

W A S M A L U M N I review

WA SCHOOL OF MINES ALUMNI



CORE LEARNING
FOUNDATION
#THEREALCLASSROOM

SANDVIK
SET FOR A BUMPER
YEAR IN 2021

**THE FUTURE
LOOKS BRIGHT**
FOR WOMEN IN MINING



AUTUMN 2021 | V11

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Cover image: WASMA Gold Medallist Kurt Charlton with WASMA President Christian Price

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Welcome to the first edition of the WASM Alumni Review for 2021. The year has gotten off to a busy and productive start with WASMA already hosting several events and celebrating notable achievements.

In early February, Professor Michael Hitch took up the role of Head of School for WASM:MECE. Professor Hitch hasn't wasted any time getting to know members of the Alumni through numerous events and meetings. We warmly welcome Professor Hitch and his wife to Western Australia, and look forward to working with him as he applies his talents and wealth of experience to the role, driving WASM:MECE into a sustainable future.

The start of Professor Hitch's appointment coincided with the WASMA Graduates Lunch held at Optus Stadium on 19 February. This was a wonderful opportunity to welcome the newest WASM:MECE graduates into the Alumni, recognise the 1996 cohort for reaching their 25-year milestone and gather with Curtin staff, sponsors, partners and industry representatives.

Congratulations to all graduates and our Gold and Silver Medallists who have shown that the future of the resources industry is in good hands. Full details and photos on pages 10, 12 and 13.

The WASMA Graduates Dinner will be held in Kalgoorlie on 7 May. This is a regular event on the WASMA calendar, celebrating the achievement with those students who attended the Kalgoorlie Campus. They will be joined by our 50-year WASM graduates, a true recognition of their life achievements and service to the industry.

We are looking forward to seeing many of these new faces getting involved with the WASM Alumni either by joining a Sub-committee, attending events or by taking part in the WASMA Mentoring Program which launched recently. Please contact Liz at admin@wasma.com.au for further details.

After the success of last year's program, the 2021 Mentoring Program promises to offer mentees and mentors a fantastic professional development opportunity. Please register your interest in becoming a mentee or a mentor by emailing mentoring@wasma.com.au by 20 April. The program is open to all those WASM:MECE and non WASM:MECE graduates who would like guidance or to make a positive impact on the careers of emerging talent in the resource sector.

The WA School of Mines has again been named as second in the world for Mineral and Mining Engineering and number one in Australia in the 2021 QS World University Rankings by subject.

Geology ranked equal 43rd in the world and fourth in Australia and Petroleum ranked equal 44th in the world and fourth in Australia.

Curtin University Vice-Chancellor Professor John Cordery said the latest results further cemented Curtin's position as a global leader in Mineral and Mining Engineering.

"Curtin's strong position in these latest rankings across a number of subjects is testament to our commitment to high-quality research and teaching and the continuing focus on industry collaboration and connection, particularly in the fields of Mining and Mining Engineering," Professor Cordery said. We congratulate Curtin and the team at WASM:MECE for this continued effort to provide world class graduates to the resource sector. We look forward to supporting the vision to taking out the No. 1 title in the near future.

We recently farewelled a great friend to many WASMA graduates, Roy Woodall AO. Roy was one of the most instrumental individuals in the Australian resources sector in the past century. This was not only through the key roles he played in the discovery of world class mineral regions, but also in the mentoring and guidance he has provided a generation of geoscientists worldwide. Roy was an absolute legend in every sense of the word, we extend our condolences to Roy's family.

It was great to see so many WASMA families join us for the Family Day at Oakover Grounds on 14 March. This looks like becoming a regular event on the calendar.

I look forward to connecting with you throughout the year. ■

CHRISTIAN PRICE
WASMA Alumni President



EVENTS CALENDAR NEW YEAR 2021

WASMA MENTORING ONLINE LAUNCH EVENT 27 APRIL

Don't forget to sign up for the WASMA Mentoring Program as a mentee or a mentor by emailing mentoring@wasma.com.au by 20 April

MINING, INNOVATION AND COLLABORATION EVENT LATE APRIL – DETAILS TO COME

WASMA GRADUATES DINNER – KALGOORLIE GRADUATES HALL FRIDAY 7 MAY

We will be celebrating two cohorts of graduates due to the cancellation of this event in 2020.

Our classes of 1970 and 1971 will also be honoured as they celebrate their 50-year anniversary. Please update your contact details to receive an invitation by emailing admin@wasma.com.au and forward the details to other graduates from these cohorts.

JOINT ENGINEERING NETWORKING EVENT FRIDAY 30 APRIL CURTIN STADIUM

The biggest student engineering networking function across any of Perth's four engineering universities: Curtin University, the University of Western Australia, Murdoch University and Edith Cowan University.

2021 WASMA-SANDVIK GALA SATURDAY 6 NOVEMBER WA MUSEUM

Are you a recent graduate working in the mining industry?

WA School of Mines Alumni 2021 Mentoring Program can help you advance your career.

We have experienced mentors waiting to share their knowledge of the Mining Industry with you. **REGISTER TODAY!**

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REGISTRATIONS CLOSE 20 APRIL 2021
mentoring@wasma.com.au



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Curtin University





VALE DR ROY WOODALL

Widely respected geologist and friend to many in the WASMA community Dr Roy Woodall recently passed away in Adelaide aged 90.

Roy has been described as one of the most instrumental individuals in the Australian resources sector. He particularly contributed to geology and world class mineral discoveries.

Roy's achievements were recognised with some of the most prestigious awards in his field. His scientific approach to exploration contributed to major mining discoveries in the Goldfields and Australia wide, leading to the creation of jobs, wealth, development and investment around the country.

As reported in The West Australian newspaper, Roy "played major roles in the discovery of the Kambalda nickel fields and South Australia's huge Olympic Dam base metal deposit. During a storied 42 years with Western Mining Corporation (WMC) that culminated in him leading one of the country's most successful exploration divisions, Dr Woodall was also credited with mentoring hundreds of young geologists, many of whom went on to successful leadership roles elsewhere."

In addition, Dr Kathy Ehrig wrote for AusIMM that "Roy was a visionary. He often quoted WS Robinson (one of the founders of WMC) 'Don't tell me what is, but you tell me what may be.' Roy, along with his direct reports, hired and managed the careers of 500+ geoscientists who worked for WMC.

"He actively supported WMC geoscientists to return to university to complete MSc and PhD degrees. He hired female geologists and ensured that they had jobs to return to after having children. He implemented this back in the 1980s. He actively engaged with Australian and overseas universities to identify and hire high-quality geoscientists. He insisted upon high-quality geoscience standards, anything less was not acceptable.

"He believed 'we' (as geoscientists in the mining industry) have a societal responsibility to geologically document the deposits we extract. He actively sought out new ideas about ore genesis and various geoscientific techniques: '[geoscientists]... must use the latest ideas and techniques to discover new ore deposits and find more ore within existing deposits...' His lifelong achievements and deposit discoveries are testament to the value of his ideas and how he managed people."

Curtin University officially acknowledged Roy's contribution to the resources industry by naming a residential hall at Agricola student accommodation in Kalgoorlie "Woodall Hall" in 2017.

Condolences to the Woodall family. ■



SANDVIK SET FOR A BU YEAR IN 2021

NEW VICE PRESIDENT APPOINTED FOR SANDVIK MINING AND ROCK SOLUTIONS

Sandvik has further strengthened its regional leadership team with the appointment of Wayne Scrivens as Vice President for Sandvik Mining and Rock Solutions in Sales Area APAC.

A highly experienced mining-sector leader, Scrivens has held the role of Sandvik Vice President for Load & Haul product line for four years, based in Turku in southern Finland. During this time, the Load & Haul division developed the iSeries Intelligent Trucks and Loaders, acquired Artisan Vehicle Systems and introduced Sandvik's first battery electric loaders and trucks.

In his 18 years with Sandvik, Scrivens has also held various roles within the company's underground coal and hardrock business, as well as in Parts & Service. He will start in his new role in Brisbane on 1 April 2021 after returning home to Australia.



INTRODUCING NEW TORO™ LH410 LOADER, THE NEXT MEMBER OF THE TORO™ FAMILY

Sandvik is getting ready for an eventful loader and truck year in 2021. The first exciting introduction for the year is the totally renewed Toro™ LH410, a versatile and capable underground loader with 10 tonnes payload capacity.

PROVEN PERFORMANCE BOOSTED WITH NEW FEATURES

The new Toro™ LH410 loader builds on the best parts of its predecessor, the successful Sandvik LH410. However, following the footmarks set by Sandvik's large intelligent loaders, the now introduced Toro™ LH410 is full of new features, making it in practice a completely new machine.

Toro™ LH410 offers best in class performance in productivity e.g. by means of high ramp speeds and fast bucket filling, and to make truck loading easy, it features superior lift height compared to any other loader of the same size class. The renewed loader features Sandvik Intelligent Control System, with a 7" touch screen display as a user interface, enabling multiple new options to tailor each loader according to customer needs.

MID-SIZE DIMENSIONS – FULL-SIZE INTELLIGENCE

"With all its features, this truly is an advanced and intelligent piece of equipment, definitely comparable to the large i-series loaders – but naturally in a smaller package," says Kimmo Ulvelin, Product Line Manager Small and Low Profile Loaders at Sandvik. Toro™ LH410 is fully compatible with AutoMine® solutions.

Launching the totally renewed Toro™ LH410 coincides with the 50-year jubilee of the Toro™ loaders and trucks from Sandvik. New product launches and upgrades are expected to be released to further strengthen the Toro™ family during 2021.

NEW ELECTRIC MINE CONSORTIUM TO DRIVE ELECTRIFICATION AND DECARBONISATION IN MINING

Key players in the resource industry have joined forces to decarbonise mine sites in response to climate change and achieve the significant economic and social benefits of clean energy, large-scale storage, and battery electric vehicles.

Fourteen companies, including Sandvik Mining and Rock Solutions, South32, OZ Minerals, IGO, Gold Fields, Barminto and led by State of Play, have established the Electric Mine Consortium to help reduce their scope 1 and 2 carbon emissions in line with global objectives.

Electrification is a game changer for the mining industry as it drastically reduces emissions and exposure to diesel particulates underground, while bringing mine sites closer to achieving their zero emissions objectives. ■

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THE FUTURE
LOOKS BRIGHT
FOR

WOMEN IN MINING

The future of women in mining is looking strong if the attendance at the January Girls Focus on Mining camps is any indication.

Supported by Saracen Minerals, one camp to Kalgoorlie was initially planned for 24 girls in Years 10-12. However, after more than 300 applications, a second Kalgoorlie camp was scheduled, as well as a one-day trip to the South32 Worsley Alumina mine.

The camps are designed to introduce students to study and career options in the mining industry.

The 47 participants in the Kalgoorlie camps visited mine sites, processing plants, and the Western Australian School of Mines to get a taste of life studying and working in Kalgoorlie. This included KCGM's Superpit, the BHP Nickel Smelter and Northern Star. The students also had the opportunity

to network with more than 50 industry representatives from Perth and Kalgoorlie at an industry networking event.

On the day trip to South32's Worsley Alumina mine, 23 students toured the mine site and learned about the variety of roles at the operation. They also visited the next stage of the operation, the alumina refinery. Here they learned about each stage of the refinery process and the steps involved to turn bauxite into alumina before it is exported around the world.

The students were given an insight into not only what a career in mining involves, but the wide range of career pathways available and how there is a job to suit everyone.

AFTER THE ONE-DAY TRIP:

100% of participants said they learned more about the mining industry

82% said they would consider a career in mining

MANY gave positive feedback about the focus on gender in industry and the opportunity to learn from so many women at South32

Thank you to Saracen Minerals/Northern Star, South32 and everyone else who helped to make these camps so successful. ■

“ I learnt there are so many different areas and options in mining to suit so many different people. ”



100%

100% of the girls said they understand more about jobs in the mining sector

76%

76% of girls said they would now consider studying at the WASM Kalgoorlie campus

88%

88% of girls said they have a better understanding of their career aspirations

76%

76% of girls said they have changed their career aspirations



“ I knew there was more to mining than just digging and loading trucks but I didn't realise all the other opportunities that are available and that follow some of my interests. ”





Curtin University

WASM Alumni GRADUATES LUNCH

There was great cause for celebration when WASMA's newest members were welcomed into the community at the WASMA Graduates Lunch at Optus Stadium on 19 February. For many of the graduates, this was their first introduction to WASMA and what its vast network can offer them.

Graduates mingled with WASMA Council and general members, sponsors, industry representatives, Curtin staff and a great showing of graduates from the class of 1996 who were celebrating their 25-year milestone.

Expertly MC'd by WASMA Council member Marie Forsyth, the scene was set with Curtin Nyungar Cultural Advisor Ingrid Cumming's moving welcome to country. Keynote speaker South32 Chief Technical Officer Vanessa Torres inspired graduates with her words of wisdom from her experience of working in the resources industry around the globe.

WASMA also recognised the top performing graduating students from across the School.

The WASMA gold medal, which has a history stretching back half a century is awarded to the student who has not only excelled academically but has shown involvement in extracurricular activities such as community engagement and industry leadership.

Kurt Charlton was selected as this year's gold medallist after achieving excellence in his Chemical Engineering degree and as



WASMA President Christian Price and Curtin University Vice-Chancellor John Cordery with WASMA Gold Medallist Kurt Charlton

a community member. Kurt's experience includes producing ammonia in the Pilbara, refining crude oil in a refinery in Melbourne and researching a chemical which has uses in cancer treatment. He has stayed with rural families in Cambodia and worked with students on the autism spectrum, among many other achievements.

His commitment to excellence in his studies earned Kurt a degree with first class honours and awards for his group design project and research projects.

This year, Kurt will begin a graduate role with Clough where he will have a range of new experiences. He will also continue to be involved in the running of Engineers Without Borders WA.

The WASMA Silver Medals are awarded to the highest academically performing student in each discipline. This year's medals were awarded to:

Metallurgical Engineering
- Saint Natalino Purba
Mining Engineering – Georgia Kerr
Chemical Engineering - Laura Lee Shee We
Petroleum Engineering - Jason McDonald
Geophysics - Fionnuala Campbell
Applied Geology - Alex Brennan
Spatial Science - Pearl Ontse

CONGRATULATIONS TO ALL AWARD WINNERS, RECENT GRADUATES AND 25-YEAR GRADUATES.

CORE LEARNING FOUNDATION

BRINGS #THEREALCLASSROOM TO LIFE WITH THE HANDS-ON LEARNING PROGRAM INITIATIVE

The CoRE Learning Foundation (CoRE) has teamed up with IGO Limited, to bring young graduates together with Norseman District High School CoRE secondary students. This will provide a unique opportunity to learn through the CoRE + IGO Graduates Hands-On Learning Program Initiative.

This first-of-its-kind initiative, along with CoRE's #therealclassroom learning model, will provide students with the opportunity to be mentored throughout the year by graduates on the IGO Graduate Program, as they complete their project-based learning.

IGO graduates will share their expertise and assist the students in developing fundamental skills, aimed at improving literacy, numeracy, and digital competencies. They will also demonstrate how such fundamentals are used daily in their everyday working life, giving the students an insight into real-world learning that is applicable to future job and career opportunities.

IGO Head of Corporate Affairs Joanne McDonald said IGO was excited to be the founding partner of this amazing initiative for both graduates and the high school students.

"What a unique opportunity for our graduates to connect with young people and further build and develop their skills, while giving the students a fantastic experience to learn about the real world," Ms McDonald said.

"We are looking forward to seeing the impact this initiative will make on the next generation of STEAM leaders," she said.

Over the course of the year, students will build on this connection as they regularly interact with IGO graduates, culminating with a visit to IGO's Nova mine site at the end of the year. They will be able to see how their CoRE projects are reflected in real-world processes at a mine site. ■

FOR MORE INFORMATION ABOUT THE CORE LEARNING FOUNDATION, PLEASE VISIT: WWW.COREFOUNDATION.COM.AU

FEBRUARY



GRADUATES LUNCH





INTERNATIONAL WOMEN'S DAY - CURTIN + AUSIMM

MARCH



WASMA FAMILY DAY - OAKOVER GROUNDS



MARCH

