**ABSTRAK**

Minyak merupakan salah satu bahan pokok kebutuhan pangan, di Indonesia masih banyak penjual makanan yang mencampurkan plastik ke dalam minyak goreng yang digunakan saat menggoreng, dengan tujuan agar gorengan menjadi tahan lama dan gurih, meskipun begitu gorengan berplastik sangat berbahaya bagi kesehatan tubuh karena plastik sangat sulit dicerna oleh tubuh. Dari konsep permasalahan tersebut muncul suatu ide untuk memanfaatkan teknologi *Internet of Things* untuk memberi informasi terkait kadar kandungan plastik yang ada didalam minyak goreng tersebut. Penelitian ini mengadopsi pendekatan *Research and Development* (R&D) dengan menerapkan moodel ADDIE *(Analysis, Design, Development, Implementation, Evaluation)* dalam merancang alat pendeteksi minyak goreng berkandungan plasik. Alat ini mampu mendeteksi nilai kekeruhan pada minyak goreng yang mengandung plastik dan tidak mengandung plastik. Data dari hasil perancangan alat ini pada pengujian minyak murni dengan merk bimoli tanpa plastik dengan pengujian berulang memperoleh nilai rata rata kekeruhan yaitu 114,4 NTU, sedangkan pada pengujian minyak murni dengan merk bimoli berplasik diperoleh nilai rata rata kekeruhan 142,4 NTU.

Kata kunci : Minyak Goreng, Plastik, *Sensor Turbidity,*

***ABSTRACT***

*Oil is one of the essential staple foods, and in Indonesia, there are still many food vendors who mix plastic into the cooking oil used for frying, with the aim of making the fried food last longer and taste savory. However, fried food containing plastic is very dangerous to health because plastic is very difficult for the body to digest. From that problem concept, an idea emerged to utilize Internet of Things technology to provide information regarding the plastic content present in the cooking oil. This research adopts a Research and Development (R&D) approach by applying the ADDIE model (Analysis, Design, Development, Implementation, Evaluation) in designing a detector for cooking oil containing plastic. This tool is capable of detecting levels in cooking oil that contains plastic and that which does no contain plastic. that contains plastic and that which does no plastic. Data from the results of designing this tool in testing pure oil with the Bimoli brand without plastic with repeated tests obtained an average turbidity value of 114.4 NTU, while in testing pure oil with the Bimoli brand with plastic, an average turbidity value of 142.4 NTU was obtained.*

*Keywords: Cooking Oil, Plastic, Turbidity Sensor****.***