

Gateshead Millennium Bridge Control Systems - MEA&H Consultants

Contract

- Project Cost - £12m
- Supervising consultants on Mechanical design
- Supervising consultants on Hydraulic design
- Supervising consultants on Electrical and Control design

Brief description of control system

- Movement of bridge tilting mechanism
- Advanced monitoring of bridge position
- Advanced control of bridge position ($\pm 0.2^\circ$)
- CCTV position selection
- Control of 14 No electrical motors and 2 No diesel power packs
- Control of all pedestrian warning devices

Responsibilities

- Design and authoring of MEA&H full mechanical, electrical and hydraulic specification
- Design and authoring of control system specification
- Supervising consultants for all MEA&H systems
- Advisors on hydraulic mathematical modelling
- Dynamic modelling of bridge including hydraulic performance and PLC PID control loop

Hardware

- 3 No Allen Bradley PLCs
- Allen Bradley panel view 500 operator terminal

