

EAGE

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ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS

HOSTED BY



EAGE EDUCATION TOUR **12**

7 MAY 2018 | AL KHOBAR, SAUDI ARABIA

EAGE 
EDUCATION

www.LearningGeoscience.org

Education Tour 12

7 MAY

Al Khobar, Saudi Arabia

Accreditation

In March 2013 EAGE became the first official Continuing Professional Development (CPD) Provider of the "European Geologist" title, which is a professional accreditation established by the European Federation of Geologists (EFG). In order to obtain and maintain this title, the holder must provide a record of high quality CPD activities, which include the short courses like the one presented in this brochure. For an overview of the provided points for EAGE Short Courses and for more information about this accreditation system and corresponding EAGE learning activities please visit www.eage.org and www.LearningGeoscience.org.

Registration fees

All fees include digital course material lunch and coffee breaks.

Professionals

Registered and paid	until 15/04/2018	16/04/2018 - onsite	Onsite
EAGE	€ 80	€ 90	€ 105
Non-member*	€ 160	€ 170	€ 185

*Non-member fee includes EAGE Membership for 2018. Please note that above prices include 5% VAT charged as per new UAE regulations.



Challenges and Solutions in Stochastic Reservoir Modelling - Geostatistics, Machine Learning, Uncertainty Prediction

Dr Vasily Demyanov (Heriot-Watt University, Scotland)



CPD Points: 5

Course Description

Reservoir prediction modelling is subject to many uncertainties associated with the knowledge about the reservoir and the way they are incorporated into the model. Modern reservoir modelling workflows, which are commonly based on geostatistical algorithms, aim to support development decisions by providing adequate reservoir description and predict its performance. Uncertainty about reservoir description needs to be accounted for in modelling workflows to quantify the spread of reservoir predictions and its impact development decisions.

The course aims to build awareness of the impact the modelling choices on the reservoir predictions and their relation to the way uncertainty is incorporated into reservoir modelling workflows. The course addresses the problem of tying the workflow with the expected geological vision of a reservoir subject to uncertainty. This is associated with one of the common issues, when standard assumptions of a workflow are not consistent with the model geology or do not reflect possible variations due to existing uncertainty.

The course demonstrates the implementation of geostatistical concepts and algorithms in geomodelling workflows and the ways uncertainty is accounted for in reservoir description and predictions. The course includes an overview of the state-of-the-art conventional techniques and some novel approaches, in particular machine learning for reservoir description.

Machine learning provides new opportunities in data integration and the model control to tackle the modelling challenges related to non-stationary multi-scale correlation structure and complex connectivity patterns in reservoirs. Novel machine learning techniques are good at capturing dependencies from data, when their parametric description is difficult; and controlling the impact of noisy and ad-hoc data.

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For more information and tailored advice, please visit our Education portal www.LearningGeoscience.org or contact us at education@eage.org

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