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

**Data-Driven Reservoir Modeling**

Shahab Mohaghegh, President and CEO  
Intelligent Solutions, Inc. (ISI)

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

**TENTATIVE DAILY ACTIVITIES AGENDA**

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Topic</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800 – 0900</td>
<td>Registration and Welcome Coffee and Tea</td>
<td>To be confirmed</td>
</tr>
</tbody>
</table>
| 0900 – 1030   | • Basics of artificial intelligence (AI) and machine learning  
                          o Artificial Neural Networks (Deep Learning)  
                          o Fuzzy Set Theory  
                          o Evolutionary Computation  
                          • Top-Down Modeling – TDM  
                          o Components of a Top-Down Model  
                          o Quality Control and Quality Assurance of the Data | To be confirmed        |
| 1030 – 1045   | Coffee Break & Discussion                                                                     | To be confirmed        |
| 1045 – 1200   | • The Spatio-Temporal Database  
                          o Static and Dynamic Data  
                          o Resolution in Time and Space  
                          o Role of Offset Wells  
                          • History Matching the Top-Down Model  
                          o Sequential History Matching  
                          o Random History Matching  
                          o Mixed History Matching  
                          o Validation of the Top-Down Model | To be confirmed        |
| 1200 – 1330   | Networking Lunch                                                                             | To be confirmed        |
| 1330 – 1515   | • Post-Modeling Analysis of the Top-Down Model  
                          o Forecasting Oil Production, GOR and WC  
                          o Choke Setting Optimization  
                          o Water Injection Optimization  
                          o Determination of Infill Locations  
                          o Uncertainty Analysis | To be confirmed        |
| 1515 – 1545   | Coffee Break & Discussion                                                                     | To be confirmed        |
| 1530 – 1700   | • Examples and Case Studies  
                          o Mature Onshore Field in Central America  
                          o Mature Offshore Field in the North Sea  
                          o Mature Onshore Field in the Middle East | To be confirmed        |