

Wednesday 25 October 2017

07:30	Registration			Foyer
09:00	Welcoming <i>Prof David Kruger</i> Chair of the SAIE28 Organising Committee			
09:15	Chair: Prof David Kruger Welcoming <i>DVC and Dean</i> Vaal University of Technology			Ballroom
09:45	KEYNOTE ADDRESS Models for enhanced technology transfer from SA universities to SA industries and communities <i>Prof Lukas Snyman</i> UNISA			
10:30	Tea/Coffee			Foyer
Venue	Ballroom	Bishop	Darter	
Theme	Workshop 1	Workshop 2	Special Session: TUT/Gibela Chair: Prof Khumbulani Mpofo	
11:15 - 13:00	Design Thinking for IE's <i>Wim van Schalkwyk</i> Design Innovation Partner - Africa, Aurecon	Harnessing complexity: effectively navigating uncertainty <i>Sonja Blygnaut</i> More Beyond	Digital Manufacturing Application in Rail Car Manufacturing <i>Hermias Hendrikse (ESTEQ)</i>	
			Technologies past, current and future for rail <i>John Ogbemhe (TUT)</i>	
			Application of agents in rail manufacturing industry <i>Olukorede Tijani Adenuga</i> Ladgroup Limited, Nigeria and TUT	
13:00	Lunch			Foyer
Theme	Session 1 Energy Industry	Session 2 Information systems	Workshop 3	
Chair	Dr Waldt Hammer	Dr Didier Nyembwe		
14:00	3412 Evaluating the feasibility of the 12L tax incentive for energy intensive industries <i>Campbell</i>	3377 The need for effective application of data visualisations in management information systems <i>Du Plessis, Friedenstein, Vosloo</i>	The way forward for academic and industry collaboration in healthcare?	
14:20	3383 Development of an energy consumption baseline and performance indices for a galvanising plant <i>Dewa. Dzwairo, Nleya</i>	3422 Development of a condition monitoring information system for deep level mines <i>Van Jaarsveld</i>	<i>Maria van Zyl</i> North-West University AND <i>Rose Heathcote</i> Lean Institute Africa	

14:40	3331	Energy metabolism in multi-structured urban informal settlements in South Africa <i>Makinde, Musango, Brent, Smit</i>	3370	The need for information system data maintenance <i>Van Heerden, Herman, Vosloo</i>	
15:00	3432	A practical approach to manage uncertainty in the measurement and verification of energy efficiency savings <i>Hamer, Booysen, Mathews</i>	3394	Improving data management of a mobile data collection system by using web-services <i>Prinsloo, Du Plessis</i>	
15:20			3425	A condition monitoring system using basic equipment protection measurements <i>Stols, Brand, Schoeman</i>	
15:40	Tea/Coffee				Foyer
Theme	Session 3 Big data		Session 4 Energy Industry		SIG Meeting
Chair	Prof James Bekker		Prof Tiaan Oosthuizen		
16:10	3067	Development of an information system to enable personalised discount offers from data analytics <i>Els, Bekker</i>	3423	Automated electricity bill analysis in South Africa <i>Goosen, Mathews, Vosloo</i>	Operations Research Special Interest group: - an overview of the OR SIG - a Lean Analytics Meetup <i>Quintin van Heerden</i> CSIR Built Environment
16:30	3342	Development of big data analysis demonstrator <i>Butler, Bekker</i>	3389	The current and future energy economics of concentrated solar power (CSP) in South Africa <i>Craig, Brent, Dinter</i>	
16:50	3413	Customer Super Profiling demonstrator to enable efficient targeting in marketing campaigns <i>Walters, Bekker</i>	3359	Local Content of the Alternative Energy Industry in South Africa (3000) <i>Alo, Otunniyi, Pienaar, Ogunniyi</i>	
17:30	COCKTAIL FUNCTION				Swift

THURSDAY 26 October 2017			
8:00	Registration		Foyer
09:00	Chair: Prof Thomas Tengen WELCOMING <i>Prof Gordon Ndodomzi Zide</i> Vice Chancellor, Vaal University of Technology		
09:30	KEYNOTE ADDRESS <i>Mr David Makhura</i> Gauteng Premier		Ballroom
10:30	Presentation about SAIIIE <i>Mr Waldo Viljoen</i> President, SAIIIE		
10:45	Tea/Coffee		Foyer
11:15	KEYNOTE ADDRESS The executive sponsor as key factor in mega-project success <i>Mr Willem Louw</i> Associate: Stellenbosch Business School		Ballroom
Venue	Ballroom	Bishop	Darter
Theme	Workshop 4	Session 5	Convener meeting
Chair		Data Analytics	Prof David Kruger
		(IoT, Big Data & Optimisation)	
		Ms Rojanette Coetzee	
	Effective group decision making in the corporate and private sector <i>Clemens Dempers</i> Blue Stallion Technologies	3405 An architecture for customer experience in a partnering venture <i>Roos, Bekker</i>	Universities of Technology Convener meeting
12:00		3339 Remote condition monitoring for fault indication in elevators using an IOT technology for improved maintenance <i>Olalere, Dewa, Nleya</i>	
12:20		3152 Don't mess with my Jozi: A strategic reconsideration of the major population centre in South Africa <i>Hartmann, Stanley</i>	
12:40			
13:00	Lunch		Foyer

Theme	Session 6 Simulation & Software Development	Session 7 Health Systems and Innovation	Workshop 5
Chair	Prof James Bekker		
14:00	3066 Solving stochastic multi-objective optimisation problems with simulation <i>Bamporiki, Bekker</i>	3105 An investigation into the prospects of existing technologies to address the challenges faced by pharmacovigilance systems <i>Lamprecht, Bam, De Kock</i>	<p>Lean at the workplace::Lean overview, principles/techniques and applications with a view of designing Lean Curriculum for IE and related disciplines</p> <p><i>Gawie Roodt</i> Africa Industrial Engineering Services</p> <p>AND</p> <p><i>Thomas Tengen</i> Vaal University of Technology</p>
14:20	3415 Using simulation for decision support of insurance claims processes <i>Erasmus</i>	3380 Mechanisms influencing health care outcomes in Sub-Saharan Africa: A systematic review <i>Conway, Bam, De Kock</i>	
14:40	3409 Exploring enhancements to the agile approach for mid-size enterprises in the services sector <i>Fourie, De Vries</i>	3426 An investigation into the value of a standardised global pharmacovigilance reporting system <i>Schurer, Bam, De Kock</i>	
15:00	3435 Real-time scheduling in a sensorised factory using cloud-based simulation with mobile device access. <i>Snyman, Bekker</i>	3450 Modelling the complex dimensions of scaling energy supply for Africa's socio-economic development <i>Mutanga</i>	
15:20	Tea/Coffee		
Theme	Session 8 Manufacturing Industry	Workshop 6	Workshop 5
Chair	Prof Krige Visser	Mr Waldo Viljoen	
15:50	3327 Localisation of silica sands for additive manufacturing applications <i>Dady, Nyembwe</i>	<p>Professional registration with ECSA</p> <p><i>Henk van Tonder</i> GKA Capital SAIIE Council</p> <p>AND</p> <p><i>Waldo Viljoen</i> Saint-Gobain SAIIE Council</p>	Workshop continues
16:10	3444 Applying flexible manufacturing as a way of reducing musculoskeletal disorders and maintain productivity in poultry processing industry <i>Mallane, Tengen</i>		
16:30	3421 Impact of effective organisational learning on occupational health and safety performance <i>Hlatshwayo, Visser</i>		
16:50	3406 The application of production-related information technology architecture to improve on visual management systems within the manufacturing industry <i>Steenkamp, Oosthuizen, Von Leipzig</i>		
17:30	Depart to Stonehaven on Vaal for Boat cruise		
18:00	Boat cruise (Spirit of Jen)		
19:00	Conference Dinner - River Terrace, Stonehaven on Vaal		

FRIDAY 27 October 2017

8:00	Registration			Foyer		
9:00	Chair: Dr Henk van Tonder KEYNOTE ADDRESS Trends of industrial Engineering in Colombia Ing Beatriz Rodriguez University Santo Tomas, Bogotá, Colombia			Ballroom		
Venue	Ballroom		Bishop		Darter	
Theme	Session 9 Mining & Mineral Resources		Session 10 Health Systems and Innovation		Session 11 Systems Engineering	
Chair	Prof James Bekker			Ms Bernadette Sunjka		
09:50	3386	Printed circuit boards as an urban mining commodity in South Africa <i>Otunniyi</i>	3371	The Role of Policy Analysis to Support Public Medicine Availability Initiatives: The Case of VAN <i>Kleynhans, De Kock, Bam</i>	3408	Application of systems engineering concepts as enhancements to projected lifecycle methodologies <i>Mabelo, Sunjka</i>
10:10	3410	Proposing a Global Value Chain Sustainability Analysis Framework: Toward the Analysis of Regional Value Capture <i>Bam, Schutte</i>	3419	Exploring key concepts in the technology platform literature: A systematic review <i>Herman, Grobbelaar, Pistorius</i>	3329	Towards a systems-based capability maturity model to support sustainable business development <i>Rautenbach, De Kock, Brent</i>
10:30			3414	Big data and demand driven supply chain management: potential benefits for healthcare supply chain management in South Africa <i>Bvuchete, Grobbelaar, Van Eeden</i>	3428	A life cycle model for the development of airborne electronic equipment <i>Viljoen, Holm</i>
10:50	Tea/Coffee				Foyer	
Theme	Session 12 Transportation Systems		Session 13 Skills Development: Gamification & Learning Factories		Session 14 Public Service Delivery	
Chair	Dr Jacoba Buhmann		Ms Teresa Hattingh		Prof Thomas Tengen	
11:20	3402	Using the GTFS format to improve public transport data accessibility in Gauteng <i>Koetsier, Van Heerden, Maditse</i>	3429	Metacognitive learning: Skills development through gamification at the Stellenbosch learning factory as a case study <i>Henning, Hagedorn-Hansen, Von Leipzig</i>	3400	The role of Industrial Engineering in public service delivery <i>Van Heerden, Van Heerden</i>
11:40	3340	A systematic review of microtransit systems towards developing a monitoring and evaluation framework <i>Buenk, Grobbelaar</i>	3341	Framework for the development of a learning factory for industrial engineering education in South Africa <i>Steenkamp, Hagedorn-Hansen, Louw</i>	3368	Deterioration of commuter rail system efficiency due to varying expectations from commuter and varying rewards for each expectation: A proposed remedy <i>Bele, Tengen</i>
12:00	3360	Public transportation fares reduction through strength enhancement of polymer composite materials for vehicle parts production <i>Matyatya, Tengen</i>	3399	Monitoring the face of the future factory <i>Hattingh, Hartmann, Durbach, Vawda</i>	3062	Project Management Methodology Framework for Municipal Institutions <i>Peters</i>

12:20	3375	An algorithmic approach to improving train station layout <i>Bele, Tengen</i>	3321	Improving the retention of engineering students by using industrial engineering techniques <i>Steenkamp, Nel</i>	3424	Proposing a computational system project (COSYP) framework for government service delivery projects <i>Malele, Hlungwani, Modipa</i>
12:40	Lunch					Foyer
Theme	Session 15 Entrepreneurship and Innovation		Session 16 Manufacturing Industry		Workshop 6	
Chair	Ms Teresa Hattingh					
13:20	3445	A systematic review of the establishment and operation of agricultural innovation platforms <i>Dondofema, Grobbelaar</i>	3316	Focused improvement for reduction of crowner losses for a packaging line <i>Dewa</i>	Workshop on the re-invention of engineering education	
13:40	3417	The role of open innovation intermediaries in entrepreneurial ecosystems design. <i>Ngongoni</i>	3378	Technical assistance programme for the South African foundry industry <i>Nyembwe, Banganayi, Gonya</i>	VUT	
14:00	3347	A systematic review of business ecosystems to support and improve survivability of SMEs in South Africa <i>Els, Kennon, Grobbelaar</i>	3393	Managing complexity while introducing high voltage technological change into production lines of globally competitive automotive manufacturers <i>Oosthuizen, Otto</i>		
14:20	3365	Business model innovation for seizing white space opportunities: A design framework. <i>Kuhn, Louw</i>	3317	Implementing cleaner production methodology in a brewery <i>Dewa</i>		
14:40	3369	Creating manufacturing shared value in base of the pyramid communities <i>Oosthuizen, Chihambakwe, Matope, Vermeulen</i>	3374	Improved melting efficiency in rural aluminium foundries through technology transfer by the metal casting technology station at the University of Johannesburg <i>Banganayi, Nyembwe, Mageza, Gonya</i>		
15:00	3416	Evaluating employee engagement at a FMCG manufacturing facility <i>Matema, Durbach, Hattingh</i>	3345	Use of proxies to inventory in optimizing services <i>Weyers, Louw</i>		
15:20	3433	The open business model in a dynamic business environment: A literature review <i>Khumalo, Van der Lingen</i>	3449	Human factors integration for sustainable manufacturing <i>Yonga, Kanakana, Mpofu</i>		
15:40	3403	Understanding the links between the success and failure factors of micro-enterprises and business incubators in South Africa: An exploratory study <i>Shrivastava, Sunjka</i>	3363	Designing for optimal service level target based on cost when demand and lead time are stochastic <i>Benga Bolan, Tengen, Alugongo</i>		
16:00	CLOSING					Ballroom

