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Alan Rosewall, BSc(Eng).

Alan has been employed at Paterson & Cooke since February 2006. He started in the innovations department where he was involved in research, test work and product development projects. In 2008 he moved into the hydraulic design department and is responsible for the design of a number of tailings pumping systems and feasibility studies for applications related to mining projects.

Qualifications

2005, BSc Electro-Mech Eng. University of Cape Town

Professional Status

Registered South African Candidate Engineer

Specialization

Hydraulic and process design of slurry pumping systems

Mechanical design

Computer programming

Test rig software development

Notable Projects

Rand Uranium, Paste In-Pit Filling Study, South Africa (2009)
Alan was responsible for the hydraulic design and feasibility level costing of a mobile paste plant for in-pit filling of existing pits at the Randfontein mine. The project included several trade-off studies and review of alternative systems.

Moatize Mine, Moatize to Malawi Coarse Coal Pipeline, Mozambique (2009)
Alan performed the front end design on a coarse coal pump and pipeline system for transporting coarse coal 180 km from Moatize mine to a rail transfer point using magnetite slurry as a carrier fluid. The study was conducted for Vale do Rio Doce and included research of coarse coal pumping technology, various system trade-offs and a feasibility level cost estimate.

Ranger Mine, In-Pit Filling Study, Australia (2009)
Alan conducted a high level investigation into the pumping system requirements of various options for filling Pit 3 with reclaimed tailings from a TSF and ripios material from the leach pad. The study included various methods of reclaiming the tailings stored at the TSF.

Langer Heinrich Uranium Mine, Tailings Review, Namibia (2008)
Alan conducted a review of the existing tailings pumping system and performed the hydraulic design to increase the capacity of the system to accommodate the expected increase in throughput.

Hydraulic Hoisting Demonstion Rig, South Africa (2008)
Alan was a key member of the Paterson & Cooke team who designed and built a scale model hydraulic hoisting demonstration rig for Anglo Platinum. The rig forms part of a plant that simulates a hydraulic hoisting pressure exchange mechanism in an underground mining installation which makes use of energy from mine surface water to hoist ore or rock to the mine surface. Alan's primary responsibility was the design of the control system including controller specification, software design and instrumentation specification. He was also responsible for the installation, testing and demonstration of the rig.

Pipeline Energy Optimiser Controller, South Africa (2008/9)
Alan was responsible for the design of a controller box and associated software for testing a novel slurry sensor used to optimise the energy required to pump slurry. This work included a competitor analysis study.

On-line Process Viscometer, South Africa (2007)
Alan was responsible for upgrading the existing on-line process viscometer (OPV), a device used to automatically take slurry samples from an operational pipeline, characterise the rheology and report back to the SCADA system. This upgrade included software algorithms and mechanical components. He was also responsible for installation and commissioning of OPVs on site at Orapa Mine, Mogalakwena Mine and Voorspoed Mine.