Attendees:

- Robert Dowling – NGNN Design Engineer
- Mark Saunders – NGNN Lean Event Support person
- Daryl McMath – NGNN Design Engineer
- James Young - NGNN Lean Event Support person
- Bill McHenry – NGNN Lean Training Coordinator.
- Alok Verma – ODU
- Graduate Students – ODU
  - Anand Ghadmode
  - Harsh Hirkannwar
  - Swanand Dhayagude
  - Jyotsna Devulapalli
  - Dilip Busa

1. Introduction of all attendees was made.
2. Alok Verma explained to everyone the progress in the project.
3. Alok Verma briefly discussed the presentation and indicated the feedback needed.
4. Swanand explained the issues involved in the design process.
5. Bill McHenry asked the NGNN design group if any major issue was missing.
6. Robert Dowling said cultural change could also be one of the issues.
7. Mark Saunders suggested that IPPD was not a complete solution for the lack of communication. Open communication, co-location could be the appropriate tools used. Traveling distance is not a major issue.
8. Bill McHenry indicated that the Value stream Map of the design process helps find the lack of communication.
9. Mark Saunders stated that there are lots of reviews and a lot of rework in the process.
10. Mark Saunders indicated there is lack of process owning in the system and this can be a major issue.
11. Bill McHenry stated that there are different schedules for different departments and so there is a lot of lead-time.
12. Robert Dowling stated that every department works considers the requirements of the department alone and does not consider the production process as a whole.
13. Daryl McMath said that visual prototyping is more helpful.
14. James Young said that by using visual prototyping the process is faster and the production improves.
15. Alok Verma suggested usage of boards in front of each worker showing their role in the process.
16. Bill McHenry suggested that instead of assigning all the types of work to every engineer one type could be assigned to one person.

17. Mark Saunders suggested Teams and templates as tools for lack of standardization
18. Mark Saunders indicated that designs are sometimes over specified where not needed and the critical point needed for manufacturing are missed out.
19. Robert Dowling stated that different departments have different standards.
20. Bill McHenry stated that few departments lack customer focus. The customer is only in touch with the sales department.

21. Alok Verma asked if Group Technology was already implemented in ship building industry.
22. Daryl McMath indicated it was not.
23. Robert Dowling suggested making the calculations very simple and using simple graphs instead of using the original complex graphs.
24. Mark Saunders suggested not using laptops as they may complicate the entire process.

25. Alok Verma asked if the flow chart of the design made by ODU was correct.
26. Daryl McMath said it was a very good generic of the actual process.
27. Robert Dowling suggested making the first phase look a lot more chaotic by adding a material handler.
28. Mark Saunders and Robert Dowling suggested that in the simulation activity the work being done by each person in not very important but the way it is done in the entire process is important.
29. Daryl McMath suggested explaining the goal of each phase clearly.
30. Mark Saunders suggested to stress on inventory.

The Following Action Items were identified:

31. Alok Verma asked every one to rank the issues.
32. Alok Verma asked Daryl McMath to give the VSM used for cell.

These are the recorded notes from the meeting any changes or revisions should be sent to jdevu001@odu.edu with in 5 working days.