第二周阅读作业

***Text II is a research proposal written by a senior undergraduate student applying for a PhD program. Read the Background part and answer the following questions using noun phrases or short sentences in your own words.***

*1. What’s the main idea of each paragraph?*

Para 1: Importance of the development of path planning algorithms

Para 2: The practical applications of path finding strategies

Para 3: The development history of dynamic shortest path finding

Para 4: The insufficiency of basic algorithms and strategies

Para 5: Previous studies on dynamic factors in path finding

Para 6: The research on the management of traffic network uncertainty

Para 7: Problems with path finding algorithms to be solved

Para 8: The strategy to deal with link failure dependence

*2. What problems existing in the path finding algorithms and route planning strategies have been identified in the following paragraphs?*

Para 4: Insufficiency to solve real life problems in dynamic and uncertain scenarios.

Para 5: Difficulty in defining and measuring reliability

Para 7: An over-saturated state due to great demand of links, resulting in traffic congestion.

Para 8: The classification proves to be inaccurate

*3. What solution has been proposed to solve the identified problems? Or in other words, what is the objective of this proposal?*

3.1 To develop theoretical models to assess and predict traffic network conditions based on hyper-path Strategies

3.2 to provide solutions to dynamic modifications which take into account possible changes of link weights and maximum delay over time

3.3 to develop software implementation for the validation of the proposed

dynamic hyper-path planning algorithm