VISVESVARAYA TECHNOLOGICAL UNIVERSITY
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PROJECT REPORT

On

"PREVENTING THE DISCLOSURE OF THE DATA LEAKS IN INTRA MAIL TRANSACTIONS"

Submitted by

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In partial fulfillment of the requirements for the degree of

BACHELOR OF ENGINEERING

In

INFORMATION SCIENCE AND ENGINEERING

Under the Guidance of

Mr. Sharan Lional Pais

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DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY

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ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
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CERTIFICATE

Certified that the project work entitled "Preventing the discloure of the data leaks in the intra mail transactions" is a bonafide work carried out by

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in partial fulfilment for the award of BACHELOR OF ENGINEERING in **INFORMATION SCIENCE AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM** during the year 2019–2020. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Data leakage is a growing insider threat in information security among organizations and individuals. A series of methods have been developed to address the problem of data leakage prevention (DLP). However, large amounts of unstructured data need to be tested in the Big Data era. As the volume of data grows dramatically and the forms of data become much complicated, it is a new challenge for DLP to deal with large amounts of transformed data. We propose an Adaptive weighted Graph Walk model (AGW) to solve this problem by mapping it to the dimension of weighted graphs. Our approach solves this problem in three steps. First, the adaptive weighted graphs are built to quantify the sensitivity of tested data based on its context. Then, the improved label propagation is used to enhance the scalability for fresh data. Finally, a low complexity score walk algorithm is proposed to determine the ultimate sensitivity.