



James Cook University mechanical engineering student Joseph Bonassi was one of four scholars to be awarded the prestigious Sugar Research Institute Scholarship in 2015.

Some of the projects Joseph worked on include the design, modelling and optimising a new hydraulic wheel press for the locomotive shed, sourcing a replacement waste water pump and the design of a new two tonne crane for the electricians workshop.

Joseph Bonassi's advice to engineering students is to ask plenty of questions and follow your interest if you want to succeed as an engineer in the sugar milling industry.

Pictured (L-R): Assistant chief engineer Kelly Ryan and SRI scholar Joseph Bonassi at Isis Central Sugar Mill.





### Joseph Bonassi

Bachelor of Engineering (Mech.)
James Cook University

Work placement 1: Isis Central Sugar Mill

Work placement 2: Victoria Mill, Wilmar Sugar Australia

Work placement 3: Burdekin region, Wilmar Sugar Australia

On completion of his engineering degree in 2016, Joseph is keen to work in an Australian sugar mill.

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#### Joseph Bonassi: SRI Scholar

"As I have worked in a sugar mill previously, I have a fairly good idea of how the main processes operate. However, each mill is individual along with its employees."

"Being at Isis for just a brief time I already feel extremely lucky to be working with engineers who have been in the industry for such a long time."

"What most people don't know about sugar processing is its complexity. There are a number of variables and unknowns that if not correctly adhered to could potentially shut down the entire process and changing something in one aspect of the mill could have major consequences somewhere else."

- Joseph Bonassi

### About the SRI Scholarship

The Sugar Research Institute Scholarship program aims to encourage the participation of high calibre engineering and science students into Australian sugar mills.

SRIS recipients undertake three work placements of four weeks in Australian sugar mills during crushing and maintenance seasons and also receive \$7,500 plus wages and allowances.

# **Engineers in Sugar Mills**

In sugar mills, engineers from chemical, mechanical and electrical disciplines work to make ideas come to life: they improve production processes for high sugar quality; develop and maintain machinery and equipment; design and construct factory infrastructure; and use sugar milling byproducts for co-generation and biofuels.

# Sugar Research Institute

P: +61 (7) 5414 2500 E: info@sri.org.au www.sri.org.au Sugar Research Institute's understanding of the science of sugar processing helps sugar mills and refineries worldwide to maximise sugar recovery, and to deliver best practice in process efficiency and plant design. SRI is owned and supported by Australia's sugar milling industry.