

9th WCEAM, Pretoria, South Africa

The 9th World Congress on Engineering Asset Management was held at the University of Pretoria Main Campus and the CSIR International Conference Centre (ICC) in Pretoria, South Africa from 28-30 October 2014. A total of 191 delegates comprising academics, practitioners and scientists from 18 countries participated in the event and contributed over 130 papers and workshop sessions. This year's congress was organised by the International Society of Engineering Asset Management (ISEAM), and jointly hosted by the Graduate School of Technology Management, University of Pretoria and the City of Tshwane.

As of this year, the field of Engineering Asset Management (EAM) has matured into a professional practice through the introduction of a new global standards series, ISO 55000, 55001 and 55002 Asset Management. The theme of the congress was befitting, "Towards Engineering Asset Management Body of Knowledge and Standards". While the ISO 55000 series covers both tangible and non-tangible assets, EAM's foci are the very tangible physical assets of both the built environment and machinery varieties.

The event comprised a pre-congress cultural tour followed by a series of tutorials, workshops and industry visits and the ISEAM AGM on the first day. The full congress programme included a plenary, four keynote addresses, breakout sessions and seminars, the gala dinner and a networking event on the final day. The programme was varied and insightful which made for a very memorable congress – a template that all future congresses could emulate.

The following tutorials and workshops were hosted on Day 1.

1. Reliability engineering Masterclass: Dr Sharaf Moosa, SMU Singapore & Prof Sarma Yadavalli, University of Pretoria, South Africa.
2. Rethinking our economic model: Some lessons on sustainability Masterclass: Adj Prof David Hood, Blue Australia.
3. RSA National Treasury guidelines on asset management: Hester Hermus, National Treasury, South Africa.
4. ISO 55000 and risk-based asset management decision-making: John Woodhouse, TWPL, UK.
5. Semantic ontologies in engineering asset management: Dr Dimitris Kiritsis, EPFL, Switzerland.
6. Big data analytics and cyber maintenance systems: Prof Jay Lee, IMS Centre Cincinnati, USA.
7. Prognostics and health monitoring for aerospace and defense assets: Andy Hess, PHM Society, USA.
8. Underground utility assets management: Chui Wai-Sing and Lai Kwai Cheong, DSD/HKSARG, Hong Kong.
9. Condition assessment of mining assets: Prof Joe Amadi-Echendu, University of Pretoria, Marc de Smit, Joyglobal, and Bhekumuzi Duma, Anglo American Coal, South Africa.
10. Maintenance and asset management in Rail Freight Assets, Willem Ebersohn, Encada LLC, USA.
11. Using GIS in asset management to assess risk: David Totman, Esri, USA
12. Strategic management of oil and gas assets: Prof Jayantha Liyanage, CIAM Stavanger, Norway.

The congress opened formally on Day 2 with welcome messages from Adj Prof Joseph Mathew, Chair of ISEAM and Professor Cheryl De La Ray, Vice Chancellor, University of Pretoria. The opening progressed directly into the plenary talk titled, "Enterprise Risk and Engineering Asset Management", by Eben Maré, Stanlib Risk Management and Professor of Applied Mathematics, University of Pretoria.

The first keynote was presented after the coffee break by Thava Govender, Generation Executive, Eskom, South Africa who spoke on “Sustaining electricity generating capability while having to refurbish old plant expected to deliver at the limits of their capability”. The remaining keynotes were Andre Kruger, Vice President PPP Financing, ABSA Capital, South Africa who spoke on “Closing the gap between engineering plans and funding/financing realities” and Andrew Greaves, Auditor-General, Queensland Australia on “Implementing asset management: Lessons from Queensland, Australia”.



Figure 1: Professor Cheryl De La Ray at the opening of WCEAM 2014



The congress closed with a keynote by Hon Thembelani Thulas Nxesi, Minister of Public Works, South Africa on “The asset management challenge for Department of Public Works”.

Figure 2: Hon Thembelani Thulas Nxesi, Minister of Public Works receiving a memento after the Closing Keynote from the Congress Chair and Co-Chair.

This year’s congress also hosted five separate panel sessions. They were:

1. Private Sector Interest Group on EAM: “With servitisation as an imperative, what is the future for utility assets across the whole value chain?” Moderator: Stephen Saladine, Macquarie Generation, Australia.
2. EAM Guidelines and Standards: “Should international standards take precedence over local guidelines and national standards?” Moderator: Sadvir Bissoon, South African Bureau of Standards, South Africa.
3. EAM Education Programmes: Moderator: Prof Peter Tse, City University Hong Kong.
4. EAM Research Agenda: “Assuming EAMBoK, what should be the research agenda for the next 5 years?” Moderator: Adj Prof Joseph Mathew, Asset Institute, Australia.
5. Public Sector Action Group on EAM: “How do we ensure that the implementation of national guidelines improves service delivery?” Moderator: Adj Prof Joseph Mathew, Asset Institute, Australia on behalf of Dhaya Govender, Department of Public Works, South Africa.

The paper presentations, socials and gala dinner were of an excellent standard. This year's event also provided ISEAM with the opportunity to present two ISEAM Outstanding Achievement Awards - one to Stephen Saladine, CEO and Managing Director of Macquarie Generation, Australia; and the other to John Woodhouse, CEO and MD of TWPL, UK.



Figure 3: Stephen Saladine receiving the Award



Figure 4: John Woodhouse accepting the Award

All papers published in the proceedings were blind reviewed by specialist members of an International Review Panel for academic and technical merit.

The 2014 Best Paper was awarded to Ype Wijnia, Delft University of Technology and John de Croon, Asset Resolutions of for their paper, "The asset management process reference model for infrastructures".



Figure 5 Ype Wijnia receiving the 2014 Best Paper Award

We gratefully acknowledge the support of our Partners for 2014 - University of Pretoria, South Africa; University of Port Harcourt, Nigeria; City of Tshwane, South Africa; ABSA Capital, South Africa; Anglo American Platinum, South Africa; Council for Scientific and Industrial Research, South Africa; Department of Public Works, South Africa; Esri, USA; Eskom, South Africa; Gauteng Growth and Development Agency's Automotive and Industrial Development Centre, South Africa; National Research Foundation, South Africa; National Treasury, South Africa; Passenger Rail Agency of South Africa; South African National Convention Bureau; South African Bureau of Standards.

The Chairs are indebted to the Congress Organising Committee (OC) without whom this congress would not have been a success. They are George Thopil, Stephan Heyns, Hannes Grabe, Changela Hooхло, Sihle Dlungwana, Bernard Petlane, Anthea Amadi-Echendu, Nonhlanhla Tshabalala, Charle Hodgkiss, Bjorn Hufkie, Thereza Botha, Marie van Niekerk, Robert Walker, and Mpho Sithole.

The next congress in the series, the 10th, will be held in Tampere, Finland on 28-30 September 2015 chaired by Helena Kortelainen, VTT and Professor Seppo Virtanen, Tampere University. For more information, please refer to www.wceam.com.

Professor Joe Amadi-Echendu
Congress Chair

Adj. Professor Joseph Mathew
Co-Chair