Contribution ID: **362** Type: **Poster**

Potential Increasing of Rubber Sheet Production with Fungus Displacement by Solar Tunnel Dryer.

Thursday 25 May 2017 17:45 (15 minutes)

In this study, Potential increasing of rubber sheet production with fungus displacement by solar tunnel dryer. By integrating a biomass gasifier as an assisting heat source for drying Rubber Sheet produce and its performance analysis has been investigated. Experimental study has been carried out with the stand-alone solar tunnel dryer and the dryer with the assisted biomass gasifier.
For thermal performance analysis, for wind speed 1.0 m/s , the dryer with assisted gasifier gave an average efficiency of 32.86% higher and the drying period was 31.45 % shorter than those of the unit without the gasifier. For wind speed 1.5 m/s, and for wind speed 2.0 m/s, the values are 21.49 %, 28.68 % and 33.17%, 24.54 %, respectively. From economic analysis, drying of wind speed 1.5 m/s is the most appropriated. The payback and the IRR were 1.8 years and 55.48 %, respectively. While those for wind speed 1.0 m/s were 2.74 years and 36%, respectively.

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Session Classification: Poster Presentation II

Track Classification: Environmental Physics, Atmospheric Physics, Geophysics and Renewable Energy