Mahmoud Jaweesh

Doctoral Researcher

School of Geography, Earth and Environmental Sciences (/schools/gees/index.aspx)

Contact details

Telephone +44 (0) 121 414 6154 (tel:+44 121 414 6154)

Email mxj906@bham.ac.uk (mailto:mxj906@bham.ac.uk)

School of Geography, Earth and Environmental Sciences
University of Birmingham
Edgbaston
Birmingham
B15 2TT
UK

About

Title of PhD: The importance of correlation between lithofacies, within sandstone sequences, and hydraulic and geochemical properties in groundwater contaminant transport

Supervisor: Professor John Tellam (/staff/profiles/gees/tellam-john.aspx)

Mahmoud is a member of the Water Sciences research group in the University of Birmingham. His current research is to investigate the relation between the lithofacies of the Sherwood Sandstone Group and the hydraulic and geochemical properties. The correlation will lead to better estimation of geochemical and hydraulic properties for the sandstone formations. Therefore, it will help to enhance the accuracy of solute transport models.

Qualifications

2011-present Ph.D in Hydrogeology at the University of Birmingham

2009-2010 M.Sc in Hydrogeology at the University of Birmingham

2007-2008 Diploma in Geophysics at Damascus University

2003-2007 B.Sc in Geology (1st Class Honours) at Damascus University

Biography

Mahmoud undertook an undergraduate degree in geology at Damascus University. During his course, Mahmoud joined the Remote Sensing Group at Technical University of Freiberg, Germany for a two-month internship. He worked there with satellite image analyses and the application of GIS in Hydrology. Mahmoud then started a postgraduate course in Geophysics at Damascus University. At the same time, he joined the BGR team in Syria as a hydrogeologist, and he mainly worked in the German-Syrian project to develop a hydrogeological model for Aleppo Basin. Afterwards, Mahmoud joined Damascus University as a lecturer assistant and he demonstrated several modules including hydrogeology and environmental geology. In December 2010, Mahmoud successfully completed the MSc course in Hydrogeology at the University of Birmingham. His masters research was to develop an urban water model for Alexandria, Egypt. Mahmoud then continued onto doctoral research in Hydrogeology at the University of Birmingham.

Awards

- The best poster award at SWITCH conference “The Future of Urban Water: Solutions for Livable and Resilient Cities" at the UNISCO headquarter in Paris, France (2011)
- The superior first class Honours in the Department of Geology at Damascus University (2007)

Research

Both hydraulic and geochemical properties might be expected to be correlated with lithofacies, and evidence is accumulating which seems to confirm at least hydraulic/lithofacies correlations for sedimentary sequences. Such correlations would enable properties and property distributions to be estimated, something of great advantage in contaminant transport modelling. The correlations between lithofacies and hydraulic properties have been established at several locations in the UK Sherwood Sandstone Group sequence. However, little evidence is available on geochemical property distributions.

Therefore, The aim of this research is to determine the strength of correlations between lithofacies and hydraulic and geochemical properties in example locations in the Sherwood Sandstone Group. Then modelling will help to investigate whether such correlations could significantly affect pollutant movement.

Publications

- Jaweesh, M., Last, E., Manoli, E., El Rawady, M., Abu-Zeid, K., Sharp, P., Mackay, R. (2011). Application of City Water Balance to explore options for change in Alexandria, Egypt. Poster seesion presented at: The Future Of Urban Water: Solutions For Livable And Resilient Cities Conference; 2011 January 24–26; UNISCO, Paris.
- Jaweesh, M., Moran, N., Mackay, R., Tellam, J. (2011). The Importance of Correlations Between Geochemical / Hydraulic Properties & Lithofacies in Groundwater Contaminant Transport. Poster session presented at: “What’s New in Hydrogeology?” meeting; 2011 July 4th, University of Birmingham.

© University of Birmingham 2015