## **ABSTRACT**

Tomatoes are one of the leading commodities in the agricultural sector, especially in Karang Tengah Village, Cilongok District, Banyumas Regency. However, tomato plant productivity often decreases due to leaf disease attacks. This study aims to develop a website-based tomato plant leaf disease detection system by utilizing computer vision technology, to overcome the difficulty in distinguishing symptoms of tomato leaf disease experienced by farmers. The development method used is prototyping, which allows the system to be built in stages based on input from users, namely farmers in the field. The results of this study are a website that is able to detect tomato leaf disease quickly, accurately, and has an easy-to-use interface. With this system, farmers can recognize tomato plant diseases more quickly and take appropriate treatment steps, so that plant productivity can increase and farmer welfare is more assured.

**Keywords**: leaf disease detection, tomato plants, website, computer vision, prototyping method.