Propositions

accompanying the dissertation

THE STABILITY OF DIKES SUBJECT TO SOIL-VEGETATION-ATMOSPHERE INTERACTION

by

Elahe JAMALINIA

- 1. Vegetation growth and cover quality can be monitored easily and affect water flow within slopes. This impact should be considered in geotechnical simulations. *This proposition pertains to this dissertation.*
- 2. Climate and vegetation conditions influence first the root zone and, later on, the dike body. Time lag should always be considered in correlation calculation of parameters.

This proposition pertains to this dissertation.

- 3. Data-driven methods provide an objective way to incorporate a dike's history to understand and predict current and future behaviour of the dike. *This proposition pertains to this dissertation.*
- 4. Some geotechnical engineers have a resistance against the application of Machine Learning (ML) in assessment of dike conditions. ML methods are no more a black box than expert knowledge.
- 5. NASA and ESA are constantly working on the accuracy of the instruments. We should trust that the accuracy is sufficient for terrestrial applications.
- 6. Findings of the flood defence community in the Netherlands must be documented in English. Dutch dike experts excel in both dike behaviour and English. They should harness this potential to ensure that local knowledge and achievements have global impact.
- 7. Life is like mountain climbing. After each difficult climb, you will be rewarded by a downhill path.
- 8. Motivation boosts creativity. Don't hesitate to motivate your colleagues and friends nor leave toxic environments sooner rather than later.
- 9. Decisions, not chance, make life. Let life happen for you not to you.

These propositions are regarded as opposable and defendable, and have been approved as such by the promotors dr. P. J. Vardon & prof. dr. S. C. Steele-Dunne.