



## One-Day Workshop

### Bulk Materials Handling

Presented by TUNRA Bulk Solids

Tuesday 10th March, 2020

The storage, handling and transportation of bulk solid materials are major activities for a vast number and variety of industries throughout the world. These range from the gentle handling of very small quantities of material in the pharmaceutical and chemical industries to the vast quantities handled and processed by the mining and mineral companies. This diversity is particularly evident in Australia where the wide-ranging nature and scale of operations is somewhat unique.

Considerable advances continue to be made in research, development, application and implementation of the technologies associated with various aspects of bulk solids handling.

TUNRA Bulk Solids are pleased to present a one-day workshop which will provide delegates with an overview of current state-of-the-art materials handling techniques and their application to industry.

### Topics Covered

- ▶ Flow property testing and understanding of material behaviour under varying conditions
- ▶ Transfer chute design principles and advanced simulation techniques including Discrete Element Modelling
- ▶ Understanding the types of flow and appropriate design of bins and hoppers
- ▶ Belt conveyor design and latest testing available for the correct selection of conveyor belts and idlers
- ▶ Environmental testing for the design of dust-free operations

### Why attend

- ▶ Diversify your expertise and further knowledge of materials handling concepts
- ▶ Increase awareness of material behaviour on site
- ▶ Learn methods for troubleshooting, optimisation and best practice design
- ▶ Networking with experts in the field of materials handling
- ▶ Stay up to date with the latest developments in industry and bulk solids research

Location - UON Upper Hunter, Tertiary Education Centre, 87 Hill St, Muswellbrook





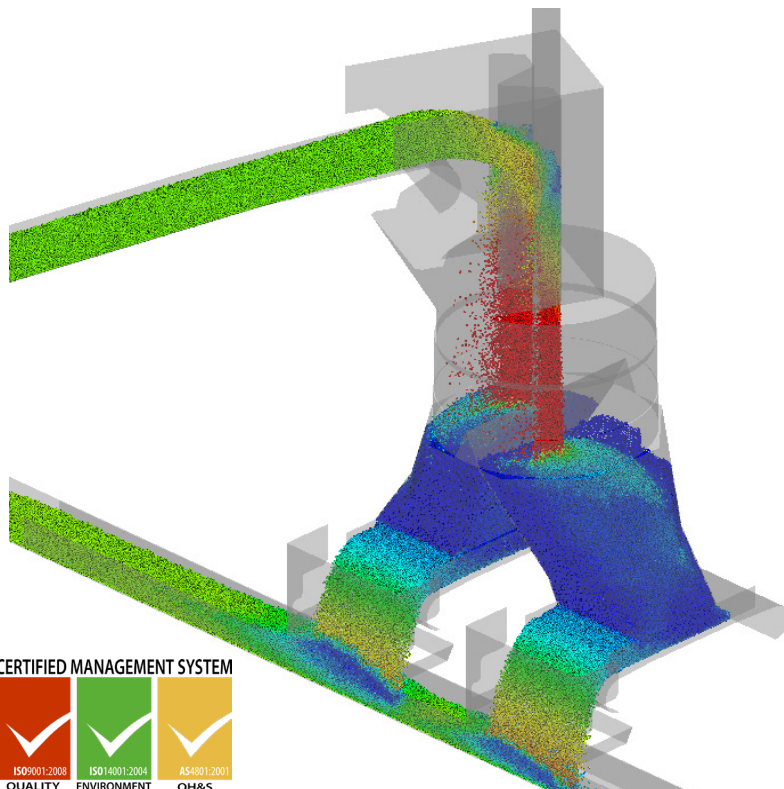
### One-Day Workshop Overview

- ▶ 8:30 am Registration
- ▶ 8:45 am Overview of TUNRA Bulk Solids  
**PRISCILLA FREIRE**  
Business Development Engineer
- ▶ 9:00 am Bulk Solids Flow Properties Characterisation and Applications  
**DANIEL AUSLING**  
Operations Manager
- ▶ 10:30 am Coffee & Morning Tea Break
- ▶ 10:45 am Principles of Mass Flow, Funnel Flow & Cohesive Arching including Structural Problems and Silo Failures  
**DR BIN CHEN**  
Engineering Manager
- ▶ 12:00 pm Lunch and networking
- ▶ 12:30 pm Advanced Techniques & Material Testing for Efficient Transfer Chute Design and Troubleshooting  
**DR JENS PLINKE AND SHAUN REID**  
Consulting Engineers
- ▶ 2:00 pm Coffee & Afternoon Tea Break
- ▶ 2:15 pm Advancements in Belt Conveying & Conveyor Components Testing  
**BRENDAN BEH AND DR JAYNE O'SHEA**  
Consulting Engineers
- ▶ 3:30 pm Dust Control Analysis  
**DR DAVE BRADNEY**  
Consulting Engineer
- ▶ 4:30 pm Concluding Remarks, Questions and Networking  
**ALL**

The day will include time for questions after each technical presentation as well as opportunities for delegates to discuss and troubleshoot issues with industry experts in a networking environment.

### Who should attend

This workshop is suitable for any professional looking to expand their knowledge in the materials handling space, from experienced individuals in senior positions looking to enhance their expertise, through to junior and graduates looking to tailor their engineering skill set. Industries that will benefit from the workshop include: mining and mineral processing, power generation, energy and environment, chemical, agricultural and food processing, manufacturing and pharmaceutical.



CERTIFIED MANAGEMENT SYSTEM



### Why TUNRA Bulk Solids?

#### *Experience and Expertise*

We have provided expert solutions to industry for over 40 years and are the leading organisation for materials handling research and consulting in Australia and internationally

#### *Research and Development*

We have a proven track record in research and development through the close association with The University of Newcastle

#### *Quality Service*

We have highly qualified, well-trained and specialist staff that are committed to delivering excellence

#### *First Class Facilities*

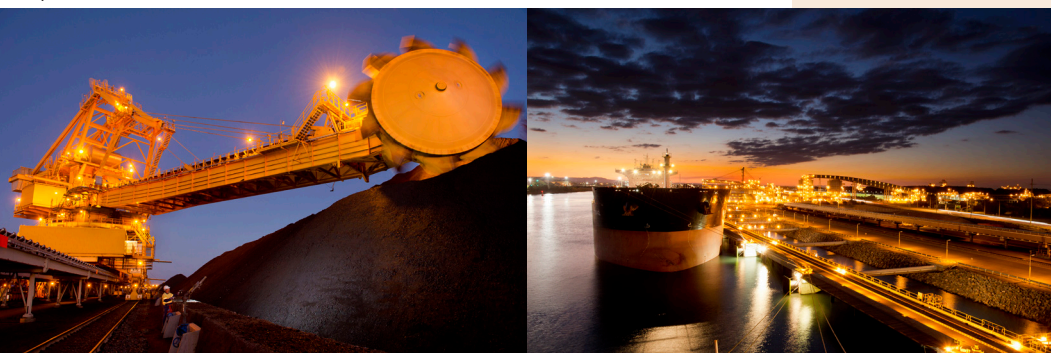
Our laboratory is a state of the art facility located within the Newcastle Institute of Energy and Resources (NIER)

#### *Industry Standards*

We are accredited to ISO 9001, AS4801 and ISO14001

#### *Independent*

We are independent and not for profit



For further information regarding the one-day workshop

PLEASE CONTACT  
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