Reduce weather related traffic disruption with ITS and DTM

Problem description
It is a well known phenomenon that the weather has a large influence on traffic flow. Rain, snow, mist, wind and lighting conditions are just some of the weather conditions that can impede fluent traffic flow. While their influence on traffic flow has been researched, there remains a gap in research into the use of ITS and traffic management to reduce the adverse effects of weather on traffic flow.

Therefore, data and simulation lab DiTTlab and Rijkswaterstaat/ITS Edulab are interested in investigating how ITS and traffic management can be applied to tackle traffic flow difficulties in adverse weather conditions.

Objectives & Assignment
The objective of this project is to identify the mechanisms that lead to traffic flow decay under certain weather conditions and propose and test ITS and traffic management strategies to reduce the negative effects. This will require an understanding of the effects of weather on traffic from literature and of various ITS and traffic management options, which can be applied. The student should propose solutions using ITS and traffic management for various weather conditions and should test the solutions using traffic simulation.

This Master thesis includes an internship at Rijkswaterstaat/ITS Edulab or the KNMI (Dutch meteorological institute)

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