**THREAT PREDICTION USING HONEYPOT AND MACHINE LEARNING**

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF

## BACHELOR OF ENGINEERING

IN

## INFORMATION TECHNOLOGY

BY

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UNDER THE GUIDANCE OF

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## INFORMATION TECHNOLOGY DEPARTMENT XAVIER INSTITUTE OF ENGINEERING UNIVERSITY OF MUMBAI

**2021 – 2022**

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This to certify that

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## DECLARATION

I declare that this written submission represents my ideas in my own words and where others’ Ideas or words have been included; I have adequately cited and referenced the original sources.

I also declare that I have adhered to all the principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission.

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### ABSTRACT

Real-time detection and response is one of the most effective way to cyber threats introduced to servers and clients by aggressive, intelligent and sometime real-time attackers. Every node in the network is considered to be a weak point for a potential attacker to take advantage of. Therefore detection and response at endpoint must be extremely effective to erradicate any chances of exposure of such weak points to potential attackers. So as to shift from a traditional approach which fails to detect diverse attack scenarios to a more smart, intelligent way and introduce machine

learning to many techniques used to detect and prevent unauthorised access to

systems. Thus we look at multiple techniques for different scenarios and advantages

of the same.

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