

user-friendly application. Therefore, our crowdsourced-based tracing system will help the government identify and aware people in the fastest way and considerably reduce the infection rate.

IV. CONCLUSION

The number of coronaviruses confirmed test cases around the world is increasing at an alarming rate. The leading cause of this problem is that the infected people do not maintain their quarantine properly and walk outside without any concern. Thus, the virus quickly spreads out to another human body and affects the nearby person. Therefore, to stop the spread of this virus, this paper proposed a crowdsourced-based contact tracing framework. By utilizing the Haversine and circle formula, the unsafe area has been calculated. The algorithm has been tested for several test cases and datasets to validate its efficiency in polynomial time. Once the government identified the marked area, they will notify people staying in that significant zone. User ratings also verify the application scalability, security, and effectiveness.

Whereas previously launched applications in Bangladesh required Bluetooth connectivity, this novel app can perform smoothly without Bluetooth and Wi-Fi. This application will help the government reduce the virus spreading into human bodies and help people lead a healthy life again. Moreover, this work can be extended by adding some new features for the coronavirus. In the future, we will merge an incentive and penalizing model to ensure more participation of the citizens with some new features.

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