Requirements

In order to run this application following needs to be installed in the system:

1. Python 3 (preferably 3.9.6)
2. Openpyxl: this library needs to be installed after python, which is used to work with excel file in python
3. PyQt5: used to create User Interface for the application

Methods

Command	numberOfFiles
Function	counts the number of Excel files in the folder. Also make sure that there is only excel reports from LSM in the file
Call	numberOfFiles(directory)
Parameters	directory: String value of path of the folder in which excel files reports from Laser scanning microscope are stored.
comments	• The function returns a value 'counter' with the number of the excel files in the directory.

Command	browse
Function	browse and find the directory in which the excel reports are saved
Call	browse()
Parameters	None
comments	• Browse is a function tagged with the browse button in the user interface. • This function returns the string 'directory' to the function numberOfFiles in order to count the number of files in the directory

Command	collectData
Function	Collects and return the array of required data for the parameter analysis.
Call	collectData(directory, numberOfFiles)
Parameters	directory : String, path of the folder in which excel files reports from Laser scanning microscope are stored.

	numberOfFiles: integer, the number of the excel reports from laser scanning microscope in the directory specified above.
comments	• collectData() includes functions from openpyxl library (link is given for reference). • Nomenclature of reports from the laser scanning microscope must be standardised as the load workbook (function from openpyxl library) require the name of the folder for open the generated report. Example: Test_01_0001 • It is observed that excel report from the laser scanning microscope always has parameter data in a specified cell. Example: Sheet 'Profile' contains 'depth' values at C35 cell. Thus, the application can be extended to collect various parameter in using this observation. • The function returns an array 'measurement' , contains all required parameters for the analysis.

Command	createMasterSheet
Function	Creates a new excel sheet to store required values from the data collected from the reports.
Call	createMasterSheet()
Parameters	None
comments	• The function collectData is called from this fuction which returns an array of required parameter data. • The parameter data is then appended to the new workbook using function workbook from openpyxl.