ibrahim**kucukkoc**
industrial engineering, research assistant

contact

Balikesir University
Industrial Engineering Dept.
Cagis Campus, Balikesir
Turkey

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i.kucukkoc[at]exeter.ac.uk
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http://ikucukkoc.baun.edu.tr

languages

fluent turkish and english

programming

Java, CPLEX, GAMS, Witness, Solidworks

profile pages

scopus
orcid
researcherID
researchgate
google scholar

google citation metrics

h-index: 7
i10-index: 6
citations: 149
(as of Nov 2016)

professional membership

EUROPT
SSAISB
DAAM
APICS
OR Society UK
IBM Academic Initiative

education

2012 – 2015	**PhD** in Manufacturing Engineering University of Exeter, Exeter, England *Thesis: Modelling and Solving Mixed-model Parallel Two-sided Assembly Line Problems*
2010 – 2011	**MSc** in Industrial Engineering Balikesir University, Balikesir, Turkey
2009 – 2010	**MSc** in Industrial Engineering *(Transferred to Balikesir Uni.)* Selcuk University, Konya, Turkey
2005 – 2009	**BSc** in Industrial Engineering Selcuk University, Konya, Turkey

academic positions

2016 – Now	**Balikesir University** Research Assistant, Industrial Engineering
2012 – 2016	**University of Exeter** Postgraduate Researcher, College of Engineering, Mathematics and Physical Sciences
2009 – 2012	**Balikesir University** Research Assistant, Industrial Engineering

editorial activities

2016 – Now	**Area Editor** An International Journal of Optimization and Control: Theories & Applications
2016 – Now	**Editorial Board Member** Peertechz Journal of Computer Science and Engineering
2014 – Now	**Editorial Board Member** News in Engineering
2013 – Now	**Editorial Board Member** Journal of Computer Sciences and Applications (JCSA)
2012 – 2014	**Section Editor** IAES International Journal of Artificial Intelligence (IJ-AI)
2010 – 2016	**Technical Editor** An International Journal of Optimization and Control: Theories & Applications
2013	**Co-keynote Editor** The OR Society, OR55 Annual Conference, 3-5 September 2013, Exeter, UK
2013	**Keynote Editor** The OR Society, YOR18 Conference, 9-11 April 2013, Exeter, UK

interests

Modelling and optimisation of manufacturing systems including assembly line balancing and production planning problems; and their heuristic/meta-heuristic implementations as well as agent based approaches.

awards

TÜBİTAK International Scientific Publication Encouragement Award
 2013, 2014, 2015, 2016

Artificial Intelligence, An International Journal (Elsevier)
 AISB 2013 Convention Registration Award, April 3-5, 2013

PhD Scholarship
 Turkish Council of Higher Education, 01/2012 – 01/2016

Master Scholarship
 TÜBİTAK BIDEB – 2210, 09/2010 – 07/2011

projects

Mixed Model Assembly Line Balancing Problems and an Application with Genetic Algorithms
 Balikesir University, Scientific Research Project, 12/2010 – 07/2011

publications

I have published widely in the top journals and peer-reviewed conferences in my field.

articles in peer-reviewed journals (SCI/SCI-E)

A Lightweight and Support-free Design Method for Selective Laser Melting
 Li, Z., Zhang, D. Z., Dong, P., Kucukkoc, I.
 The International Journal of Advanced Manufacturing Technology (in press).
 http://doi.org/10.1007/s00170-016-9509-0

A mathematical model and artificial bee colony algorithm for the lexicographic bottleneck mixed-model assembly line balancing problem
 Kucukkoc, I., Buyukozkan, K., Satoglu, S.I., Zhang, D. Z.
 Journal of Intelligent Manufacturing (in press).
 http://doi.org/10.1007/s10845-015-1150-5

Mixed-model Parallel Two-sided Assembly Line Balancing Problem: A Flexible Agent-based Ant Colony Optimization Approach
 Kucukkoc, I., Zhang, D. Z.
 Computers & Industrial Engineering (in press).
 http://doi.org/10.1016/j.cie.2016.04.001

Lexicographic Bottleneck Mixed-model Assembly Line Balancing Problem: Artificial Bee Colony and Tabu Search Approaches with Optimised Parameters
 Buyukozkan, K., Kucukkoc, I., Satoglu, S.I., Zhang, D. Z.
 Expert Systems with Applications, 50, (2016), pp. 151-166.
 http://doi.org/10.1016/j.eswa.2015.12.018

Integrating ant colony and genetic algorithms in the balancing and scheduling of complex assembly lines
 Kucukkoc, I., Zhang, D. Z.
 The International Journal of Advanced Manufacturing Technology, 82(1), (2016), pp. 265-285.
 http://doi.org/10.1007/s00170-015-7320-y

Balancing of parallel U-shaped assembly lines
 Kucukkoc, I., Zhang, D. Z.
 Computers & Operations Research, 64 (2015), pp. 233-244.
 http://doi.org/10.1016/j.cor.2015.05.014

Type-E Parallel Two-Sided Assembly Line Balancing Problem: Mathematical Model and Ant Colony Optimisation based Approach with Optimised Parameters
    Kucukkoc, I., Zhang, D. Z.
    Computers & Industrial Engineering, 84 (2015), pp. 56-69.
    http://doi.org/10.1016/j.cie.2014.12.037

A Mathematical Model and Genetic Algorithm based Approach for Parallel Two-Sided Assembly Line Balancing Problem
    Kucukkoc, I., Zhang, D. Z.
    Production Planning & Control, 26(11), (2015), pp. 874-894.
    http://doi.org/10.1080/09537287.2014.994685

Mathematical Model and Agent Based Solution Approach for the Simultaneous Balancing and Sequencing of Mixed-Model Parallel Two-Sided Assembly Lines
    Kucukkoc, I., Zhang, D. Z.
    International Journal of Production Economics, 158 (2014), pp. 314–333.
    http://doi.org/10.1016/j.ijpe.2014.08.010

Simultaneous balancing and sequencing of mixed-model parallel two-sided assembly lines
    Kucukkoc, I., Zhang, D. Z.
    International Journal of Production Research, 52(12), (2014), pp. 3665-3687.
    http://doi.org/10.1080/00207543.2013.879618

Using response surface design to determine the optimal parameters of genetic algorithm and a case study
    Kucukkoc, I., Karaoglan, A. D., Yaman, R.
    International Journal of Production Research, 51(17), (2013), pp. 5039-5054.
    http://doi.org/10.1080/00207543.2013.784411

articles in peer-reviewed journals (other indexes)

A New Hybrid Genetic Algorithm to Solve More Realistic Mixed-Model Assembly Line Balancing Problem
    Kucukkoc, I. and Yaman, R.
    International Journal of Logistics Systems and Management, 14(4), (2013), pp. 405-425.

peer-reviewed international conferences (full text)

Coping with Model Variations on Parallel U-shaped Assembly Line Configurations
    Kucukkoc, I., Zhang, D. Z.
    Proceedings of the 15th IFAC/IEEE/IFIP/IFORS Symposium on Information Control in Manufacturing (INCOM 2015), Ottawa, Canada, May 11-13, 2015.

Lexicographic Bottleneck Mixed-model Assembly Line Balancing Problem: an Artificial Bee Colony Approach
    Buyukozkan, K., Kucukkoc, I., Zhang, D. Z.
    Proceedings of the 44th International Conference on Computers and Industrial Engineering and IMSS 2014 - 9th International Symposium on Intelligent Manufacturing and Service Systems, Joint International Symposium on "The Social Impacts of Developments in Information, Manufacturing and Service Systems" (CIE 2014), Istanbul, Turkey, October 14-16, 2014, pp. 1213-1227.

An Agent Based Ant Colony Optimisation Approach for Mixed-Model Parallel Two-Sided Assembly Line Balancing Problem
    Kucukkoc, I., Zhang, D. Z.
    Pre-Prints of the Eighteenth International Working Seminar on Production Economics, Innsbruck, Austria, February 24-28, 2014, Volume 3, pp. 313-328.

Balancing Parallel Two-Sided Assembly Lines via a Genetic Algorithm Based Approach
    Kucukkoc, I., Zhang, D. Z.
    Proceedings of the 43rd International Conference on Computers and Industrial Engineering (CIE43), The University of Hong Kong, Hong Kong, October 16-18, 2013, Volume 1, pp. 106-121.

Balancing Mixed-Model Parallel Two-Sided Assembly Lines
    Zhang, D. Z., Kucukkoc, I.
    Proceedings of the International Conference on Industrial Engineering and Systems Management (IEEE-IESM'2013), École Mohammadia d'Ingénieurs de Rabat (EMI), International Institute for Innovation, Industrial Engineering and Entrepreneurship (I4E2) - Rabat, Morocco, October 28-30, 2013, pp. 391-401 (ISBN: 978-2-9600532-4-1).

Balancing Parallel Two-Sided Assembly Lines with Ant Colony Optimisation Algorithm
    Kucukkoc, I., Zhang, D. Z., Keedwell, E. C.
    Proceedings of the 2nd Symposium on Nature-Inspired Computing and Applications (NICA) at Artificial Intelligence and the Simulation of Behaviour (AISB) 2013 Convention, University of Exeter, April 3-5, 2013, pp. 21-28.

peer-reviewed international conferences (abstract)

On Applications of Ant Colony Optimisation Techniques in Solving Assembly Line Balancing Problems
    Kucukkoc, I., Zhang, D. Z.,
    Keynote Papers and Extended Abstracts Book, OR55 Annual Conference, The OR Society UK, University of Exeter, September 3-5, 2013, pp. 114-120 (Extended Abstract).

An Improved Ant Colony Optimisation Algorithm for Type-I Parallel Two-Sided Assembly Line Balancing Problem
    Kucukkoc, I., Zhang, D. Z., Keedwell, E. C., Pakgohar, A.
    YOR18 Biennial Conference, The OR Society UK, University of Exeter, April 9-11, 2013.

Generalised Discrete Time-Cost Trade-Off Scheduling Problem in Highway Construction Projects
    Pakgohar, A., Zhang, D. Z., Childe, S., Kucukkoc, I.
    YOR18 Biennial Conference, The OR Society UK, University of Exeter, April 9-11, 2013.

peer-reviewed national conferences (full text)

A New Comsoal Based Heuristic Approach to Mixed-Model Assembly Line Balancing with Parallel Workstations and Zoning Constraints
    Yaman, R., Kucukkoc, I.
    Proceedings of the 31th Turkish National Congress on Operations Research and Industrial Engineering, Sakarya Üniversitesi, July 5-7, 2011, pp. 219-230.

books

OR55 Keynote Papers and Extended Abstracts (Edited Book)
    Kucukkoc, I., Mustafee, N.
    OR55 Annual Conference, 2013, The OR Society UK, University of Exeter, ISBN: 0903440555.

YOR18 Keynote Papers and Extended Abstracts (Edited Book)
Kucukkoc, I.
YOR18 Biennial Conference, 2013, The OR Society UK, University of Exeter,
ISBN: 0903440520.

committee roles

Organising Committee Member
19th National Ergonomics Congress, Balikesir University, 27-29 September
2013, Balikesir, Turkey

OR55 Annual Conference, The OR Society, 3-5 September 2013, University of
Exeter, England

YOR18 Biennial Conference, The OR Society, 9-11 April 2013, University of
Exeter, England

Programme/Scientific Committee Member
International Conference on Artificial Intelligence and Control Automation
(AICA2015), 16-17 January 2015, Phuket Island, Thailand

International Conference on Advances in Computing, Communication and
Control: ICAC3, January 2015, Mumbai

3rd International Conference on Advances in Computing, Communication and
Control: ICAC3, 18-19 January 2013, Mumbai

referee positions

Information Sciences, Elsevier, 2016 – Present
International Journal of Production Economics, Elsevier, 2016 – Present
Computers & Operations Research, Elsevier, 2015 – Present
Expert Systems with Applications, Elsevier, 2016 – Present
Applied Soft Computing, Elsevier, 2013 – Present
Applied Mathematical Modelling, Elsevier, 2015 – Present
International Journal of Production Research, Taylor & Francis, 2014 – Present
Assembly Automation (AA), Emerald, 2012 – Present
Engineering Optimization, Taylor & Francis, 2016 – Present
Journal of Facilities Management (JFM), Emerald, 2013 – Present
Neural Computing and Applications (NCA), Springer, 2013 – Present
International Journal of Industrial Engineering: Theory, Applications and Practice,
2014 – Present
Production & Manufacturing Research: An Open Access Journal, Taylor & Francis,
2013 – Present
The South African Journal of Industrial Engineering (SAJIE), 2013 – Present
Iberoamerican Journal of Industrial Engineering (IJIE), 2013 – Present
Journal of Industrial and Management Optimization, 2016 - Present
American Journal of Applied Mathematics and Statistics (AJAMS), 2013 – Present
American Journal of Science and Technology, AASCIT, 2014 – Present
Gazi University Journal of Science (GUJS), Part A: Engineering and Innovation,
2014 – Present
International Journal of Renewable Energy Research (IJRER), 2011 – Present
International Journal of Research in Computer Science (IJORCS), 2012 – Present
International Journal of Computer Science and Artificial Intelligence (IJCSAI),
2013 – Present

International Journal of Computational Intelligence and Information Security, 2013 – Present

International Conference on Nature of Computation and Communication (ICTCC2014), Vietnam, 2014

25th Southern African Institute of Industrial Engineering Conference (SAIIE25), South Africa, 2013

3rd International Conference on Advances in Computing, Communication and Control: ICAC3, 2013

teaching experience

I have involved in tutoring/assisting on the following modules:

University of Exeter

ECM1101 – Professional Studies and Skills Development
2014/5 (T2)

ECM3171 – Computer Aided Engineering Drawing
2014/5 (T1)

ECM2106 – Manufacturing Systems
2013/4 (T2)

ECM1101– Professional Studies and Skills Development
2012/3 (T2)

Balikesir University

Advanced Linear Optimisation, Postgraduate
2010/11

Production Planning, Undergraduate
2010/11

Nonlinear Optimization, Postgraduate
2009/10

Facility Layout Planning, Undergraduate
2009/10

Decision Making, Undergraduate
2009/10