

INTERNATIONAL GEOSYNTHETICS SOCIETY, UK CHAPTER

14TH INVITATION LECTURE

Joint with the British Geotechnical Association

Wednesday 14th October 2015 at 18:00

Institution of Civil Engineers, One Great George Street, Westminster, London SW1P 3AA

**Flooding mitigation, including the use of
Geosynthetic construction methods**

Dr. Michael Heibaum

BAW - Federal Waterways Engineering and Research Institute, Germany

Geosynthetics can make a significant contribution to all types of flood protection and mitigation measures.



Flooding is an unavoidable element of our planet's complex weather system. Serious damage is caused when the water is stronger than the ground. The aim must be either to control the water or to increase the resistance against it.

Different problems result from flooding caused by rainfall and runoff, resulting in saturation of the ground, surface erosion and percolation of pore water, weakening man-made earth structures and natural ground, predominantly riversides, dikes, levees and dunes.

Structures to provide shelter from flooding, reliable stream bank stabilization and coastal flooding defence measures will be discussed.

Biography: After graduating from Darmstadt University Dr Heibaum worked with the contractor HOCHTIEF, mainly in tunnelling and deep excavations. From 1980 to 1985 he was a Lecturer at Stuttgart University and Darmstadt University, obtaining his Doctor's degree in 1985, with his thesis on anchored retaining walls. From 1985 to date, he has been working with BAW (Federal waterways engineering and research institute), and is currently Head of the Geotechnical Department.

Dr Heibaum is engaged in research, consulting and teaching in geotechnical engineering, predominantly related to the interaction of ground, water and structures, incorporating geosynthetics, specialising in geosynthetics in hydraulic applications, linings of waterways, physical and numerical models. He serves on standardisation committees and national/international working groups on waterway and harbour structures, geosynthetics, scour and erosion and is a Member of the Editorial Board of "Geotextiles and Geomembranes".



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