



Ahmad Siar, P.Eng., M.A.Sc.

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Education

PROFESSIONAL ENGINEERS of ONTARIO

Received P.Eng. designation after successful completion of the NPPE exam.

2024

TORONTO METROPOLITAN UNIVERSITY, TORONTO

M.A.Sc. in Structural Engineering

2019 - 2020

Journal paper on sensitivity analysis of EDSPFL

Conference paper on the FE modeling and response optimization of EDSPFL

ANTALYA BILIM UNIVERSITY, ANTALYA, TURKEY

B.Eng. in Civil Engineering

2012 - 2017

EERI SDC project coordinator/leader

Led university team in a U.S. organized seismic design competition, securing the first architectural award and ranking fifth overall.

Undergraduate teaching assistant.

Conducted lectures, tutorials, lab experiments, and office hours for multiple courses including Technical Drawing, AutoCAD (twice), Statistics and Calculus.

Experience

VARCON INC., BARRIE, ONTARIO

Structural Associate

2020 – 2024

Analyzing and inspecting glass facades for commercial and residential buildings.
Reviewing and designing telecommunication towers, including Monopoles, Tri-poles, Self-support, and guyed towers.

Reviewing audit and maintenance reports for tower conditions and deficiencies, ensuring compliance with standards and codes.

Analyzing and designing foundations for telecommunication towers, specifically monopoles and tri-poles.

Conducting detailed finite element analysis on monopole base plates and splice connections to predict stresses.



Designing structural reinforcements and welds to reduce tower stresses and eliminate overloads.

Performing failure analysis of complex steel structures and connections using advanced finite element analysis software.

Processing accelerometer test data for communication tower structural damping ratios.

Designing and inspecting tuned liquid dampers for telecommunication towers to mitigate fatigue overloads.

Developing and automating spreadsheets for efficient analysis and design of steel, concrete, and aluminum connections.

TORONTO METROPOLITAN UNIVERSITY, TORONTO

2019 - 2020

Graduate Assistant

Studied the sensitivity of energy-dissipating steel plates in enhancing high-rise steel structure performance.

Developed predictive equations for various response characteristics of ductile steel plates in steel buildings and bridges.

Conducted optimization analysis for energy-dissipating steel plates in seismic-resistant steel structures.

JMS FORMING LTD., TORONTO

2018

Construction Surveyor Assistant

Read and interpreted blueprints for precise layout and elevation control of underground utilities, earthworks, and road works for a 40-story reinforced concrete building and 40+ 3-story townhouses.

Utilized builder level, transit, laser engineering instruments, and total station system for field layout measurements of a 40-story building and 40+ 3-story townhouses.

SML CONSTRUCTION, ANALYA, TURKEY

2015

Construction Estimator Intern

Estimated labor, material, and pre-contract costs.

Conducted economic feasibility studies and preliminary estimates for proposed projects using CAD programs.

Technical and Soft Skills

Structural associate with a master's degree and over 4 years of structural engineering experience.

Currently undergoing experience evaluation for designation as a P.Eng. after passing the NPPE.

Expertise in structural steel and concrete design.

Proficient in Handbook of Steel Construction, CSA S16-19, NBCC 2015, CSA W59-18, and CSA S157-17.

Strong grasp of engineering principles, adept at solving unique design challenges and addressing field issues.

Skilled in structural design/analysis software such as RISA 3D, Abaqus CAE, SAP2000, and TSTower/TSTFoundation.

Proficient in AutoCAD and Microsoft Office (Word, Excel, PowerPoint).

Effective verbal and written communication skills, including technical report writing.

Detail-oriented, organized, and possesses excellent interpersonal skills.

Self-motivated and capable of working independently or as part of a team.

Able to prioritize workload to meet deadlines and adapt to emergencies.

Hold a full G driver's license and available to travel to sites within a 3+ hour radius.

