

Newsletter



Hydrogen
Society
of Australia

Looking backwards, looking forward!

Hydrogen is marching on – will you join us?

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Message from the HSA President – Adam Osseiran

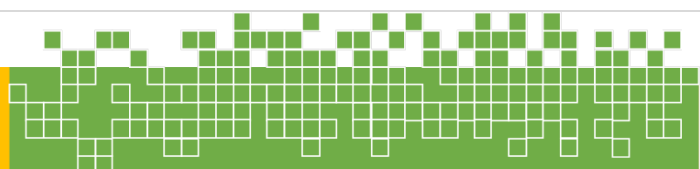
Your Society is healthy and is growing thanks to the contributions of our passionate volunteers. We have successfully delivered a number of important initiatives in the hydrogen space over the last 12 months, and these will be highlighted in our upcoming **Annual General Meeting (AGM)** on 23 April. This will be a hybrid event for HSA members only, delivered online and in-person over light refreshments and networking. [Click here for more details and to register](#)

The HSA Chapters in New South Wales, Victoria, Western Australia and South Australia are already well established, and will soon be joined by new HSA Chapters in Queensland. You would have received an email recently from our Membership Coordinator (Cedric Pierson) requesting that members update their membership profile to indicate their State Chapter affiliation.

There has been an increasing number of events related to hydrogen in Australia. The HSA is partnering with other like-minded organisations to deliver these events for the benefit of our members (ie. discounted registration fees). The **Energy and Mines Conference** in Perth (May 7 – 8) and the **Connecting Green Hydrogen Summit** in Melbourne (July 9 – 11) are two such opportunities [refer to pages 3 to 5].

Last but not least, we welcome our newest members and look forward to collaborating with you in the hydrogen space. **If you are not yet a member of HSA, please consider joining us to get access to free or discounted events, training material and the latest information in the hydrogen space.**

<https://hydrogensociety.org.au/members-portal/>



Members Spotlight: Ezzi Vision Pty Ltd

Ezzi Vision Pty Ltd, a pioneer in vacuum technology, has been at the forefront of providing cutting-edge solutions for the hydrogen ecosystem. With over three decades of expertise, Ezzi Vision has established itself as a key player in the supply of vacuum pumps, gas analysis equipment, vacuum gauges, and a plethora of other instruments pivotal for the advancement of hydrogen-based industries.

Our commitment to innovation is evident in our comprehensive range of products that cater to the intricate needs of research labs, industrial settings, and scientific endeavours. Ezzi Vision's vacuum pumps are engineered to facilitate the precise control of hydrogen environments, ensuring the integrity of research and the safety of operations. Our gas analysis equipment is designed to deliver accurate measurements, which are crucial for monitoring and optimizing hydrogen production processes.

Understanding the role of hydrogen in achieving a carbon-neutral future, Ezzi Vision's vacuum gauges are integral in maintaining the necessary conditions for hydrogen storage and transportation. Our products are not just tools; they are the building blocks of a sustainable ecosystem that supports the hydrogen economy. Our team of seasoned professionals works tirelessly to provide tailored systems that enhance efficiency, reduce operational costs, and elevate the standard of hydrogen applications.



As the hydrogen society continues to evolve, Ezzi Vision remains dedicated to contributing to its growth. We are actively involved in research and development initiatives that explore innovative techniques to optimize hydrogen utilization. Our collaboration with industry leaders and academic institutions is a testament to our commitment to fostering a greener future.

At Ezzi Vision, we recognize the importance of durability and cost-effectiveness. Our products are designed to not only withstand the rigors of hydrogen applications but also to offer longevity that translates into long-term savings for our clients. By reducing the electricity required per unit of hydrogen produced, we contribute to making hydrogen an accessible and viable energy source for all.

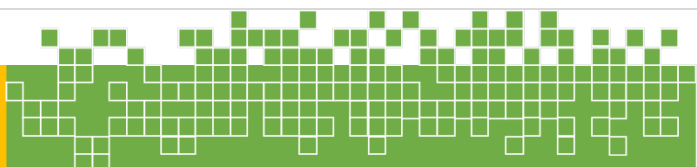
As we look to the future, Ezzi Vision's resolve to empower the hydrogen society is unwavering. We are poised to introduce new technologies that will further streamline hydrogen production and usage. Our goal is to remain a trusted partner in the journey towards a net-zero world, where hydrogen plays a central role in powering industries, energizing communities, and preserving our planet for generations to come.

Join us at Ezzi Vision Pty Ltd as we continue to innovate and drive the hydrogen revolution, one vacuum pump at a time. **Contact: Dr Adil Adamjee, Managing Director** adil@ezzivacuum.com.au

All items are available online now – head to our Web shop at www.ezzivision.com.au

Or click on this link to download the [Ezzi-Vision Catalogue](#).

AUS – Free call: 1800463994 Email: info@ezzivision.com.au



There is a lot happening in the Hydrogen Space in Australia!

Hydrogen Horizons: Engineering Elevation – Curtin School of Civil and Mechanical Engineering (06 March)

Curtin University engineering students had the opportunity to hear from the **Hydrogen Society of Australia (HSA)** and **Hazer Group** professionals about challenges and diverse careers in the Hydrogen Industry.

Adam Osseiran (HSA President) provided an overview of the HSA goals and objectives.

Furat Dawood (HSA WA Chapter Leader) provided a short overview of hydrogen's role in the energy ecosystem (Hydrogen 101).

Muhammad Hasham (Hazer Group) provided an overview of the Hazer project in collaboration with the WaterCorp.

David Karr (President of the Industrial Engineering Association) addressed the challenges and opportunities of hydrogen from an industrial engineering perspective.

Lorie Jones (HSA Vice-President) provided a systems engineering perspective on career pathways and professional development as we transition to cleaner energy.



Above Left to right: Simo Bodegrajac, Muhammad Hasham, David Karr, Furat Dawood, Lorie Jones, Adam Osseiran

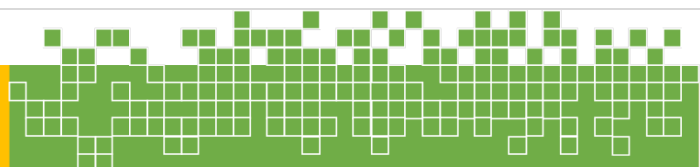


The presentations covered a broad range of topics including the hydrogen economy, projects, internships, and employment.

The feedback from attendees was very positive, and the event provided a great platform for students to get a head start in the Hydrogen Industry!

The presenters relaxing over lunch!

Clockwise from the left: Simo Bodegrajac, Lorie Jones, Professor Ramesh Narayanaswamy, Muhammad Hasham, Furat Dawood, Pawel Podsiadlo, David Karr, Adam Osseiran



Curtin University Career Expo - MechElMech 2024 – March 21st

The Hydrogen Society of Australia (HSA) was invited to share a booth with **Hydrogen Energy (H2E)** at the recent MechElMech 2024 - Networking Event at Curtin University. This event provided Mechanical, Electrical, and Mechatronic students a valuable opportunity to network with practising engineers and managers from some of the country's top engineering firms, including CMS, CSME, CRoC, IEEE, WiECD, URC, EWB and CEC.

Our HSA WA Chapter Leader (Furat Dawood) had interesting materials on display from his company **Hydrogen Energy (H2E)**. Our WA Chapter Committee member David Cavanagh (**Integrated Energy**) represented the HSA at this event.



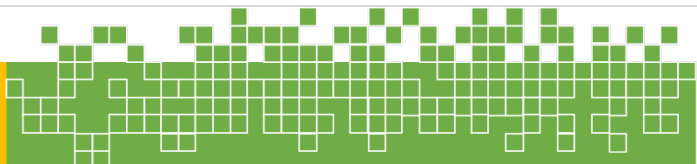
Left to right: Adam Samara (H2E Project Manager), Furat Dawood (CEO H2E, HSA WA Chapter Lead) and David Cavanagh (Integrated Energy, HSA WA Chapter Committee member)

There was a strong level of interest from the students in hydrogen's role in the energy ecosystem, and how they might contribute as Mechanical, Electrical, and Mechatronic engineers.



Materials on display from H2E included:

Left to right: Hydrogen Storage Technologies Model, Hydrogen Economy Model



Innovation Summit: Decarbonising Supply Chain Logistics - Tuesday, 26 March 2024

The recent Decarbonising Supply Chain Logistics Innovation Summit, served as a cornerstone event aimed at revolutionising the global supply chain landscape with sustainability and innovation at its core. This summit assembled industry forerunners, breakthrough innovators, and influential policymakers to delve into advanced strategies and technologies essential for achieving carbon neutrality across the supply chain spectrum. Highlighting sustainable sourcing, eco-conscious manufacturing, green logistics, and waste minimization, the summit was dedicated to knowledge exchange, collaborative ventures, and showcasing practical solutions for minimising carbon emissions. As a pivotal gathering orchestrated by **Innovate Australia**, in collaboration with **Regional Development Australia**, the **Hydrogen Society of Australia (HSA)** and **Mestpoints**, it represented a significant leap towards fostering resilient, efficient, and environmentally sustainable supply chains, underpinning a greener global economy. The following speakers provided their valuable insights, followed by an interesting panel discussion:

- MC/Moderator: Marc Allen, Co-Founder, Unravel Carbon
- Colleen Yates, CEO, Regional Development Australia - Perth
- Andrew McCluskey, Chairman, Hydrogen Society of Australia (HSA)
- David Cavanagh, HSA WA Chapter Committee member, Integrated Energy
- Kendall Ferraro, Resource Recovery and Circular Economy Lead - Australia, Tessele Consultants
- Dominique Thatcher, Digital Leader of Logistics Solutions, Fremantle Ports



The event was well attended, providing a good networking opportunity with a strong level of interest in hydrogen's role in our energy transition. Hat's off to **Peter Kasprzak** (Innovate Australia) for making this happen. Peter is one of the founding members of the Hydrogen Society of Australia and continues to serve on the HSA Board.

Career Opportunities:

There are a number of academic and employment opportunities highlighted in our HSA Knowledge Portal including those listed below:

UNSW PhD Candidate

The University of New South Wales (Sydney, Australia) is looking for a PhD candidate to work on an Australian Research Council-funded project in Electrochemical Nitrogen Reduction in the School of Chemistry. Please apply if you have a passion for research and wish to pursue a career in the fields of clean energy and sustainability such as: Energy storage and conversion; Hydrogen economy; and Decarbonisation technologies. Click on the following link for further information: <https://hydrogensociety.org.au/phd-scholarships-on-electrosynthesis-of-ammonia-at-unsw/>

UNSW is also offering a number of PhD Scholarships on the following topics:

Electrosynthesis of Ammonia [Click here for more information](#)

Fuel Cells UNSW [Click here for more information](#)

CO2 Electroreduction [Click here for more information](#)

Water Electrolysis [Click here for more information](#)

Curtin University - Job opportunities with International Futures Lab – Redefine H2E (Munich)

Expression of Interest for Researcher positions at the Technical University of Munich: An opportunity provided by the Technical University of Munich, Curtin University, and the International Future Lab: Redefine H2E. Working under the supervision of Professor Peta Ashworth (Director of the Curtin Institute for Energy Transition), we have an exciting opportunity available for a Core Scientist. Click on the following link for further information. <https://hydrogensociety.org.au/job-opportunities-with-international-future-lab-redefine-h2e-munich/>

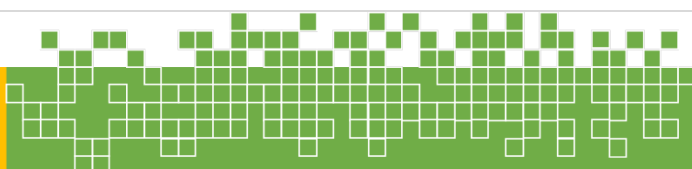
CSIRO Industry PhD program

If you are interested in doing a PhD in Hydrogen Fuel Cells, agriculture and vehicles, this is a brilliant PhD opportunity for you through the [CSIRO's](#) Industry PhD program. You will be working across the university-industry-CSIRO interface to drive the technology and its adoption in Australia, and gain expertise in this emerging field. It also offers an excellent stipend, a four-year scholarship package of \$46,000 per annum. The position is open to AUS/NZ Nationals and AUS PR holders only.

For details, follow the link below. You can also get in touch with A/Prof Surbhi Sharma by email for further discussions at surbhi.sharma@federation.edu.au
<https://lnkd.in/gKYfTVfi>

For the full list of opportunities currently advertised on the HSA website, [click on this link](#)

If you have hydrogen research or employment opportunities you would like to promote through HSA, please email us at: Contact@hydrogensociety.org.au



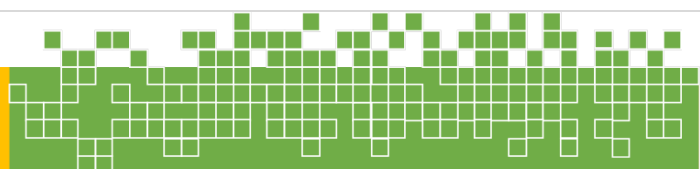
Member Benefit – Hydrogen Standard subscription (HSA members discount)

The Hydrogen Society of Australia (HSA) has partnered with The **Hydrogen Standard** to offer HSA members a significant discount to gain access to the **Global Government Hydrogen Platform**, a renowned source of hydrogen policy data. <https://thehydrogenstandard.com/hydrogen-global-governance-platform/>

The Hydrogen Standard provides market insights, research and news for the hydrogen community to stay up to date with the latest developments. One of the flagship products is the hydrogen global governance platform that provides insights into government commitments to hydrogen on a country, regional and global scale. If you can't keep up with all the developments governments across the globe are providing on their hydrogen roadmaps, you are not alone. More than 50 countries worldwide have now a strategic hydrogen document and another two dozen or so are actively considering or preparing one. As such, Hydrogen Standard has developed the Hydrogen Global Governance Platform, which keeps track of all those individual developments daily.

Subscribers will have access to a global, regional and country specific overview on a host of topics outlined in various government hydrogen roadmap strategies, such as funding arrangements, R&D interests, infrastructure commitments, fuel cell vehicle targets, electrolyser capacity commitments, trade agreements and more.

Thanks to the collaboration between the Hydrogen Standard and the Hydrogen Society of Australia, HSA members will get a significant discount on the initial subscription to the platform (75% for students; 52% for individuals and 80% for Enterprise members). If you are interested in subscribing to the **Hydrogen Global Governance Platform** at a significant discount, please select the Hydrogen Standard subscription product within our HSA Members Only portal: [Click here for further information.](#)



Education and Knowledge Sharing – Past Events and Presentation Material

Log in to your password protected HSA members portal and you can access the videos and PowerPoint presentations from past events in the **Knowledge Centre**: <https://hydrogensociety.org.au/knowledge-centre/videos/> HSA members can also view the event proceedings and find the links to the various presenters under **Past Events**: <https://hydrogensociety.org.au/hydrogen-space-2023-networking-and-presentations/>

Upcoming Hydrogen Events organised by HSA

Hydrogen Links – Industry focused Academic Research Series

This is an evolving series of presentations, with our objective being to lock in one online presentation a month. Each talk will range from 30 to 40 minutes, with a brief Q&A session at the conclusion. The intent is to hold some of these as hybrid events, including food and networking, as well as laboratory tours. We are reaching out to academic research institutions to encourage their participation. Great speakers are currently being approached, and our series will continue through 2024. If you are an emerging or well-established academic or working in the hydrogen industry and would like to share knowledge about challenges and opportunities in the hydrogen space, contact Quentin Meyer on q.meyer@unsw.edu.au



Hydrogen Links - Sessions Delivered:

- Session 1: UNSW (**Quentin Meyer**) – How to make hydrogen fuel cells cheaper and more efficient [delivered - 25 May, refer to Issue 16, page 3]
- Session 2: Washington State University (**Liam Turner**) - How to unlock zero waste liquid hydrogen storage through the cool properties of cryogenic Hydrogen [delivered - June 22, refer to Issue 17, page 3].
- Session 3: MU and HBI (**Furat Dawood** and **Benny Abraham**) – Integrated Drinking Water and Renewable Energy based Power Supply for remote Aboriginal communities in WA. [delivered - August 01 – refer to Issue 18, page 3 and 4]. The full knowledge-sharing report (74 pages) has been published recently on the WA Government website [Click here for the full report](#)

Session 4: ECU (**Alireza Keshavarz**) – Hydrogen geo-storage: challenges and opportunities [delivered - August 31 – refer to Issue 19, page 3 and 4].

Session 5: UNSW (**Chuan Zhao**) – Challenges and Opportunities for Green Hydrogen Production from Water Electrolysis [delivered - September 21]. For more information, refer to Issue 20, page 5.

Session 6: QUT (**Anthony O'Mullane**) / AHERN (**Andrew Dicks**) / CSIRO (**Patrick Hartley**) - Accelerating Australian Hydrogen Industry through Research Collaboration [delivered – October 19]. For more information, refer to Issue 21, see page 5].

Session 7: CO2CRC (**David Whittam**) / CSIRO (**Jonathan Ennis-King** and **Dr Sarb Giddey**) [Delivered - December 05]. For more information, refer to Issue 22, see page 6].

Session 8: University of Wollongong (**Gerry Swiegers**) in partnership with **Powerfuels including Hydrogen Network** – Delivered - January 25. [refer to Issue 23, see page 3 and 4].

Hydrogen Links – Upcoming Sessions

Session 9: University of Technology Sydney (Professor Zhenguo Huang) – confirmed for May 09.

Hydrogen is now recognized by governments and businesses as one possible solution to mitigate climate change. UTS launched their Hydrogen Energy Program in 2019, which involves leading experts with highly complementary skills in fields such as hydrogen storage, economic analysis, safety, policy and regulation, and environmental impact, for example. In this presentation, Professor Zhenguo Huang will briefly talk about: the challenges and opportunities associated with the hydrogen economy; and opportunities for hydrogen carriers research at UTS.



Registration is now open at the following link:

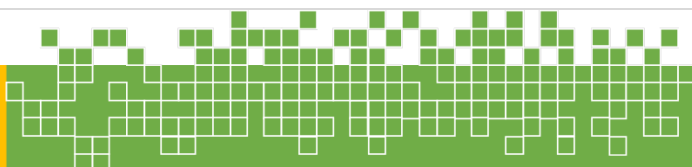
<https://hydrogensociety.org.au/product/hydrogen-research-at-university-of-technology-sydney/>

Professor Huang heads a team of cross-disciplinary experts working on the Hydrogen Energy Program at UTS, which aims to develop key hydrogen technologies and prepare skilled workers for the emerging global hydrogen economy. Zhenguo's research has centred on boron chemistry for energy conversion and storage, and his wider research interests are in the fields of hydrogen storage materials, electrolytes, and two-dimensional boron-containing nanosheets. His breakthrough in hydrogen storage and Na-ion batteries has been successfully commercialized in partnership with Melbourne-based specialist chemical manufacturer, Boron Molecular. Zhenguo has been awarded an ARC DECRA and ARC Future Fellowship. He is a Research Advisor at the National Institute for Materials Science in Japan and a recipient of the Humboldt Research Fellowship for Experienced Researchers (Alexander von Humboldt Foundation). He is the Chair of the International Hydrogen Carriers Alliance. He received a University of Wollongong Vice-Chancellor's Award for Outstanding Achievement in Research Commercialisation, Impact and Engagement; UTS Vice-Chancellor's Awards for Research Excellence: Research Leadership and Development Award. Zhenguo is a graduate of the Australian Institute of Company Directors. He received his PhD at the UOW (2007), followed by a postdoctoral appointment at The Ohio State University in the US.

[Click here for more information about the Hydrogen Links series](#)

In addition to the academic research institutions, the Hydrogen Society of Australia is collaborating with like-minded organisations to foster collaboration and knowledge sharing between industry and academics, including: Australian Hydrogen Research Networks (AHRN); Global Hydrogen Economy (GlobH2E); GELS; and Commonwealth Scientific and Industrial Research Organisation (CSIRO).

The ARC Training Centre for the Global Hydrogen Economy (GlobH2E) is a research consortium established in 2021 and funded by the Australian Research Councils and industries. GlobH2E brings together leading Australian researchers and global research institutions, industry partners, hydrogen start-up and government agencies to work together to develop and ramp up new technologies and build nation's skills in a short timeframe. The full playlist of GlobH2E webinars can be found on U Tube at the following link: [Click here for GlobH2E webinars](#)



Other upcoming hydrogen related events around the globe

- 2024 04 21 to 26 – World Renewable Energy Congress – Bahrain - [Click here for more details](#)
- 2024 05 16 to 17 – Future Energy ASIA and Future Mobility ASIA – Bangkok - [Click for details](#)
- 2024 05 01 to 02 – Sydney Build Expo – ICC Sydney - [Click here for further details](#)
- 2024 05 07 to 08 – 8th Annual Energy and Mines Conference - **HSA Member Discount**
- 2024 05 21 to 22 – World Hydrogen Forum – Saudi Arabia - [Click here for more details](#)
- 2024 05 21 to 23_Centre for Hydrogen Safety Americas Conference – Las Vegas [Click for details](#)
- 2024 06 11 to 14 – Australian Energy Week 2024 – Melbourne - [Click here fo further details](#)
- 2024 06 19 to 20_Australian Hydrogen Conference_Adelaide - [Click for details](#)
- 2024 07 09 to 11_Connecting Green Hydrogen APAC 2024_Melbourne – **HSA Member Discount**
- 2024 09 04 to 07-Australian Hydrogen Research Conference_Perth - [Click for details](#)
- 2024 09 17 to 20_Gastech 2024_Houston - [Click for details](#)
- 2024 10 23 to 24_All Energy Australia_Melbourne – info@all-energy.com.au
- 2024 11_Asia Pacific Hydrogen Summit and Exhibition in 2024

Upcoming Hydrogen Events supported by HSA in Partnership with other Associations:

The Hydrogen Society of Australia is willing to consider partnership agreements with event coordinators to deliver quality events on hydrogen and the energy transition, particularly those conferences to be held in our State Chapters. We have secured the following complimentary and/or discounted registration fees for our HSA members.

8th Annual Energy and Mines

Date: 7 – 8 May, 2024

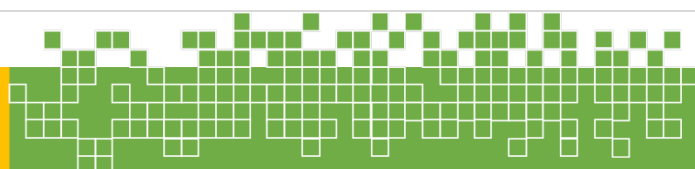
Location: Perth

Venue: Crown Perth

Join Energy and Mines this May 7-8 at the Crown Perth to hear how miners are progressing their energy and fleet decarbonisation strategies and the challenges they're facing in selecting, testing, integrating, and financing new technologies in line with 2030 and 2050 targets. Now in its 8th year, Energy and Mines will bring together 700+ mining, energy, fleet and technology experts and feature 100+ senior mining and decarbonisation experts during two days of in-depth content and networking addressing the key topics mines have identified as critical to this stage of decarbonisation.

The agenda offers critical insight from major and mid-tier miners including senior representatives from Rio Tinto, Freeport-McMoRan, Boliden, IGO, Fortescue, Roy Hill, De Grey Mining, Agnico Eagle, Gold Fields, BHP, Base Resources, Glencore Nickel, Pilbara Minerals, Northern Star Resources, Newmont, Iluka Resources, MMG, Ardea, Stanmore Resources, Nordic Nickel, Blackstone Minerals, Lithium Australia, CITIC Pacific Mining, and Accelerate Resources.

Sign into your HSA members portal and [click here](#) to **secure a 10% discount code** before registering at the following link: <https://australia.energyandmines.com/>



Connecting Green Hydrogen APAC 2024 Conference & Exhibition

Date: 9-11 July, 2024 Location: Melbourne Venue: Melbourne Convention and Exhibition Centre

The Hydrogen Society of Australia will be participating as an **Association Partner** in the upcoming **Connecting Green Hydrogen APAC 2024 (CGHA2024)** which is the largest and most influential Green Hydrogen event in Australia and the APAC region. This momentous gathering will take place at MCEC Melbourne, uniting clean energy enthusiasts and industry leaders under one roof. With over 3,000 attendees, including 150+ world-class speakers and 1,000+ decision-makers, and a powerful presence of 100+ exhibitors and sponsors, Connecting Green Hydrogen APAC 2024 serves as a premier platform to connect Australian and global hydrogen leaders.

HSA members will receive a **20% discount on registration fees**. Login to the Members Portal on the HSA website and [click here](#) to receive your discount coupon code. Then register on the event website link below using your discount code.

<https://www.apac.gh2events.com/>



Job fair + Youth Program at Connecting Green Hydrogen APAC 2024 – 10 July

One of the largest and most influential industrial conference in Green Hydrogen in Australia, the Connecting Green Hydrogen APAC 2024 provides students with an exceptional opportunity to show to the energy sector your great ideas. Additionally, you can have great discussions with the biggest experts and representatives of the renewable energy sector and expand your network. The competition is opened to university students and early career researchers from any fields (e.g. Business, Finance, Law, Education, Engineering, Science etc.), who would like to contribute to the renewable energy sector in Australia. Our **HSA Vice-President Lorie Jones** is one of the judging panelists and will be presenting at the conference. The Job fair + Youth Program is **completely free of charge** and there will be great prizes to be won.

17/01/2024 - 15/04/2024: Team Registration (Idea Submission)

16/04/2024 - 23/05/2024: First Round Submission Deadline

24/05/2024 - 20/06/2024: Pre-selection Period

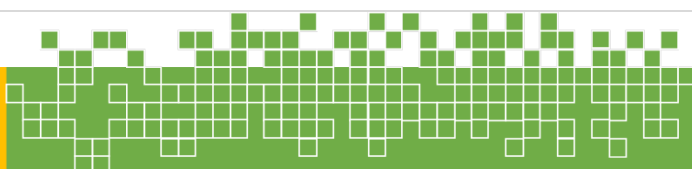
10/07/2024 - Stage Presentation:



You can find the proposed schedule and more information about the program at the following link:

<https://www.apac.gh2events.com/student-day-youth-program>

Any questions, please reach out to our HSA Victoria Chapter Committee member **Dr Melina Krebsz**, who is one of the Conference Organizers. Email: Melinda.Krebsz@rmit.edu.au



We acknowledge the support of our corporate members, academic and research institutions!

[Click here to find out more about their technical services and corporate offerings in the hydrogen space.](#)

Corporate Enterprise Supporters

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Citic Pacific Mining	Hydrogen Energy Pty Ltd
Draeger Australia Pty Ltd	Integrated Energy Pty Ltd
Endress+Hauser	Intercontinental Energy
Environmental Clean Technologies Ltd	Infinite Green Energy
Ezzi Vision	Pipeline Actuation Control
Gascoyne Green Energy	Sheoak International
Gexcon	Siemens

Academic and Training Institutions Innovation /Research

Harry Butler Institute / Murdoch University	Innovate Australia
Edith Cowan University	CO2CRC Ltd
Queensland University of Technology	FenEx CRC
Global Energy Learning Solutions	
GlobeH2E Arc Training Centre	
The Hydrogen Standard	

Collaborators

Zentient
180 DC Consultants
Liberty Flexible Workspaces

We are all in this together...

Please share this newsletter with your network, as they may be interested in joining the HSA. Together we can foster a hydrogen society for Australia and a global renewable energy future.

Hydrogen is marching on - will you march with us?

<https://hydrogensociety.org.au/>

Contacts



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