**Schedule**

**Day 1: Tue 12th July**

2.30-2.45pm - Welcome to Summer School & Intro to Cardiff

2.45-5.15pm – Session 1: Hydroenvironmental Research Centre

Impacts of extreme conditions on coastal areas – Professor Shunqi Pan, Cardiff University

Increasingly frequent extreme weather events urge the development of point-of-use water treatment systems – Professor Dawei Wang, Hohai University

Natural Flood Management & applications – Dr Elizabeth Follett, Cardiff University

Storm-induced flooding in coasts and estuaries - Professor Yongping Chen, Hohai University

Recent development of marine renewable energy - Professor Jisheng Zhang, Hohai University

Marine renewable energy (tidal barrages and lagoons; offshore waves and winds) – Dr Zhihua Xie, Cardiff University

5.15-5.25pm – Break

5.25–6.05pm – Session 2: BRE Trust Centre for Sustainable Engineering

Digital Twins for Engineering Performance management in the built environment - Jonathan Reynolds, Cardiff University

Lifecycle Assessment towards Net Zero in the built environment - Dr Ali Ghoroghi, Cardiff University

6.05-6.45pm – Session 3: Applied & Computational Mechanics Group

Vibration control and wave filtering using quasicrystalline phononic structures – Dr Lorenzo Morini, Cardiff University

DIGIBRIDGE: Physics-informed Digital Twin supported Smart Bridge Maintenance – Dr Kai Zhao, Cardiff University

6.45-6.50pm – Close of Day 1

**Day 2: Wed 13th July**

2.30 – 2.35pm – Welcome to Day 2

2.35-4.15pm –Session 4: Geoenvironmental Research Centre

Resource Recovery from Waste: Towards a Circular Economy – Professor Devin Sapsford, Cardiff University

Biogeotechnics and Electrokinetics – Dr Michael Harbottle, Cardiff University

Thermo-Hydro-Mechanical Behaviour and Modelling of Soils - Professor Snehasis Tripathy, Cardiff University

Biocementation in soils and rocks – Dr He Jia, Hohai University

4.15-4.25pm – Break

4.25-6.05pm – Session 5: Materials for Life

Biomimetic Materials for resilient structures – Dr Diane Gardner, Cardiff University

Simulation of cement healing systems – Dr Brubeck Freeman, Cardiff University

Life Cycle Assessment and its application to novel construction materials – Dr Riccardo Maddalena, Cardiff University

Sustainable Construction Materials towards Carbon Neutrality - Dr. Ming-Zhi Guo, Hohai University

6.05-6.20pm – Summer School Close & Goodbye