



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)

Brian John van Vuuren

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

Brian John van Vuuren was born in East London on January 31st, 1991. After matriculating from Clifton College in Durban as *dux* student in 2009, he enrolled for a bachelor's degree in mechatronic engineering at Stellenbosch University in 2010. At university he excelled in a wide variety of leadership capacities, such as serving as head of house (or *primarius*) of Simonsberg Men's Residence, co-lecturing a course on *Leadership Development for Engineers* in conjunction with the Frederick Van Zyl Slabbert Institute, and being elected to form part of a collaborative think tank project together with students from the Catholic University of Leuven in Belgium tasked with envisioning the future city-scape of Stellenbosch. This fruitful undergraduate period culminated in Brian achieving the unprecedented honour of being awarded two Rector's Awards whilst still a student — one for leadership and one for service provision.

After being awarded a BEng (Megatronics) degree by Stellenbosch University in 2013, he went on to enrol for a master's degree in 2014, this time in operations research within the Department of Industrial Engineering at the same institution. His master's thesis work on agent-based simulation modelling in pursuit of sound decision support to the ongoing national effort aimed at combatting *Eldana saccharina Walker*, a serious stalk-borer pest in South African sugarcane, was of such high quality and exhibited such novelty of approach that he was designated a finalist in the masters category of the ORSSA annual student competition for the best master's thesis in South Africa in 2016. During the previous year he had, in fact, also been given the opportunity of either taking his master's degree *cum laude*, or upgrading to doctoral student status. He chose the latter and enrolled as PhD student with the same research topic in 2016, expanding his original work for a further year. Based on this work, he obtained his doctorate in operations research from Stellenbosch University at the end of 2016.

2016 was indeed an eventful year for Brian; he was also appointed lecturer within the Department of Industrial Engineering at Stellenbosch University during that year, a position he still occupies within the *Stellenbosch Unit for Operations Research in Engineering*, or SUnORE Group. He plays an important part in the organisation of activities and research outputs of this group. His research area is simulation and agent-based modelling. He has supervised eight fourth-year industrial engineering students in respect of their final-year research projects, or *skripsies*, and he currently supervises or co-supervises three master's students in respect of their theses in operations research. He teaches the underlying theory and algorithmic implementation methodologies related to information systems, simulation and computer programming on undergraduate level, as well as agent-based modelling on master's level. In these capacities he is making a meaningful contribution to the training and nurturing of a new generation of industrial engineers in general and operations researchers in particular.

Brian is well known in the local operations research community, having attended all the annual ORSSA conferences since 2014 when he became a student member of ORSSA. Last year he also started bringing his own students to these conferences where they present their work. In addition to his activities as a lecturer, he has served on the Executive Committee of ORSSA since 2015 — first as additional member and now as editor of the ORSSA Newsletter. He currently also serves on the Executive Committee of the Western Cape Chapter of ORSSA. As if this is not enough, he has taken part in the organisation of the 2016 ORSSA conference, where he presented the pre-conference tutorial on agent-based simulation modelling.

In recognition of the excellent service rendered to the local profession of operations research in general in his capacity as lecturer and mentor of a new generation of operations researchers, and his dedicated service in various capacities to our Society in particular, Brian John van Vuuren is, on this 12th day of September 2017, duly awarded a Category IV ORSSA Recognition Award. I call on the President to confer the award.