

MACHINE LEARNING FOR OPTIMISING TECHNOLOGICAL WORKFLOWS AT EXPLORATION AND PRODUCTION OF HYDROCARBONS



**DMITRY
KOROTEEV**

Assistant Professor,
Skoltech

Dmitry graduated from Lomonosov Moscow State University (MSU) in 2006 and continued his studies there as a PhD student, obtaining his PhD degree in Chemical Physics in 2008. 2005 to 2014 and 2015 to 2016 Dmitry spent at various roles with Schlumberger Moscow Research.

He was leading new technologies department of Gazprom Neft's Science and Technology Center in 2014 and 2015. In November 2016 Dmitry joined Skolkovo Institute of Science and Technology as an assistant professor.

He leads R&D theme on involvement machine learning methods for optimizing technological processes within exploration and production domain.

ABSTRACT

An overview of machine learning and predictive analytics application for oil and gas upstream will be presented. Examples of practical usage of Big Data technologies for tackling real technical challenges of the industry will be shown in the presentation.

In particular, we touch the topics of automation of the workflow for building the geological models of the reservoirs, optimization of electric submersible pumps performance, development of computer-based advisory for directional drilling, and others.

Speaker initiates discussion of current issues with extensive implementation of Big Data technologies. Finally we highlight key directions for development of predictive analytics approaches for oil and gas upstream.