

OUTLINE

Managed aquifer recharge (MAR) represents the intentional recharge of surface water to aquifers. MAR can be applied for seasonal water storage, restoration of overexploited aquifers, prevention of land subsidence, control of salt water intrusion, improvement of water quality etc.

Depending on local conditions and project objectives, aquifer augmentation can be primarily based on infiltration or interception techniques using water from different sources.

During the Summer School, the participants will get familiar with different MAR techniques and will be guided through different steps in planing, operation and optimization of MAR schemes.



Photo: MAR scheme in Salisbury, Australia

INFORMATION

Requirements

Graduate and post-graduate students with Bachelor or Master degree in hydro sciences or related areas. General knowledge on groundwater management (previous experience with GIS tools and simulation models are of advantage).

Application

Send your application (CV and motivation letter) by email to Ms. Claudia Schönekerl: claudia.schoenekerl@tu-dresden.de.

Deadline for application

30 April 2016

Costs

Participation to INOWAS Summer School 2016 is free of charge, accommodation on TUD campus will be provided. Travel costs must be covered by attendees but grants will be available for selected applications.

More information

www.tu-dresden.de/uw/inowas

Contact

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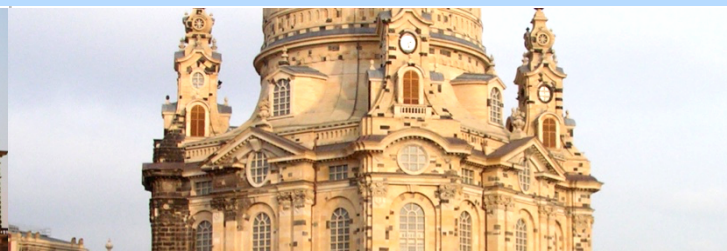
2016



SUMMER SCHOOL

on Managed Aquifer Recharge

4-9 September 2016
Dresden, Germany



PROGRAMME

Sunday, 4 September 2016

- 17:00 **Welcome reception**
 20:00 Presentation of participants
 Short introduction of INOWAS project
 Introduction of Summer School agenda
 Ice-breaking buffet

Monday, 5 September 2016

- 08:00 **Lecture notes**
 10:00 Introduction to managed aquifer recharge: definitions, classification, technologies
 10:00 **Lecture notes**
 12:00 Water balance and estimation of natural groundwater recharge
 12:00 **Lunch break**
 Lunch break and poster exhibition
 13:00 **Practical exercise**
 15:00 Estimation of natural groundwater recharge using a numerical model
 15:00 **Field trip**
 17:00 Test-field infiltration in Pirna-Copitz

Tuesday, 6 September 2016

- 08:00 **Lecture notes**
 10:00 Selection of suitable sites for application of managed aquifer recharge
 10:00 **Lecture notes**
 12:00 Selection of methods for managed aquifer recharge
 12:00 **Lunch break**
 Lunch break and poster exhibition
 13:00 **Practical exercise**
 15:00 Application of managed aquifer recharge to a case study – method selection
 15:00 **Practical exercise**
 17:00 Multi-criteria GIS-based analysis of suitable locations for MAR implementation

Wednesday, 7 September 2016

- 08:00 **Lecture notes**
 10:00 Processes occurring in soil during MAR (physical, chemical, biological)
 10:00 **Lecture notes**
 12:00 Operation and maintenance of MAR schemes
 12:00 **Lunch break**
 Lunch break and poster exhibition
 13:00 **Practical exercise**
 17:00 Experimental determination of soil and water flow parameters in laboratory and field

Thursday, 8 September 2016

- 08:00 **Lecture notes**
 10:00 Modeling of managed aquifer recharge applications
 10:00 **Practical exercise**
 12:00 Web-based simulations for optimization of MAR schemes
 12:00 **Lunch break**
 Lunch break and poster exhibition
 13:00 **Role-playing exercise**
 17:00 Participants will be assigned different roles and asked to simulate a MAR project
 19:00 **Dinner**
 Official Summer School diner

Friday, 9 September 2016

- 08:00 **Case study**
 10:00 Detailed presentation of one case study (e.g. Dresden-Hosterwitz)
 10:00 **Field trip**
 12:00 River bank filtration in Dresden-Hosterwitz
 12:00 **Lunch break**
 Lunch break and poster exhibition
 13:00 **Closing ceremony**
 15:00 Summer school evaluation, attending certificates, closing ceremony