

## **Sustainable Minerals Institute**

## **Process Control and Analytics – Advanced**

**Free registration available for two students:** Submit 500 words explaining how completing this course will assist you in your studies and future career. Email submissions to <u>Associate Professor Mohsen Yahyaei</u> by COB Wednesday 12 May 2021. Open to Honours and HDR Candidates.

## Program overview:

Session	Time	Module 1	Module 2	Module 3	Module 4
		Mon 17 May 21	Tue 18 May 21	Wed 19 May 21	Thu 20 May 21
		Data Analytics	Model Predictive Control	Supervisory Control	Al in process control
-	9:20-9:30	Reception	Reception	Reception	Reception
1	9:30-10:30	Data analytics	Model Predictive Control (Intro)	Supervisory control	Intro to Machine Learning
-	10:30-10:45	First Break	First Break	First Break	First Break
2	10:45-11:45	Data analytics of PI Data	Model building for MPC	Supervisory Control - Case Study Discussion	Machine learning and Artificial Intelligence
-	11:45-12:00	Second Break	Second Break	Second Break	Second Break
3	12:00 - 13:00	Decision Support Systems for operators	Soft sensors	Multivariate Statistical Process Monitoring	Reinforcement Learning for control



Associate Professor Mohsen Yahyaei Julius Kruttschnitt Mineral Research Centre (JKMRC) Sustainable Minerals Institute The University of Queensland http://researchers.uq.edu.au/researcher/2653



Professor Chris Aldrich Curtin University https://staffportal.curtin.edu.au/staff/profile/view/Chris.Aldrich/



Dr Francisco Reyes Julius Kruttschnitt Mineral Research Centre (JKMRC) Sustainable Minerals Institute The University of Queensland http://researchers.ug.edu.au/researcher/24424