

## عنوان مقاله:

Development of A Qr Code System for Tree Species Identification

## محل انتشار:

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## خلاصه مقاله:

Trees provide a wide range of benefits to humans and other living organisms. An accurate method tree species identification will improve their management and conservation. Also, tree identification and description are crucial for genetic study, biodiversity conservation, management and regeneration strategies. The conventional methods of tree identification are time-consuming and requires a high level of expertise, necessitating development of a more efficient tree identification means. In this research, a QR code system for tree identification was developed. Tree data were collected from campuses of two tertiary institutions in Akure, Nigeria: Federal University of Technology and Federal College of Agriculture. System design was built around a three-tier architectural model. PostgreSQL was used as the Database System, the lowest tier. The Middle tier is the Web Server, Apache HTTP Server. Php ۸.۱ was the scripting language that communicates with the database. For the Client tier, HTML, CSS and Javascript were used. The QR code generator was developed using PHP ۸.۱. The PHP script used a QR code library to generate the QR code image. The QR code is linked to the website database containing all tree species information. The generated QR codes were attached to trees, and when scanned, the website is automatically launched and the tree information is retrieved. A survey was conducted to get end-users' feedback within the study sites. The results obtained revealed that the QR codes are easy to use, and can make tree identification more interesting, thus increasing people's knowledge about trees and improving Trees management.

## کلمات کلیدی:

Tree identification, QR code, Database, End user feedback, Urban Forest eco-tourism

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