System to Generate the Operator Productivity Index inside Production Cell to Improve the Production Process Efficiency

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Abstract

The manufacturing cells have several advantages over conventional systems. Although there are numerous advantages, productivity information into production cells with more than one operator is impaired because it is not possible to know information about productivity individually per operator. This proposal is to generate a productivity index individually per operator in production cells. Each electronic device is associated to operator who is doing the assembly of this product in production cell. Each operator was identified with a RFID tag and the device by barcode. It will be made two readings: the first reading, when the operator gets the device in the beginning of assembly process; the second reading, when the operator deliver the final product at the end of the assembly process. Timestamps is be recorded in both readings. This way, it is possible to check how many phones each operator set up, and how long each device take. This solution was developed and implemented in an electronic device industry located in Brazil.

Keywords  
Material traceability, RFID, production cell efficiency, operator productivity.

Biography  

Fabrício R. Costa is senior Engineer-Researcher in INdT since 2008. He earned B.S. in Electrical Engineer from Federal University of Amazon and he earned also B.S. in Production Engineer from State University of Amazon. He is Master of Science in Operation Research applied to industry from Federal University of Amazon. He has involved in projects related to: lean manufacturing, material flow, process engineering, optimization and packaging in an electronic industry.

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