

Design and fabrication of an automated Kottu Roti making machine

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Abstract

The popularity of the fast food, “Kottu Roti”, is increasing due to its ease of preparation and quick service. However, small shop owners face the need of paying a high salary for the Kottu maker, which affects the profit margin of the business. As a solution, an automatic Kottu making machine has been developed. This machine uses an Arduino-based embedded system. In the developed machine, raw materials required for the Kottu need to be supplied to a pan. Screw conveyers are used to supply ingredients to the container on time, those ingredients are mixed and chopped, using a slider crank mechanism. In the cooking process, the container is heated on a stove which uses coconut shells. Its temperature depends on the wind supply, which is controlled by a fan. Using this system, it is possible to completely prepare a full Kottu Roti in 4 minutes, with an average weight of 800 g. Thus, approximately 15 Kottu Rotis can be prepared in an hour, without much human intervention during its working cycle. The main aim of this machine is to provide a solution for labor shortages and also to make the preparation a simple, trouble-free, and less time consuming task.

Keywords: Automatic system, Kottu Roti, less time consumption