in Florida, KFC buildings, High rise towers in Beijing, Brazil FIFA stadiums, Apple Store, NY residential towers etc.

I aim to sculpt a dynamic career in the realm of **AEC industry** and **Sustainability Services** and be a valuable contributor in company's growth and success.

I have attached my CV for your perusal and I hope you find my profile a best fit for your requirement and if it requires some more skills, I assure you of mastering them with dedication.

Yours sincerely,

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Please find CV on next page

ABHISHEK S KHANNA

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VISA Status: **Approved H1B US VISA**

GOAL

To sculpt a dynamic career in **AEC industry** by synergizing my skills in Mechanical Engineering, Sustainable Design, Information Modeling, Data Analysis and help build a **Sustainable Smart City**.

EXECUTIVE SUMMARY

Education: | MS Sustainable Design candidate | BE Mechanical | LEED Green Associate | PGD Adv. Computing |
Experience: | 9.5 years experience in Mechanical Engineering | Sustainability & Green Building Professional |
Expertise: | HVAC Design, Execution | Coordination | Team Management | Site Supervision | Energy modeling |
| Sustainability Services | Authority Submission | LEED Facilitation | BIM | Contracting | Consultation |
Employers: | Epsten Group | CSBR | Dar Al-Handasah Consultants | IES | Mindhive Labs Solutions |
Projects: | World Houston Building | Toledo CSD, Ohio Schools | NASA Office Building, Florida | KFC Theparak |
| Princess Nora Bint Abdulrahman University, Riyadh, KSA (World's largest university for women) |
| Qatar FIFA Stadium, 2022 | Brazil FIFA Stadium | La Plage South, Pearl Qatar | 500+ LEED Reviews |

EDUCATION SUMMARY

- MS Architecture (Sustainable Design)..... U of Minnesota, USA..... (GPA 3.5/4) *Candidate*
- LEED Green Associate *Sep. 2010*
- PG Diploma in Advanced Computing C-DAC, Pune India..... (GPA 3.5/4) *Aug. 2007*
- BE Mechanical Engineering U of Pune, India..... (GPA 3.5/4) *May 2006*

EXPERIENCE SUMMARY

Independent Consulting, India Project Consultant..... Oct 2015 – Present 1Y 10M
The Epsten Group, Atlanta, GA, USA Technical Analyst I..... Sep 2013 – Sep 20152Y 1M
Center for Sustainable Building Research, USA Research Assistant..... Jan 2013 – May 2013 5M
Dar Al-Handasah Consultants (Shair and Partners), India .. Mechanical Engineer.....Mar 2011 – Aug 20121Y 6M
Integrated Environmental Solutions, India Design Consultant..... Oct 2010 – Feb 2011 5M
Dar Al-Handasah Consultants (Shair and Partners), India .. Mechanical Engineer..... Mar 2008 – Oct 20102Y 8M
Mindhive Labs Solutions Pvt. Ltd. Pune, India Design Engineer..... Sep 2007 – Feb 20086M
* For Projects details and Role please refer to next page **Total 9Y 5M**

SOFTWARE SKILLS

- ✓ Building Energy Analysis software | Carrier HAP | IESVE | Sefaira Concepts | Trane Trace | eQUEST |
- ✓ Equipment selection software..... | Carrier | Trane | York | Flakt Woods | MCQuay | Titus | WinCAPS |
- ✓ BIM software | AutoCAD | Revit MEP | Dynamo | Navisworks | PlanGrid |
- ✓ Sustainability & Utility software | PVWatts | ArcGIS | Athena LCA| MS Office Suite: Word, Excel |
- ✓ Programming Skills | C, C++, Java | MySQL |

AREA OF INTEREST

- Building Energy Analysis.....| Site analysis | Envelope Optimization | HVAC system, Daylighting analysis |
.....| ASHRAE Std. 90.1, Appendix G | CA Title 24 | EAp2, Eqp1| LEED | ECM |
- HVAC Design..... | Load Calculation | System Sizing | Air Distribution design | Hydronic design |
.....| ASHRAE Std. 62.1 | Ventilation Design | Equipment Selection | Coordination |
- Building Information Modeling.....| Setup | Coordination | Modeling | Clash Detection | Construction | BOQ | Reports |
.....| Families, Template Creation| Research & Development | Optimization | BMS |
- MEP Execution & Supervision.....| Design & Calculations verification | Mechanical & Builder's work drawing |
.....| Coordination | Quantity take off| BOQ | Snag list | Authority Submission | RFI |
- Sustainable design.....| Systems thinking | Pattern Recognition | Framework design | Biomimicry | LCA |
.....| Smart City | Internet of Things | Green Buildings | Solar, PV, Water, Waste Mgmt |

COMPANY, ROLE, RESPONSIBILITIES, TEAMSIZING, PROJECTS & DURATION:

❖ **Independent Consulting, India** PROJECT CONSULTANT..... 4 Eng..... *Oct. 2015 – Present.... (1Y 10M)*

- Project Consultation (HVAC Design, Execution | Energy Modeling | Optimization | Coordination | Site Supervision)
- Authority Submission... (Sustainability Services | Documentation Facilitation | Coordination | Assessment)
- Integrated Design (Collaborate with domain experts and develop guidelines to meet desired goals)

- | **US | Middle East | India | Retails | Offices | Hotels | Schools |**

FEATURES: | HVAC Design | Ventilation Design | Building Energy Analysis | LEED Consultation | Coordination |

❖ **The Epstein Group, Atlanta, USA** TECHNICAL ANALYST.....6 Eng..... *Sep. 2013 – Sep 2015..... (2Y 1M)*

- LEED Reviewer (EA, IEQ review for 500 projects in US & globally for GBCI | ASHRAE Std. 90.1, 62.1)
- Design Engineer (HVAC design strategy | Baseline compliance | Design optimization | EA documentation)
- Develop Guidelines..(GBCI review committee member | Analyze new strategies | Develop & implement new strategies)

- | **Stadiums | Retails | Offices | Restaurants | Hospitals | Schools | Residential |**
- | **Brazil FIFA stadiums | Dubai Towers | Qatar Hotels | Apple | Microsoft | Google | NY Towers |**

FEATURES: | HVAC Design | Energy Analysis | ASHRAE Baseline | Proposed Analysis | Recommendations |

❖ **CSBR, U of M, USA** RESEARCH ASSISTANT4 Eng..... *Sep. 2012 – Aug 2013..... (1Y 0M)*

- Energy Analysis (Shoebbox Analysis | Multi variant Parametric Analysis | Data Analysis | Integrate to synergize)
- Result Comparison... (Consistency of strategies between energy analysis programs | IESVE | Sefaira)
- Energy Guidelines (Develop performance guidelines for State of Minnesota based on result findings)

- | **University of Minnesota Campus Buildings | Low Energy Labs |**

FEATURES: | Parametric Analysis | Building Geometry | Orientation | Envelope | SB2030 | Multifamily guidelines |

❖ **Dar Al-Handasah** MECHANICAL ENGINEER ...10 Eng..... *Mar. 2008 – Aug. 2012.... (4Y 2M)*

- HVAC Design(Load Calculation, Air Distribution design, hydronic design, Equipment selection)
- Ventilation Design (Common, DOAS, Kitchen, Parking, Staircase pressurization, Smoke management)
- Energy Modeling (Concept to Detailed design, Smart buildings, Form, Envelope, HVAC analysis per ASHRAE)
- Coordination (With AR, ST, EL, ID, BMS, sub consultant, equipment manufacturers, BIM, onsite execution)
- Managing Team (Engineers for Load Calculation, ducting, piping design, draftsman for accuracy, quality)
- Site Supervision.....(Design & Calculations verification | Shop drawing | RFI | Quantity take off | BOQ | Snag list)
- Authority Submission .(Preparing & submit QSAS, LEED documentation for mechanical, EA, IEQ, WE credits)

- **Al Khor Stadium, Doha, Qatar** **Mid Senior**.....**10 Eng + 6 D**..... *Mar. 2011 – Aug 2012*

FEATURES: | FIFA World Cup 2022 | Exhibition | Retail | Royal Boxes | Skyboxes | Concourse | Food courts |
| Radiant Cooling for field & Seating | Earth tubes | Thermal Storage | PV | QSAS / LEED |

- **EPAL Headquarters Building, Angola** **Group Leader**.....**8 Eng + 4 D**..... *May 2010 – Oct. 2010*

FEATURES: | Office Building | 3 B + 12 Levels |

- **Princess Nora University, KSA** **Mid Level**.....**2 Eng + 1 D**..... *Mar. 2009 – Oct. 2010*

FEATURES: | World's Largest Women's University | K-12 Schools | Sports & Recreation | LEED Silver |
| Gymnasium | Kitchen | Cafeteria | Science Labs | Library | Arts Classroom | Music Rooms |

- **La Plage South, Pearl Qatar, Qatar** **Junior Level**.....**1 Eng + 1 D**..... *Jan. 2009 – Mar. 2009*

FEATURES: | Core & Shell | Retail | 120 Shops | Food Courts | Restaurant | Utility Room |

- **Hajj Terminal Load Center & Ancillary Building, KSA** **Junior**.....**1 Eng + 1 D**..... *Mar. 2008 – Dec. 2008*

FEATURES: | Six Dormitories | Administration Building | Commercial Kitchen | Cafeteria | Revit |

❖ **IES, India** DESIGN CONSULTANT..... 4 Eng..... *Oct 2010 – Feb 2011*..... **(0Y 5M)**

- Energy Modeling....(HVAD Design Analysis | Geometry | Thermal assignment | HVAC settings | Optimization)
- Consultation.....(LEED Consultation, Preparing & submit QSAS)

- **Al Hilal Bank Tower (AHBT), Abu Dhabi, UAE** *Nov. 2010 – Feb. 2011*
FEATURES: | Bank + Retail Mall | High Rise, 9 B + 26 Levels | LEED Silver | Estidama Pearl certification |

❖ **Mindhive Labs Solutions, Pune, India** DESIGN ENGINEER *Sep. 2007 – Feb 2008*..... **(0Y 6M)**

- Website creation... (Lords of Odds is Sports Prediction market website | Statistical Data Analysis | Prediction Analysis)
- Programming (PHP | Symfony framework | Javascript | MySQL | MS Excel | Testing)

MANAGEMENT SKILLS

- ✓ Good Communication skills..... | Verbal | Written | Presentation | Fast Learner | Keen Observer | Quick Thinker |
- ✓ Good Critical Thinking skills.... | Research | Conceptualize | Evaluate | Analyze | Synthesize | Create |
- ✓ Good Multitasking skills..... | Planning | Resource Allocation | Execution | Review | Merging New Tasks |
- ✓ Good Organizational skills..... | Planning | Scheduling | Coordinating Resources | Time Management |
- ✓ Good Leadership skills..... | Vision | Inspire | Motivate | Strategize | Review | Mentor | Excel | Build Team |
- ✓ Good Negotiation skills..... | Prepare | Discuss | Clarify Goals | Negotiate | Agreement | Implementation |

PROFESSIONAL AFFILIATIONS

| ASHRAE | USGBC | IBPSA-USA |

CONFERENCES & WORKSHOPS

- ‘LEED V4 for Engineers’, ‘Improving Indoor Air Quality’organized by ASHRAE Headquarters, Atlanta, USA.
- ‘Designing with Climate’ by Joel Loveland, Integrated Design Lab, University of Washington, USA.
- ‘Estidama’, ‘Applying the Pearl Building Rating System’ by Abu Dhabi Urban Planning Commission, UAE.
- ‘High Performance Green Buildings’ organized by ASHRAE Pune Chapter, India.
- ‘Understanding Standard 189.1 for High-Performance Green Buildings’ by Tom Lawrence, India.
- ‘Using Standard 90.1-2007 to meet LEED requirements’ by Mack Wallace, J Deringer, India.
- ‘York Equipments & Controls’ by Johnson Controls at Dar Al-Handasah, India.
- ‘Advanced training in Revit for MEP families’ at Dar Al-Handasah, Beirut, Lebanon.