

# Rong Qu

Associate Professor in Computer Science  
HEA Fellowship, IEEE Senior Member, PhD, BSc  
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## Professional and Academic History

2013- Associate Professor, School of Computer Science, University of Nottingham  
2005-05 Assistant Professor, School of Computer Science, University of Nottingham  
2001-08 Research Associate, School of Computer Science, University of Nottingham  
1996-97 Research Analyst, Xi'an Machinery Institute, Xi'an, China  
2003 PhD, Computer Science, University of Nottingham  
1996 BSc, Computer Science and Its Applications, Xidian University, China

## Profile Highlights

### Research

Lead author of more than 10 top cited papers (by the ISI Indicators) at international leading journals  
More than 60 peer-reviewed papers at international journals since 2000

### Funding

Principal and Co-investigator on more than 10 grants projects funded by EU, EPSRC and KTP, etc.

### Academic esteem

JSPS Invited Fellow at Computational Intelligence Labo. at Osaka Prefecture University, Japan  
Guest editor of special issues at Journal of Scheduling and IEEE Computational Intelligence Magazine  
Associate Editor at IEEE Computational Intelligence Magazine  
IEEE Senior member since 2012

## Research

- Modelling and optimisation for real world complex optimisation problems including logistic transport routing, portfolio optimisation, scheduling, timetabling, workforce scheduling, network routing, and 3-D bin packing, etc.
- Computational intelligence techniques including meta-heuristic algorithms (hyper-heuristics, local search, evolutionary algorithms, etc.), Constraint programming hybridised with AI/OR algorithms
- Artificial Intelligence and Machine Learning techniques in data mining and knowledge discovery

### Book / Book chapters / Journal Editorials

- R. Qu (ed.) Proceedings of the 25th Workshop of the UK Planning and Scheduling Special Interest Group (PlanSIG2006), December, 2006, Nottingham, UK. ISSN 1368-5708
- R. Qu, M. Fox, D. Long (Guest editors). Special Issue of Artificial Intelligence Planning and Scheduling at Journal of Scheduling, June, 12(3), 2009.
- N. Pillay, R. Qu Hyper-Heuristics: Theory and Applications, Springer ISBN 978-3-319-96514-7, 2018
- N. Pillay, R. Qu, D. Srinivasan, B. Hammer, K. Sorensen, (Guest editors) Special Issue of Automated Design of Machine Learning and Search Algorithms. IEEE Comp. Int. Mag. 13(2), 2018.

### Awards

- R. Qu and E.K. Burke. Hybridisations within a Graph Based Hyper-heuristic Framework for University Timetabling Problems. Journal of Operational Research Society, 60: 1273-1285, 2009. Top 5 highly cited paper at JORS 2009.
- R. Qu, co-authors: E.K. Burke, B. McCollum, A. Meisels, S. Petrovic. A Graph-Based Hyper-Heuristic for Educational Timetabling Problems. EJOR, 176: 177-192, 2007. Five Year Top Cited 2007-2011 Award.
- E.K. Burke, B. MacCarthy, S. Petrovic, R. Qu. Structured Cases in Case-Based Reasoning-Re-using and Adapting Cases for Timetabling Problems. Best technical papers at *Expert Systems 1999*, Knowledge Based System

## External Grants

- Encouraging Lifelong Learning for an Inclusive and Vibrant Europe, EC H2020 (EU 693989), Oct 2016 - Sept 2019
- Energy Efficient Freight Transport Scheduling in Supply Chain Logistics, Royal Society Exchanges Scheme, April 2013 - 31 March 2015
- Towards More Effective Computational Search, EPSRC, 01/09/2009 - 31/08/2014
- Routing and Rostering in Healthcare Workforce Management (KTP 8992), TSB-KTP, Feb 2014 - Feb 2016
- Developing Next Generation Rostering Software Using Advanced Scheduling Techniques, Midland Software Ltd. and KTP, September 2008 - August 2010
- Next Generation Decision Support: Automating the Heuristic Design Process, EPSRC, Oct 2006 – Sept 2011