

Public Customized Course on 'Geometallurgy and Advanced Characterization of Iron Ores'

(Venue : Mirinae room)

Date/Time	Program Description	Remarks
9.15 (Mon)	Registration and orientation	IS-Geo
09:50-10:00		
9.15 (Mon)	Iron ore geology, mineralogy and characterization.	
10:00-10:15	Welcome and introduction (CSIRO and Carbon Steel Futures group)	Dr. Eugene Donskoi
10:15-11:10	Introduction to Iron Ore Geology and Mineralogy	Dr. Sarath Hapugoda
11:25-12:10	Different techniques for iron ore characterization	Dr. Eugene Donskoi
12:10-13:10	<i>Lunch</i>	
13:10-14:10	Iron ore mineralogical and textural characterization Practical demonstration on microscope or slides (depending on availability of microscope) Hand specimens and microscopy Ore types, including BID, CID, DID	Dr. Sarath Hapugoda
14:20-15:20	Continuation of practical demonstration- Iron oxide mineralogy, ore textural groups (include practical demonstration using polished blocks under the microscope if available, otherwise slide presentation)	Dr. Sarath Hapugoda
15:30-16:30	Automated optical image analysis, CSIRO software “Mineral4/Recognition4”	Dr. Eugene Donskoi
16:40-17:40	Automated optical image analysis of iron ore, sinter, coke	Dr. Eugene Donskoi
9.16 (Tue)	Iron ore/sinter characterization and importance of texture for prediction of downstream processing.	
09:30-10:30	Importance of ore texture for prediction of downstream processing. Case study – “Sinter properties modeling”	Dr. Eugene Donskoi
10:40-11:40	Importance of ore texture for prediction of downstream processing. Case studies: 1) Hydrocyclone performance modeling 2) Ultrasonic treatment of iron ores	Dr. Eugene Donskoi
11:40-12:20	Magnetite ore characterization	Dr. Sarath Hapugoda
12:20-13:20	<i>Lunch</i>	
13:20-14:00	Ore and Gangue mineralogy and chemistry (Iron ore impurities)	Dr. Sarath Hapugoda
14:10-14:50	Iron ore sintering & sinter phase classification	Dr. Sarath Hapugoda
15:00-15:40	Comparative study of iron ore characterisation using a scanning electron microscope and optical image analysis	Dr. Eugene Donskoi
15:50-17:10	Mineral Liberation Analyzer analysis of iron ore, sinter, coke	Dr. Sarath Hapugoda
17:10-17:30	Questions and discussion	

※ The working language is English