

AIMS PERTH - AGENDA 2024

Wednesday 21 August 2024

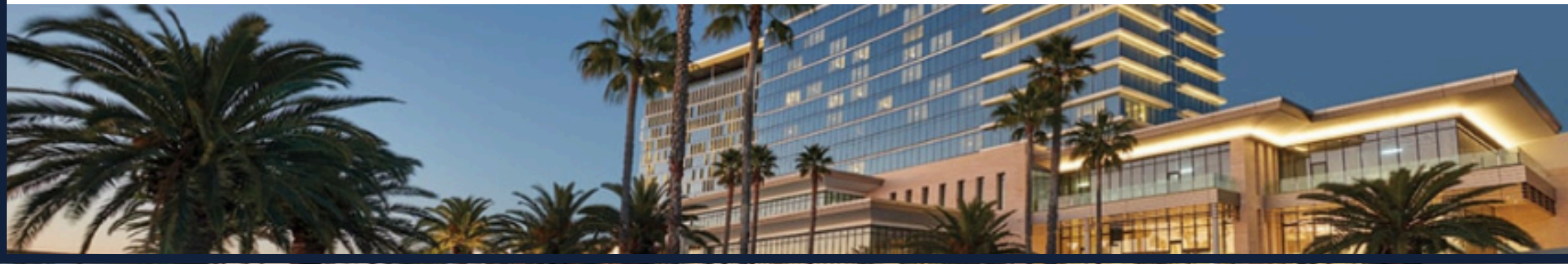
Wednesday - 1.0 Mine Surveying Points, 1.25 Survey Practice Points

Full Conference - 7.0 Mine Surveying Points, 4.25 Survey Practice Points

8:00 AM	Welcome Coffee + Sponsor Networking <i>Coffee Sponsored by FYFE</i>	Crown Ballroom 2
8:25 AM	MC Morning Welcome <i>MC - Christina Morrissy</i>	Crown Ballroom 1
8:30 AM	Keynote Speaker - Amanda Williamson <i>Amanda Williamson - Commander 13th Brigade - Army</i>	Crown Ballroom 1
9:15 AM	Managing exploration activities and ensuring regulatory compliance <i>Adnan Arslanagic - UPG</i>	Crown Ballroom 1
9:35 AM	Remote Sensing brings a Common-Operating-Picture to post-mining outcomes <i>Kevin Kwok - Outline Global</i>	Crown Ballroom 1
10:00 AM	Propeller Sponsor Presentation <i>Propeller</i>	Crown Ballroom 1
10:10 AM	Morning Tea + Sponsor Networking	Crown Ballroom 1
10:00 AM	UPG Sponsor Presentation <i>UPG</i>	Crown Ballroom 1

10:50 AM	The Art of Communication <i>Michelle Blicvas - Surveyors Australia</i>	Crown Ballroom 1
11:20 AM	Surveying In Hard-Rock Tunnelling For A Civil Project <i>Greg Russell - MinStaff Survey</i>	Crown Ballroom 1
11:45 AM	Satellite Positioning Technology for Enhanced Safety and Efficiency for Mining Applications <i>Amy Hooper - Kurloo</i>	Crown Ballroom 1
12:05 PM	Closing Remarks and Lunch	Crown Ballroom 3

FULL CONFERENCE
7.0 Mine Surveying Points, 4.25 Survey Practice Points



ABSTRACTS

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Managing exploration activities and ensuring regulatory compliance

Adnan Arslanagic, Business Development Manager - UPG

Exploration is a primary stage in a life cycle of a mine. Lengthy and extremely costly process is governed by a strict regulatory framework. Non-compliance results in project delays, cost blowouts and heavy penalties.

GuidEx, a machine guidance solution based on the latest GNSS technology, addresses all major aspects of managing exploration activities from project data creation and validation to field operations and full analytics of the field-collected data.

Find out why all Australian Tier 1 mining companies use GuidEx as a primary exploration activities management tool.

Remote Sensing brings a Common-Operating-Picture to post-mining outcomes

Kevin Kwok, Head of Growth and Industry - Outline Global

A recent analysis by CSIRO projects the closure of nearly 240 Australian mines by 2040 and it highlights a persistent demand for innovation solutions to address post mining land use (PMLU) challenges for now and future generations. One of those innovation is the use of wide-scale Remote Sensing and high-fidelity Geospatial Analytics, and when combined, they can bring effective and transparent digital monitoring, verification, and reporting (dMRV) capabilities to decision-makers. In addition to remote monitoring, aerial sensing technology is proven to be reliably accurate in capturing reality and understand change over time. Combined with Satellite and UAV, Aerial Sensing offers access and precision to mining and environmental stakeholder to track rehabilitation and remediation efforts.

Outline Global Gtech™ introduced a modular multi-spectral aerial platform designed to support survey-grade data acquisition. This platform was extended to a purpose-built and world first for airborne surveillance to detect the nests of the Red Imported Fire ant (RIFA) for Biosecurity Queensland and other invasive species. The technologies include a tightly integrated sensing module with a combination of high resolution colour (RGB), Near-Infrared, UV, Shortwave Infrared (SWIR) and Longwave infrared (LWIR) with survey-grade GNSS-INS capable of delivering 1cm GSD 6-band imaging. A further LiDAR configuration is available for simultaneous 3D topographic captures.

The Art of Communication

Michelle Blicvas, CEO - Surveyors Australia

The art of effective communication is one of the most powerful skills we can ever develop, and yet 75% of the population struggle to develop strength and confidence in this area. It is a strategic skill that can make the difference between a successful business outcome and healthy relationships across all areas of our lives not just professionally but personally as well.

This session will explore why being a strong communicator is so important for surveyors, and how to deliver a compelling message, how to craft messages that are suitable for the various channels we use professionally: email, text, face to face meetings, addressing the media, and the ultimate fear for many, presenting confidently at a meeting or event.

Surveying In Hard-Rock Tunnelling For A Civil Project

Greg Russell, Survey Manager - MinStaff Survey

MinStaff Survey provide all survey services to the Kidston Pumped Storage Hydro project in Far North Queensland - an innovative project that involves the world-first conversion of a disused opencut gold mine into a pumped storage hydroelectric powergeneration facility. The project involves the conversion of two existing mine pits into

reservoirs and includes significant underground infrastructure, including access, a powerhouse cavern and waterway shafts and tunnels to allow the transfer of water between the upper and lower reservoirs.

MinStaff Survey added Trimble SX12 scanning total stations to its fleet of Trimble equipment to provide extra capabilities, specifically required for the underground set-out and as-built functions for tunnelling by drill and blast methods and underground powerhouse cavern construction.

The SX12 with Tunnelling App on the TSC7 allows the field surveyor to see results in real-time which is essential for the set-out of the tunnel for drilling and for conformance checks after blasting and shotcrete thickness to the tunnel excavation. Conformance reports are produced with TBC on customisable templates on return to the office.

The client also requested a survey and conformance reports for a 4 metre diameter, 250m vertical service shaft which had deviated from design due to problems encountered during the drilling of the shaft.

The survey capture was attempted with wire line SLAM technology mounted Lidar system but was unsuccessful due to problems with the cloud-to-cloud registration due to the depth, verticality and uniformity of the walls of the shaft.

The survey was then successfully completed by deploying surveyors and the SX12 into the shaft by being lowered in a basket by a crane. The surveyors installed survey control and scanned the tunnel with the SX12 in a single pass while being lowered down the shaft. Each scan was fully co-ordinated. Compliance reports were produced with TBC on completion of the survey.

This paper will discuss aspects of the Kidston project, the day-to-day tasks for underground surveys and focus on the surveying, scanning and reporting on the shaft survey.

Satellite Positioning Technology for Enhanced Safety and Efficiency for Mining Applications

Amy Hooper - Kurloo

Jun Wang - Kurloo

Lee Hellen - Kurloo

Routine displacement and settlement monitoring measurements of critical infrastructure until recently has required an expert surveyor to be physically present on-site or the use of sophisticated monitoring equipment to gather frequent data.

Australian based Kurloo Technology has overcome many of these problems with a high value service to monitor and maintain critical mining infrastructure combines Satellite positioning and wi-fi communications.

The presentation will share several recent practical use cases and technical analysis of Kurloo technology in Australia and New Zealand. The presentation will benefit mining surveyors who may be looking to improve current methods of monitoring.



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INSTITUTE OF
MINE SURVEYORS