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Technology Assisted Dietary Assessment

Advanced cell phone camera software accurately evaluates food photos using image processing and a nutritional knowledge base to determine serving size and health impact.

Currently, dieters can subscribe to websites that monitor eating habits by critiquing uploaded photos of their meals. This offers busy people the chance to get nutritional feedback without spending time writing down all of their meals, drinks, and snacks. The goal is to help dieters better evaluate portion size and nutritional content.

Researchers from Purdue University and Curtin University, Perth, Australia, have developed a technology to help the health-conscious better gauge the size and nutritional content of the food on their plates by using a cell phone camera. This technology goes a step further because it is based on strong scientific grounding. This software integrates various image-processing technologies to evaluate the photos, which results in better food identification and serving size. A nutritional knowledge base is used to evaluate the food and determine the possible impacts on health.

To view a video related to this technology, click this link: https://www.youtube.com/watch?v=CjS134veAqw&list=PLDD872C52DD2AC2EC&index=42

Advantages:

-Convenient

-Health awareness

Potential Applications:

-Nutrition

-Diet

-Medical/Health

TRL: 4

Technology ID

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Category

Agriculture, Nutrition, & AgTech/Food Safety & Traceability

Artificial Intelligence & Machine Learning/Computer Vision & Image Recognition

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Keywords: mobile nutrition feedback, cell phone food analysis, image processing dietary assessment, automated portion size evaluation, nutritional knowledge base technology, diet monitoring app, health-conscious food evaluation, photo-based meal critique, dietary assessment software, food identification technology, Analytics, Application Software, Big Data, Computer Technology, Diabetes, Food and Nutrition, Mobile Apps, Nutrition, Obesity, Software