



Intelligent Automation and Soft Computing, Vol. 16, No. 1, pp. 77-87, 2010
Copyright © 2010, TSI® Press
Printed in the USA. All rights reserved

ELEVATOR DISPATCHING USING HEURISTIC SEARCH

DAVID MULVANEY AND JONATHAN WHITE

Department of Electronic and Electrical Engineering

Loughborough University

Loughborough LE11 3TU, UK

d.j.mulvaney@lboro.ac.uk

MUNA HAMDI

Institute of Industrial Research

Burnaby Building

Burnaby Road

Portsmouth PO1 3QL, UK

ABSTRACT—Monitoring and prediction of passenger movements are able to generate timely heuristic information that reduces the complexity of the elevator dispatching task to one of finding the best route through already computed data. This paper demonstrates that such information, when used by heuristic search techniques, allows optimal dispatching solutions to be achieved in a practical elevator installation. Results are also included to demonstrate that a new search approach, when considered alongside existing well-known search methods, compares favorably in its application to real elevator dispatching problems.