

Energy-efficient Operation of Heavy-duty Truck

>> Developed by *Prof. CHEN Minghua* et al /
Dept. of Information Engineering

Problem

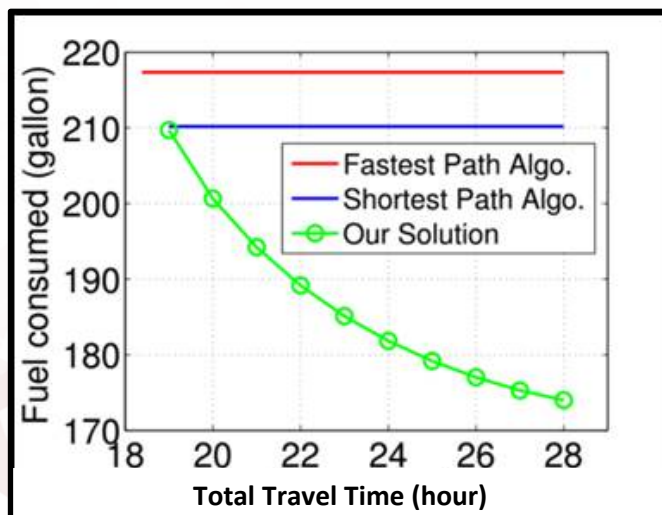
- The large volume of fuel used by medium- and heavy-duty trucks represents an opportunity for tremendous reductions in fuel consumption.

Features

- The team addressed an important yet underexplored energy-efficient timely transportation problem where a heavy-duty truck travels between two locations across the national highway system, subject to a stringent timeline constraint.

Advantages

- The highly-efficient solution is able to solve this problem which can **reduce the truck's fuel consumption by up to 17%** as compared to the common shortest/fastest path algorithm.



▲ Our solution is able to bring up to 17% fuel consumption saving as compared to traditional approaches.

Related Patent

- US 15/622,742

CUHK Tech ID: P-2016-0737

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More information of
Prof. Chen's related
work

<https://staff.ie.cuhk.edu.hk/~mhchen/projects/trucking.html>



重型卡车的油耗节约运作

>> 发明人：陈名华教授 等人 | 信息工程学系

针对问题

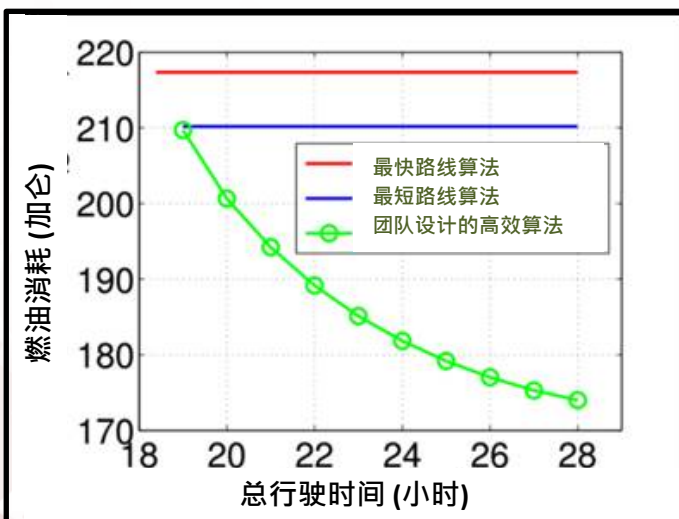
- 中及重型卡车的油耗量非常大，有效地节省它将大大有助于减低整体燃油的消耗，有助节约能源。

特点

- 团队针对一重要但未受深入探讨的问题：重型卡车于国家高速公路上点到点运输路线上，在严谨的时间限制下之能源效能，设计出一个高效能算法。

优势

- 相对常用的最短或最快路线算法，团队设计的高效能算法能为重型卡车节省高达 17% 油耗。



▲ 相对常用的最短或最快路线算法，团队设计的高效能算法能为重型卡车节省高达 17% 油耗。

相关专利

- US 15/622,742

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陈教授之相关研究:

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