Productivity Improvement of Assembly Lines by Lean Methods

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In a competitive market the manufacturing companies have to produce cost effective products which can be realized by minimized production cost and higher effectiveness. The application of Lean manufacturing philosophy in order to optimize costs and quality is gaining a competitive advantage. There are lots of Lean tools which can result the improvement of the production line performance.
The article is original and unique, because beside the description of theoretical background relating to the process improvement, a practical method is also introduced in a case study.
In the study the author describes the main general steps of a Lean project completed in an industrial environment. The described case study which is a part of a real R+D project shows how can be improved the efficiency and reduced manufacturing cost of a real manufacturing system by application of several Lean tools which are One-piece flow, Takt–time analysis, Line balance and Cellular design.

Keywords: Lean production, efficiency improvement, takt-time analysis, cellular manufacturing

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Paper number: M201736