Asset Management

Academic staff

- **Dr Michael Burrow (/staff/profiles/civil/burrow-michael.aspx)**
- **Dr Harry Evdorides (/staff/profiles/civil/evdorides-harry.aspx)**

Asset management work has focused on the research and development of techniques, processes and systems to improve the management of railway maintenance at both the project and network level.

Much of the work is multi-disciplinary involving the Schools of Civil Engineering, Electronic, Electrical and Systems Engineering and the School of Computer Science.

In terms of project level analysis the group has been involved with the development of several systems including ECOTRACK-UK a decision support system for the maintenance of plain line track which has been trialled for use in several areas on the UK network and HMS-metro a maintenance management tool for light railway systems.

Whilst the benefits of project level analysis tends to be discrete and definable, it is at the network level, where the benefits are less tangible, that the consideration of the returns of investment in maintenance has an important role to play in helping frame policy.

A major issue concerns how network level benefits may be presented in a concise and straightforward manner which is meaningful to politicians and senior decision makers alike.

To address this, recent research within the group was focused on the development of a network level system, RailNETCOM, which is capable of determining the effects on network condition of maintenance under user defined maintenance and budget scenarios.

Work on investigating the optimizing of track maintenance and renewal has developed new models and provided tools for decision making to help reduce costs and increase the reliability of track operation.

Current projects:

- PhD Project – A Computational Intelligence Approach to Railway Track Intervention Planning
- MPhil Project - Condition Monitoring for Use in Asset Management in the Construction Environment

© University of Birmingham 2015