Striking through items as I address them.

**Your Feedback**

**Your Feedback Group Feedback**

~~Always use "WE"  not "THE TEAM".  We did this NOT The team did this. ... which brings up~~ ....

Don't write a lab report! You are presenting your model/framework/algorithm.  You are not giving a lab report of what you did.

Abstract:

Add comma after "In this paper, "

~~In this paper, we present a novel method of predicting the onset of a slide event in horizontal drilling operations. Horizontal drilling operations attempt to create a well through a subsurface as quickly as possible by rotating a drill through he subsurface. A slide event occurs when the drill begins to inefficiently rotate through the subsurface, resulting in a significantly reduced rate of penetration.  Slide events can be prevented, or significantly reduced in their impact, when their onset is accurately predicted.  We present a method of accurately predicting the onset of slide events with a time-series based predictive model that operates on real-time drilling data~~. NEED MAIN RESULT. NEED MAIN CONCLUSION.

Introduction

~~Your first paragraph is too vague.  Just get to the heart of your problem...slide events are bad and predicting their onset is hard~~.  Ok, you do need some of the basic information on drilling and slide events. But, you haven't motivated your specific problem...predicting slide events.

~~You need to clearly state your problem in the second paragraph...predicting the onset of slide events...which you have not done.~~

~~"The team" No!!!!  Use "We" NOT "the team". And, you are not "creating" you are "presenting" a framework/algorithm that solves the stated problem.~~

~~paragraphs 3-4 belong in a background section on drilling and slide events...not the Intro.~~

Your intro should be an executive summary about 3-4 pages in length that covers your solution approach (your model/framework/algorithm), gives your main results and main conclusions. I think I gave a presentation on what you should have in your introduction section....

Let's rewrite your final paragraph....

~~The remainder of this paper is organized as follows. In Section 2 we present an overview of drilling operations and slide events. In Section 3 we review the data that is obtained during a drilling operation.  We identify the primary features utilized by our model in Section 4. blah blah blah.  We draw the relevant conclusions in Section LAST.~~

Data

Your section is light on data.  You need to give examples and explanations of how the data is collected (if not already done so in the drilling section).

~~Your opinion of the data size "quite large" is irrelevant. NO OPINIONS!~~  Just state the size.

You need subsections on the data itself since you should be providing examples of the data and identify the relevant variables that you will use later (see comments on feature selection below).

As you are discussing the data, DO NOT TALK ABOUT YOUR SOLUTION.  Just talk about the data.  Your solution approach is talked about in a different section. NO MIXING AND MATCHING between sections.

How much of the cleansing information is important? Your choice to use every 10 seconds is a decision that belongs in your results section not in your data section.  Your data has significantly more detailed data. Your data section is about your data NOT your use of it.

Your cleansing and preparation is pretty vague...need more information. Details matter here.

ditto for your exploratory data analysis.  What did you do to explore the data? Be specific.

In general, you've integrated too much of your solution approach (why 10 seconds? because our solution was too slow with 1 second resolution data officer).  Just give the data description without all the biases from your solution approach.

Feature Selection

This should be part of your section on data.  You are light on details of where these features come from and even what these features are...don't assume your reader will study the table.  They are reading not studying figures and tables, so tell them what you want them to know. ...

Your table is two pages...should use long table so column titles are repeated on each page...this table should be put in an appendix with just the most impactful features discussed in the text and summarized in a table within the text.  You can refer the reader to the appendix for the complete list of features utilized.

Support Vector Machine

You should have a section for each of your models before you present a summary table of their performance..

Fig. 5 [sic] is a table!  Make it a table. Furthermore, create the table within LaTeX.  Don't use this low resolution screen capture.

Fig. 6 [sic] is a table! ditto from above.

~~Your prior work patent should be mentioned in the Introduction section not here.~~

~~Remove your opinions..."while this is intriguing..." is your opinion. NO OPINIONS!~~

Ethics

Think more deeply and be sure to state your ethical dilemma clearly (and identify it as an ethical issue!).

Your approach may reduce costs and waste byproducts of the drilling...yes, you can state stuff like that in the ethics section if you have identified an ethical issue as the drilling waste causing environmental problems.