24th October 2017

Re: Civil (Structural) Engineer &/or Technologist Position

Dear Hiring Professional:

Attached is my résumé in response to your recent online search for a Civil (Structural) Engineer (&/or Technologist) position in your esteemed organization. I am enthusiastically applying for this position because I firmly believe that a combination of my natural ability, personality, academic qualifications, and professional work experience, all make me an ideal candidate for this role. I am looking for exactly this position with a reputable organization like yours, where my skills will not only be recognized but will also be rewarded.

I hold B.Sc., M.Sc., and Ph.D. degrees in Civil (Structural) Engineering and have more than 15-year work experience in construction and consulting engineering in three countries including Canada. I have extensive exposure to the National Building Code of Canada (NBC) and provincial building codes. I have advanced knowledge and extensive experience in the conceptual and detailed design of concrete, steel, timber, masonry, and composite structures as per provincial building codes. My previous consulting engineering work experience covered residential, commercial, institutional, recreational, healthcare, and (light & heavy) industrial structures and buildings. I previously worked on heavy industrial engineering projects for the mining production sector in Vancouver, British Columbia.

My undergraduate Civil Engineering degree plan consisted of 229 credit hours. I took credits in under-graduate and advanced-level graduate courses in the area of Structural Mechanics, Soil Mechanics, Structural Analysis, Finite Element (FE) Analysis, Steel Design, Concrete Design, and Construction Engineering. I took credits in three advanced level graduate courses of FE Analysis, including Advanced FE Methods at the University of Windsor, in Ontario. The 15 advanced-level graduate courses credited during M.Sc. and Ph.D. degrees programs have provided me with a thorough understanding of Civil (Structural) Engineering.

I possess leading-edge skills in Mathematical problem solving and expertise in structural analysis modeling, as well as FE modeling techniques. I have extensive experience and expertise with computers using Civil (Structural) Engineering codes including ANSYS, Abaqus, STAAD.Pro, SAP2000, RISA-3D, and SAFE. I also have extensive experience using Microsoft Office 2016 and Windows 10. Registration as a Professional Civil Engineer was obtained in 2009 from the Association of Professional Engineers and Geoscientists of the Province of Manitoba (APEGM) in Winnipeg. My current status with the APEGM is Engineer-in-Training. I have completed all the requirements and formalities of the APEGM to receive a licence except that I need to submit one-year engineering exprerience report. I am one year far from receiving a professional engineering licence.

I have consistently demonstrated excellent interpersonal, administrative, communication, and presentation skills, as well as my ability in delivering exemplary lectures and seminars. I am an expert in writing (preparing) engineering reports, specifications, and tender documents. You will find me to be a reliable person, who has a professional, calm, and honest approach to all work related matters. Technically minded and with good problem resolution skills, I work effectively in fast paced and ever changing environments. One of my strongest points is my self-motivation, which allows me to perform well under pressure and to use every opportunity that arises to increase productivity. Being an analytical thinker, I am also able to quickly identify, improve, and streamline processes and procedures. I also consider myself to be a professional whose strengths include cultural sensitivity and an ability to build rapport with a diverse workforce in multicultural settings.

As a driven individual who wants to continuously improve and progress, I am now looking to work in an energetic and performance-driven environment, where talent is rewarded. I feel your forward thinking and exciting institution is a natural place for a diligent team player like myself. I am forward thinking, fully accountable, and resilient. All of this makes me believe that I would be a strong candidate for your vacancy.

It would be an honor to be a part of and contribute to a company like yours, which is known for its talented workforce and high standards. I am a Canadian citizen and willing to consider relocating to secure a position. My enclosed 4-page résumé will provide you with greater details of my background, achievements, and what I have to offer. I am available for interview and can start work at short notice. I thank you for your time and I look forward to hearing from you soon.

Yours sincerely,

22-15 Tracey Park Drive ● Belleville K8P4R4 ● Ontario ● anabi@live.ca ● 613-689-7500

Executive Summary

- Highly organized, capable, results-oriented, & top performing professional Civil (Structural) Engineer with a total of 15+ years of exemplary experience in the analysis & design of residential, commercial, institutional, recreational, healthcare, & industrial structures & buildings
- Extensive experience & expertise in Civil (Structural) modeling (analysis), & conceptual & detailed design of concrete, steel, timber, masonry, & composite structures & buildings as per Canadian & American codes
- Advanced knowledge & extensive experience in the analysis & design of structures under static, dynamic, cyclic (fatigue), gravity (including rain & snow), & lateral (including earthquake & wind) loads
- Excellent interpersonal, administrative, & communication skills, as well as expertise in preparing (writing) engineering reports, specifications, & tender documents

Personal



Analytical & Ethical Industrious & Humorous Enthusiastic & Optimistic Determined & Disciplined Confident & Independent Professional & Inspirational

Smart



Mindful & Tactful Diligent & Efficient Practical & Methodical Committed & Talented Creative & Imaginative Competitive & Innovative

Dynamic



Effective & Proactive Focused & Organized Reliable & Responsible Motivated & Extroverted Constructive & Productive Cooperative & Collaborative

Civil Engineering Education:

Ph.D. Degree in Structural Engineering

.....2008

University of Manitoba Winnipeg, Manitoba, Canada

M.Sc. Degree in Structural Engineering

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King Fahd University of Petroleum & Minerals Dhahran, Eastern Province, Saudi Arabia

B.Sc. Degree in Structural Engineering

...1987

1996

NED University of Engineering & Technology Karachi, Sindh, Pakistan

Advanced-Level Graduate Courses Credited:

Pre-stressed Concrete	Advanced Finite Element Methods	Construction Planning
Foundation Engineering		Finite Element Methods
Advanced Structural Analysis		Construction Contracting
Advanced Structural Mechanics		Advanced Reinforced Concrete
Evaluation & Testing of Concrete		Advanced Concrete Technology
Reliability for Mechanical Engineers		Advanced Engineering Mathematics
Design of Light Industrial Steel Building	S	Introduction to Finite Element Analysis

Work Experience History:

• Worked as a Structural Engineer &/or Structural Research Engineer in the following organizations

Sarhad University, Peshawar, Pakistan	(2012-2013) & 2015-Present
Loyalist Technical College, Belleville, Ontario	2013-2015
Qassim University, Buraidah, Saudi Arabia	2010-2012
Stantec Consulting Limited, Winnipeg, Manitoba	2009-2010
Hatch Limited, Vancouver, British Columbia	
University of Manitoba, Winnipeg, Manitoba	2000-2008
University of Windsor, Windsor, Ontario	1999-2000
King Fahd University, Dhahran, Saudi Arabia	1992-1996
Mehran University, Jamshoro, Sindh, Pakistan	(1996-1999) & 1989-1992
Chartered Consulting Engineers, Karachi, Pakistan	1980-1989

Typical Structural Engineer Work Experience:

Hatch Limited, Vancouver, British Columbia...

.2008-2009

- Prepared tender documents & IFC Civil (Structural) drawings
- Coordinated & conducted meetings with engineers from all disciplines
- Reviewed & checked structural shop drawings submitted by contractors
- Analyzed & designed structures using STAAD.Pro & SAP2000 extensively
- Developed conceptual & detailed design of the following major structures
 - 7 m x 7 m & 100 m long reinforced concrete reclaim tunnel
 - 2.5 m diameter & 100 m long multi-steel-plate escape tunnel
 - 6.5 m diameter & 100 m long multi-steel-plate pipe to support 2 m wide conveyor belt
 - 7 m wide x 76 m long steel platform inside the concrete tunnel to support 4 apron feeders

Typical Structural Engineer Work Experience - Chartered Consulting Engineers, Karachi:

- Prepared bar bending schedules
- Analyzed & designed concrete, steel, & masonry structures
- Produced & logged photographic records of construction work
- Conducted meetings with owners about their needs & expectations
- Coordinated & conducted meetings with engineers from all disciplines
- Attended construction progress meetings & documented meeting minutes
- Surveyed construction sites to ensure the finished grades were as per design
- Reviewed & checked structural shop drawings & assisted in producing as-built drawings
- Assisted senior engineers & planners in the compilation of construction design information
- Developed conceptual & detailed design of residential, commercial, institutional, & industrial buildings

Typical Structural Research Engineer Work Experience in Canadian & Foreign Institutions:

- Authored & presented research proposals to receive project grants
- Authored & presented Ph.D. candidacy report to advisory committee
- Presented & defended Ph.D. research project to examining committee
- Searched, reviewed, & compiled literature related to research projects
- Used ANSYS & Abacus FE tool extensively for various research projects
- Analyzed, designed, & constructed a unique fatigue-type testing station
- Authored & presented several research progress reports to Manitoba Hydro
- Procured material & equipment related to the unique fatigue testing station
- Scanned steel rollers & roller path plates using scanning electron microscope
- Assessed fatigue life of rollers & roller path plates using finite element results
- Tested 33" diameter solid steel rollers & roller path plates under cyclic loading
- Analyzed large number of cyclic data generated during laboratory fatigue testing

Typical Teaching Experience in Canadian & Foreign Universities:

- In addition to supervision of final-year senior design projects, taught following courses numerous times
- Taught Steel Design & Concrete Design courses as per Canadian & American codes

Structural Analysis:

- Types of loads & structures
- Introduction to matrix structural analysis
- Displacement method of analysis: moment distribution
- Analysis of statically determinate & indeterminate trusses
- Analysis of beams & frames having non-prismatic members
- Analysis of statically determinate & indeterminate structures
- Displacement method of analysis: slope-deflection equations
- Analysis of internal loadings developed in structural members
- Beam, truss, & plane frame analysis using the stiffness method
- Analysis of statically indeterminate structures by the force methods
- Deflection of beams, trusses, & frames using the work-energy methods
- Analysis of cables & arches & deflection of beams using the geometric methods
- Influence lines for statically determinate & indeterminate structures & its applications
- Deflections using energy methods & approximate analysis of statically indeterminate structures

Structural Steel Design:

- Bracing assemblies, column base plates, & anchor rods
- Moment connections & hollow structural section connections
- Beam bearing plates, composite beams, & beam with web holes
- Eccentric loads on bolt & weld groups & framed & seated beam shear connections
- Factored shear resistance of studs & girder webs & web shear resistance of plate girders
- Axially loaded columns, beam-columns, & factored axial compressive resistance of columns
- Factored axial compressive resistance of columns & factored moment resistance of columns
- Factored resistance of laterally supported (& unsupported) beams & deflection of flexural members
- Tension members, bolted & welded connections, & bolts in bearing-type & slip-critical, & prying action

Structural Concrete Design:

- Concrete basics & properties of reinforced concrete
- Flexural analysis & design of reinforced concrete beams
- Alternative design methods, serviceability, deflection, & control of cracking
- Axially loaded columns, members in compression & bending, & slender columns
- Bond & anchorage of reinforcement bars, design of stairs, & shear design of beams
- Introduction to prestressed concrete & analysis of two-way slabs by the direct design method
- Design of continuing beams, slabs, & floor systems, & design of the one-way joist floor system
- Footings, retaining walls, design for torsion, continuous beams & frames, & beams curved in plan

Prestressed Concrete Design:

- Partial loss of prestress
- Shear & torsional strength design
- Camber, deflection, & crack control
- Two-way prestressed concrete floor systems
- Prestressed compression & tension members
- Indeterminate prestressed concrete structures
- Connections for prestressed concrete elements
- Flexural design of prestressed concrete elements
- Basic concepts, materials & systems for prestressing

Computer Skills:

- Advanced computer skills
- Extensive use of Windows 10
- Extensive use of Microsoft Office 2016
- Advanced structural analysis modeling skills
- Advanced finite element modeling techniques
- Expert in BASIC, Fortran, & C++ computer languages
- AutoCAD, ANSYS, Abacus, STAAD.Pro, SAP2000, SAFE, & ETAB
- AutoCAD Civil 3D, RISA-3D, S-FRAME, spSlab, spBeam, spWall, & spColumn

Canadian Codes Reviewed & Practiced:

- CSA-S16-14 Design of Steel Structures
- CSA-086-14 Engineering Design in Wood
- CAC Concrete Design Handbook, 4th Edition
- NBC-2015 National Building Code of Canada
- CSA-A23.3-14 Design of Concrete structures
- CSA-A371-14 Masonry Construction for Buildings
- CISC Handbook of Steel Construction, 11th Edition
- CSA-S6-14 Canadian Highway Bridge Design Code
- CSA-A23.2-14 Test Methods & Standard Practices for Concrete
- Provincial Building Codes of Ontario, Manitoba, & British Columbia
- CSA-A23.1-14 Concrete Materials & Methods of Concrete Construction

American Codes Reviewed & Practiced:

- ACI SP-066(04) ACI Detailing Manual
- ACI SP-004(8th) Formwork for Concrete
- AISC Steel Construction Manual, 15th Edition
- AISC Detailing for Steel Construction, 3rd Edition
- ACI 301-16 Specifications for Structural Concrete
- ACI SP-17(14) The Reinforced Concrete Design Handbook
- ACI 318-14 Building Code Requirements for Structural Concrete & Commentary

Personal Performance Characteristics:

- Demonstrated excellent writing, speaking, & presentation skills
- Always work well with fellow employees, flexible, & dependable
- Thrive on challenging tasks & projects in a very busy office setup
- Resourceful self-starter, positive, success-oriented, & goal achiever
- Able to remain calm & maintain an objective viewpoint under duress
- Outstanding facilitation, presentation, research, & organizational skills
- Lifelong advocate of continued outcome-based education, training, & learning
- Strong in the use of computer technologies for the analysis & design of structures

Achievements:

- Recipient of full graduate scholarship granted by KFUPM, Dhahran, Saudi Arabia
- Achieved highest TOEFL score among 50 participants in CIELS, AED, USAID, Islamabad
- Recipient of research & teaching assistantship awards at the University of Windsor, Ontario
- Secured A & B grades in all graduate courses credited during M.Sc. & Ph.D. degree programs
- Recipient of research & teaching assistantship awards at the University of Manitoba, Winnipeg
- Obtained 1st position in 1st year Civil Engineering degree program with GPA 4.0/4.0 among 300 students
- Received cash award from the Vice Chancellor of MUET Jamshoro, Pakistan based on my outstanding academic performance