

Fakulteit Ingenieurswese/Faculty of Engineering

Universiteit Stellenbosch/Stellenbosch University

Navorsingsuitsette 2015 Research Output

Departement Bedryfsingenieurswese

Department of Industrial Engineering

Tydskrifartikels/Journal Articles (subsidised)

ASEKUN OO, FOURIE CJ. Selection of a Decision Model for Rolling Stock Maintenance Scheduling. *South African Journal of Industrial Engineering* 2015; **26**(1):135-149.

BECKER TH, VAN ROOYEN M, DIMITROV DM. Heat Treatment of Ti-6Al-4V produced by LaserCUSING. *South African Journal of Industrial Engineering* 2015; **26**(2):93-103.

BEZUIDENHOUT MB, DIMITROV DM, VAN STADEN ADP, OOSTHUIZEN GA, DICKS LMT. Titanium-Based Hip Stems with Drug Delivery Functionality through Additive Manufacturing. *Biomed Research International* 2015; **2015**(134093):1-11.

BEZUIDENHOUT MB, VAN STADEN ADP, OOSTHUIZEN GA, DIMITROV DM, DICKS LMT. Delivery of Antibiotics from Cementless Titanium-Alloy Cubes May Be a Novel Way to Control Postoperative Infections. *Biomed Research International* 2015; **2015**(856859):1-7.

BURGER AP, DE VILLIERS AP, VAN VUUREN JH. Edge criticality in secure graph domination. *Discrete Optimization* 2015; **18**:111-122.

BURGER AP, DE VILLIERS AP, VAN VUUREN JH. Edge stability in secure graph domination. *Discrete Mathematics and Theoretical Computer Science* 2015; **17**(1):103-122.

BURGER AP, JACOBS CG, VAN VUUREN JH, VISAGIE SE. Scheduling multi-colour print jobs with sequence-dependent setup times. *Journal of Scheduling* 2015; **18**(2):131-145.

COETZEE D, BRENT AC. Perceptions of professional practitioners and property developers relating to the costs of green buildings in South Africa. *Journal of the South African Institution of Civil Engineering* 2015; **57**(4):12-19.

CONRADIE PDF, FOURIE CJ, VLOK P, TREURNICHT N. Quantifying System Reliability in Rail Transportation in an Ageing Fleet Environment. *South African Journal of Industrial Engineering* 2015; **26**(2):128-142.

CONRADIE PJT, OOSTHUIZEN GA, DIMITROV DM, SAXER M. Effect of Milling Strategy and Tool Geometry on Machining Cost when Cutting Titanium Alloys. *South African Journal of Industrial Engineering* 2015; **26**(3):137-151.

DIAZ LOPEZ F, MONTALVO C. A comprehensive review of the evolving and cumulative nature of eco-innovation in the chemical industry. *Journal of Cleaner Production* 2015; **2015**(102):30-43.

GEYER RW, FOURIE CJ. Determining the Suitability of a Business Process Modelling Technique for a Particular Application. *South African Journal of Industrial Engineering* 2015; **26**(1):252-266.

GIGLMAYR S, BRENT AC, GAUCHE P, FECHNER H. Utility-scale PV power and energy supply outlook for South Africa in 2015. *Renewable Energy* 2015; **83**:779-785.

HEYNS AM, VAN VUUREN JH. An Evaluation of the Effectiveness of Observation Camera Placement within the MeerKAT Radio Telescope Project. *South African Journal of Industrial Engineering* 2015; **26**(2):10-25.

JOOSTE JL, VLOK P. A Decision Support Model to Determine the Critical Success Factors of Asset Management Services. *South African Journal of Industrial Engineering* 2015; **26**(1):27-43.

KENNON D, SCHUTTE CSL, LUTTERS D. An alternative view to assessing antifragility in an organisation: A case study in a manufacturing SME. *Cirp Annals-Manufacturing Technology* 2015; **2015**(64):177-180.

- KENNON D, SCHUTTE CSL. A Strategic Framework For Improbable Circumstances. *South African Journal of Industrial Engineering* 2015; **26**(2):68-84.
- KRAUSE W, SCHUTTE CSL. A Perspective on Open Innovation in Small- and Medium-Sized Enterprises in South Africa, and Design Requirements for an Open Innovation Approach. *South African Journal of Industrial Engineering* 2015; **26**(1):163-178.
- LINDNER BG, VLOK P, WESSELS CB. Determining optimal primary sawing and ripping machine settings in the wood manufacturing chain. *Southern Forests* 2015; **1**:1-11.
- MUSANGO JK, BRENT AC. A roadmap framework for solar aided power generation in South Africa. *Journal of Energy in Southern Africa* 2015; **26**(4):2-15.
- POTGIETER L, VAN VUUREN JH, CONLONG DE. The role of heterogeneous agricultural landscapes in the suppression of pest species following random walk dispersal patterns. *Ecological Modelling* 2015; **306**:240-246.
- ROMMELSPACHER KO, FOURIE CJ. The Applicability of the Centeno, Chaudhary and Lopez Repair Time Standard Methodology in a Rail Maintenance Environment. *South African Journal of Industrial Engineering* 2015; **26**(3):183-193.
- ROUX A, VAN VUUREN JH. A linear algorithm for (r, s) -domination of a tree. *Utilitas Mathematica* 2015; **96**:209-216.
- SCHOEMAN JS, VLOK P. Estimating residual life of equipment using subjective covariates. *R&D Journal* 2015; **2015**(31):52-59.
- VAN BAALEN SM, SCHUTTE CSL, VON LEIPZIG KH. Capacity self-assessment as a catalyst for improved municipal service delivery. *Journal of the South African Institution of Civil Engineering* 2015; **57**(1):2-15.
- VAN DEN HONERT AF, VLOK P. Estimating the Continuous Risk of Accidents Occurring in the Mining Industry in South Africa. *South African Journal of Industrial Engineering* 2015; **26**(3):71-85.
- VAN DER MERWE C, VAN RENSBURG A, SCHUTTE CSL. An Engineering Approach to an Integrated Value Proposition Design Framework. *South African Journal of Industrial Engineering* 2015; **26**(1):59-74.
- VON LEIPZIG KH, DIMITROV DM. Cluster Development in the SA Tooling Industry. *South African Journal of Industrial Engineering* 2015; **26**(3):110-124.
- WALWYN DR, BRENT AC. Renewable energy gathers steam in South Africa. *Renewable & Sustainable Energy Reviews* 2015; **2015**(41):390-401.

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- GARIKAYI T, MATOPE S, VAN DEN HEEVER DJ. Development of an adaptive controller for lower limb rehabilitation device. *International Jnl of Mechanical Engineering & Automation* 2015; **2**(6):245-256.
- TORA E, VAN NIEKERK JL, FOUCHE E, BRENT AC. State of the art on modelling techniques for renewable energy integration into the energy mix. *International Journal of Advanced Information Science and Technology (JJAIST)* 2015; **40**(40):204-215.
- VAN HEERDEN MA, VLOK P. Proposing a Holistic Physical Asset Management Strategy to Implement in Food and Beverage Industries in South Africa. *Journal of Food Science and Quality Management* 2015; **35**:83-98.

Verrigtinge Internasionaal/Proceedings International

- BRADLEY ME, MATOPE S. *Improvement of a Production Line through the Application of Lean Techniques: A Case Study of Refrigerator Assembly*. In: Muzenda E, Yingthawornsuk T (eds.) 7th International Conference on Latest Trends in Engineering and Technology (ICLTET'2015), Pretoria, South Africa, International Institute of Engineers 2015: 112-115.

- BRENT AC. *Solar Energy RDI Roadmap for South Africa*. In: Meyer JP (ed.) SASEC 2015 Third Southern African Solar Energy Conference, Kruger National Park, South Africa, SASEC2015/University of Pretoria 2015: 48-53.
- BUTCHER CE, SCHUTTE CSL. *Technology Selection Framework for Port Development Projects*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, IAMOT 2015: 1064-1081.
- CONRADIE FW, OOSTHUIZEN GA, SACKS N, SAXER M. *The Effect of Titanium Alpha Case on the Wear of Indexable Carbide Cutters*. In: De Vaal PL, Fuller G (eds.) Eleventh International Tribology Conference of the South African Institute of Tribology, Pretoria, South Africa, SAIT 2015: (035) 1-10.
- CONRADIE PDF, FOURIE CJ. *Using Reliability Based Maintenance in a Railway Application*. In: Forde MC (ed.) Railway Engineering-2015, Edinburgh, United Kingdom, University of Edinburgh 2015: 1409(1-14).
- CRONJE GF, MATOPE S. *Polyurethane Grippers as a Substitute for Vacuum Grippers: A Case Study in an Electronics Environment*. In: Muzenda E, Yingthawornsuk T (eds.) 7th International Conference on Latest Trends in Engineering and Technology (ICLTET'2015), Pretoria, South Africa, International Institute of Engineers 2015: 122-125.
- DE VILLIERS JU, MUSANGO JK, BRENT AC. *a System dynamics model of the individual decisions of a salaried employee in saving for retirement*. Thirty-second International System Dynamics Conference, New York, USA, System Dynamics Society 2015: 1-26.
- DEWA MT, VAN DER MERWE AF, MATOPE S. *Holonic Control System: Reference Design Architecture for South African Tooling Industries Clusters*. In: Dessouky MI (ed.) 45th International Conference on Computers & Industrial Engineering, Metz, France, Universite De Lorraine 2015: D4 238-245.
- DEWA MT, VAN DER MERWE AF, MATOPE S. *Towards A Competitive South African Tooling Industry*. 17th International Conference on Industrial Engineering (ICIE 2015)(Waset, Volume 9 (11)), Cape Town, South Africa, WASET 2015: 13-18.
- DUMINY L, BRENT AC, MUSANGO JK. *Commercial Fishing and Aquaculture Implications of a Green Economy Transition in the Western Cape*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, IAMOT 2015: 2011-2025.
- ENEVER AA, OOSTHUIZEN GA, SACKS N. *Wear Effects of Custom Tungsten Carbide Grinding Wheel*. In: De Vaal PL, Fuller G (eds.) Eleventh International Tribology Conference of the South African Institute of Tribology, Pretoria, South Africa, SAIT 2015: (041) 1-10.
- FLYNN JR, VLOK P. *Lean Approaches in Asset Management within the Mining Industry*. In: Amadi-Echendu J (ed.) 9th World Congress on Engineering Asset Management, Pretoria, South Africa, Springer International 2015: 101-118.
- GANDURI L, VAN DER MERWE AF, MATOPE S. *Economic model for the production of spirit, inulin and syrup from the locally eco-friendly agave americana*. In: Caggiano A (ed.) 3rd CIRP Global Web Conference on Production Engineering (CIRPe2014), Amsterdam, Netherlands, Elsevier 2015: 173-178.
- HAGEDORN-HANSEN D, CICHON R, BEZUIDENHOUT MB, DE WET P, HUGO PA, OOSTHUIZEN GA. *Geometric Deviation of Hybrid Parts Produced by Selective Laser Melting*. In: Theron M (ed.) 16th International Rapid Product Development (RAPDASA) Conference, Pretoria, South Africa, CSIR 2015: 1-10.
- JONKER WD, BRENT AC, MUSANGO JK. *Modelling the Production of Biofuel within the Western Cape Province, South Africa*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, IAMOT 2015: 501-519.
- JOOSTE C, VAN EEDEN J, VAN DYK E. *South African Wine Supply Chain Performance Measurement Framework*. In: Kersten W, Blecker T, Ringle CM (eds.) Hamburg International Conference of Logistics (HICL) 2015, Hamburg, Germany, University of Hamburg 2015: 305-332.

- JOOSTE JL, VLOK P. *Identifying the Critical Success Factors for Engineering Asset Management Services - An Empirical Study*. In: Amadi-Echendu J (ed.) 9th World Congress on Engineering Asset Management, Pretoria, South Africa, Springer International 2015: 397-414.
- JURA D, OOSTHUIZEN GA, PRETORIUS JHC. *The Evolution of Quality Management Systems to Assist Manufacturing Entrepreneurs in Incubation Clusters*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, University of Pretoria 2015: 1-10.
- KRAUSE W, SCHUTTE CSL. *A Framework Towards an Open Innovation Approach for SMES*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, IAMOT 2015: 1026-1045.
- KRIEGE L, VLOK P. *Human Resources within ISO 55000 - The Hidden Backbone to the Asset Management System*. In: Amadi-Echendu J (ed.) 9th World Congress on Engineering Asset Management, Pretoria, South Africa, Springer International 2015: 435-449.
- LEKWANA MTL, MADYIRA DM, OOSTHUIZEN GA, MAKONESE TN. *CFD evaluation of premixed and non-premixed models as suitable representatives of fixed-bed biomass combustor freeboard*. In: Beute N (ed.) 2015 International Conference on the Domestic Use of Energy, Cape Town, South Africa, CPUT 2015: 203-208.
- MABIZELA ST, OOSTHUIZEN GA, PRETORIUS JHC. *Continuous Process Improvement Applies to an Engineering Education System*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, University of Pretoria 2015: 1-19.
- MC NAUGHT MD, FOURIE CJ. *A review of critical problems from the desks of chief executive officers in the passenger railway service industry*. In: Brebbia CA (ed.) 21st International Conference on Urban Transport and the Environment (Urban Transport XX1), Valencia, Spain, WIT Press 2015: 411-421.
- MC NAUGHT MD, FOURIE CJ. *Using TQI to quantify the reliability of a section of perway*. In: Shpitalni M, Fischer A, Molcho G (eds.) CIRP 25th Design Conference Innovative Product Creation, Haifa, Israel, Elsevier 2015: 1-6.
- MUSANGO JK, BRENT AC, VAN NIEKERK JBS, JONKER WD, PIENAAR AP, YORK TA, OOSTHUIZEN J, DUMINY L, DE KOCK IH. *A system dynamics approach to understand the implications of a green economy transition in the Western Cape Province of South Africa*. Thirty-second International System Dynamics Conference, New York, USA, System Dynamics Society 2015: 1-19.
- MUVUNZI R, DIMITROV DM, MATOPE S, KUFAZVINEI C. *Application of Additive Manufacturing for Performance Improvement of Tooling in Moulding and Sheet Metal Forming Processes: A Review*. In: Theron M (ed.) 16th International Rapid Product Development (RAPDASA) Conference, Pretoria, South Africa, CSIR 2015: 1-11.
- ODENDAAL MJ, VAN DER MERWE AF, MATOPE S, DEWA MT. *A web based manufacturability agent framework for an E-manufacturing system*. In: Caggiano A (ed.) 3rd CIRP Global Web Conference on Production Engineering (CIRPe2014), Amsterdam, Netherlands, Elsevier 2015: 167-172.
- PIENAAR AP, BRENT AC, MUSANGO JK. *Water Resource Implications of a Green Economy Transition in the Western Cape Province of South Africa: A Modelling Approach Review*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, IAMOT 2015: 755-771.
- PRETORIUS MA, SCHUTTE CSL. *Cooperative Venture Capital Model: Engineering an Innovation Pipeline*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, IAMOT 2015: 1325-1347.
- PRINSLOO GJ, BRENT AC, DOBSON RT, MAMMOLI A. *Modelling and Control Synthesis of a Micro-Combined Cooling Heat and Power Interface for a Concentrating Solar Power System in Off-Grid Rural Power Applications*. SWC 2015, SWC 2015: 1-6.

- RAS CI, BOTES J, VERMEULEN MJ, OOSTHUIZEN GA, UYS JW. *Social manufacturing business model elements to support local suppliers*. In: Theron M (ed.) 16th International Rapid Product Development (RAPDASA) Conference, Pretoria, South Africa, CSIR 2015: 1-12.
- ROMMELSPACHER KO, CONRADIE FW, FOURIE CJ. *The systematic energy management of transport facilities for a holistic reduction of greenhouse emissions*. In: Brebbia CA (ed.) Computers in Railways XIV, Rome, Italy, WIT Press 2015: 151-162.
- SCHLÜNZ EB, BOKOV P, VAN VUUREN JH. *On Multiobjective Optimisation Approaches for In-Core Fuel Management Optimisation*. In: Maldonado I, Karve A, Ellis R (eds.) Advances in Nuclear Fuel Management V, Hilton Head Island, USA, University of Tennessee 2015: 1-11.
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- SWART PD, VLOK P. *Failure Statistics: Budgeting Preventative Maintenance Activities Using Forecasted Work Orders*. In: Amadi-Echendu J (ed.) 9th World Congress on Engineering Asset Management, Pretoria, South Africa, Springer International 2015: 321-338.
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- THERON E, VLOK P. *Research and Development: Driving Innovation in a Declining Mining Industry*. In: Amadi-Echendu J (ed.) 9th World Congress on Engineering Asset Management, Pretoria, South Africa, Springer International 2015: 363-378.
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- VAN EEDEN J, LOUW JJ, VAN DYK E, JOOSTE C, ROOS T, SMIT JB. *Development of Supply Chain Performance Measurement Framework for the South African Wine Industry*. In: Cholette S, Mac Cawley A (eds.) Third International Workshop on Food Supply Chains, San Francisco, USA, San Francisco State College of Business 2014: 1-12.
- VAN NIEKERK JBS, BRENT AC, MUSANGO JK. *Agriculture Sector Implications of a Green Economy Transition in the Western Cape Province of South Africa*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, IAMOT 2015: 591-610.
- WALKER EJ, VLOK P. *Scheduled Shutdowns as an Incubator for Inefficiencies*. In: Amadi-Echendu J (ed.) 9th World Congress on Engineering Asset Management, Pretoria, South Africa, Springer International 2015: 339-350.
- YORK TA, BRENT AC, MUSANGO JK. *Infrastructure Implications of a Green Economy Transition in the Western Cape Province of South Africa*. In: Pretorius L, Thopil GA (eds.) IAMOT 2015 24th International Association for Management of Technology, Cape Town, South Africa, IAMOT 2015: 611-630.

Verrigtinge Nasionaal/Proceedings National

- JANSE VAN RENSBURG J, VAN VUUREN JH. *Decision support for the assignment of real-estate agents to suburbs*. In: Kruger HA (ed.) 44th Annual Conference of the Operations Research Society of South Africa, Hartbeespoort, South Africa, ORSSA 2015: 23-32.
- LINDNER BG, EYGELAAR J, LÖTTER DP, VAN VUUREN JH. *Tri-objective generator maintenance scheduling for a national power utility*. In: Kruger HA (ed.) 44th Annual Conference of the Operations Research Society of South Africa, Hartbeespoort, South Africa, ORSSA 2015: 112-122.
- LÖTTER J, VAN VUUREN JH. *A modelling framework for shelf space allocation of fresh produce at a local retailer*. In: Kruger HA (ed.) 44th Annual Conference of the Operations Research Society of South Africa, Hartbeespoort, ORSSA 2015: 62-71.

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SCHLUNZ EB, BOKOV P, VAN VUUREN JH. *Application of artificial neural networks for predicting core parameters for the SAFARI-1 nuclear research reactor*. In: Kruger HA (ed.) 44th Annual Conference of the Operations Research Society of South Africa, Hartbeespoort, South Africa, ORSSA 2015: 12-22.

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SMITH A, COLMANT A, BAM L, VAN VUUREN JH. *A new vehicle routing problem with application to pathology laboratory service delivery*. In: Kruger HA (ed.) 44th Annual Conference of the Operations Research Society of South Africa, Hartbeespoort, South Africa, ORSSA 2015: 72-80.

TRUTER ML, VAN VUUREN JH. *Value-based methods for threat value fusion within a ground-based air defense environment*. 44th Annual Conference of the Operations Research Society of South Africa, Hartbeespoort, South Africa, ORSSA 2015: 123-133.

VAN DER WALT JC, VAN VUUREN JH. *Decision support for the selection of water release strategies at open-air irrigation reservoirs*. In: Kruger HA (ed.) 44th Annual Conference of the Operations Research Society of South Africa, Hartbeespoort, South Africa, ORSSA 2015: 33-43.

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Boeke/Books

LOTZ M, BRENT AC. *Carbon Footprinting Guide*. Nedbank Limited, Sandton, South Africa 2015:92 pp.

Hoofstukke in Boeke/Chapters in Books

BRENT AC, GUY D, MCCALLUM W, MOSDELL S, THOMPSON-SMEDDLE L. Overcoming financial challenges associated with sustainable energy. In: Thompson-Smeddle L (ed.) *A South African Renewable Energy Guide for Local Government*, Juta and Company (Pty) Ltd, Cape Town, South Africa, 2015: 84-119.

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BRENT AC, SPENCER F, THOMPSON-SMEDDLE L. Towards sustainable energy solutions. In: Thompson-Smeddle L (ed.) *A South African Renewable Energy Guide for Local Government*, Juta and Company (Pty) Ltd, Cape Town, South Africa, 2015: 1-19.

BRENT AC. Appropriate Curricula for Engineering Management Programmes: A South African Approach. In: Christensen SH, Didier C, Jamison A, ET AL (eds.) *International Perspectives on Engineering Education, Volume 1*, Springer International, Switzerland, 2015: 343-363.

Doktoraal afgehandel/Doctoral completed

STIMIE JE. *A physical asset management strategy execution enforcement mechanism for the early detection and management of physical asset management strategy execution failure*. PhD (Eng), 2015. 495 pp. Promotor: VLOK P, BRENT AC.

UNGERER GD. *A competitive strategy framework for E-Business start-ups*. PhD (Eng), 2015. 540 pp. Promotor: SCHUTTE CSL.

Magister Afgehandel/Masters completed

BAM L. *A location science model for the placement of POC CD4 testing devices as part of South Africa's public healthcare diagnostic service delivery model*. MIng Navorsing, 2015. 174 pp. Studieleier: BEKKER JF.

BEECROFT BJ. *Development of a technology transfer and an intellectual property strategy for titanium machining*. MIng Navorsing, 2015. 109 pp. Studieleier: DIMITROV DM, VON LEIPZIG KH.

BENJAMIN NJ. *A systematic approach to enterprise risk management*. MIng Navorsing, 2015. 156 pp. Studieleier: FOURIE CJ, LOUW L.

BEZUIDENHOUT MB. *Additive manufacturing enabled drug delivery features for titanium-based total hip replacement cementless femoral stems*. MIng Navorsing, 2015. 160 pp. Studieleier: DIMITROV DM, DICKS LMT, OOSTHUIZEN GA.

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BROWN S. *A SCM approach to project management in the South African construction industry*. MIng Navorsing, 2015. 211 pp. Studieleier: VON LEIPZIG KH.

COETZEE E. *Strengthening the public downstream SLD supply chain for MDR-TB: Lessons learnt from a Western Cape case study*. MIng Navorsing, 2015. 199 pp. Studieleier: BAM L, VON LEIPZIG KH.

CONRADIE PDF. *Quantifying system reliability in rail transportation in an aging fleet environment*. MIng Navorsing, 2015. 159 pp. Studieleier: DIMITROV DM, OOSTHUIZEN GA.

GREYLING BT. *Applying process mining to analyse business process performance in the physical asset management environment*. MIng Navorsing, 2015. 182 pp. Studieleier: JOOSTE JL.

HATTON MN. *Requirements specification for the optimisation function of an electric utility's energy flow simulator*. MIng Navorsing, 2015. 170 pp. Studieleier: BEKKER JF.

HEYNS JH. *The Township Startup: A collaboration platform that bridges the gap between developed and developing South Africa*. MIng Navorsing, 2015. 149 pp. Studieleier: SCHUTTE CSL, LOUW L.

JIDAYI YM. *Reliability improvement of railway infrastructure*. MIng Navorsing, 2015. 142 pp. Studieleier: FOURIE CJ, VLOK P.

JONKER WD. *Biofuel implications of a green economy transition in the Western Cape Province of South Africa: A system dynamics modelling approach to biofuel*. MIng Navorsing, 2015. 137 pp. Studieleier: BRENT AC, MUSANGO JK.

KAYOFA L. *Feasibility study and business plan for manufacturing a 3 kW electrical solar stirling engine and dish for a stand-alone power supply units*. MIng Navorsing, 2015. 222 pp. Studieleier: DIRKSE VAN SCHALKWYK TG, DOBSON RT.

KRIEGE L. *A framework for establishing a human asset register for the improved management of people within asset management*. MIng Navorsing, 2015. 167 pp. Studieleier: VLOK P, JOOSTE JL.

MANDAZA M. *Lean six sigma and theory of constraints for service: Model definition and validation at ABSA*. MSc (Ingwet), 2015. 236 pp. Studieleier: VON LEIPZIG KH.

MC NAUGHT MD. *A risk-reliability comparison of track sections in the passenger railway industry*. MIng Navorsing, 2015. 172 pp. Studieleier: FOURIE CJ, VON LEIPZIG KH.

MINNAAR JR. *Developing a framework for identifying and assessing data quality issues in asset management decision-making*. MIng Navorsing, 2015. 116 pp. Studieleier: VLOK P.

NEL PA. *A process and procedure documentation framework for financial services operations in MediaWiki: A critical evaluation*. MIng Navorsing, 2015. 256 pp. Studieleier: VON LEIPZIG KH.

- PRINS C. *Through spindle cooling: A study of the feasibility of split tool titanium machining*. MIng Navorsing, 2015. 127 pp. Studieleier: TREURNICHT N, VAN DER MERWE AF.
- SCHOEMAN JS. *Estimating residual life of equipment using subjective covariates*. MIng Navorsing, 2015. 161 pp. Studieleier: VLOK P.
- STANDER JB. *The modern asset: Big data and information valuation*. MIng Navorsing, 2015. 166 pp. Studieleier: VLOK P, JOOSTE JL.
- UYS N. *Identifying technical inefficiencies and quality concerns in institutional pharmacies of private hospital groups using data envelopment analysis*. MIng Navorsing, 2015. 123 pp. Studieleier: BEKKER JF.
- VAN DER MERWE C. *An engineering approach to an integrated value proposition design framework*. MIng Navorsing, 2015. 205 pp. Studieleier: SCHUTTE CSL.
- VAN NIEKERK JBS. *Agriculture sector implications of a green economy transition in the Western Cape Province of South Africa: A system dynamics modelling approach to food crop production*. MIng Navorsing, 2015. 149 pp. Studieleier: BRENT AC, MUSANGO JK.
- VON LORNE VON SAINT ANGE CJ. *Integration of ranking and selection methods with the multi-objective optimisation cross-entropy method*. MIng Navorsing, 2015. 151 pp. Studieleier: BEKKER JF.
- WALKER EJ. *Motivating Human Assets in the Field of Physical Asset Management*. MIng Navorsing, 2015. 180 pp. Studieleier: VLOK P, JOOSTE JL.
- WINTERBACH HF. *Theory of perspective: A continuous and sustainable internal process improvement roadmap for small business managers*. MIng Navorsing, 2015. 190 pp. Studieleier: VON LEIPZIG KH.
- YAZDANI V. *Commercial feasibility study of small-scale wind turbine manufacturing in South Africa*. MIng Navorsing, 2015. 156 pp. Studieleier: DIRKSE VAN SCHALKWYK TG, VON LEIPZIG KH.
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- YORK TA, MUSANGO JK. *Infrastructure implications of a green economy transition in the Western Cape Province of South Africa: A system dynamics modelling approach*. MIng Navorsing, 2015. 188 pp. Studieleier: BRENT AC.

Departement Elektriese en Elektroniese Ingenieurswese

Department of Electrical and Electronic Engineering

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