

REAL-TIME FUEL CONSUMPTION MONITORING ALGORITHMS FOR ACCURATE FUEL CONSUMPTION DETERMINATION

Roxana IRIMIA¹, Nicoleta MIHALACHE¹, Cosmin GHELBERE², Monica RUSU²

e-mail cocamonica.pfa@gmail.com

Abstract

For a long time, accurately determining the fuel consumption of agricultural machinery for worked fields has been a common issue. Initially, a manual measuring system was used to measure the amount of fuel left in the tank after a day of work. However, this solution is both time-consuming and prone to generating inaccurate results when multiple fuel refills are required in a day and multiple fields are worked. With the advent of IoT devices and GPS tracking systems, developing automatic solutions to precisely calculate this metric has become faster and more feasible. This article delves into ways of computing fuel consumption for agricultural machinery, enabling easy tracking and management of machinery usage and efficiency.

Key words: fuel consumption estimation, GPS, agriculture machinery tracking