

Trivikram Dokka

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EDUCATION

Certificate course in Data Science for Internet of Things: 2017, University of Oxford, UK

Ph.D. in Applied Economics: 2013, Katholieke Universiteit Leuven, Belgium
Specialization: Operations Research

M.Phil. in Applied Mathematics: 2009, University of Birmingham, UK

B.Tech in Materials Engineering: 2003, Jawaharlal Nehru Technological University, India

WORK EXPERIENCE AND CONSULTANCY

EXPERIENCE

September 2013 – present

Assistant Professor (Lecturer): Lancaster University, Lancaster, UK

September 2009 – August 2013

Doctoral Research Fellow: ORSTAT, Katholieke Universiteit Leuven, Belgium

September 2008 – August 2009

Research Fellow (Part-time): Nottingham Business School-Rolls-Royce, Nottingham, UK

November 2006 – September 2007

Product Manager, Aluminium Wire Rods: Vedanta Resources Plc, Hyderabad, India

July 2004 – October 2006

Planning Engineer, Operations Planning, Process Optimization: Bharat Aluminium Company Ltd, Vedanta Resources Plc, India

CONSULTING

Rolls-Royce – Supply Chain Simulation (through University of Nottingham) 2008-09

Standfast & Barracks – Costing (through Masters Project – Lancaster University) 2014-15

Orchard Systems – Predictive analytics – Forecasting (Masters Project – Lancaster University) 2015-16

NHS – Predictive analytics – Machine learning (through Master project – Lancaster University) 2016-17

PUBLICATIONS

A. JOURNALS

Dokka, T., Y. Mourtos, and F.C.R. Spieksma,
Fast separation for the three-index assignment problem, accepted and forthcoming in *Mathematical Programming Computation*.

Duvillie, G., M. Bougeret, V. Boudet, T. Dokka, R. Giroudeau,
On the complexity of Wafer-to-Wafer Integration, accepted and forthcoming in *Discrete Optimization*.

Dokka, T., and F.C.R. Spieksma,
Facets of the axial three-index assignment polytope, *Discrete Applied Mathematics* 201 (2016), 86-104.

Dokka, T., Y. Crama, and F.C.R. Spieksma,
Multi-Dimensional Vector Assignment Problems, *Discrete Optimization* 14 (2014), 111-125.

Dokka, T., A. Kouvela, and F.C.R. Spieksma,
Approximating the Multi-Level Bottleneck Assignment Problem, *Operations Research Letters* 40 (2012), 282-286.

B. Peer-Reviewed Conference Papers

Dokka, T., A. Zemkoho, F.T. Nobibon and S. Sen Gupta.
Pricing toll roads under uncertainty. ATMOS 2016

Dokka, T., M. Bougeret, V. Boudet, R. Giroudeau, and F.C.R. Spieksma,
Approximation Algorithms for the Wafer-to-Wafer Integration Problem, WAOA 2012.

Dokka, T., I. Mourtos, and F.C.R. Spieksma,
Fast Separation Algorithms for 3-index Assignment Problem, ISCO 2012.

SUBMITTED PAPERS

An Experimental Comparison of Uncertainty Sets for Robust Shortest Path Problems (*with Marc Goerigk*).

WORKING PAPERS

Natural intersection cuts for mixed-integer linear programs (*with Adam N Letchford*).
Robust toll pricing (*with Alain Zemkoho, Fabrice Talla Nobibon and Sonali Sen Gupta*).
Exact algorithms for yield optimization in wafer to wafer integration in 3D-SICs (*with Yves Crama*)
Dynamic Pricing in the Presence of Price Controls and Caps (*with Peter Jacko*).
Network congestion games with reference points (*with Xuan Vinh Doan and Sonali Sen Gupta*).

TEACHING EXPERIENCE

Teaching Certificate in Academic Practice (CAP) Module 1, United Kingdom.

Courses taught:

Introduction to Operations Management (Lancaster Undergraduate: Core module for Business Analytics degree programme)

Optimization (Lancaster Undergraduate: Core module for Business Analytics and Accounting and Finance degree programmes)

Non-linear Optimization and Integer Optimization (Lancaster Pre-doctoral and Graduate: Core module for Quantitative Finance and Doctoral students)

Data Analysis for Management (Lancaster Undergraduate: Core module for Business Analytics, Accounting and Finance Programmes)

Statistical Methods for Business (Lancaster Undergraduate: Core module for Business Analytics, Accounting and Finance Programmes)

Linear Programming – Tutor (Birmingham Undergraduate: Core Module for Applied Mathematics degree Programmes)

ADMINISTRATIVE RESPONSIBILITIES

Programme Director for MSc in Business Analytics Programme – **August 2016 to Present.**

JOURNAL/CONFERENCE REFEREEING

European Journal of Operational Research, Journal of Scheduling, Mathematical Methods of Operations Research, Computers and Operations Research, Annals of Operations Research, Networks

COMPUTER SKILLS

Languages: C, C++, Python (very basic)

Typesetting: LATEX

Optimization: CPLEX Concert Technology, Callable library

Statistical and Machine learning: R and H2O

Parallel: CUDA (very basic)

Others: VBA, ARENA (did not use in last 10 years)