

With this project, the team is able to achieve two important outcome:

- 1) Standardized the equipment signal system (tapping location, and 0 delay) for unscheduled down scenario by benchmarking the golden setup.
- 2) Perform early triggering with any abnormal deviation observed in the OEE report

This gives the factory and operation the confidence that the equipment is under perfect synchronization following standard machine setup governance, realistic capacity planning and accurate actual performance measurement. This help the team to achieve the right decision on investment avoidance of 510K Euro.

Conclusion

This Synchronization Systematic allows various functional departments of Industrial Engineers, Equipment Engineers, Planners and Operation to align better alignment on equipment performance and capacity commitment following the agreed standard systematic.

Acknowledgements

The authors would like to thank Infineon Technologies management and fellow colleagues from various functional groups for providing the support and insights related to the paper.

References

- [1] George, Michael L. (2005), *The Lean Six Sigma Pocket Toolbook: A Quick Reference Guide to Nearly 100 Tools for Improving Process Quality, Speed, and Complexity*, New York: McGraw-Hill
- [2] H. Tang, D. Yeo and A. Ding, (2016), *Equipment Automatic Time Study in Semiconductor Manufacturing*, 2016 Industrial and Systems Engineering Research Conference.
- [3] H. Tang, Nyoman, Imsar and Rois (2017), *Application of Equipment Automatic Time Study for UPH Improvement of Orthodyne 7200 and 7200+ Aluminum Wire Bonder*, Asia Pacific Industrial Engineering & Management Systems Conference 2017
- [4] Nelson, Daniel (1980). *Frederick W. Taylor and the Rise of Scientific Management*. Madison: University of Wisconsin Press. ISBN 0-299-08160-5.

Biographies

Lim Chun Pei is an Industrial Engineering professional practitioner in Infineon Technologies in Singapore. She earned her Bachelor Degree in Industrial Engineering from University of Nebraska, Lincoln, USA. She has 12 years working experience in IE for semi-conductor (Motherboard Assembly in CTS, Texas, USA) and Backend (Infineon Backend, Melaka, Malaysia) in Technical role. She has presented multiple technical papers in several conferences. Her research interests include manufacturing standards, work method simplification, data analysis, optimization, productivity and lean.

Lim Ming Siong is a Process Engineering professional practitioner in Infineon Technologies in Malaysia. He earned Bachelor of Mechanical Engineering from University of Malaya, Malaysia and Masters of Manufacturing from Technical University of Malaysia Malacca. He has published and presented multiple technical papers in several conferences. Ming Siong has over 15 years of working experience in semiconductor manufacturing industries, particularly in end of line area, which include molding, laser mark, package saw and trim form processes. His research interests include molding process, mold compound material properties and characteristics, manufacturing quality and mold equipment automation.

Howard Tang is an Industrial Engineering professional practitioner in Infineon Technologies in Singapore. He earned Bachelor of Engineering in Mechanical and Production Engineering from Nanyang Technological University, Singapore and Masters of Science in Industrial and Systems Engineering from National University of Singapore. He has published multiple conference papers. Howard is a professional with over 14 years of experience in working in various companies Infineon Technologies, Stats ChipPAC, Global Foundaries and Defence Science and Technology Agency in Singapore. His research interests include manufacturing, management, automation, system integration, data analysis, optimization, productivity and lean.