A greater degree of confidence in capital investment & risk management

Better reality based modelling of economic net position in feasibility studies

More intelligent “bankable” test sampling strategy to produce a more sophisticated engineering outcome

Faster run up time to design production throughput from commissioning

Used as a design tool to determine the most efficient process path and style of plant circuit able to treat a wider spectrum of the deposit in a window of peak efficiency

A greater degree of confidence in ore blending recommendations

An integrated approach for characterising ore body variability – maximising value while minimising technical and operational risk of mine development/expansion

A short course in Geometallurgy

October 2–6, 2017 · University of Liege, Belgium

www.geometallurgy.eu

This lifelong learning course is being funded and supported by

www.eitrawmaterials.eu

A procedure in how to set up a geometallurgy program and analyse the data collected from it is presented.
Geometallurgy is a team-based approach used to document variability within an orebody. It results in quantitative, spatially constrained information that can be incorporated into 3-D models and mine planning activities. Characterisation is related to processing attributes including comminution (crushing, grinding), liberation, recovery and environmental management.

Key outcomes are reduced technical risk, improved forecasting, enhanced economic optimization and improved sustainability. The short course introduces a range of techniques to enhance collection of geological information that is relevant to mineral processing. It includes presentations, use of tools, a range of computer-based modelling exercises and case studies.

Course presenters

Prof. Eric Pirard
Professor and Director, GeMMe
For more than twenty years he has specialised in applying digital imaging to important issues in applied geology and geometallurgy: quantitative microscopy, microtexture analysis, on line quality control of aggregates and cores.

Dr. Simon Michaux
Senior Research Officer, GeMMe
Simon has been working in geometallurgy for the past 10 years as a researcher and as a consultant, where he took part in and led parts of the geometallurgy research in the AMIRA P843 & P843a projects (comminution and blasting). He has experience in, experimental design, analysis and the development of small-scale testing for geometallurgical campaigns.

Prof. Bernd Lottermoser
Director of the Institute of Mineral Resources Engineering at RWTH Aachen University
He is a global authority on mine waste characterisation and classification. He also has led geometallurgy research in the CRC ORE / AMIRA P843a Environmental Indicators project.

Dr. François Vos
Senior Researcher at the JKMRC in Australia
His expertise is in modelling and simulation of flotation circuits, mineralogy, texture and has helped develop application of a small-scale test designed to quantify flotation separability in the context of geometallurgical modelling.

Dr. Antti Remes
Technology Advisor – Process Modeling and Simulation at Outotec
Antti has been working with mineral processing applications for more than 15 years. His special profession is flotation modelling and plant design. He is one of the scientific advisors and developers behind the HSC Sim process modeling software.

Prof. Dr. Dr. h.c. Markus A Reuter
Director, Helmholtz Institute for Resource Technology Freiberg, Germany
His career in the metallurgical processing industry (Anglo American, Mintek, Outotec(+Ausmelt)) and academia (TU Delft (full-time), Uni Melbourne, Aalto & Stellenbosch) has spanned over 35 years. The focus have been metallurgical process design, simulation, optimization, recycling and circular economy/sustainability.

Gerald Whittle
Consulting to the mining industry
Whittle Consulting specialises in the modelling and optimisation of complex mining and mineral processing operations, and recognized as a leading strategic advisor to resource organizations.

Preliminary program

Day 1–3

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Preliminary program

Day 1–3

How geometallurgical data could be used and by whom
Corporate decision making with Enterprise Optimisation
How to set up a geometallurgy program and analyse the data collected
Mineralogy
Comminution
Flotation
Environmental management
Stages of geometallurgical analysis

Day 3–5

What is HSC Chemistry, overview of HSC modules
Creating minerals processing simulation models
Geometallurgy simulation: concentrator plant
Creating hydrometallurgical simulation models
Life cycle assessment
From ore to metal simulation including economic viability assessment
Geometallurgy simulation: concentrator + hydrometallurgical plants

Registration

Online registration through
www.geometallurgy.eu
s.michaux@ulg.ac.be

Registration fees
Cost of short course € 1200
Reduced rate for students € 240

Short course location
Sart Tilman Campus, University of Liège
Liège, Belgium