

SACAC presents:

# The 18th IFAC Symposium on Control, Optimization and Automation in Mining, Mineral and Metal Processing



28–30 August 2019  
Stellenbosch  
South Africa

[ifacmmm2019.org](http://ifacmmm2019.org)

## Second Call for Papers

The 18th IFAC Symposium on Control, Optimization and Automation in Mining, Mineral and Metal Processing, MMM 2019 for short, is a conference hosted by the South African Council for Automation and Control (SACAC).

MMM 2019 promotes the exchange of ideas and developments in control engineering in the MMM field. The symposium will provide a forum for professionals, researchers, and experts to review state-of-the-art control, optimization, and automation technologies. Both academic and industrial control practitioners have the opportunity to present their work and exchange research ideas with colleagues from across the globe.

### Areas covered include but are not limited to:

- Underground mining, including the use of autonomous mining equipment
- Surface operations, mineral processing and beneficiation
- Casting, hot/cold rolling, forming, forging, heat treatment, annealing
- Metal recycling processes, waste treatment
- Process modelling
- Control algorithms
- Process monitoring and fault detection
- Machine learning and computer vision
- The Industrial Internet of Things, Industry 4.0, big data and analytics

## Keynote Speakers

### Professor Chris Aldrich

(Deputy Head of the Western Australian School of Mines)  
- Recent Advances in Multivariate Image Analysis in the Mineral Processing Industries.

### Dr. S. Joe Qin

Fellow of AIChE, Fellow of IEEE, and Fellow of the IFAC - Inferential Monitoring of Quality and Process Faults with Supervised Learning.

### Dr. Osvaldo A. Bascur

(Principal Academia-Industry Innovation, OSIssoft, LLC.r:  
Process Analytics: Transforming mineral process plant data into actionable insights.

Further Speakers to be announced.

## Workshop

The workshop will be held on the 26th and 27th of August and will focus on “Modern Data Analytics for Control in Minerals Processing.” It will be hands on with participants developing their own control solution.

On day one participant will use a familiar data analytics method to infer the key performance measure of a simulated mineral processing circuit. On day two this inferred performance measure will be integrated into a controller to stabilise or optimise the performance of the simulated circuit.

## Sponsorships

Sponsorships are opportunities for companies, institutes as well as sponsoring agencies to contribute to MMM 2019.

## Important Dates

Submission opens: 1 October 18  
Submission deadline: 28 February 19  
Acceptances by: 26 April 19

Registration opens: 29 April 19  
Final papers due: 24 May 19  
Conference opens: 28 August 19

## International Programme Committee

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## Technical Committee Sponsorships

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### Main sponsoring TC

TC 6.2. Mining, Mineral and Metal Processing

### Co- sponsoring TCs

TC 2.3.Non-Linear Control Systems  
TC 2.4.Optimal Control  
TC 4.2.Mechatronic Systems  
TC 4.5.Human Machine Systems  
TC 5.1.Manufacturing Plant Control  
TC 6.3.Power and Energy Systems

## Venue

Stellenbosch in South Africa is a university town situated in the winelands region of the Western Cape, 40 km from Cape Town. The region boasts internationally acclaimed wine farms as well as a myriad of other tourist attractions.

The conference will take place at STIAS(Stellenbosch Institute for Advanced Studies) conference centre, in the heart of historical Stellenbosch.



## Local Organising Committee

Kevin Brooks (Co-Chair)  
(South Africa – BluESP)  
Lidia Auret (Co-Chair)  
(Stone Three)  
John Burchell (Vice-Chair from Industry)  
(South Africa – Lonmin)

## Types of Contribution

### Full contribution

6 page peer reviewed paper, 20 min presentation, published in the open-access IFAC-PapersOnLine series at [www.sciencedirect.com](http://www.sciencedirect.com).

### Extended abstracts

2 page peer reviewed abstract with at least one industrial author, 20 min presentation.

### Poster presentation

2 page peer reviewed abstract, poster of max. size A0, 3-5 min presentation.

## Submission

The language of the conference and all contributions is English. All papers and abstracts must be submitted as PDF files complying with the IFAC style rules through the PaperPlaza Conference Manuscript Management System. Posters have to be printed and brought to the conference by poster authors.

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