

Ahmet Durap

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Key skills

- Erosion and sedimentation control
- Coastal vulnerability
- Natural hazards & risks
- Coastal management
- Coastal/Marine Data Collection
- Microsoft Visual Basic proficiency
- MATLAB, Fortran
- Document control
- AutoCAD
- Computer Proficient
- Coastal structure design
- Coastal Structure Condition Assessment
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Education

Coastal engineering (PhD) The University of Queensland

Visiting Scholar (2022-up to present)

Ocean engineering (PhD) University of Strathclyde

I was an exchange student for a full year. (2019-2020)

Coastal sciences and engineering (PhD)

Summary

Seeking a challenging Coastal Engineer position with Stantec, where I can utilize my expertise in coastal processes investigations, coastal structure design, and numerical modelling to contribute to the delivery of high-quality coastal engineering services.

Career history

Research Associate Coastal Engineer at The University of Queensland

September 2022 – present

Managing the existing and emerging threats from coastal flow slides (2021–2024)

Key responsibilities

- This project aims to develop the first management strategies for coastal flow slides.
- Generating new knowledge on how flow slides are triggered, propagate inland and undermine structures. This is likely to provide significant benefits for planning and managing structures along coasts and bays against destructive flow slides.
- The project will enable the design and implementation of coastal works to protect existing structures against flow slides risks emerging with rising sea level.
- Investigated coastal processes and participated in the design of coastal engineering projects

Achievements

Expected outcomes include globally applicable novel models and management approaches developed by an interdisciplinary team of coastal and geotechnical engineers and coastal geomorphologist using innovative data.

Junior Civil and Marine Engineer at Marine Structure Design (MSD)
January 2016 – June 2018

Istanbul Technical
University
June 2018 to present

Coastal engineering Gazi
University
Graduated 2018

Civil engineering
Kirikkale University
Graduated 2014

Languages

Turkish
*Native or bilingual
proficiency*

English
*Full professional
proficiency*

Spanish
*Limited working
proficiency*

Achievement &Reputation

2214/A *International
Research Fellowship
Programme for PhD
Students (TUBITAK)*

2211/A *National PhD
Scholarship Program
(TUBITAK)*

100/2000 *Project for PhD
students (Council of
Higher Education)*

Planning and designing coastal structures

Key responsibilities

- Analysed survey reports, specifications, maps and topography data for product planning and development.
- Prepared and distributed daily reports on crews, milestones, issues and progress.
- Worked closely with design staff and VP of engineering to help achieve successful product launch.
- Utilized best practices and troubleshooting techniques to resolve unwanted issues.
- Conducted environmental assessments and condition assessments of coastal structures.

Achievements

- With over two years of experience at Marine Structure Design (MSD), I specialized in the design and modelling of coastal defence structures, including breakwaters and groins. My work in designing these coastal-related structures has provided me with a deep understanding of the ocean environment and its effects on the coastline. This experience, coupled with my ability to conduct coastal/marine data collection, environmental assessments, and coastal structure condition assessments, positions me well for the Coastal Engineer role at Stantec.

Researcher at the scientific and technological research council of Turkey

January 2015 – June 2017

Planning and designing ocean outfalls

Key responsibilities

- Modelling of dilution of thermal discharges in enclosed coastal waters.
- The research topic was to design marine outfalls according to water quality control regulations being in force.
- Specifying energy demand in Turkey
- Interpreted data analysis results to draw inferences and conclusions.

Achievements

- The project was successfully done. It has been used by Turkish researcher to design ocean outfalls.

Coastal Planner at ARMADA Training, Certification, Consultation, Engineering

August 2014 – December 2015

Environmental Impact Assessment

Key responsibilities

- Advised corporations or government agencies of procedures to follow in cleaning up contaminated sites to protect people and environment.
- Performed environmental site assessments and provided remediation recommendations.

- Inspected municipal and industrial facilities for adherence to environmental regulations.
- Served as subject matter expert (SME) on environmental regulations and policies.
- Interpreted data analysis results to draw inferences and conclusions.

Achievements

- Successfully executed Coastal Facility Zoning Plans Operations, demonstrating my ability to manage complex coastal projects.
- Secured Coastal Facility Operation Permits, showcasing my understanding of regulatory requirements and my ability to ensure compliance.
- Developed and implemented Risk Assessment and Emergency Response Plans, highlighting my skills in risk management and emergency preparedness in the context of coastal engineering.

These achievements underscore my qualifications for the Coastal Engineer role at Stantec and my ability to deliver high-quality results in a challenging environment.

Driving License

Driving license category

Class B Driver's License

Hobbies

Tennis

Basketball

Researching

Reading

Travelling

In my free time, I enjoy a range of activities that help me maintain a balanced lifestyle:

Tennis and Basketball: These sports help me stay active and foster my team spirit and strategic thinking, which are beneficial for collaborative projects at Stantec.

Interests

My professional interests align closely with the responsibilities of the Coastal Engineer role at Stantec:

- Coastal Management and Coastal Structures: My interest in these areas has driven my work in designing and managing coastal projects, which is central to the role at Stantec.

- Natural Hazards & Risks, Coastal Vulnerability, and Climate Change: My focus on these topics has equipped me with the knowledge to assess and mitigate risks in coastal engineering projects.

- Coastal Morphodynamics, Coastal Environmental Issues, and Sediment Transport: My fascination with these aspects of coastal engineering has honed my understanding of coastal processes and their implications for engineering design.

These interests underscore my passion for coastal engineering and my commitment to contributing to Stantec's mission.

Courses taken during both master and PhD

Researching: My passion for research extends beyond my professional life, keeping me engaged with the latest developments in coastal engineering and related fields.

Reading: I enjoy reading a wide range of materials, which helps me broaden my perspective and enhances my problem-solving skills.

Travelling: Travelling allows me to appreciate diverse cultures and environments, which can inspire innovative solutions in coastal engineering.

These hobbies contribute to my personal growth and can indirectly enhance my performance in the Coastal Engineer role at Stantec.

During my Master's and PhD studies, I completed a comprehensive suite of courses that have equipped me with a deep understanding of coastal engineering:

- Coastal Sediment Transport, Coastal Hazards, and Coastal Hydraulics: These courses have provided me with a solid foundation in understanding and predicting coastal processes, which is crucial for the role at Stantec.
- Special Topics in Coastal Sciences and Engineering, Advanced Topics in Coastal Engineering, and Specialization Field Courses in MSc: These advanced courses have prepared me to tackle complex challenges in coastal engineering.
- Coastal Data Management Systems and Numerical Methods in Coastal Dynamics: These courses have honed my skills in data analysis and numerical modelling, which are key for the role at Stantec.
- Offshore Engineering and Design of Coastal Structures: These courses have given me practical knowledge in designing coastal and offshore structures, aligning with the responsibilities of the Coastal Engineer role at Stantec.
- Ecocoastal Engineering and Coastal Pollution: These courses have equipped me with the knowledge to consider environmental factors in coastal engineering projects, which is important for the role at Stantec.
- Scientific Research, Ethic and Seminar, and Research Techniques and Publication Ethic: These courses have prepared me to conduct research ethically and effectively, which is crucial for the role at Stantec.

This extensive coursework underscores my qualifications for the Coastal Engineer role at Stantec and my ability to deliver high-quality results in a challenging environment.

Publications & Projects

- Durap, A., & Balas, C. E. (2022). Risk assessment of submarine pipelines: A case study in Turkey. *Ocean Engineering*, 261, 112079.
- Durap, A., Balas, C. E., Çokgör, Ş., & Balas, E. A. (2023). An Integrated Bayesian Risk Model for Coastal Flow Slides Using 3-D Hydrodynamic Transport and Monte Carlo

Simulation. Journal of Marine Science and Engineering, 11(5), 943.

- Durap, A., & Çokgör, Ş. (2023). An investigation into the importance of visualizing bathymetric data in coastal planning and management strategies and decision-making. Estuaries and coasts (Under Review).
- Doğan, Y., & Durap, A. (2017). Summarizing Data Sets for Data Mining by Using Statistical Methods in Coastal Engineering. International Journal of Computer and Information Engineering, 11(6), 649-654.
- Durap, A., & Doğan, Y. (2015). İnşaat mühendisliğinde bilişim kavramı ve veri madenciliği algoritmaları ile bir uzman sisteminin oluşturulması. İnşaat Mühendisliğinde Veri Madenciliği.
- A Durap. (2018) Quantitive risk assesment of subsea pipeline instability and design. Graduate School of Natural and Applied Sciences
- TUBITAK Project (2015-2016) Near Field and Far Feild Dilution of Heated Water
- Durap, A., Balas, C. E., Çokgör Ş. (2023). Enhancing Coastal Planning and Management Strategies: Leveraging the Coastal Vulnerability Index for Effective Coastal Risk Mitigation. (submitted 22nd June) Risk Analysis.

My contributions to the field of coastal engineering are demonstrated through my publications and projects:

"Risk assessment of submarine pipelines: A case study in Turkey" and "An Integrated Bayesian Risk Model for Coastal Flow Slides Using 3-D Hydrodynamic Transport and Monte Carlo Simulation": These publications highlight my ability to assess risks and develop models in the context of coastal engineering, which is crucial for the role at Stantec.

"An investigation into the importance of visualizing bathymetric data in coastal planning and management strategies and decision-making": This publication underscores my understanding of the importance of data visualization in coastal planning and management, aligning with the responsibilities of the Coastal Engineer role at Stantec.

"Summarizing Data Sets for Data Mining by Using Statistical Methods in Coastal Engineering" and "İnşaat mühendisliğinde bilişim kavramı ve veri madenciliği algoritmaları ile bir uzman sisteminin oluşturulması": These publications demonstrate my skills in data analysis and data mining, which are key for the role at Stantec.

"Quantitive risk assessment of subsea pipeline instability and design" and "Near Field and Far Field Dilution of Heated Water": These projects showcase my ability to conduct quantitative risk assessments and environmental studies, which are important for the role at Stantec.

"Enhancing Coastal Planning and Management Strategies: Leveraging the Coastal Vulnerability Index for Effective Coastal Risk Mitigation": This publication, currently under review, highlights my ability to leverage tools like the Coastal Vulnerability Index to enhance

coastal planning and management strategies, which is crucial for the role at Stantec.

These publications and projects underscore my qualifications for the Coastal Engineer role at Stantec and my ability to deliver high-quality results in a challenging environment.

References

Available upon request