

## **DSATS Meeting, Sept 8, 2011, Teleconference, 8:30 to 9:30 am**

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### **Agenda**

1. Website Update (Josh Haberer) – did not attend today.
2. Communications Team Update (Clint Chapman)
  - a. We are continuing preparation of the Demo architecture which is going well. I have expressed some concern to Wayne that perhaps we have taken on too much with automation and should move towards something more simple that a group our size can carry, i.e. move back to simpler tag structure (like “DrillLink Next Generation” [or whatever NOV is going to call it]) and finish that. I believe we will bring up this issue with the demo at the DSA-TS workshop (ATCE).
  - b. The Demo team will meet again in mid-Sept to pull the parts together again. I believe we should be able to finish at that time.
  - c. Just to review, we are going to use two projectors, one with agents, one with the DSA-TS Box and the Simulator. Then run through the demo and show how to control a top drive with two agents.
3. DSATS Europe Update (Fionn Iversen)

DSAT Europe held a meeting before the DSAT teleconference calls. It is becoming obvious that the DSAT Europe group needs to be expanded to accommodate the range of projects being planned. The opportunity exists to expand the group by recruiting from resources out with the Oil & Gas community; the link to IEEE is an excellent avenue to follow as there is a large reservoir of expertise in this group on automation and related topics.
4. Risk & Reliability (John de Wardt) – have ABS docs as start, end 2011 to get initiated.
5. Generic DSATS Presentation (Fred Florence)- nothing to update
6. IADC and DSATS Standards Workgroup (Fred Florence) – nothing to update
7. University Competition Update (Fred Florence) – nothing to update
8. Events Update

#### ***1. SPE/IADC Asia Pacific: September 20 to 22, 2011, Jakarta***

[www.spe.org/events/apogce/2011/](http://www.spe.org/events/apogce/2011/)

Fred Florence

The presentation has been passed on to Mike Killalea IADC; it has been modified/ customized to reflect the inclusion of IADC. Mike will make this presentation in Jakarta.

#### ***2. IADC Advanced Rig Conference and Exhibition, September 20, Houston***

[http://www.iadc.org/conferences/ART\\_2011/](http://www.iadc.org/conferences/ART_2011/)

David Reid

A very good conference has been organized with excellent speakers, must attend if possible.

#### ***3. IEEE/DSATS September 29 to 30, 2011, Denver***

[www.msc2011.org](http://www.msc2011.org)

Geoff Downton

Event planning has gone to schedule, 20 papers submitted and 16 have been selected, mix of academia and industrial experience including some on MPD. As the co-chair Geoff is developing

a basic set of slides for presentation, also working to ensure that the right people know about this conference.

#### **4. ATCE 2011, October 30 to November 2, 2011, Denver**

[www.spe.org/atce/2011/](http://www.spe.org/atce/2011/)

John de Wardt

1. Adrian Vuyk, Weatherford – Quality and Repeatability through Automation in Completions and Re-Entry Operations.
2. Ed Wood, Baker Hughes - Electronically-Actuated Packers Automate Installation Procedures
3. Craig Godfrey, Halliburton - Automation around completions – what now, what next?
4. Dinesh Patel, Schlumberger – Challenges and Opportunities for Automation in Completions
5. Jason Norman, Apache - Drilling & Completion Fluids Automation – applications from the food processing and chemical manufacturing industries
6. DSATS Communications Team will demonstrate current architecture controlling a top drive simulator using autonomous agents connected via a DSATS Communications Device – coordinator Clinton Chapman, DSATS Deputy Chairman.

Sponsor NOV – winery lined up.

#### **5. SPE/IADC Drilling Conference March 6 to 8, 2012, San Diego**

<http://www.spe.org/events/dc/2012/>

David Reid/ Mario Zamora

“This session explores the rapid expansion of automating the drilling process that has grabbed industry’s attention in recent years. The session papers explore the opportunities, concerns, results and key learning’s of emerging technologies as they are used in a wide array of applications. The delicate balance of when and what to automate remains the central theme as our ability to automate has moved from skeptical to action and proof.”

#### **Paper Proposals:**

Seq.	Number	Title	Author	Company	Type
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- |    |                               |   |   |   |                 |
|----|-------------------------------|---|---|---|-----------------|
| 1. | <a href="#">SPE-151474-PP</a> | Drilling automation: potential for human error  | <a href="#">Fionn Petter Iversen</a>    | International Research Institute of Stavanger | Technical Paper |
| 2. | <a href="#">SPE-151736-PP</a> | Automated Closed-Loop Drilling with ROP Optimization Algorithm Significantly Reduces Drilling Time and Improves Downhole Tool Reliability | <a href="#">Clinton Dane Chapman</a>    | Schlumberger                                  | Technical Paper |
| 3. | <a href="#">SPE-151257-PP</a> | Automation in Drilling: future evolution and lessons from aviation  | <a href="#">John Laurence Thorogood</a> | Drilling Global Consultant LLP                | Technical Paper |
| 4. | <a href="#">SPE-150941-PP</a> | Advanced Drilling Simulation Environment for Testing New Drilling Automation Techniques   | <a href="#">Eric Cayeux</a>             | Intl Research Inst of Stavanger               | Technical Paper |
| 5. | <a href="#">SPE-151459-PP</a> | Real-Time Drilling Fluid Monitoring and Analysis - Adding to Integrated Drilling Operations   | <a href="#">Egil Ronaes</a>             | M-I Swaco                                     | Technical Paper |

6. [SPE-151457-PP](#) Automating the Mud Engineer: Increasing Optimization with Real Time Drilling Fluid Properties [Shawn Lynn Broussard](#) HALLIBURTON Technical Paper
7. [SPE-151028-PP](#) Applying Theoretical Control Strategies for ROP Optimization and Offshore Well Costs Mitigation [Andre Leibsohn Martins](#) Petrobras S.A. Poster
8. [SPE-151180-PP](#) Automation Improves Shaker Performance [Bill Dufilho](#) Nov Brandt Poster
9. [SPE-151204-PP](#) Collaborating on Real-Time Geomechanics Across Organizational Boundaries [Dario Molteni](#) Schlumberger Poster

John de Wardt

Session on Drilling Systems Automation, Largest room, Wed pm – Mario and David

Also – Rig Automation and Technology – Tues am – Gregers and Marcel

March 5<sup>th</sup> DSATS session – now joined with IADC ART as per Amsterdam this year

4 speakers – 1 hr each with questions (not a panel)

- Mike Withers – VP Ride Engineering Disney – Automated Ride Development in High Safety Environment
- Bertrand du Castel - Fellow Schlumberger – The Drillers Brain
- Pieter Abbeel – Professor Berkley - Apprenticeship Learning for Autonomous Flight
- Invited - 5 D Robotics – Autonomous fighting vehicles that operate without GPS

Reception Sponsor – Integrated Drilling Equipment

#### ***6. IFAC Workshop, May 31 to June 1, 2012, Trondheim***

[www.ifac-oilfield.no](http://www.ifac-oilfield.no)

Fionn Iversen

Workshop is possibly a misnomer, it is more a symposium based on papers. The planning is coming together through the mechanism of emails and teleconferences. Deadline for abstract (extended) submission is 1<sup>st</sup> Nov. 2011 with acceptance being notified by 15<sup>th</sup> Feb. 2012.

#### ***7. IEEE I2MTC conference, May 13 to 16, 2012, Graz, Austria***

[www.imtc.ieee-ims.org/](http://www.imtc.ieee-ims.org/)

Fionn Iversen

It is planned to develop a session on sustainable energy including geothermal and drilling. It is also planned to co-chair the sessions) with IEEE. Focus on downhole and surface measurements. Gerard Thonhauser has been nominated as point of contact. A list of potential keynote speakers has been identified with expertise in sustainable energy projects. A paragraph on the meeting will be posted on the DSAT web site. A discussion developed on the procedures to ensure that papers from the oil& gas community would meet the technical rigor expected in IEEE conferences. Side note from this discussion; an extended abstract would have ~ 4000 words were as a paper normally has ~ 7000 words.

#### ***8. DSATS sponsored SPE Advanced Technology Workshop***

John de Wardt

- Kick Off meeting held, co-chairs are John de Wardt, DE WARDT AND CO; Michael Behounek, Apache; Clinton Chapman, Schlumberger.
- 9 committee members plus scribe – chasing more from outside oil and gas
- Title and abstract done – out for review
- Brainstormed sessions – have an outline but needs more work in center sections
- Location probably in Vail, Colorado (SPE advised best offer for hotel size and price) – July 2012

#### **9. Other Business**

None

*Minutes taken by Thomas Geehan*