YCCSA Seminar Series
Spring 2016

An interdisciplinary seminar series hosted by the York Centre for Complex System Analysis aimed at researchers from all disciplines

Optimisation of Large-scale Geographically Distributed Asset Maintenance

Yujie Chen

Research Student

Department of Computer Science, York

13 May 2016
Ron Cooke Hub, RCH/204 at 13:30

This research looks at a large scale asset maintenance scheduling problem using optimised management strategies. Scheduling large real world problems is a complex process and finding high quality solutions is not a easy task. In collaboration with my industrial partner Gaist Solutions Ltd, a drainage maintenance scheduling problem is identified and modelled. This general model can be applied to many geographic distributed maintenance scheduling problems.

This thesis investigates solution methods using heuristic techniques to deliver good schedules within reasonable CPU time. Many state-of-the-art meta-heuristic and hyperheuristic frameworks are explored. We aim to understand not only what is the best solver for our specific drainage maintenance problem, but also what are the good characteristics in general when designing a heuristic based algorithm.

The seminar includes a refreshment break to fuel interdisciplinary discussion

Ron Cooke Hub is on Heslington East Campus – accessible by free bus services Nos. 66 and 44 running at frequent intervals from Heslington West.
The YCCSA Seminar room is on the second floor