**DECLARATION OF ORIGINAL WORK**

We declare that the work presented in this project titled “Digita LCC (leaf color chart)”, submitted to the Patuakhali Science and Technology University, for the award of the Bachelor of Computer Science and Engineering degree, is our original work. We have not plagiarized or submitted the same work for the award of any other degree. In-case this undertaking is found incorrect, we accept that my degree may be unconditionally withdrawn.

July, 2017

Place: Patuakhali.

**LETTER OF APPROVAL**

Certified that the work contained in the project titled “**DIGITAL LCC (LEAF COLOR CHART)**”, by Rafsan Uddin beg Rizan (ID: 1402061), and this work has not been submitted elsewhere for a degree.

Signature :………………………….

Supervisor Name : [Dr. Syed Md. Galib](http://cse.pstu.ac.bd/welcome/teacher_details/24)

Designation : Associate Professor

Department Name : Computer and Information Technology (CIT),

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**ABSTRACT**

Leaf Color Chart (LCC) is used in agriculture modeling for monitoring the plant performance by comparing the leaf color and its corresponding color in LCC. To digitize the acquisition and interpretation of leaf color, smartphone camera is used. A color calibration is necessary for a smartphone before it can be used to capture and interpret leaf color. The calibration process evaluates the camera performance with the operational lighting conditions and determine whether the smartphone camera can be used for leaf color interpretation or not. The result from camera color calibration is used as a relative color chart for interpreting leaf color.

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