## NEW MEMBER OF THE EDITORIAL BOARD



Aleksandar Jankovic

## PERSONAL DETAILS

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alex.jankovic@metso.com Born: 11 June 1962, Paracin, Serbia (Permanent Resident in Australia since August 1997, Australian Citizen since 1999).

Marital Status: Married, two children.

Languages: Serbian (original language), English (fluent), Russian (basic), Spanish (basic),

#### **EDUCATION**

1993-1997 Ph.D. Course

University of Oueensland, JKMRC, Brisbane, Australia

**1989-1991** Master of Technical Science University in Belgrade, Technical Faculty in Bor, Yugoslavia

1981-1987 Graduated Engineer of Mining- Mineral Processing Major

University in Belgrade, Technical Faculty in Bor, Yugoslavia

#### PROFESSIONAL SUMMARY

Twenty years experience in research, consultancy, engineering and operational environment. Specialist in fine grinding technologies, crushing, grinding and fine grinding modelling and simulation, with broad experience from major operations all around the world. Areas of experience include base metals, gold, alumina, iron ore, coal, phosphate and cement, with emphasis on grinding optimisation, mine to mill process integration, process and equipment development, ore characterisation testwork, crushing, grinding and fine grinding process and equipment evaluation and selection.

# **EXPERIENCE**

November 2009 - ... Metso Minerals Process Technology and Innovation – General Manager of Technology and Innovation

Responsible for Process Technology and Inovation RTD and consulting on Mine to Mill process integration, grinding circuit design and optimization. Recent projects include Newmont Boddington, OneSteel Whayala, Cerro Verde Peru, Yanacocha Peru, Cerro Corona Peru, Vale Bayovar Peru, Hydraulic Rolls Crusher Development, Eco-Efficient processing.

**2008-2009** GRD Minproc – Senior Process Engineer.

La Constancia Cu-Mo-Ag DFS Study, Ban Houayxai gold DFS Study, Phuthep copp.er project

Accountable to:

-provide designated process engineering teams with app.ropriate quality and best practice in process engineering.

-prepare of designated study, project and proposal documents to ensure quality and accuracy of information.

-ensure delivery of process services to designated study, project and proposal teams on or ahead of schedule and on or under budget.

**2003-2008** Metso Minerals Process Technology (Asia-Pacific) – Manager of Development and Process Engineering.

Responsible for Metso Minerals Process Technology internal development in fine grinding and external consulting on Mine to Mill process integration, grinding process upgrade and optimisation for numeros mining operations: Antamina, Andina. Colorado, Escondida, Fosfertil, CSN, Oktedi, Freeport, Newmont Batu Hijau, St Ives, Placer Granny Smith, Xstrata Mt Isa Mines, Newcrest Cadia-Ridgeway, CVRD Salobo and Crajas, Phelps Dodge Cero Verde, Newmont Mines Congas, Anglogold Ashanti Induapriem, RPM Brasil, BHP Cannington, BHP Worsley Alumina, BMA Coal, Candelaria, Morrila Mali, Zimplats

**2001-2003** Julius Kruttschnitt Mineral Research Centre – Research Fellow

- Research in Mine to Mill projects: Iron Ore of Canada, Boliden Aitik (Sweden), Kennecott Utah Copp.er and Greens Creek, WMC, Cannington. Optimisation of SAG – Ball mill grinding circuits at Kennecott copp.er mine.

- Responsible for Tower mill modelling and model validation project
- Consultant with JKTech in fine grinding, grinding optimisation and design: Porgera, MIM, Worsley Alumina, Alcoa

**1999-2001** Julius Kruttschnitt Mineral Research Centre - Senior Research Officer

- Research in Mine to Mill projects: Porgera, Century, Cadia, Alumbrera, Mount Isa, Ernest Henry, Fimiston.
- Research in Optimisation of SAG Ball mill grinding circuits: Cannington, Porgera, Kidston, Elura.
- Responsible for Tower mill modelling and model validation project
- Consultant with JKTech in grinding optimization and fine grinding testwork, scale-up and simulation.

**1998-1999** Mount Isa Mines – Project Metallurgist

Responsible for Mine and Concentrator interaction, SAG/ball and rod/ball mill grinding, regrinding, fine grinding and particle classification related projects in Lead Zinc Concentrator. Special focus on ISAMILL grinding media optimisation for refractory lead/zinc ore for George Fisher Project. Work in complex galena – sphalerite flotation circuit. Coordinator for Copp.er concentrator SAG – Ball mill circuit optimisation project.

**1993-1997** Julius Kruttschnitt Mineral Research Centre - Ph.D. Research Scholar

Thesis title "Mathematical Modeling of Stirred Mills". The objective of the thesis was to generate a "generic" model able to simulate fine grinding in a range of different stirred mills design. Significant part of the thesis experimental work was conducted at pilot scale tower and Sala pin mill located at JKMRC, CMTE and Olympic Dam Operations.

**1992-1993** Julius Kruttschnitt Mineral Research Centre – AEAP visiting student

Conducted evaluation of the grinding performance of the Red Dome grinding circuit using JKSimMet Mineral Processing Simulator, and evaluation of a industrial size KHD micro screen performance using various slurry samples.

**1987** – **1992** Tutor, University in Belgrade, Technical Faculty in Bor, Yugoslavia

Full time tutor at Technical Faculty in Bor covering tutorials for year 3 and 4 and 5 undergraduate students at Mineral Processing Department. The job description included laboratory tutorials, tutorials in data analysis, material balances, equipment selection and plant design, project work and supervision of the undergraduate students.

Project work was carried out in RTB Bor (Mining-Metallurgical Basin), large copp.er and gold producer located in the east Serbia. Company used to operate four copp.er mines with app.roximately 15 Mt per year ore throughput. I was involved in several projects with RTB Bor such as:

-Development of the Jaw Crusher with Two Mowing Jaws; 1988-1989

-Improvement of the Grinding and Classification Processes at RTB Bor Mineral Processing Plants; 1987-1989.

-Development of the On Line Laser Particle Sizer for Measurement in Plant Conditions; 1989

### **PUBLICATIONS**

Jankovic. A, and Valery, W, 2012. The Impact Of Classification On The Energy Efficiency Of Grinding Circuits – The Hidden Opp.ortunity. In Proceedings of 11 AusIMM Mill Operators Conference. Hobart, Tasmania 29-31 October

Jankovic. A, and Valery, W, 2012. Closed Circuit Ball Mill – Basics Revisited. MEI

Comminution 2012 Conference. Cape Town 17-20 April

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Sonmez, B., Valery, W., Jankovic, A., 2011. New Methodology to Improve Productivity of Mining Operations, Balkan Congress, Turkey

Jankovic, A., Valery, W., (2010) Reducing Grinding Energy and Cost - Magnetite Iron Ore Design Case Study, Proceedings of the XIIth International Minerals Processing Symposium. Capp.adocia Nevsehir, Turkey, 6-8 October

Jankovic, A., Dundar, H., Mehta, R., (2010) Relationships between the Comminution Energy and Product Size for a Magnetite Ore. Journal of South African Insistute of Mining and Metallurgy. Vol 110, March, pp. 141-146

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McNab, B., Jankovic, A., David, D., Payne, P. (2009) Processing of Magnetite Iron Ores — Comparing Grinding Options. Proceedings of Iron Ore 2009 Conference, Perth, Australia, 27-29 July, pp.. 277-288.

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Jankovic, A., Valery, W., Maloney, K., Markovic Z. S. (2006) Improving Overall Concentrator Performance with Stirred Milling. Proceedings of XXIII International Minerals Processing Congress, Istanbul,

Turkey, 3-8 September, Vol 2, pp.. 1949-1954.

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Dance, A., Valery Jnr., W., Jankovic, A., La Rosa, D., Esen, S. (2006) Higher Productivity Through Cooperative Effort: A Method Of Revealing And Correcting Hidden Operating Inefficiencies. SAG2006 – HPGR, Geometallurgy, Testing. International Conference on Autogenous and Semi-autogenous Grinding Technology, Volume 4, 375 – 390, Vancouver, Canada.

Jankovic, A., W., Valery Jnr., Clarke, G. (2006) Design And Implementation Of An AVC Grinding Circuit at BHP Billiton Cannington. SAG2006 – Circuit Design. International Conference on Autogenous and Semiautogenous Grinding Technology, Volume 2, 290 – 300, Vancouver, Canada.

Tondo L.A., Valery Jnr. W., Peroni, R., La Rosa, D., Silva, A., Jankovic, A., Colaciopp.o, J. (2006) Kinross' Rio Paracatu Mineração (RPM) Mining And Milling Optimisation Of The Existing And New SAG Mill Circuit. SAG2006 – Circuit Design. International Conference on Autogenous and Semiautogenous Grinding Technology, Volume 2, 301 – 313, Vancouver, Canada.

Renner D., La Rosa, D., DeKlerk W., Valery W., Simpson, P., Bonney S.N., A., Jankovic, A. (2006) Anglogold Ashanti Induapriem Mining and Milling Process Integration and Optimisation. SAG2006 – Circuit Design. International Conference on Autogenous and Semiautogenous Grinding Technology, Volume 1, 249 – 256, Vancouver, Canada.

Burger, B., McCaffery K., McGaffin I., Jankovic, A., Valery, W., and La Rosa, D., (2006) Batu Hijau Model for Throughput Forecast, Mining and Milling Optimisation, and Expansion Studies. Advances in Comminution, edited by S. Komar Kawatra, SME publication. March, pp. 461-479

Benzer, H. Jankovic, A. and Ergun, L. (2006) Cement Clinker Grinding Practice and Technology, Advances in Comminution, edited by S. Komar Kawatra, SME publication. March, pp.. 169-179

Jankovic, A., Sinclair., S. (2006) The shape of product size distribution in stirred mills, Minerals Engineering Journal, Vol.19 pp. 1528-1536, presented at Comminution 2006 Conference In Perth March 14-17

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on Explosives and Blasting Technique, pp. 250-258.

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