



ENGINEERS
AUSTRALIA

GUIDED TECHNICAL TOUR

Regional Engineering Showcase

PROGRAM

BENDIGO | 23 - 24 NOVEMBER 2019



Engineers Australia's Regional Engineering Showcase will take place in Bendigo on Saturday 23rd and Sunday 24th of November 2019.

Following on from the 2019 World Engineers Convention, the Showcase will explore engineering in the region, showcasing the breadth and impact of the multi-disciplinary field in the heart of Bendigo and its regions.

The weekend, themed 'Anything is possible: past, present and future of regional engineering', will appeal to engineers of all disciplines with site tour streams focusing on infrastructure, mining, manufacturing and defence. Professional based presentations, lectures and networking opportunities will abound, and the highly anticipated Engineering Leadership Dinner is sure to be a highlight.

This is an opportunity to support and engage with the region's vibrant engineering community, network with peers, and celebrate the past, present and future of engineering in the regions.



GUIDED TECHNICAL TOUR



DAY ONE: SATURDAY 23RD NOVEMBER

9:00am – 10:00am: Registration

Meet at the Chinese “Golden Dragon” Museum for registration and light refreshments between 9:30am and 10:00am.

Those who arrive early are welcome to go for a Heritage walk through the old centre – walking maps with self-guided routes will be available at the registration desk.

10:00am – 10.30am: Welcome

The Showcase will officially commence with a warm welcome from the Bendigo Regional Group followed by a traditional cultural welcome ceremony before guests are directed to their buses for the guided technical tours.

10:30am – 1:00pm

Guests will depart on one of three tours:

Thales Manufacturing Tour

Engineering theme: Manufacturing

Visit Thales Bendigo, where the Bushmaster and Hawkei protected mobility vehicles are manufactured. The site visit will demonstrate the engineering challenges of design for high capability functional vehicles, and explore the engineering practicalities of the production line and vehicle maintenance within harsh operating environments. Hear from some of the engineers in the large team behind this successful and complex design and production effort.

Personal Protective Equipment (PPE): Closed shoes and photo ID required.

Accessibility: Tour includes stairs. Wheelchair or alternative access can be provided on request.

Tram Tour and Tram Workshop Tour

Engineering theme: Mechanical

Let Bendigo Tramways take you on a ride in history on one of their vintage trams and discover the colourful history of its fleet on a guided tour of the depot and workshop. Bendigo Heritage Tramways has an extensive and diverse fleet, ranging from trams that have been used for housing and hospitality, carried Royalty or survived two world wars. See first-hand the craftsmanship and techniques that are involved in restoring these trams to their former glory and learn about the unique characters of the Tramways.

Personal Protective Equipment (PPE): Closed shoes required.

Accessibility: Site accessible for everyone.

Keech Castings and Australian Turntable Company (ATC) Tour

Engineering theme: Manufacturing

Keech is a specialist in mining ground-engagement tools. The company is internationally accredited and renowned for innovation and quality in developing, manufacturing and marketing a diverse range of high-integrity steel castings, including the Keech “Gold” Steel, for mining, construction, agriculture, rail transport, industrial and defence. The foundry tour will provide an opportunity to see some of the innovative products and hear about ongoing challenges and plans for further innovation.

The Australian Turntable Company (ATC) are world leaders in the provision of rotating turntable solutions for manufacturing, construction, exhibition or residential and industrial property markets. Products are all proudly Australian made; designed, engineered and manufactured from their Bendigo factory which you will be guided through by one of their engineers.

Personal Protective Equipment (PPE): Closed shoes required. High-Vis Vest, Protective eye-wear and a Hard-hat must be worn – bring your own, or let us know if you need a loan.

Accessibility: Site accessible for everyone.

1:00pm – 2:30pm: Lunch

All guests will be transferred from their technical tours to lunch at the new engineering building at the Bendigo campus of La Trobe University, where they will enjoy a relaxed lunch with a series of speeches and presentations celebrating engineering in the region.

Guests will also have the option to be guided through the new state of the art, Bendigo Tech School’s engineering building, located on the top floor of the University.

2:30pm – 5:00pm

Guests will depart on one of three tours:

Bendigo Hospital Tour

Engineering theme: Infrastructure

The Bendigo Hospital is a modern hospital, having completed a major construction project within the last few years. This tour will introduce the hospital and provide guests with insight into challenges faced during construction. A key focus of the hospital modernisation project was the digitisation of many paper-based workflows. Guests will hear more about this process from tour host Bruce Winzar, who has led a team through this major effort over the last few years. There will be time for smaller groups to tour some physical elements of the hospital, within the boundaries of the operating hospital environment.

Personal Protective Equipment (PPE): Closed shoes required.

Accessibility: Site accessible for everyone.

Mining in Bendigo: Past, Present and Future

Engineering theme: Mining

Bendigo was settled after the discovery of gold in 1851, which resulted in the “gold rush” that transformed the colony of Victoria’s population and economy, and saw Melbourne become the richest city in the world in the 1880s. During this presentation, hear from Fosterville Gold Mine on how the endowment of nature has endured over the centuries and allowed it to become the largest gold producer in Victoria. Discussion will also include engineering challenges from a mining perspective and how the mine is leveraging modern mining techniques to establish its future foundations of digitisation, automation and electrification in the underground space.

After a presentation on the Bendigo Mines Pumped Hydro Project, guests will then visit the Central Deborah Gold Mine for an impression of the history of mining and a guided surface tour. The Central Deborah Gold Mine was one of over five thousand mines which existed in the Bendigo region and has been transformed for modern day visitors to understand mining history.

Personal Protective Equipment (PPE): Closed shoes advised.

Accessibility: Site accessible for everyone.

Coliban Water: Epsom Wastewater Treatment Plant

Engineering theme: Infrastructure

The Recycled Water processing facility at Epsom is designed to produce ‘Class A and B’ recycled water, with a purpose-built pipe taking the recycled water back to Bendigo where it is mainly used to irrigate public, open spaces. Some of the recycled water is also allocated for rural non-potable use. On this tour, guests will see the technology for themselves and learn more about how it benefits the region. Note that guests will be exposed to heights on this tour.

Personal Protective Equipment (PPE): Closed shoes required (no heels).

Accessibility: Uneven surface, not accessible by wheelchair. Please advise tour guide if uncomfortable with heights.

Tours will finish at 5.00pm at the All Seasons Hotel, via the Chinese museum for guests to pick up their vehicles where applicable.

7:00pm: Engineering Leadership Dinner, All Seasons Hotel

Arrive at the All Seasons Hotel from 6:30pm for networking drinks, with dinner from 7:00pm.

During a special three course dinner, guests will hear from a distinguished keynote speaker and honour our future leaders and newest regional Fellows and Engineering Executives.

DAY TWO: SUNDAY 24TH NOVEMBER

9:00am – 9:15am

Meet at All Seasons Hotel Bendigo for tour pick up.

9:30am – 12:00pm

Guests will depart on one of two tours or the “Sustainability Challenge” activity:

Engineering Heritage tour

Engineering theme: Infrastructure

The Bendigo Historical Society has developed a special tour to provide an insight into the work of Sir John Monash and Joseph Brady in the Bendigo area. The bus tour will drive past several Monash bridges, with a few stops for a closer look. The tour will arrive at Crusoe Reservoir and No 7 Reservoir, designed by Joseph Brady around 1858, where guests will enjoy a guided walk. Much of this site, which was Australia’s first filtered water supply, remains intact, and the expert tour guide will explain the revolutionary design.

Personal Protective Equipment (PPE): Closed shoes required.

Accessibility: Site accessible for everyone.

The Great Stupa of Universal Compassion Tour

Engineering theme: Infrastructure

The Great Stupa of Universal Compassion situated near Bendigo, is about to become the largest Buddhist Stupa in the western world. With a base area of 50m x 50m, the Great Stupa is the same size and design as The Great Stupa of Gyantse in Tibet. While final construction works are still in progress, this tour will look at a fascinating engineering project that combines ancient religious and cultural requirements with modern construction techniques.

Personal Protective Equipment (PPE): Respectful clothing required (no shorts or uncovered shoulders).

Accessibility: Site accessible for everyone.

Sustainability Challenge: STEM Power - a Smart Bendigo

This dynamic forum will showcase the link between industry, STEM education and creating future job opportunities, while the sustainability challenge will demonstrate how current STEM education is being used to solve real world problems. By utilising a cooperative project-based learning (PBL) process students, educators, industry and community are invited to create solutions for the sustainability challenge ‘Bendigo in 2050 - A Smart City’.

Personal Protective Equipment (PPE): Nil.

Accessibility: Site accessible for everyone.

12:00pm:

Lunch at Town Hall, including Public Display with Thales protective vehicles

During lunch, guests will be able to look at exhibition stands from local businesses, as well as a display of Thales trucks.

2:00pm – 3:00pm:

Public Forum - Anything is possible: the future of regional engineering

The yearly Joseph Brady Public Forum, open to local industry and the community, will feature a panel of speakers to explore how we can engineer a prosperous regional future. The panel will discuss strategies to enhance future liveability in expanding regional cities, with topics spanning infrastructure, transport, economics, sustainability and more. A special guest speaker will be confirmed closer to the date.

3:00pm: Showcase end

Purchase tickets to the Showcase from the link below.



We look forward to seeing you as we celebrate regional engineering.

For queries, please contact Jill Chalmers at jchalmers@engineersaustralia.org.au

 engineersaustralia.org.au/event/2019/10/regional-engineering-showcase-bendigo

