On behalf of the 2016 Local Organising Committee (LOC) I am pleased to welcome you to Wollongong. A key focus of our conference, over the coming three and a half days, is to assist CHPP management and employees to improve the performance of their assets. I urge you to attend the excellent Technical Sessions and the re-introduced Poster Paper Sessions, ask questions and seek the answers that will enable you to make the important decisions for your operation.

This year, the exhibition is at capacity, we welcome back our regular supporters and look forward to introducing you to many newcomers. Please remember you are required to wear your Lanyard when visiting the Exhibition area, scan your QR code (located on your Conference lanyard) at EVERY booth for a chance to win a $2,000 Travel Voucher and other great prizes (the more exhibitors you visit, the better the chance to win!). Winners announced at 12pm on Thursday 17th March and you must be in attendance to claim your prize.

As we join to celebrate the achievements in our industry, 2016 also marks a major milestone for the ACPS, our 50th Anniversary. We have a number of special guests joining us this week, gentlemen who have been crucial to the success of the Society, from the start. Take the time to introduce yourself, share a story or two and thank them for their efforts over the past 50 years.
The objectives behind the formation of a Coal Preparation Society in Australia, were to have a medium for dissemination of technical information, and a forum where all those interested in the practice of coal preparation could meet on a regular basis to discuss current developments with their colleagues.
In 1965, Dr Russ Burdon and J (Murdoch) Mackenzie circulated a letter to determine the interest in forming a Coal Preparation Society. As a result, a committee, consisting of Messers Burdon, Mackenzie, Gadsden, Gemmell, Pollard, Tuelan and Stewart, was formed, leading to the establishment of the Coal Preparation Society. The inaugural meeting of the Society was held at the School of Mining Engineering, the University of NSW on March 16, 1966.
16th ACPS Conference & Exhibition - List of Exhibitors

1a  Eriez
1&2 HMA Group
3  Quality Handling Systems
4  Scantech
5  Hatch
6  Process Control Services Pty Ltd
7  Bürkert Fluid Control Systems
8  Victaulic Australia Pty Ltd
9  LaserBond Ltd
10 Control Systems Technology
11 The Daniels Company
12 Joest Australia Pty Ltd
13 Bilfinger Water Technologies
14 Rockwell Automation
15 Nuoer Chemical Australia Pty Ltd
16 Multotec
17 SNF (Australia) Pty. Ltd
18 DRA Global
19 Alfa Laval Australia
20 Ishigaki Oceania Pty Ltd
21 Sefar Pty Ltd
22 WPE Process Equipment
23 Metso Australia Limited
24 McLanahan Corporation
25 SGS Australia Pty Ltd
26 Weir Minerals Australia
27 Outotec
28 AkzoNobel / International Paint
29 TOMRA Sorting
30 HIC Services Pty Ltd
31 BOKELA GmbH
32 Schenck Process Australia Pty Ltd
33 PANalytical
34 Partition Enterprises
S1 Minco Tech Australia
S2 Nalco, an Ecolab Company
S3 Elastomers Australia
S4 BASF Australia / Clean Process Technologies
S5 FLSmidth
# Event Program
## Optimising Your Coal & Asset Resources

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<tr>
<th>Event Time</th>
<th>Date / Details</th>
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<tr>
<td><strong>Sunday</strong></td>
<td><strong>13th March 2016</strong></td>
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<tr>
<td>10:00</td>
<td>Exhibitor Set Up / Novotel Northbeach Wollongong - 4th Floor</td>
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</tbody>
</table>
| 14:00      | **Registration & Exhibition Open** - Delegate Satchels - Sponsored by *Enduro/ConvaTech*
| | Lanyards - Sponsored by **Hatch** / Novotel Northbeach Wollongong - 4th Floor |
| 15:30-16:30| Exhibition Bar Open |
| 16:30-18:30| **Arrival Function** - Sponsored by **Realtime Instruments** / The Deck - Novotel 4th Floor |
| 19:00      | Day Concludes |
| **Monday** | **14th March 2016** |
| 7:30       | **Registration Open** - Arrival Tea & Coffee / Novotel Northbeach Wollongong - 4th Floor |
| 9:00       | A word from our Sponsor - Max Wijasuriya - Vice President, Capital Equipment |
| 9:05       | **Opening Ceremony** / Sponsored by **Metso Australia Ltd** - Session Chair: Ngaire Baker (LOC Chairman) |
| 9:10       | Welcome to Country |
| 9:15       | **Official Welcome** / Glen Fewings - (ACPS National Chairman) |
| 9:20       | Welcome to the City of Wollongong - Lord Mayor Councillor Gordon Bradbery OAM |
| 9:25       | **Key Note Speaker** - Stephen Galilee - CEO NSW Minerals Council |
| 9:40       | **50 Years of the ACPS** - Andrew Swanson |
10:15  Guest Speaker - Dr Pramod Morais, BEng(Hons), PhD
11:00  Morning Tea - Sponsored by Eriez
11:30  **Session 1 - New Plants and Upgrades** - Session Chair: Harvey Crowden

1a Design and Commissioning of a 2400tph Greenfield CPP in Central Queensland - D. Hoffmann, J. Cheung and L.X. Miao
1b Boggabri Coal Expansion Project - S. Vaughan, K. Mitchell and D. Hoffmann
1c Considerations for the selection of materials handling processes and configurations for coal projects - C. Sorensen, D. Atkins, V. Erda and M. Terry

13:00  Lunch - Sponsored by General Kinematics
14:00-15:30  **Session 2 - Coarse Coal Processing** - Session Chair: Chris Wood

2a Dense Medium Cyclone medium partitioning and magnetite consumption benchmarking - D. Mathewson, D. Eschebach and G. Ryan
2b Dense Medium Cyclone Optimisation by use of RFID Density Tracers - P. Walker
2c Heavy medium process technology development in China - J. Yu, S. Zhao, S. Jain and R. Hollis

15:30  Afternoon Tea - Sponsored by McLanahan Corporation
15:45-17:00  **Poster Session / Technical Session Ballroom**

P1 Dewatering Fine Coal Tailings with Recessed Chamber or Membrane Plate Filter Presses - C. Jenson, T. Park and P. Godwin
P2 Recycling Fine Slurry – an alternative to paste for coarse rejects co-disposal in Queensland coal mines - A.D. Thomas, N.T. Cowper Snr and S. Whitton
P3 Simulated Goaf Rejects Injection Trial – World first disposal method - J. Aitken
P4 Using Finite Element Analysis to enhance the overall design of vibrating screen equipment - M. Woodie
P5 Sub 38 micron Wet Sizing with Sieves - N. Lambert, A. Coffey and N. Cox
# Event Program

**Optimising Your Coal & Asset Resources**

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<td><strong>Monday</strong></td>
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</tr>
<tr>
<td>16:00-17:00</td>
<td>Exhibition Bar Open - Sponsored by HIC Services</td>
</tr>
<tr>
<td>18:20</td>
<td>Coaches Depart for Evening Function / Novotel Main Entrance</td>
</tr>
<tr>
<td>18:30</td>
<td><strong>Welcome Function</strong> - Sponsored by HMA Group / ConnWeld / Lagoon Seafood Restaurant</td>
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<tr>
<td></td>
<td>Shuttle Bus will run on a continuous loop to Novotel Northbeach</td>
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<tr>
<td>22:30</td>
<td>Function Concludes - Last Shuttle Returns to Novotel Northbeach</td>
</tr>
<tr>
<td>22:30</td>
<td>Day Concludes</td>
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**Tuesday**  
15th March 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 3 - Tailings Disposal</th>
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<tbody>
<tr>
<td>7:00</td>
<td>Registration Open</td>
</tr>
<tr>
<td>7.30-8.30</td>
<td>Golf players clubs required at Ground Floor, outside secured area</td>
</tr>
<tr>
<td>7:45-9:15</td>
<td><strong>Session 3 - Tailings Disposal</strong> - <em>Session Chair: Chris Clarkson</em></td>
</tr>
<tr>
<td>3a</td>
<td>Increasing throughput and improving thickener performance through upgrade and modification of installed technology</td>
</tr>
<tr>
<td></td>
<td><em>A. McIntosh, S. El-Masry and A. R. Heath</em></td>
</tr>
<tr>
<td>3b</td>
<td>ACARP Coal Belt Press Filter Design, Operation and Maintenance Handbook</td>
</tr>
<tr>
<td></td>
<td><em>D. Mathewson and D. Eschebach</em></td>
</tr>
<tr>
<td>3c</td>
<td>Thickeners versus centrifuges – a coal tailings technical comparison</td>
</tr>
<tr>
<td></td>
<td><em>S. Meiring</em></td>
</tr>
<tr>
<td>9:15</td>
<td>Morning Tea - Sponsored by Glencore Technology</td>
</tr>
</tbody>
</table>
6930-10:30  **Session 4 - New Developments**  - *Session Chair: Glen Fewings*

4a The Influence of g force on Multi-slope Screen Performance and Failure Rate  
- M. O’Brien, B. Firth, A. Taylor and C. McNally

4b Improving fine coal recovery by high efficiency fine coal classification  
- B. Zhang, J. Wheeler and B. Packer

10:50-18:30  **Lunch & Historic Train Ride to The Robertson Hotel**
Coaches Depart - Novotel Main Entrance - **Sponsored by Sedgman Limited**

Guests will enjoy a relaxing train journey to the mountain town of Robertson on board a heritage listed diesel locomotive with fully restored 1930s and 1940s carriages. This scenic train ride will give participants the opportunity to take in some of the most magnificent views from the top of the Wollongong escarpment. Live entertainment and sumptuous Canapes will prepare guests for their arrival at the historic Robertson Hotel (previously occupied by a family, a Catholic Convent and a hospital). Guests will take a short stroll through the tree lined hills to partake in a delightful two course lunch and a walk around the beautiful 15 acre gardens before boarding the 3801 for the return trip to Wollongong Station.

11:00-18:00  **Cec Hethorn Memorial Golf Day** - The Links, Shell Cove / Coaches Depart - Novotel Main Entrance
Sponsored by **SNF (Australia) Pty. Ltd, Elastomers Australia, Jord and A&B Mylec**

11:10-17:00  **Technical Tours** / Coaches Depart - Novotel Main Entrance

**Tour 1. West Cliff Coal Preparation Plant & Port Kembla Coal Terminal.** Following lunch at Sublime Point this tour travels to the historic West Cliff CHPP before returning to the PKCT for a bus tour of the site and operations overview. We conclude the day with a debrief at the Five Islands Brewery. Individual are required to supply their own PPE (hat, glasses, gloves, boots, hi-vis long sleeve shirt and trousers)

Continued on next page...
### Event Program

**Optimising Your Coal & Asset Resources**

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<td><strong>Tuesday</strong></td>
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</tr>
<tr>
<td>11:10-17:00</td>
<td><strong>Tour 2. BlueScope Steel Works and Port Kembla Coal Terminal.</strong> Following lunch in Wollongong, this tour joins a guided two hour VIP journey throughout the Steel Works before returning to PKCT for a tour of the site and operations overview. We conclude the day with a debrief at the Five Islands Brewery. All visitors must wear suitable clothing - long trousers or slacks and flat heeled fully enclosed shoes. Photography is not permitted whilst inside the Steelworks. Due to staircase access, the tour may not suit people with mobility problems. Smoking and the carrying of cigarette lighters are not permitted. Visitors with a heart pace making device may be restricted from certain areas.</td>
</tr>
<tr>
<td>18:30</td>
<td>Day Concludes - Free Evening</td>
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Due to its proximity to important coal mines, The Wollongong University College was chosen, in the mid 1960’s, as the venue for the delivery of a formal course in coal preparation technology. Dr Russ Burdon, James “Murdoch” Mackenzie, Prof. Gray and Roger Gadsden had discussions and the Illawarra branch of the AusIMM supported the proposal. The management of the Australian Iron and Steel Co. Ltd guaranteed a minimum number of enrolments. Five lecturers prepared a series of eight weekly lectures.
Wednesday 16th March 2016

7:30

Registration Open

8:30-10:00

Session 5 - Fine Coal Processing - Session Chair: Neil Gibbs

5a Throughput and Efficiency Optimisation via Reflux Classifier Retrofit
   F. Mercuri, J. McManus, A. Power and M. Goffinet

5b Fines Circuit Processing With New Low Cut Point Spirals
   C. Thornton, W. MacKinnon, B. Narbutas and A. Swanson

5c Fast and Selective Fine Coal Agglomeration Using an Economic Binder
   K. van Netten, T. Erst, R. Moreno-Atanasio and K.P. Galvin

10:00

Morning Tea - Sponsored by Realtime Instruments

10:30-12:30

Session 6 - Old and New Coal Preparation - Session Chair: Andrew Swanson

6a Arthur Le Page Lecture - Reflections on 50 years in Coal Preparation
   J. Donnelly

6b Australian Coal Preparation 2050
   C. J. Clarkson and C. Hillard

6c Coal Beneficiation – Pathway to the Future
   D. G. Osborne and P. Bethell

12:30

Lunch - Sponsored by QCC Resources

12:30-14:30

Exhibition Time and Poster Session

Poster details as per Monday program at 15:45

14:00

Afternoon Tea - Sponsored by MMD Australia

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<td>Wednesday</td>
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</tr>
<tr>
<td>14:30-16:00</td>
<td><strong>Session 7 - Process Improvement and Optimisation</strong></td>
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<tr>
<td></td>
<td>Session Chair: Mark Crosbie</td>
</tr>
</tbody>
</table>
|            | **7a** Hydrodynamic Behaviours in Large Coal Flotation Cells  
|            | S. Hu and P. Ofori                                   |
|            | **7b** HiBar Steam Pressure Filtration of Coal Ultrafines - New Developments and Results  
|            | J. Hahn, R. Bott and T. Langeloh                      |
|            | **7c** Mine2Market Mathematical Optimisation: A Technical Analysis of Paradyn’s BlendOpt Software  
|            | J. Whitacre, S. Schellenberg and A. Iorio              |
| 16:00-17:00| Exhibition Bar Open - Sponsored by Somerset International Australia |
| 18:15      | Coaches Depart for Evening Function / Novotel - Main Entrance |
| 18:30      | **Conference Dinner & 50th Anniversary Ball** - Sponsored by Minco Tech Australia |
|            | University of Wollongong - Uni Centre Hall           |
| 21:30      | Continuous Shuttle Bus Returns to Novotel Northbeach |
| 23:30      | Function Concludes - Last Coach Returns to Novotel Northbeach |

The Coal Preparation Society of NSW was founded in 1966, and the Queensland Branch in 1967. In 1989 the NSW and Queensland Societies amalgamated to form the Australian Coal Preparation Society which is registered with the Corporate Affairs Commission as a Company Limited by Guarantee.
17th March 2016

8:00  Registration Open / Novotel Northbeach, 4th Floor

9:00-10:00  Session 8 - Coal Quality A  - Session Chair: Matt Allen

8a The Importance of Moisture in Evaluating New Resources
   W. MacKinnon, A. Swanson and R. Sanders

8b An Update on Washability Prediction Using CGA
   B. Atkinson, G. O’Brien and A. Swanson

10:00-10:30  Morning Tea

10:30-11:30  Session 9 - Coal Quality B  - Session Chair: Matt Allen

9a Processing Circuits for the Tete Region - K. Boddeus and M. Taylor

9b Calcite Scale Management in Coal Preparation Plants
   M. G. Crosbie and C. B. Golledge

11:30-12:15  Closing - Rapporteur  Session Chair: Ngaire Baker

2018 National Conference Announcement  - Matt Allen
QR Code Draws (Winner must be present to claim prize)

Conference Conclusion

12:15  Light Lunch

13:00  Exhibitors Commence Pack Up / Conference Conclusion

Dr Russ Burdon, a foundation member and first Chairman in 1966, was associated with the construction, commissioning and training of staff for a central washery constructed at the Broken Hill Proprietary Company Limited, Newcastle Steelworks in 1946.
Dress: Smart casual clothes are suitable for daily sessions. Black Tie for gentlemen and Evening Wear for ladies for the Wednesday night Conference Dinner & Ball.

Name Badges: Conference lanyards will be distributed at Registration. It is essential they be worn at all times for entry in Technical Sessions, Exhibition Area and ALL social functions.

Mobile Phones: Mobile Phones are not permitted to be turned on during Technical Sessions.

Internet: Wireless Internet is provided “Free of Charge” by the ACPS within the Novotel Northbeach 4th Floor area. User name & password are available from the Conference Registration Desk on the 4th Floor.

Disclaimer: The ACPS Conference Program information is correct to the best of our knowledge at the time of publication. The ACPS reserves the right to change or remove any information where necessary and without notice.

Emergency Contacts:
Registration: Rob Casey - 0415 623 985
Technical/Presentations: Darren Mathewson - 0419 995 859
Exhibition/Functions/Events: Rob Casey - 0415 623 985
Technical Tours: Brian Cooney - 0418 433 398
Golf: Mark Crosbie - 0412 115 062 & Neil Gibbs - 0428 643 927
Partners Program: Michelle Enderby - 0402 349 884, June Jackson 0417 252 272 & Therese Cooney
In 2016, with more than 600 members, the role of the ACPS continues to be “to distinguish and consolidate the profession of coal preparation in Australia through education, training and technology transfer, and to assist the Australian industry in maintaining world’s best practice.”

Pictured: 1983 Field Day - when the XPT transported ACPS members to Ulan and Saxonvale mines, via their rail loops