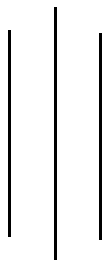
**Tribhuvan University**

**Institute of Science & Technology**



**Central Department of computer Science & information Technology**

**Kirtipur, Kathmandu**



**A Literature Review Report**

**On**

**Web Application Security by SQL Injection using Parse Tree Validation**

**Submitted By: Submitted To:**

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**Abstract**

An SQL injection attack targets interactive web applications that employ database services. Such applications accept user input, such as form fields, and then include this input in database requests, typically SQL statements. In SQL injection, the attacker provides user input that results in a different database request than was intended by the application programmer. That is, the interpretation of the user input as part of a larger SQL statement, results in an SQL statement of a different form than originally intended. The technique described here is a technique to prevent this kind of manipulation and hence eliminate SQL injection vulnerabilities. The technique is based on comparing, at run time, the parse tree of the SQL statement before inclusion of user input with that resulting after inclusion of input. The solution is efficient and reduces overhead to database query costs. In addition, it is easily adopted by application programmers, having the same syntactic structure as current popular record set retrieval methods.

**Keywords:** SQL Injection, SQL Parsing, Parse Tree, Dynamic Queries.

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**Letter of Approval**

This is to certify that this literature review report is prepared by Mr. **Ganesh B. Khatri** in partial fulfillment of the requirement for the degree of MSc.CSIT II year III semester. In our opinion, it is satisfactory in the scope and quality for the required semester.

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