Digital Verification and Authentication System for COVID-19 Test Certificates (DVASTC-COVID-19)

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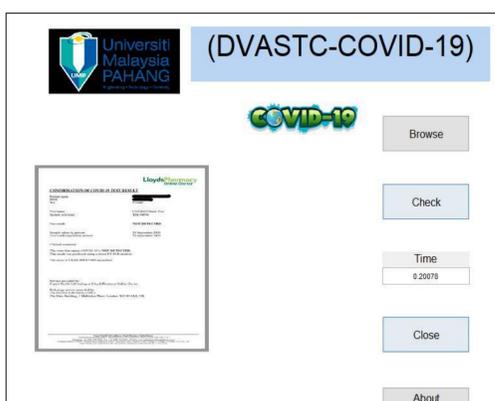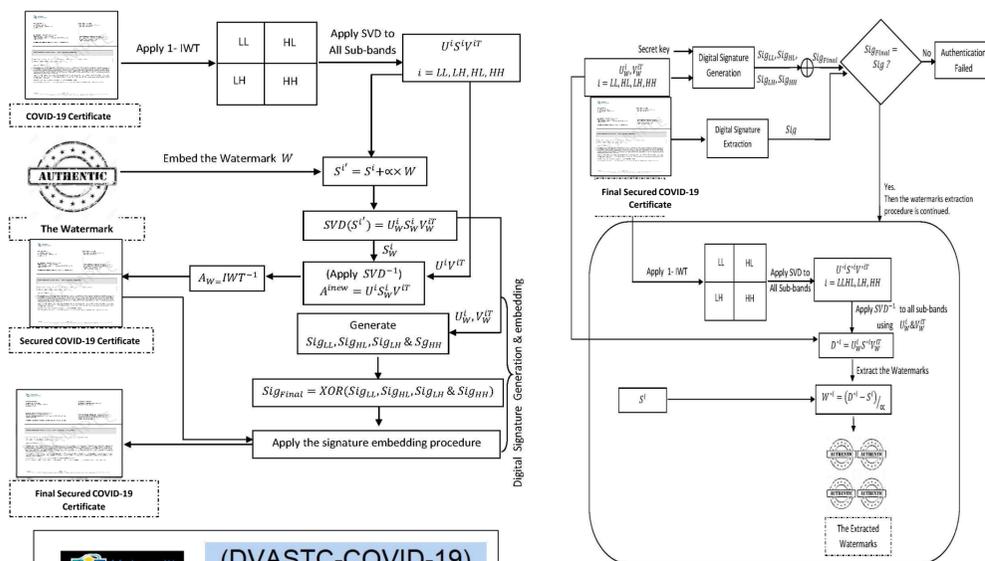CO-INVENTORS: DR ABDULRAHMAN M. ALSEWARI, DR NASRIN MOHAMED HASSAN MAKBOL, DR WAHEB ABDUL JABBAR

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PRODUCT BACKGROUND

➤ Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus.

➤ The Covid-19 pandemic is a social and an economic crisis just as much as it is a health crisis – its repercussions, severe and far-reaching, are being felt across the world.

➤ The COVID-19 negative certificate or test results now becomes very important document for a lot of activities such as air travelling.

➤ A lot of cases had been published in the world about fake and change COVID-19 certificates/test results, especially in the airports. The certificates should be provided to permit travelling and immigration.

➤ Several approaches may be used to falsify the COVID-19 documents. For example, documents may be copied using copying machines, remade using word processing software or scanned, digitally modified and finally printed.
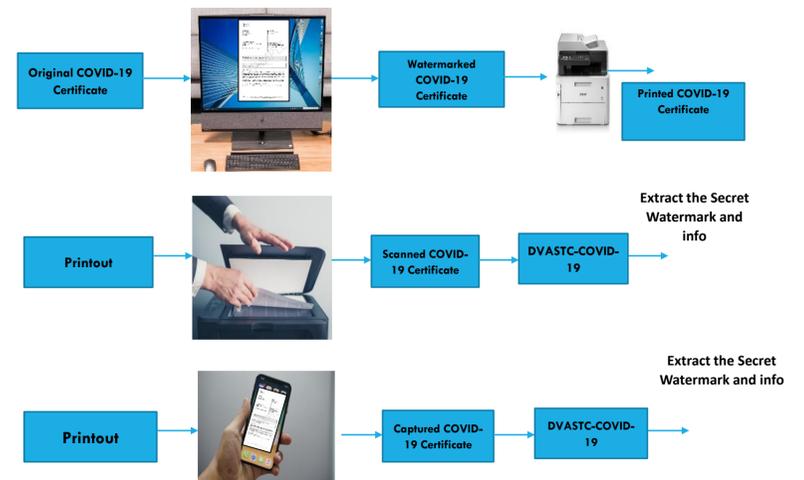
PRODUCT OVERVIEW

COMMERCIALIZATION

➤ Spot fraudulent COVID-19 documents and fake test results. No special software until now.
➤ Track the illegal certifies. No special software until now.

499/license/Year

NOVELTY & INVENTIVENESS

➤ A Digital verification and authentication System to validate as well as track the fake and changed COVID-19 Documents.
➤ A robust image watermarking scheme against image processing and geometrical attacks.
➤ A secure image watermarking scheme so can be used for copyright protection (No false positive problem).
➤ A resistant image watermarking scheme against print-scan and print-cam challenges.

MARKETABILITY

• DVASTC-COVID-19 can be used for detecting the fake COVID-19 certificates and results.
• DVASTC-COVID-19 can be used to detect any change in the COVID-19 certificates and results.
• DVASTC-COVID-19 can be used to prove the originality of the COVID-19 certificates and results.

COLLABORATORS

ACHIEVEMENTS

➤ Taha H. Rassem, Makbol, N. M., & Khoo, B. E, (2018), 'Security Analyses of Hybrid Digital Image Watermarking Techniques Based On SVD in Wavelet Transform Domain'- Multimedia Tools and Applications(ISI- Q2 IF = 1.530)
➤ Taha H. Rassem, Bee Ee Khoo and N. M. Makbol,"A new reliable optimized image watermarking scheme based on the integer wavelet transform and singular value decomposition for copyright protection", information sciences, 2017, IF =4.832 Q1.

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➤ Digital Verification and Authentication System for Test Certificates (DVASTC-COVID-19) – Under process.

➤ Registration/Patent No: LY2017001243 – A secure DWT-SVD Block-based Image Watermarking Scheme.

FUNDS