

**Informatics Institute of Technology**

In Collaboration with

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**Concept Ease – A System to Analyze Java Code Concepts**

A dissertation by

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# ABSTRACT

Information Technology is one of the most prominent fast developing industry in current world. Many individuals are interested in IT and they used to involve in jobs related to IT sector. In the IT world programming takes a significant place. Present days many students are interested in continuing their higher studies in programming field. Once a student started their higher education in programming, he/she must get a good foundation and a proper knowledge about basics. Therefore, they must have a good knowledge and understanding on programming concepts which is the foundation to any programming language. If any novice programmer faces difficulties in understanding programming concepts, lack of knowledge on concepts in coding and analyzing the existing sample project codes; entire programming journey of them will be doomed. So, Author decided to initiate a research project on code concept analysis tool which could analyses any code and identify concepts within it; for now, Object Oriented Principles and design patterns on a java code along with descriptions. The aim of the project is to research, design, develop, test and evaluate a tool which can analyze a source code and state the concepts used within the code along with a description to facilitates easy understanding on programming concepts and source code using machine learning.

**Keywords** – OOP, Java, REGEX, Angular