SUMMER VACATION SCHOLARSHIP
EXPLOSIVES PERFORMANCE ASSESSMENT

Mining3 is an industry-driven, global leader in mining research and innovation. We develop and deliver breakthrough innovation and technologies that transform the productivity, sustainability and safety of the mining industry. Mining3 partners with universities and mining companies to collectively drive innovative development. These developments involve new and modified mining methods and processes, new mining technology and equipment. We accelerate commercial outcomes from research and ensure they are available to the industry as rapidly and effectively as possible.

EXPLOSIVES PERFORMANCE ASSESSMENT

Rock fragmentation by blasting lies at the core of mining operations, and is a preliminary step embarked upon to liberate minerals from an orebody. Modern blast practices employ a diverse selection of explosive products as blast agents to break a rock mass into a readily transportable material.

The nature by which chemical energy stored in an explosive product is converted to kinetic energy is critical to understanding the dynamics at work to fragment a rock mass that is readily hauled and efficiently processed. A concept to assess the mechanics at play employing photonic techniques have been developed. The method may allow a more thorough evaluation of explosive performance than that which exist currently.

A project is currently available for a summer student to work with a team of experienced engineers and researchers to complete a detailed technical evaluation of electronic circuit and photonic principles applicable to explosive performance assessment. The outline of the project takes in concept evaluation and development, technology review and electronic circuit design concepts.

You will be an active part of the team, therefore will have an opportunity to advance your knowledge in technology development, photonics, and electronic circuit design.

AVAILABLE

The scholarship is available to a student commencing in November/December 2016 and running to February/March 2017. Open for applications and expression of interest until 30 November 2016. Note that the application period may close earlier if a suitable applicant is found sooner.

REQUIREMENTS

Applicants at least be in their third year of university studying Electronics or Mechatronics Engineering. Interest, experience and knowledge in photonics and fibre optic systems will be highly beneficial.

SCHOLARSHIP

The successful applicant will be offered a position for approximately 10 weeks to conduct research under scholarship from Mining3 during the summer university holiday period. The successful applicant will be based at Mining3’s head office at Pinjarra Hills. Remuneration will be dependent on the applicants experience and performance and will be approximately $300 per week.

EXPRESSIONS OF INTEREST

To express your interest in this position, send a cover letter including your address, phone number and a statement describing your suitability for the position to the email address below. Please also include your curriculum vita, academic records, and the contact details of at least two referees.

CONTACT

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Reference No: 3-021.VAC01
Study Subject: Applied Electronics and Photonics Design
Level: Summer Vacation Project (Research)

Supervisor: Joji Quidim
Provided By: Mining3