DSATS Meeting minutes - 5/12/22

* Recorded by Sam Dharmaselvan

* Three polls to get demographics of the audience (total DSATS membership 1780) – Total 38 attended
  + Age: (25 – 34 yrs : 5; 35-44 yrs : 6; 45-54 yrs: 5; 55-64 yrs : 8; 65+ : 3)
  + Organization: (Service: 9; Drilling contractor: 4; Academics: 7; Equipment provider: 2; Software vendor: 3; Consulting firm: 3; Operator: 2, Other: 3)
  + Duration of membership: (Just joined: 12; 1 – 3 yrs: 6; 3 – 5 yrs: 4; 5 – 10 yrs: 3; Since the inception: 7)
* DSATS V2:
  + 29 volunteers at the end of 2021 for 4 months to identify the technology gaps, capture list of ideas for better collaboration and knowledge sharing
  + New activities will be created from these suggestions
  + Successful activities will continue
    - Drillbotics, Open Source Code, D-WIS
    - Affiliates of DSATS: DSABOK and DSA Roadmap
  + Part of the DSATS V2 team is part of the current leadership team
* Discussion of the new vision and mission statement
* Outcomes from Symposium
  + Group 1 : Analytics & Automated Workflows
  + Group 2: Automating the rig
  + Group 3: Supply Chain, Legal and Business Model
  + Group 4: Collaboration & People aspects
  + These outcomes were similar to what the DSATS V2 suggestions were, working on reconciliation of these two lists.
* Calendar
  + Drillbotics
  + IADC World Drilling 2022 conference
  + ATCE
  + Drilling Conference (Stavanger)
  + Webinar:
    - Interoperability
    - Case study on quantifying the risk reduction/ cost benefits created by drilling automation systems
    - Weekly call within sub-committees
* New DSATS Website
  + SPE platform has some limitations
  + New features:
    - Free registration (open to anyone even non-SPE members0
    - Calendar of activities
    - Document repository
    - DSATS Chats
    - Networking
* Update on Existing Activities:
  + Open Source Models, Test Cases and Data for Oilfield Drilling (opensourcedrilling.org)
    - Form a community of industry and academic leader to enable creation
    - 5 models published up to date
    - Using Surface downhole data – presentation
    - Software package move/store data to feed the models
    - Need support (both funding and datasets) to develop the right KPIs and establish a baseline
    - Need Event specific data instead of an entire well data, helps in tuning the models and develop.
  + DDQUD
    - How to ensure a seamless and lossless passage of information across disciplines
    - How to capture uncertainty
    - How to capture data generation workflows
    - Member from DSATS, WPTS (wellbore positioning), DUPTS (Drilling Uncertainty Prediction)
    - Increase the awareness and understanding in the drilling community to describe data quality uncertainty.
    - Methods:
      * List User stories
      * Rank critically
      * Identify easy targets
      * Describe Data quality and uncertainty
    - Collected 111 User Stories
    - Analyzed “how to convey well depth uncertainty across disciplines”
      * 16 use cases
      * In the process of the getting the paper peer-reviewed
      * Webapp to develop the 16 use cases and new semantic graphs
    - Currently working on “Geo-pressure uncertainty”
      * Captured 37 user stories so far
      * Source of confusion in pressure to equivalent mud weight conversion
      * Meeting every 2nd week (Wednesdays)
  + DWIS
    - Inclusive of all stakeholders – free of charge.
    - Create guidelines and recommended practices with collaboration between several groups such as OGDQ, SPE TS, Industry, IADC, OSDUWDF, SDO (standards development organization)
    - Identifying the fault conditions and driving to safe state (advisory software)
    - Develop structured engagement processes with each of the key industry org
    - Provide solutions more than standards. Data that is being shared needs a mechanism to be shared as long as it is not proprietary.
  + Drillbotics:
    - Started 2015
      * 125 teams, 485 students from 50 univs, 18 diff countries
      * Fully automated mini-drilling rig
      * Focus on hardware, models and controls
        + 2 groups – virtual/physical rig (both the automation and hardware perspective)
      * Need sponsors, mentors, volunteer
  + Verification and Validation Initiative:
    - Form working group and links to D-WIS group around advisors
    - Advisor model verification (component verification level)
    - How to verify and validate the ADS systems and APIs
    - Use of drilling simulator for top level system validation
    - Need to proof the validity of the system in-order to create buy-in
    - Lacking participation on the OEM and contractor side
    - Form a small group and keep asking for references to find appropriate resources
  + Integrate downhole data for better decisions & control
    - Downhole measurements for drilling dynamics vary widely between vendors
    - Difficult to integrate into automated control of drilling parameters
    - Investigate standardizing data, look into options how to best use it for automated rig control
    - Looking for a core team to start
    - Baker might have published a paper on this, could be used as a starting point
    - Idea is not to dictate what tools to use by different service providers
    - Incorporating high freq data along with the current missions of the group
  + Human Factors for Drilling System Automation
    - Joint collaboration DSATS, HFTS, IADC ART DCS
    - Focus on Drill-a-stand and Trip-in-process
    - Develop a guideline focused on human factor assessment
* Next community call: Thursday July 14th 0830 – 1000 CST

List of Attendees:

1. Alfred Eustes
2. Pradeep Annaiyappa
3. Michael Behounek
4. David Boucher
5. Bryan Atchison
6. Calvin Holt
7. Castillo Edgard
8. David Curry
9. Deep Joshi
10. Eric Cayeux
11. Erik Wolden Dvergsnes
12. Erlend H Vefring
13. Ettore Carcione
14. Matthew Forshaw
15. Fred Florence
16. Gilles Pelfrene
17. Greg Hickey
18. Christian Hansen
19. Helga Gjeraldstveit
20. Jan Brakel
21. John de Wardt
22. Liv Almas Carlsen
23. Mark Gillard
24. Mark May
25. Mo Kamyab
26. Moray Laing
27. Nathaniel Burger
28. Dimitrios Pirovolou
29. Robert Darbe
30. Robert Van Kuilenberg
31. Robert Wylie
32. Rodica G. Mihai
33. Roman Shor
34. Sanusi Haruna
35. Shashi Talya
36. Solarin Adebowale Oluwalfemi
37. Stephane Menand
38. Zarate Losoya