Abstract -

IPRO 303: "Information Design for Plant Management to Predict Equipment Failure" consisted of the following members:

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- Amanda Featherstone
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With faculty members:

- Donald Chmielewski
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For this particular IPRO, our main objective was to determine the decisions which must be made during a planned outage. To do so, emphasis was placed on identifying those who make the decisions and what information they use, and making recommendations that will make SmartSignal's product more useful to plant personnel, as these too were our goals.

In order to achieve these objectives, the team set forth to break down tasks and go about finishing the project in smaller steps. The methodology of steps completed throughout the course of this IPRO involved, firstly, obtaining a list of power plant contacts and then using this contact information to call and e-mail plant employees to schedule interviews. In addition to scheduling interviews, our next step was to formulate a survey of questions to interview these said employees. After completing a list of questions, our next step was to go about the interviewing process. Before completing our first interview, we practiced several mock interviews. Lastly, after conducting several interviews, the data gathered from these interviews were analyzed, allowing us to formulate our final conclusions.

In completing this process over the course of the semester, we were faced with a variety of obstacles. Namely, figuring out what were precise questions to ask plant personnel and identifying plant personnel who will most likely benefit from SmartSignal. We also faced the ethical issue of deciding whether or not to keep our sponsor's name anonymous, and to also keep our interviewees information confidential from our sponsors.

At the conclusion of our IPRO project, the team found that power plant personnel who will most likely benefit from SmartSignal to be Operations Manager and Maintenance Manager. After a total of 20 interviews from various power plants via power plant visits, telephone, and e-mails we were able to depict the information flow that takes place within a power plant. Because of this, we were also able to conclude our research with the development of a hierarchy chart of power plant groups that can be presented to our SmartSignal sponsors that accurately detail the decision flow and decision making process of these plants.