



Operations Research Society of South Africa



Category IV Recognition Award

(To an upcoming member of ORSSA
of age 35 or below for excellence
in operations research practice)

Elias J Willemse

Citation. By Jan van Vuuren, on behalf of the Executive Committee of ORSSA.

Elias Jacobus Willemse was born in Pretoria on July 26th, 1985. After matriculating from Eldoraigine High School in 2003, he enrolled for a bachelor's degree in industrial engineering at the University of Pretoria in 2004. After being awarded this degree in 2007, he went on to obtain an honours degree in industrial engineering from the same institution in 2008. The following year he enrolled for a master's degree in industrial engineering at the University of Pretoria. The quality of the work he did for his master's thesis on a problem in vehicle routing was, however, so good that his thesis was upgraded to PhD-level in 2011. He is currently in the process of finalising his doctoral thesis in industrial engineering at the University of Pretoria on a part-time basis.

During the period 2005 to 2007 Elias worked as student worker for Teqcon, an exporter and local supplier of hi-tech perimeter detection technology, where he designed a tracking system capable of capturing and maintaining product information and configurations at installation sites. In 2008 he joined the Built Environment Unit at the CSIR in Pretoria, where he was involved in a variety of fascinating operations research-related projects, including waste collection and transportation optimisation for Ekurhuleni Metropolitan Municipality, electricity expansion capacity planning for Eskom, production optimisation and scheduling for AngloGold Ashanti Technology Innovation Consortium, integrated renewable energy systems modelling, road deflection analysis (that is, determining the structural stiffness of road pavement structures), and security guard routing optimisation for Midfield-Estate in Gauteng. In 2009 he also joined the Department of Industrial and Systems Engineering at the University of Pretoria on a part-time basis, where he was responsible for presenting operations research courses to postgraduate students of the department.

He remained full-time at the CSIR until 2012, when he relocated to LTS Consulting, an engineering firm specialising in industrial engineering consulting, logistics and technology solutions. There he was, likewise, seminaly involved in a number of very interesting operations research projects, including the determination of optimal locations for bulk resource road-to-rail consolidation terminals, the development of an automated workflow planning tool for assisting in the identification of resource requirements when performing molecular tests in a laboratory, and the streamlining of production and sales processes at nurseries in the Western Cape. At LTS Consulting he has also been the manager of a project involving the redesign of an analytical radiological laboratory for the National Nuclear Regulator as well as of a business process re-engineering project for managing the technical data of Eskom. In August this year he was appointed as lecturer in the Department of Industrial and Systems Engineering at the University of Pretoria on a full-time basis.

In addition to his involvement in all of these operations research consulting projects, Elias has served on the Executive Committee of ORSSA since 2010 and has been the editor of ORSSA's peer-reviewed conference proceedings since their inception in 2011. Last year he was co-opted as member of the Executive Committee of the South African Institute of Industrial Engineers, or SAIIE, and has since spearheaded the Operations Research Special Interest Group of SAIIE. In 2012 Elias also registered with the Engineering Council of South Africa as a professional industrial engineer.

In recognition of the excellent quality of the various operational research projects in which he has recently been involved, as just outlined, Elias Jacobus Willemse is, on this 17th day of September 2013, duly awarded a Category IV ORSSA Recognition Award. I call on the President to confer the award.