

GECON2003 gave our students the opportunity to display, in poster format, their final year projects.

The conference proceedings is given below. Full articles are available by selecting the primary author's name associated with the title of interest.

COMMONWEALTH OF AUSTRALIA Copyright Regulations 1969

WARNING

This material has been reproduced and communicated to you by or on behalf of Central Queensland University pursuant to Part VB of the *Copyright Act* 1968 (**the Act**). The material in this communication may be subject to copyright under the Act. Any further reproduction or communication of this material by you may be the subject of copyright protection under the Act.

AUTHORS	TITLE
B. Cagney K. Kwong	THE EFFECT OF STEEL IN THE COMPRESSION REGIONS OF INTERNAL SUPPORTS ON THE DUCTILITY OF REINFORCED CONCRETE BEAMS
N. Curran M. Dhanasekar	ANALYSIS OF HARDNESS OF NEW AND TRAFFICKED RAILS
R. Marshman K. Wong	THE SHEAR CAPACITY OF REINFORCED CONCRETE MASONRY BEAMS

W. Spackman K. Wong	PEDESTRIAN AND CYCLEWAY BRIDGE DESIGN FRENCHMAN'S CREEK
S. Brooks A. Qizilbash	ASSET MANAGEMENT, DESIGN AND CONSTRUCTION ISSUES OF CONCRETE HIGHWAY STRUCTURES IN THE UK AND AUSTRALIA
S. Ritchie C. Hewitt	BITUMEN SEAL PERFORMANCE STUDY
S. Ross M. Windress	LAND USE AND TRANSPORTATION STUDY OF THE ROAD CORRIDORS BETWEEN YEPPOON AND EMU PARK (DEPARTMENT OF MAIN ROADS – CENTRAL DISTRICT)
J. Thompson M. Windress	INTERSECTION RANKING (DEPARTMENT OF MAIN ROADS – CENTRAL DISTRICT)
A. Trew A. Qizilbash	Norman Road Traffic Impact Study: Impact of Urban Development Proposals on Traffic Operations
G. Finn R. Dhanasekar	PILOT STUDY ON PERMEABILITY CALCULATIONS USING GERMAN STANDARDS
A. James J. Sibley	SHOULD LAKE EYRE BE CONNECTED TO SPENCER GULF?
M. Lucy R. Dhanasekar	PERMEABILITY STUDY ON CONCRETE USING THE CONSTANT FLOW METHOD
D. Spilsbury R. Dhanasekar	DETERMINING THE AIR VOID CONTENT IN CONCRETE USING AN AUTOMATED METHOD OF IMAGE ANALYSIS
A. Whitby J. Piorwicz	APPLICATION OF GENESIS FOR MODELLING THE YEPPOON MAIN BEACH
M. Coleman N. Hosseinzadeh	MODELLING INDUCTION MOTORS STARTING ON A DISTRIBUTION NETWORK USING THE DEVELOPED MOTOR STARTING TOOL
N. Craig P. Wolfs	INVISIBLE DYNAMIC WEIGHING OF WHEELIE BINS
S. Holley R. Edwards	DISPLAY MANAGEMENT SUBSYSTEM – A MODULE FOR GROUNDHOG
P. Le P. Wolfs	QUEENSLAND RAIL'S LEVEL CROSSING FLASHING LIGHTS LAMP DRIVER CARD WITH INFORMATIVE FAULT INDICATIONS
D. Smith S. Senini	QUEENSLAND RAIL'S LEVEL CROSSING FLASHING LIGHTS LAMP DRIVER CARD WITH INFORMATIVE FAULT INDICATIONS
B. Veliscek R. Edwards	DEVELOPMENT OF POWER CONTROLLER TRAINING MODULES AND REFERENCE DOCUMENT

T. Campbell P. Wolfs	SOLAR POWERED WATER FOUNTAIN
D. Murphy S. Senini	10kW REMOTE RESIDENTIAL REGENERATIVE FUEL CELL SYSTEM
C. Redmond K. Kwong	ALTERNATIVE INTRA-TRAIN COMMUNICATIONS FOR DATA NETWORKING IN LONG TRAINS
D. Slade S. Senini	APPLICATION OF WAVELET TRANSFORMS IN CONDITION MONITORING OF RAILWAY EQUIPMENT
R. Sutton K. Kwong	SHORT TERM & LONG TERM IMPROVEMENTS FOR QUEENSLAND RAIL'S SLEEPER INSPECTION SYSTEM
K. Smyth C. Greensill	COMPARISON OF A PROTOTYPE NEAR-INFRARED SPECTROSCOPIC SYSTEM AGAINST THREE COMMERCIALLY AVAILABLE SYSTEMS TO PREDICT RELATIVE MINERAL (MAGNESITE, DOLOMITE, SANDSTONE) PERCENTAGES IN CRUSHED DRILL CHIP SAMPLES.
L. Wieden J. Sandell	PORTABLE MEDIA PLAYER SYSTEM DEVELOPMENT
B. Barrie R. Edwards	RELIABILITY IMPROVEMENTS IN BSL METAL PRODUCTS
T. Heron P. Howard	Thiess' OHS processes
A. Malyszek P. Howard.	SERVICE PIT 10 TON JACK AND 500KG TRANSMISSION JACK
S. Olver C. Greensill	MATERIALS HANDLING – CHEETHAM SALT
L. Vagg M. Rasul	METER PROVING SKID DUKE ENERGY INTERNATIONAL
A. Hayward P. Howard	THE BACKGROUND RESEARCH TO DISCOVER THE VALUE OF ECONOMICS IN THE ENGINEERING PROFESSION
R. Barnett C. Greensill	VENTURI VACUUM CLEANING SYSTEM FOR CARRY-BACK ASSOCIATED WITH BELT CONVEYORS
A. Jensen C. Greensill	DUST CONTROL AT THE CALLIDE POWER STATION COAL HANDLING PLANT
T. Rice M. Rasul	AN ANALYSIS OF STEAM INJECTED GAS TURBINES WITH RESPECT TO EFFICIENCY, SPECIFIC POWER AND EMISSION CONTROL
L. Stolk R. Edwards	BELT CONVEYOR SPILLAGE – ENGINEERING INVESTIGATION

A. Van Nunen GREY WATER RE-USE AS A DUST SUPPRESSANT AT NRG M. Rasul COOLING TOWER PERFORMANCE M. Wilkings M Rasul ALTERNATIVE SURFBOARD MATERIALS AND DESIGN S. Duggan K. Kwong M. Garland DESIGN OF A LABORATORY-SCALE MAGNESIUM ALLOY RECYCLING AND I. Krezalek CASTING DEVICE OPTIMISATION OF ELECTRIC PASSENGER RAIL VEHICLE INTERNAL L. Henderson S. Simson ACOUSTICS, QR IMU 120 AIRTRAIN - A CASE STUDY RESEARCH HOUSE WATER USE C. Kiernan P. Wolfs C. Stevens WHEELIE BIN WEIGHING

C. Cole

T. Willis FORCES ON THE DELIVERY CHUTE OF THE JCU EXPERIMENTAL CANE MILL P. Boyd