

Charu Malhotra

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E-mail cmalhotra@alumni.purdue.edu

PROFESSIONAL SKILLS

- FE/EIT certification and Master's degree with a specialization in Structural Engineering
- Experience in structural design and analysis of commercial, residential, institutional & office buildings, sports complexes, retaining structures
- Experience with Steel, Reinforced Concrete & Pre-stressed Concrete Design, Seismic design, FEM & Thermal Analysis.
- Competent in using ETABS, ABAQUS, SAFE, RAM, Staad.Pro, SAP, AutoCAD, REVIT, ArchiCAD, MS Project, Primavera, MS Office (Word, Excel and Powerpoint)
- Conversant with ACI-318, AISC, ASCE-7 codes and Indian standard codes for structural design.
- Highly motivated individual with key competencies like interpersonal skills, excellent communication & writing skills.
- Team player, motivator, adept leader and problem solver.

PROFESSIONAL EXPERIENCE

Nayyar & Nayyar International, Inc., Chicago, IL

Structural Engineering Intern

May'11 – Present

- Structural design and analysis for multi-story building projects.
- Preparation and review of project models and drawings.

Baldrige & Associates Structural Engineering, Palatine, IL (HQ – Honolulu, HI)

Structural Designer

Dec '10 – Mar'11

- Structural analysis and design of high rise buildings (40+ stories).
- Development of quantity estimates and design drawings, preparation of project models and drawings

Bowen Laboratory for Large-Scale Civil Engineering Research, Purdue University, West Lafayette, IN

Intern

Sep '10 – Nov'10

- Modeling of buildings using SAP
- Structural design and analysis of buildings including winds and seismic loads.

Bowen Laboratory for Large-Scale Civil Engineering Research, Purdue University, West Lafayette, IN

Summer Intern

May '09 – Aug'09

- Thermal and structural analysis to evaluate performance of Composite Cellular Deep Deck (CC-DD) floor systems under elevated temperatures using *ABAQUS*.
- Documentation and verification of results for the project titled "The Development and Validation of Long Span Floor Systems for Multi Story Residential Structures". This project was sponsored by AISC.

Centre for Computational Engineering, Chandigarh, India (Engineering Analysis and Design Branch)

Design Engineer (Structures)

May'07 – Jun'08

- Engineering design & management of projects for residential & commercial buildings, sports complexes, schools & public buildings & retaining structures. Delivered completed projects on time & within budget.
- Finite element and seismic analysis, design calculations and documentation, facilitate smooth execution of projects by managing regular progress meetings with clients and consultants.
- Modeling, analyzing and designing of framed structures in *Staad.Pro* software
- Supervise and preparation of design drawings.

NIICT CADD Centre, Chandigarh, India

CAD Engineer & Faculty

Jan'05 – May'07

- Structural design and development of 2D/3D CAD models for projects.
- Certified faculty and administrator for corporate training programs in AutoCAD, MS Project, Primavera, and STAAD-Pro for Civil Engineering professionals.
- Experience with business development. Attended trade fairs, prepared and presented business proposals to prospective clients and with my team was able to increase yearly revenues by 20%.

ACADEMIC EXPERIENCE

School of Civil Engineering, Purdue University, West Lafayette, IN

Teaching Assistant

Aug'08 – Dec'08

For undergraduate course titled "Structural Analysis I" with class strength of 110 students.

- Held office hours to address student concerns and queries.
- Preparation of recitation videos for course website, assignment solutions and grading course assignments.

EDUCATION

Master of Science in Civil Engineering (Structural Engineering)
Purdue University, West Lafayette, IN

Aug'08 – May'10

Bachelor of Engineering in Civil Engineering
Punjab Engineering College, Chandigarh, India

Jul'00 – May'04

PROFESSIONAL MEMBERSHIPS AND LICENCES

- FE/EIT Certification
- Institution of Engineers (India) – Associate

COMPUTER SOFTWARES

Experienced and competent in using following software's

- **Structural Design, FEM & CAD software:** ETABS, ABAQUS, SAFE, RAM, Staad.Pro, SAP, REVIT, ArchiCAD, AutoCAD.
- **Project Management software:** Microsoft Project, Primavera.
- **Office Productivity Software:** MS Office (Word, Excel, PowerPoint)
- **Computational Software:** MathCAD, Mathematica, Matlab

AWARDS RECEIVED, SCHOLARSHIPS AND ACHIEVEMENTS

- Awarded '**Certificate of Instructional Excellence**' for best instructional performance in Microsoft Project.
- Awarded '**Certificate of Merit**' from CBSE, India for outstanding academic performance and securing a place among **Top 0.1 percent of successful candidates** of All India Senior Secondary Education (1998) in Mathematics.
- Awarded a '**Certificate of Merit**' and a cash prize under '**National Scholarship Scheme**' in recognition of high position secured in the list of meritorious candidates qualifying for awards from CBSE Exam (1998).

EXTRACURRICULAR ACTIVITIES

- Envirovision Club working for environment awareness in and around Chandigarh
- Arts and Photography Club, Punjab Engineering College, Chandigarh
- National Service Scheme (India), Punjab Engineering College, Chandigarh

REFERENCES

Dr. Amit H Varma (Associate Professor)
School of Civil Engineering, Purdue University
Email: ahvarma@purdue.edu Phone: 765-496-3419

Dr. Ayhan Irfanoglu (Assistant Professor)
School of Civil Engineering, Purdue University
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Dr. Dulcy M Abraham (Professor)
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