**Programme**

Date: October 18th

Time: 9.30am – 4.15pm

Venue: Kenn Centre, Exeter Rd, Kennford, Exeter EX6 7UE

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| 09.25 - 09.30 | **Welcome and Introduction** |
| 09.30 - 10.15 | **Steve Dunn – *New Stabilisation Standards and Guidance*** |
| 10.15 - 11.00 | **Sophie Young – *Dawlish 2014 – An emergency response*** |
| 11.00 - 11.30 | **MORNING BREAK** (tea and coffee available) |
| 11.30 - 12.15 | **Chris Swainston – *The sustainability of standards, sampling and assessment in contaminated land investigation.*** |
| 12.15 - 13.00 | **Mike Whitworth –** ***Building a More Resilient Nepal-The Utilisation of the Resilience Scorecard for Kathmandu, Nepal following the Gorkha Earthquake of 2015.*** |
| 13.00 – 13.15 | **Sarah Fear -*Introduction to the* *Plymouth Impact Lab*** |
| 13.15 - 14.30 | **LUNCH** (with tea, coffee and juices) |
| 14.30 - 15.15 | **Gemma Sherwood – : *Geotechnical considerations for Design and Construction of Hinkley Point C*** |
| 15.15 – 16.15 | **Keynote Speaker –** **Professor Ian Selby Sustainable aggregate** |
| 16.15 | **Close of Conference**   * Afterwards, tea / coffee will be available for those that wish to stay on for some informal discussions/socialising. |

**Title:** **New Stabilisation Standards and Guidance**.

**Speaker:** Steve Dunn

stabilisation of soils using lime/cementitious products for geotechnical and geo-environmental purposes.

Both these methods are aimed at enabling unsuitable site won materials to be rendered suitable to avoid the need for excavation (and disposal) and replacement.

Presentation on how the revisions to the British Standard on Earthworks BS EN 16907 (Dec 2018) would relate to the stabilisation of soils.

**Title:** **Dawlish 2014 – An emergency response**

**Speaker:** Sophie Young

A brief look into the emergency response on the Dawlish to Teignmouth railway following the catastrophic storms in February 2014. We will explore the timeline of events before, during and after the storms which led to the destruction of the railway and the achievement of reinstating an operational railway in just 8 weeks. We will be considering the geology of the area and the series of geological events that led to the requirement to reconstruct the railway and increase its resilience to future weather and geological hazards.

**Title:** **The sustainability of standards, sampling and assessment in contaminated land investigation.**

**Speaker:** Chris Swainston

The talk will hopefully discuss the role of sustainability, standards, sampling and assessment in contaminated land investigation, with particular emphasis on the role and creation of standards and guidance to promote the contention that effective site investigation and assessment through the proper application, awareness and understanding of these documents, can lead to more professional, valid, scientific and sustainable investigations and conclusions for our Clients, industry and the wider environment.

**Speaker Bio**

Chris Swainston is chartered and CL:AIRE qualified with over 25 years industry experience, chairs EH/4 Soil Quality for BSI, represents the CLG on the Geological Society chartership committee and is a member of the AGS CLWG and SoBRA. He currently works for Soils Limited based in Winchester.

**Title:** **Building a More Resilient Nepal-The Utilisation of the Resilience Scorecard for Kathmandu, Nepal following the Gorkha Earthquake of 2015.**

**Speaker:** Michael R.Z. Whitworth

In 2015, an earthquake with the magnitude of 7.8Mw struck the Gorkha Region in Nepal, resulting in devastation at a magnitude level killing almost 8,659people and injuring over 21,150 according to the Ministry of Home and Affairs (2015). More than 500,000 houses, 8,000 schools, and 400 health facilities were damaged, with estimated cost of US$ 7.0 Billion (GoN, 2015) and the powerful aftershocks of the earthquake resulted in significant damage to the infrastructure including landslides that blocked critical emergency access routes. In addition, Nepal is severely affected by monsoons each year and has been identified as one of the most susceptible countries to the impacts of climate change (UNDP 2012. Kathmandu, the capital of Nepal, is a key driver for economic growth and is currently undergoing rapid urbanisation, with an increase in population of over 5 million in the last decade.

The Resilience Scorecard was developed by AECOM and IBM, based on the “Ten Essentials” model for making cities resilient designed by the United Nations International Strategy for Disaster Reduction (UNSDRI).  The scorecard is an instrument designed to help cities measure their current level of disaster resilience, identify priorities for investment and action, and track progress in improving disaster resilience over time.  Following the Gorkha earthquake of 2015, the opportunity exists to utilise the Resilience Scorecard to assess the current level of preparedness of Kathmandu. This talk will discuss the application of the UN Resilience Scorecard, with the assessment undertaken forming a baseline assessment addressing core infrastructure issues from the earthquake and evaluating core community functions. This talk highlights the key findings of the assessment undertaken during field visits to Kathmandu Valley following the April 2015 earthquake. The research study has found that Kathmandu has a low disaster resilience score with preliminary findings highlighting the susceptibility of critical infrastructure (i.e. roads, schools, hospitals, power, water supply) to natural hazards.

**Title: Introduction to the Plymouth Impact Lab**

**Speaker:** Sarah Fear

**Title: Geotechnical considerations for Design and Construction of Hinkley Point C**

**Speaker:** Gemma Sherwood

The EDF Hinkley Point C (HPC) project comprises the construction of a new twin-reactor nuclear power station near Bridgwater, Somerset. We are currently in Year 3 of a 10-year construction period of a new 3.2 GW power plant which will power 6 million homes and will provide 7% of the UK’s electricity. This £19.5bn station will replace existing Hinkley Point B, which is due to begin decommissioning in 2023. This will be the first time the European Pressurised-Water Reactor (EPR) design has been built in the UK, and it is the first New Nuclear Build (NNB) in the UK for 25 years. At its peak HPC will be the largest construction site in Europe, with 5,600 people working on site in any one shift and will generate 25,000 employment opportunities.

The Triassic to Lower Jurassic geology is not unusually complex but understanding of the nature of its formation and the ground conditions is key to the construction of this New Nuclear Power Station. Each lithology has its own engineering challenges, which combined with the scale and complexity of the project itself have presented many challenges during construction. This talk will describe the construction of the HPC to date, the lithology, hydrogeology and structural geology encountered on site and the challenges that have arisen.

**Speaker Bio**

Gemma is a Chartered Geotechnical Engineer with 9 years’ experience working for ground investigation contractors and geotechnical consultancies. Her role at HPC site involves technical surveillance on earthworks activities, foundation mapping, de-watering, slope stability, ground investigations and formation acceptance.

**Title: Sustainable aggregate**

**Speaker:** Professor Ian Selby