



VII Oil and Gas Production Optimization Workshop – Sponsored by INTPART

Organizers: Alex Teixeira, Bruno Ferreira – Petrobras, Eduardo Camponogara, Marco Aguiar, Thiago Silva – UFSC, Morten Hovd - NTNU
Date: May 7-8, 2018
Location: Petrobras Research Center – CENPES, Rio de Janeiro

Agenda - May 7

Session 1 – 08:00 – 08:30 – Registration and welcome

- 08:00 – 08:15 Registration
- 08:15 – 08:30 Welcome and initial comments – Morten, NTNU and General Manager, Petrobras

Session 2 – 08:30-10:25 – Short Term Production Optimization I

- 08:30 – 09:00 Advanced Control and Real Time Optimization Applied to an Onshore Gas Treatment Unit – Denise, Marcos, Jacques and Leonardo, Petrobras
- 09:00 – 09:30 Efficient production optimization strategies using transient measurements – Dinesh Krishnamoorthy, NTNU
- 09:30 – 10:00 Use of Static Models for Approximate Dynamic Optimization of Production Systems – Eduardo Hulse, UFSC

Coffee break with snacks – 10:00 - 10:30

Session 3 – 10:30-12:00 – Short Term Production Optimization II

- 10:30 – 11:00 Development and Deployment of a Pump Schedule Optimization System for an Onshore Oilfield Gathering Network – Marcelo Lopes, Petrobras
- 11:00 – 11:30 NMPC for anti-surfing control and applications to production platforms, Marcelo Farenzena, UFRGS.
- 11:30 – 12:00 Simulation-based Production Optimization in the Santos Basin – Caio Giuliani, UFSC

Lunch – 12:00 - 13:30

Session 4 – 13:30 – 15:00 – Short Term Production Optimization III

- 13:30 – 14:00 Advanced Control and Real Time Optimization Applied to Offshore Platforms – Mário Campos, Mário Gomes and Leonardo, Petrobras
- 14:00 – 14:30 Model-free Production Optimization for Uncertain Production Systems - Alexey Pavlov, NTNU
- 14:30 – 15:00 Model Identification of Dynamic Systems with Limit Cycles with Applications to Oil Wells - Jorge Treiweiler, UFRGS

Coffee break – 15:00 - 15:20

Session 5 – 15:20 – 16:30 – Digitalization I

- 15:20 – 15:50 Data Mining Tools to Support Drilling Operations – Anthony Yao, Petrobras
- 15:50 – 16:20 Computational Intelligence Applied to Oil and Gas - Marco Aurélio Pacheco, PUC-RIO

Agenda – May 8

Session 6 – 08:30 - 10:00 – Long-Term Production Optimization I

- 08:30 – 09:00 Model-based derivative free methodology for field development Optimization, Joakim R. Andersen, NTNU
- 09:00 – 09:30 Waterflood Optimization of the Albacora Leste Field – Diego, Petrobras
- 09:30 – 10:00 Closed Loop Reservoir Development and Management - Denis Schiozer, Unicamp

Coffee break with snacks – 10:00 - 10:30

Session 7 – 10:30 - 12:00 – Long-Term Production Optimization II

- 10:30 – 11:00 Production optimization using autonomous inflow control device - Experience in the Peregrino Field – Ivan Leitão Júnior, Statoil
- 11:00 – 11:30 Health Aware production optimization to improve remaining useful life - Adriean Verheyleweghen, NTNU
- 11:30 – 12:00 Reservoir data-driven model for production optimization – Luis Kin, Petrobras

Lunch – 12:00 - 13:30

Session 8 – 13:30 - 15:00 – Digitalization II

- 13:30 – 14:00 Big Data and Analytics to Support Production Monitoring and Optimization – Ismael Humberto , Petrobras
- 14:00 – 14:30 NTNU's research and innovation program on digital and automation solutions for the oil and gas industry - Arild Nystad, NTNU
- 14:30 – 15:00 Neural Networks for Multiphase Flow Estimation and Prediction – Bjarne Grimstad, Solution Seeker
- 15:00 – 15:30 INESC's innovation and research developments – Vladimiro Miranda, INESC P&D Brasil

Coffee break – 15:30 - 15:50

Session 9 – 15:50 - 16:20 - Looking forward

- 15: 50 – 16:20 Final comments – NTNU, UFSC and Petrobras

16:30 Workshop ends

Speaker affiliations

- NTNU (Norges teknisk naturvitenskaplige universitet)
- UFSC (Universidade Federal de Santa Catarina)
- UFRGS (Universidade Federal do Rio Grande do Sul),
- UFRJ (Universidade Federal do Rio de Janeiro)
- PUC-RIO (Pontifícia Universidade Católica do Rio de Janeiro)
- Unicamp (Universidade Estadual de Campinas)
- Petrobras
- Solution Seeker
- INESC P&D Brasil
- Statoil