

# Software Complexity Automation Tool for Industrial Practices with Qualitative and Quantitative Aspects

M.H.N Akalanka<sup>1</sup>, W.A.H.T. Weerasinghe<sup>1</sup>, H.K.P.S. Perera<sup>1</sup>, T.N. Kumari<sup>1</sup>, D.R. Wijendra<sup>2</sup>, and J. Krishara<sup>2</sup>

<sup>1</sup>Faculty of Computing, Sri Lanka Institute of Information Technology, Sri Lanka.

<sup>2</sup>Department of Information Technology, Sri Lanka Institute of Information Technology, Sri Lanka.  
*it19239644@my.sliit.lk, it19136370@my.sliit.lk., it19131016@my.sliit.lk, it19060804@my.sliit.lk,  
dinuka.w@sliit.lk, jenny.k@sliit.lk*

## Abstract

With the evolution of software development, the complexity of a system has to be handled to increase its stability in real-world usage. Software complexity is involved with the degree of the users difficulty involved in comprehending its logic. Numerous software complexity metrics have been introduced to quantitatively measure software complexity based on different quantifiable aspects. However, the success of the current software complexity metrics is limited due to the lack of aspects user understandability. Therefore, an automated tool for introducing software complexity with respect to the possible quantitative and qualitative aspects has been proposed.

## Keywords

Software Complexity, Complexity Metrics, Software Development, Automation