



MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR  
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### CERTIFICATE

This is to certify that the dissertation entitled “**A Teaching Learning Based Optimization approach for Assembly Line Balancing Problem**” being submitted by **Vivek Kumar (2013PIE5069)** is a bonafide work carried out by him under my supervision and guidance, and hence approved for submission to the **Department of Mechanical Engineering, Malaviya National Institute of Technology Jaipur** in partial fulfillment of the requirements for the award of the degree of **Master of Technology (M.Tech.) in Industrial Engineering**. The matter embodied in this dissertation report has not been submitted anywhere else for award of any other degree or diploma.

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