

Covid19 Lab Data Entry Automation

Covid19 test center at IISER Berhampur has succeeded in testing about 20,000 samples. Apart from conducting actual test procedures systematically, major challenge faced by the center has been the data management. Especially, when the test data has to be updated on to the ICMR portal, lengthy web forms are filled, which involves both patients' personal information as well as the test results, which are highly sensitive in content. Manual execution of the same is very tedious, time taking and error prone. Moreover, it is difficult to keep a track of the privacy of the information. In this context, we have developed a Robotic process automation (RPA) based algorithm, which made the process simpler, faster, efficient, and foolproof. Following are the major achievements of the program.

1. Algorithm/ Program has saved hundreds of man hours.

For 300 patient records it takes a minimum of 10 to 12 man hours for uploading the data and validating each entry. The inhouse developed RPA based algorithm uses artificial intelligence to validate each entry and upload onto the ICMR portal in less than one-hour without any human intervention, except invoking result data into the program.

2. Data privacy and security is highly protected as there is absolute no human intervention in data handling.

3. This algorithm has been tested for several days and proved to be of zero error.

Technical aspects

Program is developed using Tagui (an open source RPA scripting language) and JavaScript is available on request (gopikg@iiserbpr.ac.in)

