Aula Theatre
Projects Evening
2 November 2017

18.30
Welcome
Prof Johan Joubert

18.40
Introduction of students
Mrs Wilna Bean

18.45
Improving changeover time through simulation modelling at MONN (Pty) Ltd
Marcus Nouwens

18.50
Resource scheduling algorithm for maintenance planning
Kirsten Young

19.15
The strategic improvement of a warehouse at Wispeco Aluminium (Pty) Ltd
Khairoonisa Hoorzook

19.30
Interval

19.40
Optimising spatial predictions for rhino presence
Maryn van der Laarse

19.55
Moving forward
Jana Taute

20.10
A system dynamics model of the forward and reverse supply chain of returnable containers to South African Breweries
Maryke Nel

20.25
Awards ceremony
Prof Sarma Yadavalli

20.35
Guests move to Rautenbach Hall where refreshments are served and posters displayed

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Comprehensive list of projects

Ammon SC Sebastian How intermediate facilities affect waste collection operations

Banks RJ Reece Reducing waste as a result of downtime in a carbonated beverage manufacturing facility

Becker CM Maryke A facility location model for an FMCG company

Behr CM Carina Production scheduling at Wispaco Aluminium anodising plant

Berry A Ané Feasibility study for building an inland distribution centre for SPAR South Africa

Bhika EH Ebrahim A facility plan for a relocating manufacturing plant

Blattler L Liezahn Stock rotation optimisation for Pico-Gro CC

Boshoff El Estella Locating facilities strategically: A case study using Solidarity Trade Union

Botshona SL Somerl Plant fleet scheduling improvement and production optimisation at a manganese plant

Britz AJ André Simulation model template and manual for Rotek Industries

Burutu KN Keabetswe Inventory management for Kloostersaal cafe teria

Buyt Efzet E Cilliers Efficient facilities layout of a bank branch

Carstens W Winand Opencast mining: Blasting data analysis and process optimisation

Češka M Kaja Simulation of a Longwall mining method for Sasol Mining

Cilliers E Elzina Efficient facilities layout of a bank branch

Coliniot H Henr Using statistical process control to monitor web services

Corcoran SA Samantha Process monitoring and improvement of a supply chain

Darwisch SD Salmah Enhancing the Modularise model for the upliftment of bottom of the pyramid sector

De Beer D Darren Food security in South Africa: Improving the availability, affordability, and quality of fresh produce in informal communities

De Villiers B Bernard Production line expansion at Milkor (Pty) Ltd

De Wet CG Zinni Warehouse operations analysis through the use of process flow diagrams and value stream mapping

Du Plooy PC Philip Application of machine learning techniques in facility energy management

Ebers D Dian Material management and logistics optimisation: The optimisation of ASSMANG Black Rock Logistics

Engelbrecht E Ezanne Identifying and analysing value-adding, essential non-value-adding and non-value-adding activities of a vehicle using GPS traces

Erasmus JH Ian Ham Facility planning: A community health centre

Esterhuysen ML Madeleine Facility layout improvements and truck scheduling at Wispaco Aluminium (Pty) Ltd

Geldenhuys C Cilliers Lean palleting process flow analysis and innovation improvement implementation

Greyling TM Mertan Improvement of the inventory management process in an automotive OEM company's supply chain

Griess W Michael Improving the efficiency of a first-in, first-out service system

Hamersma KA Kris Improving probabilistic record linkage with a single-layer neural network

Hatting V Danielle Single machine scheduling for powder coating aluminium profiles at Wispaco Aluminium (Pty) Ltd

Ingham MJ Michael Investigating production volumes and sales of metals using a Bayesian change point detection approach

Keene AFS Anna Facility planning: Case study at Enterprise Foods (Pty) Ltd a division of Tiger Brands

Kleyn RE Riana Effective planning and control of the development of a wind turbine facility using the systems approach

Kweweyane EM Elwin Optimising the use of a business process management tool at trivector

Kruger L Lindelle Information system design for a real estate company

Krieger K Karien Single machine scheduling for powder coating aluminium profiles at Wispaco Aluminium (Pty) Ltd

Le Roux L Hesti A facility solution required to incorporate cold stabilisation in the supply chain of citrus exported to Europe

Ledwaba MM Mashadi Application of quality function deployment within an educational institute

Lombard C Charnelle Improvement of a business system for Ukwazi Engineering (Pty) Ltd

Mabasa MF Mbhoni Development of a work study teaching mechanism for SMMEs

Makupela NC David Using the SCOR model to evaluate a vehicle distribution network

Maniake M Matare A review of internal warehouse operations

Maree E Elani Development of a performance improvement model for HR personnel assessments: A case of the Sasol Mining Industry

Maree H Herman Production system flow process monitoring and diagnosis

Marziyeh M Mahdavi A logistics network for the sheet metal requirement and scheduling

Matanda BK Benjamin Local body material flow at Ford Motor Company of Southern Africa

Matthew L Laureen Optimising water management at a coal mine (Sasol)

Mauer C Claudine Information system design for an SMME incubation program at Vukani-Ubuntu's enterprise and supplier development centre

Maumelle V Vhuvuavo Information system design: A cosmetology concept at Princess Hair Salons


Mibza MV Mafame Mogalakwene water balance

McGladrey D Duncan Greedy algorithm and model for analysis of a bus fleet's operations

Mills JB Jesse The design, planning and implementation of Kanban systems at Benteler Automotive

Moeketsi TC Thsepeagana Investigating the feasibility of integrating an automated guided vehicle system into body shop logistics processes

Morungo P Palesa Returns management of dairy products at a retailer

Mokgoro MT Matlaleng Optimising a file system and storage library to conform to ISO-9001:2015

Monageng KJ Keabetswe Facilities planning of a fatigue test laboratory

Moosa A Amereen Part location assignment in Ford Motor Company's part warehouse

Mshukulu TJ Thenjive Operations management approach for waste reduction and sales improvements: The case of ABC bakery depot

Müller GS Gustav ISO ERP software development

Mulumbe K Kaja Simulation of a Longwall mining method for Sasol Mining

Mupedzanai V Verandza Optimising the flow behaviour of make-to-assemble parts in a production environment

Neil B Bianca Analysis of processes and service delivery at the University of Pretoria for the development of an improvement plan aiming towards increased productivity, cost efficiency and profitability

Neil M Maryke A system dynamics model of the forward and reverse supply chain of returnable containers to South African Breweries

Nouwers MS Marcus Improving changeover time through simulation modelling at MMN (Pty) Ltd

Nutt NN Nomamhlu Fine order process improvement at a distribution centre

Oosthuizen GC Gerhard An investigation, analysis and redesign of a production line

Patalay Y Yash Alleviation of a bottleneck at a Distribution Centre, using simulation modelling

Piotieter M Marika Investigation into the feasibility of self-service options for the Malawi Traffic Information System

Pouwels R Robert Increase throughput at Arccoruct CC

Pretorius FC Frederik Warehouse inventory management of slow-moving stock at the Midrand warehouse of Vector Logistics

Prinsloko R Riandre Developing an industry solution to service bottom-end markets in South Africa

Raath VF Vivienne Changing the sales model of a cricket equipment and apparel company

Rabambili M Mulalo Flashing process optimisation at Citan Steel (Pty) Ltd

Ramagama MP Mutshutechudzic Reducing lock-up costs at Ford Motor Company of Southern Africa

Robertson KM Kyle Airport route development decision support tool for Cape Town Airport

Sadiki NL Ngweta The design of an automated tooling control and management system

Saji A Agnes Improving inventory management for an automotive company

Sankar S Shivin Optimising the turnaround time of coal testing for an industrial application

Schmidt CA Claudia Facility redesign of a storage unit to minimise "store age" inefficiency

Schreurs P Gert Controlling quality of aluminium alloy casting at Wispaco (Pty) Ltd

Schutte H Heimu Matching supply and demand of an airline's onboard catering supplies

Silinda GZ Gift Stock optimisation model in a medical practitioner environment

Sithole ZJ Zweli Using the Zachman framework to align strategic business processes with the existing project methodology of AfriGIS

Sithidzio M Mulawu Process improvement and line balancing of a chassis zero assembly line

Sijuwade AO Akinifẹẹsẹ̤ Improving the efficiency of a traditional family business through information system and facility design

Swannepol JL Dewyck Water truck routing in an open pit mine

Taude J Jana Moving forward

Thomas A Alexander Ordering system improvement and product tracking at Pico-Gro CC

Thomson KE Kelsey Improving truck turnaround times and space utilisation in a beer warehouse using simulation

Van Aarde M Margo Forecasting transportation service demand for fleet optimisation: The case of a third-party logistics provider

Van den Berg EG Émile An operations research approach to work scheduling aimed at identifying and assigning the minimum staffing quantities to meet client satisfaction requirement at Sugo Bryanpark (Pty) Ltd under uncertain demand

Van der Laarse M Maryke Optimising spatial predictions for rhino presence

Van der Walt P Palesa Solar power system performance and optimal behaviour investigation for clients with multiple sites: A systems dynamic approach

Van der Westhuizen R Rene The systematic improvement of product packing accuracy as a means of increasing customer satisfaction and business profitability

Van Dyk PL Paul Analysis and proposed solution for deviations between promised delivery dates and actual delivery dates for Sinvac Piping (Pty) Ltd orders

Van Krayenburg S Shani A study of best practice software applications in the secondary distribution execution process

Van Loggerenberg N Nikoole Reducing the amount of defects on printed circuit board assemblies at Parsec (Ansys Limited) by using Statistical Process Control

Van Niekerk WW Werner The development of a decision support model for the picking, staging, combining and loading activities in the grocery distribution warehouse of a large fast moving retailer

Van Zyl RI Ruan Establishing an effective and seamless high technology supply chain for a moving retailer

Venter A Anesa Reengineering of employee recruitment and onboarding processes: The case of a global drilling solutions company

Venter FMC Francois Using a discrete-event simulation model to identify bottlenecks and determine the efficiency in a maintenance workshop

Vorst AE Eben Improving a large retail distribution center for centralised distribution and improved productivity

Wagner R Raymond The optimisation of electricity consumption at Woodlam (Pty) Ltd

Wertheim A Aymes JPC Julian An inventory layout plan for Bosun Brick (Pty) Ltd products produced at three different factories and stored in three independent warehouses, at the same facility

Wiese-Börn Körper Riccardo Designing an ISO-Integrated Management System software package

Wilson H Henri Inventory management techniques analysed for an improvement in the cash flow of a distribution warehouse

Woolfit MY Kirsten Resource scheduling algorithm for maintenance planning

Zwienieken CL Leonie Optimisation of material handling and manufacturing logistics at Rotapak (Pty) Ltd