



# 7<sup>th</sup> INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

“CLEANER PRODUCTION FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS”

## Environmental and Economic Assessment of the Adoption of Cleaner Production in Textile Spinning Process

OLIVEIRA NETO, G. C. <sup>a\*</sup>, SILVA, P. C. <sup>a</sup>, CORREIA, J. M. F. <sup>a</sup>, LUCATO, W. C. <sup>a</sup>

*a. Universidade Nove de Julho, São Paulo*

*\*Corresponding author, geraldo.prod@gmail.com*

### Resumo

The energy efficiency and reduced consumption of raw materials in the textile spinning process contribute to the goals to achieve sustainable development in terms of ensure sustainable consumption and production. The aims at developing economic and environmental assessment of the adoption of technological change as a cleaner production action in the textile spinning process. The method adopted was case study and for data collection used interview and observation in two spinning processes in a textile industry. The economic and environmental advantages were calculated based on the reduction of emissions and waste. Used Mass Intensity Factor for environmental analysis. The results measure economic and environmental gains, contributing to the decision-making process of new investments and evidence of optimization of raw materials, reduction of electric energy consumption, intermediate reuse and reduction of waste for disposal that are relevant factors to ensure sustainable consumption and production.

**Keywords:** *Cleaner production, Sustainable Consumption and Production, technological change, Reduction in energy and raw materials consumption, Textile spinning process*