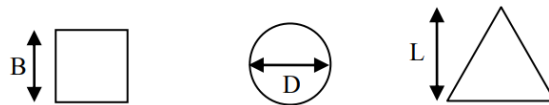


---

**GRADUATION PROJECT 2018**

---

***Shape Effects for Anchors in Sand used for Floating Offshore Wind Turbines*****GOAL:**

Offshore wind turbines are being located in ever deeper waters further offshore. In these deep water environments (> 60 m), floating offshore platforms become economically viable whereas fixed bottom structures become more costly. A range of mooring systems can be used to tether floating offshore platforms. This project focusses on the use of Plate Anchors as a solution to secure offshore platforms. This project will address the influence of anchor shape on pull-out capacity through numerical modelling. Plate anchors with similar bearing area but of various shapes (square, circular and triangular) subjected to translational and rotational displacements will be considered. The varying capacities due to shape effects will be quantified. The project will be conducted using Finite Element Analysis implementing the Coupled-Eulerian-Lagrangian approach (CEL). Expected results of the analyses will be to provide insights into the effect of plate geometry on the capacity of the plate anchors.

**EXPECTED DIFFICULTY:** High

**MORE INFORMATION:**

Witteveen+Bos is seeking a Masters student to research the above topic for their thesis.

- **Duration:** 6 months (or as otherwise agreed for completion of thesis)
- **Days/week:** 5 days per week based at Witteveen+Bos offices (this can be negotiated based on requirements)
- **Location:** Possibility to be placed at Witteveen+Bos offices in Rotterdam, The Hague, Amsterdam or Deventer
- **Remuneration:** A monthly stipend plus travel allowance (for travel expenses actually incurred) will be paid to the successful candidate

**INTERESTED?**

If you are interested in this Masters internship, please send a letter of motivation with a CV to:  
Dr Luke J Prendergast [l.j.prendergast@tudelft.nl](mailto:l.j.prendergast@tudelft.nl)