

ERICA Workshop and Training School: Modelling, Sustainability/Durability, NMR Practice**11th – 15th June 2018****Old Thorns Hotel, Liphook, UK**

	Monday 11th June 2018	Lead
08:30	Poro-mechanics:lecture	Bernhard Pichler TU Wien
10:30	Tea/coffee	
10:50	Poro-mechanics:lecture	
12:30	Lunch	
13:30	Poro-mechanics: exercises	
15:00	Tea/coffee	
15:30	Monte-Carlo simulations: introduction	David Faux University of Surrey
16:15	Monte Carlo Practicals	
18:00	Formal end of day	
	Tuesday 12th June	
09:00	Monte Carlo Feedback Session and Discussion	David Faux University of Surrey
10:00	Molecular Dynamics:Introduction, Potentials	
11:00	Tea/coffee	
11:20	Molecular Dynamics: Structure and Dynamics; Packages	
13:00	Lunch	
14:00	Molecular Dynamics: Practical	
15:30	Tea/Coffee	
15:50	continued: MD practicals	
17:15	MD Feedback Session and Discussion	
18:15	Formal end of day	
	Wednesday 13th June	
08:30	Sustainability: lecture. (see details below)	Christian Artelt, Martin Crow HTC
10:15	Tea Coffee	
10:30	Workshop: Product evaluation	
12:30	Lunch	
13:30	Sustainability	Karen Scrivener EPFL
15:30	Tea and Coffee	
15:50	Project Progress Updates	ESRs
18:00	Formal end of day	

Thursday 14th June		
08:30	Introduction to NMR	Peter McDonald University of Surrey
10:30	Tea/Coffee	
10:50	Imaging and Diffusion	
12:30	Lunch	
13:15	Minibus to University	
13:45	NMR Practicals. Lab. H&S	Agata Gajewicz University of Surrey
14:00	FID and CPMG	
15:30	Tea / Coffee	
15:45	Imaging and Diffusion	
17:15	Close of day	
	evening in Guildford	
21:30	Minibus back to Old Thornes	
Friday		
09:30	NMR in cements	Peter McDonald University of Surrey
11:00	Tea/Coffee	
11:20	NMR data analysis	
12:45	Lunch	
13:30	Minibus to MR Solutions	
14:00	MR Solutions	Peter Doughty MR Solutions
15:15	Minibus to Heathrow	

HTC lecture breakdown for Wednesday morning

Item 1	Topic	Presented by
1 (5 min)	Introduction of workshop facilitators	CA, MC
2 (20 min)	Introduction of HeidelbergCement and Hanson UK	CA, MC
3 (30 min)	Sustainable product innovation at HeidelbergCement <ul style="list-style-type: none"> • Innovation drivers <ul style="list-style-type: none"> o Reduction of the CO2 footprint of cement & concrete o Circular economy, resource efficiency o Production costs o Customer added value • Sustainable construction solutions • Innovative products 	CA

4 (30 min)	Environmental Sustainability at HeidelbergCement <ul style="list-style-type: none"> • Sustainability Commitments 2013 • Biodiversity • Sustainable Construction • Protecting the climate (CCU and CCS projects) • CSR 	CA
5 (30 min)	Project examples at Hanson UK	MC
6 (2 hour)	Workshop: Product evaluation – what makes a product sustainable? <ul style="list-style-type: none"> • Intro (5 min) • Work in 2-3 groups (25 min) • Presentation of results (5 min each) • Discussions (15 min) 	CA, MC