Independent Verification and Validation of Sensors and Systems in Drilling
Development of an Agreed / Consistent Industry Methodology
(Recommended Practice)

Maria Araujo: JIP Program Manager; Manager R&D, SwRI
Paul Wood: JIP Deputy Program Manager; Staff Analyst, SwRI
John de Wardt: JIP Deputy Program Manager; President DE WARDT AND CO
Stage I: Identification and prioritization of sensors / systems benefitting from IV&V, one proof of concept of IV&V application
Key aspects this JIP

• Objective: Verification and validation of data in situ on drilling operations
  • Applicable standards will be used, as appropriate
    • e.g. sensor standards by IEEE

• Purpose: Provide a means to assure data accuracy for critical sensors / systems to achieve acceptable control from manual through various levels of automated drilling and to support data analytics

• Product: An industry Recommended Practice (RP) suitable for use by typical industry participants
Work Plan – Now thru March 2019

• Launch Steering Committee
  • Complete appointments of drilling industry experts / leaders
  • Include representatives of IADC DEC, IADC ART, SPE DSATS, OGDQ, ISCWSA
  • Appoint JIP Funder representatives as funding received

• Identify and classify sensors / systems of interest in drilling

• Prioritize sensors / systems
  • Impact on drilling process
  • Value to drilling process
  • Ease to apply
  • Cost to apply
Work Plan – Now thru March 2019 (Cont’d)

• Select sensor / system for proof of concept for use of IV&V
• Identify sensor / system experts to consult on the chosen proof of concept
• Develop IV&V proof of concept
• End of Stage I review
  • Present proof of concept for review
  • Present sensor / system ranking
  • Perform stage gate review
Current steering committee members
The end of Stage I will be a Stage Gate review by the Steering Committee, JIP Funders and IADC DEC to approve or disapprove (with recommendations) to commence Stage II
Contact Info for Joining the JIP

• Maria Araujo
  • maria.araujo@swri.org
  • 210-522-3730

• Paul Wood
  • paul.wood@swri.org
  • 210-522-3275

• John de Wardt
  • john@dewardt.com
  • 970-879-3103