

## ABSTRAK

### **AUDRI WIRLINA, NIM 4181250009 (2022). Sistem Pakar Deteksi Covid-19 Menggunakan Metode Forward Chaining dan Certainty Factor Berbasis Mobile Android.**

*Coronavirus (SARS-CoV – 2)* atau lebih dikenal dengan sebutan *Coronavirus Disease 19 (Covid-19)* merupakan virus yang kasus pertama kalinya ditemukan di pasar ikan Wuhan Tiongkok pada tanggal 18 Desember 2019. *Coronavirus* mulai masuk ke Indonesia pada tanggal 2 Maret 2020 bermula dari warga Indonesia yang berkontak fisik dengan warga Jepang di sebuah acara klub dansa di Jakarta. Kasus Covid-19 terus menyebar dengan pesat, tercatat pada Tanggal 30 Juni 2021 terdapat 2.178.272 kasus positif. Kemajuan teknologi kecerdasan buatan dibidang medis telah memunculkan sistem pakar yang dapat menggantikan para ahli sebagai deteksi awal Covid-19. Dikarenakan mahalnya melakukan *rapid test*, *swab test* dan test PCR (*polymerase chain reaction*) serta kurangnya tenaga ahli dalam menangani kasus Covid-19 ini. Sistem pakar dengan metode *forward chaining* dan *certainty factor* berbasis *android* dapat mampu membantu seseorang dalam mendeteksi awal secara mandiri apakah pengguna termasuk positif atau negatif Covid-19. Sistem pakar ini memberikan hasil deteksi dengan tingkat keyakinan sistem sebesar 97%, dan 90,76% untuk pengguna yang positif Covid-19, dan 9,23%, 20%, 7,69%, untuk pengguna yang negatif Covid-19.

**Kata kunci :** *Sistem pakar, forward chaining, certainty factor, Covid-19, android*

## ABSTRACT

### **AUDRI WIRLINA, NIM 4181250009. Expert System For Detection Of Covid-19 Using Forward Chaining and Certainty Factor Methods Based on Mobile Android.**

Coronavirus (SARS-CoV – 2) or better known as Coronavirus Disease 19 (Covid-19) is a virus whose case was first discovered in the Chinese Wuhan fish market on December 18, 2019. The coronavirus began to enter Indonesia on March 2, 2020, starting from Indonesian citizens who had physical contact with Japanese citizens at a dance club event in Jakarta. Covid-19 cases continue to spread rapidly, it was recorded that on June 30, 2021 there were 2,178,272 positive cases. Advances in artificial intelligence technology in the medical field have given rise to expert systems that can replace experts as early detection of Covid-19. Because to the high cost of conducting rapid tests, swab tests and PCR (polymerase chain reaction) tests and the lack of experts in handling this Covid-19 case. An expert system with the forward chaining method and certainty factor based on mobile Android can be able to help someone early detect independently whether the user is positive or negative for Covid-19. his expert system provides detection results with a system confidence level of 97%, and 90.76% for users who are positive for Covid-19, and 9.23%, 20%, 7.69%, for users who are negative for Covid-19.

**Keywords** : *expert system, forward chaining, certainty factor, Covid-19, android*