



Society of Petroleum Engineers

**SPE Training Course in conjunction with
SPE Asia Pacific Oil & Gas Conference and Exhibition (APOGCE) 2018**

Data-Driven Reservoir Modeling

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Friday, 26 October 2018 • Rydges Fortitude Valley, Brisbane, Australia

TENTATIVE DAILY ACTIVITIES AGENDA

Day 1	Topic	Venue
0800 – 0900	Registration and Welcome Coffee and Tea	To be confirmed
0900 – 1030	<ul style="list-style-type: none"> • Basics of artificial intelligence (AI) and machine learning <ul style="list-style-type: none"> ○ Artificial Neural Networks (Deep Learning) ○ Fuzzy Set Theory ○ Evolutionary Computation • Top-Down Modeling – TDM <ul style="list-style-type: none"> ○ Components of a Top-Down Model ○ Quality Control and Quality Assurance of the Data 	To be confirmed
1030 – 1045	Coffee Break & Discussion	To be confirmed
1045 – 1200	<ul style="list-style-type: none"> • The Spatio-Temporal Database <ul style="list-style-type: none"> ○ Static and Dynamic Data ○ Resolution in Time and Space ○ Role of Offset Wells • History Matching the Top-Down Model <ul style="list-style-type: none"> ○ Sequential History Matching ○ Random History Matching ○ Mixed History Matching ○ Validation of the Top-Down Model 	To be confirmed
1200 – 1330	Networking Lunch	To be confirmed
1330 – 1515	<ul style="list-style-type: none"> • Post-Modeling Analysis of the Top-Down Model <ul style="list-style-type: none"> ○ Forecasting Oil Production, GOR and WC ○ Choke Setting Optimization ○ Water Injection Optimization ○ Determination of Infill Locations ○ Uncertainty Analysis 	To be confirmed
1515 – 1545	Coffee Break & Discussion	To be confirmed
1530 – 1700	<ul style="list-style-type: none"> • Examples and Case Studies <ul style="list-style-type: none"> ○ Mature Onshore Field in Central America ○ Mature Offshore Field in the North Sea ○ Mature Onshore Field in the Middle East 	To be confirmed