

## DETAKE app by Indonesia detects heart disease early and accurately

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**AI smartphone application for patients with heart disease assists in early and accurate detection along with a reminder to medication and medical checkups**



Researchers from the Brawijaya University (UB) Medical School in Malang, East Java have developed DETAK, a smartphone application for patients with heart disease. The app works on an AI (artificial intelligence) algorithm, to provide early and accurate detection of heart disease, or acute coronary syndrome, and prevent delays in proper diagnose and treatment. DETAK was designed to prevent these types of occurrences with early discovery.

"Apart from functioning as an early detection tool encouraging patients to seek treatment, DETAK serves to remind heart disease patients to take their medication and undergo medical checkups regularly," noted Mohammad Saifur Rohman, the lead researcher of cardiovascular study at the UB Medical School. The application also offers informative articles on heart disease and advice for maintaining a healthy heart.

Rohman drew attention to the importance of the early detection service in the application, since delay in the detection of heart disease is a main causal factors in the high number of heart attack cases resulting in death, citing data from the Dr. Saiful Anwar Hospital in Malang. He attributed this delay in detection mostly to a lack of knowledge and awareness of the symptoms of acute coronary syndrome.

For early detection of the ailment, patients using the DETAK app answer several questions related to chest pain they experience and will be notified on where to go to seek help. The app will direct users with high risk of acute coronary syndrome to hospitals with cardiologists on duty, while those with low risk of acute coronary syndrome will be directed to visit

nearby health facilities with general practitioners on duty.

The DETAK application has already received the Indonesian Museum of Records (MURI) award, and will soon cover health facilities across Indonesia, with data collection in collaboration with the Indonesian Cardiologist Association (PERKI), Indonesian Medical Association (IDI) and other related facilities.