

# **SISTEM MONITORING HEWAN PELIHARAAN MENGGUNAKAN GLOBAL POSITIONING SYSTEM (GPS) BERBASIS INTERNET OF THINGS (IOT)**

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## **ABSTRAK**

Kepemilikan hewan peliharaan, termasuk kucing, merupakan bagian integral dari kehidupan manusia, memberikan kebahagiaan dan kenyamanan serta memupuk ikatan keluarga yang kuat. Namun, memantau hewan peliharaan, terutama kucing yang dikenal gesit dan suka menjelajah, menimbulkan tantangan tersendiri, terutama ketika pemilik tidak berada di rumah atau dalam perjalanan panjang. Risiko seperti tersesat, kecelakaan, atau pencurian menimbulkan kecemasan terkait keberadaan dan keselamatan kucing mereka. Kemajuan teknologi IoT (Internet of Things) menawarkan solusi baru dalam pemantauan hewan peliharaan. Dengan perangkat IoT GPS dan Node MCU, pemilik dapat melacak lokasi hewan peliharaan secara real-time. Penelitian ini berhasil mengimplementasikan sistem pemantauan kucing berbasis GPS IoT dalam kehidupan sehari-hari. Alat yang dihasilkan mampu melacak hewan dan menampilkan lokasi di mana posisi hewan peliharaan berada

Kata kunci : *Internet of things, GPS , Node MCU*

**PET MONITORING SYSTEM USING GLOBAL POSITIONING SYSTEM  
(GPS) BASED ON INTERNET OF THINGS (IOT)**

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***ABSTRACT***

*Pet ownership, including cats, is an integral part of human life, providing happiness and comfort and fostering strong family bonds. However, keeping track of pets, especially cats who are known to be agile and exploratory, poses its own challenges, especially when owners are away from home or on long journeys. Risks such as getting lost, accidents, or theft create anxiety regarding their cat's whereabouts and safety. Advances in IoT (Internet of Things) technology offer new solutions in pet monitoring. With IoT devices such as GPS trackers and MCU Nodes, owners can track the location of pets in real-time. This research successfully implemented an IoT GPS-based cat monitoring system in daily life. The resulting tool is able to accurately track animals and display the location where the animal's position is, thereby increasing safety and comfort for pet owners.*

*Keyword:* *internet of things, GPS, Node MCU*