



Individual Membership Form

Personal information

Title: **Professor** Gender: (M/F) **M**
Name: **BOLTON, Malcolm, David** Suffix: **<please insert text here>**
Date of birth: **1946/02/05** Nationality: **British**
Mailing address (Street or Postal Box): **Schofield Centre, High Cross, Madingley Road**
City: **Cambridge** Province/State: **<please insert text here>**
Postal code: **CB3 0EL** Country: **UK**
Email address: **mdb@eng.cam.ac.uk** Website: **http://www-**
civ.eng.cam.ac.uk/geotech_new/people/bolton
Phone number: **+44 1223 742367** Fax number: **+44 1223 460777**
Current affiliation: **Cambridge University**
Job title: **Head, Geotechnical and Environmental Group**

Education Background

Highest degree received: **PhD**
Received from: **Cambridge**
Major: **Civil Engineering**

Professional background

Professional background relevant to GEOSNet:

My first concern is the prediction of soil behavior, based on the observation of mechanisms and the objective definition of measurable and physically meaningful parameters. But I also have a long-standing interest in soil-structure interaction, and I have published a number of papers on design codes and standards. I served on the drafting committee of the British Code of Practice on Earth Retaining Structures, BS 8002.

Main reasons for your interest in GEOSNet and potential contributions to the network:

I am developing practical procedures to predict ground deformations, and I have a long-standing goal to develop design methods for the explicit control of deformations in soils and structures. My recent

publications have been restricted to construction-induced ground strains in clays which have been taken to remain undrained. This sequence of papers – on retaining walls, braced excavations, foundations and tunnels – has defined a new Mobilizable Strength Design method. My next aim is to address deformation control in sands, to investigate straightforward approaches to predicting deformations due to density changes, and to investigate the prediction of creep effects. These studies have to be linked with improvements in design codes, to clarify provisions for assuring both safety and serviceability, and to take a rational view of decision-making under uncertainty.