

# Challenge Competition 2020

On

Introducing Online Government Document Reader & Document Template Validator to Validate Uploaded Documents on System by National Service Delivery Platforms



**Cabinet  
Division**  
Government of the People's  
Republic of Bangladesh



**ICT  
DIVISION**

FUTURE IS HERE



## Background

A country deals with a large amount of information to conduct all its government and civic activities. The most difficult task is to properly store the correct information from this huge data and make it suitable for later use by arranging it in the appropriate format. In today's world technology can make this difficult task easier. But it requires proper use of technology in the right direction. Many countries of the world are using various software tools to store important government documents.

In Bangladesh there are lots of government documents available in pdf format which are in different shapes and templates. In most of the cases those PDF created from image rather from text directly.

PDF files have a couple of drawbacks: they are difficult to integrate into web pages, and they are difficult to edit. PDF allows scalable text, vector images, and bitmaps to be combined in one document. No matter how much you want to enlarge your PDF file, the text it contains will look sharp and clear with the tiny details visible. This will not happen when scaling JPEG – this format is not suitable for images containing unique colors, lines and small details.

PDF created from JPEG format cannot not provide certain services like reading, searching, etc. To address this issue a tool is required to transform an image-based pdf into text-based document and then read or search from that document. The documents that are popular and are uploaded frequently needed to be validated whether these are in a correct format and template (ie. height, width, shape, watermark, etc.).

The proposed document's template validator will also promptly validate the uploaded document's shapes and templates so that the national service delivery platforms like the national portal, eksheba, mygov, etc. can use this tool and validate uploaded documents.

The system will provide conversion of images of typed, handwritten or printed text into machine-encoded text, whether from a scanned document, a photo of a document.

## Problem Statement

Online Government Document Reader & Document Template Validator so that National Service Delivery Platforms can validate the uploaded document's shapes and templates.

## The Challenge

There are few challenges-

The applications need to be cost effective, durable, low maintenance and user friendly and give proper services to users.

The application system will need advanced technologies that were not tested in local context before. So real-based and long-term hassle-free operation should be considered. Teams would require guidance of experts in designing solution.

Breadth and depth of the solution depends on the imagination of the respective teams. Teams can consult with other already deployed ideas in countries with similar service.

Coders are expected to develop GPS/GIS based tools and data system. Data storage and visualization libraries available as open sources shall be made available as resources to the participating teams.

## Indeed Benefits

### 1. More Office Space

Using prime office real estate to store business records is costly. Scanning documents frees up office space so it can be used to generate more revenue. Rather than taking up space in bulky file cabinets, thousands of files can be stored on a single server instead.

### 2. Enhanced Information Preservation

Important documents can be preserved for long term. Firstly, this protect important information from physical deterioration. Secondly, it will add benefit of improving the legibility of old hardcopy records.

### 3. Better Data Security

Protecting hard copy information is difficult at best. Scanned documents can be encrypted, password protected, and securely stored in the cloud. You can assign access levels to specific users and track all file activity.

### 4. Improved Staff Collaboration

Document scanning makes it easy to share documents and collaborate on projects without having to reproduce information on paper. This means staff in multiple locations can access and view electronic documents simultaneously.

#### 5. Audit Compliance

Compliance is a reality for most businesses. Document scanning makes it easier to fulfill its legal and regulatory obligations. Digital files can be organized, indexed and produced quickly to meet the demands of even the strictest auditor.

#### 6. Better Customer Service

Customers in more than one region, it's hard to provide consistent customer service. Instead of having to print and mail bills, invoices statements and other items, document scanning gets important information to clients much faster.

#### 7. Less Paper Clutter

Clutter kills productivity. Paper clutter doesn't have to be the norm in office. Document scanning prevents excess paper from building up in the first place so your employees can be as productive as possible.

#### 8. Improved Disaster Recovery

Paper documents are especially vulnerable to fires, floods and natural disasters. Fortunately, document scanning offers enhanced disaster recovery. Digital images can be backed up to tape or hard drive or protected electronically with an e-vaulting solution.

#### 9. More Time

Document scanning streamlines file access across organization. Files can be retrieved quickly and easily without having to leave your desk.

#### 10. A Greener Planet

It has benefits over the environment as well. Document scanning greatly reduces paper consumption for a greener planet.

## Judging Criteria

The prize will be awarded, at the end of the contest, to the application who in the opinion of the jury demonstrate a solution (encouraging a system prototype demonstrated in an operational environment) that best addresses the cumulative criteria for "Efficiency", "Reliability" and "Innovative and Original Design". The following criteria are available but not limited options for the jury:

- Proposed solution needs to be financially viable, socially desirable, practically implementable, technologically feasible and with a profitable business model.

- The proposed solution should have a minimal negative impact on the environment; sustainability will be considered throughout the whole life-cycle of the proposed solution.
- The proposed solution is expected to be with detailed system and design architecture with a demonstratable prototype.
- The proposed solution is expected to be easily deployable, configurable and disposable, with only minimal human intervention required in the operational environment. In this sense, interactive platform, gamification etc. will be preferred.
- Robustness of the materials used in each component of the device (if any) should be able to withstand the conditions expected in the relevant environment (e.g. temperature, pressure, humidity) for the desired amount of time.
- Compliances with inter-operability standards will be considered as an asset.
- Business feasibility and nation-wide scale up plan needs to be incorporated in the proposed solution.

## Schedule

Registration information Publish:	15/08/2020
Registration Begins:	20/08/2020
Registration Close:	10/09/2020
Short listed applicant list publishes:	12/09/2020
Demonstration begins:	13/09/2020
Demonstration ends:	17/09/2020
Award/Prize announces:	30/09/2020
Ceremonial event:	01/10/2020

## Eligibility

### **Who Can Participate:**

The contest is open to any legal entity or group of legal entities who are involves with Information Technology.

### **Who Cannot Participate:**

Participants will be excluded if they are subject to an administrative sanction (i.e. exclusion) and are in one of the following situations:

- bankrupt, being wound up, having their affairs administered by the courts, entered into an arrangement with creditors, suspended business activities or subject to any other similar proceedings or procedures under national law (including persons with unlimited liability for the participant's debts)
- declared in breach of social security or tax obligations by a final judgment or decision (including persons with unlimited liability for the participant's debts)

- found guilty of grave professional misconduct by a final judgment or decision (including persons having powers of representation, decision-making or control)
- convicted of fraud, corruption, involvement in a criminal organization, money laundering, terrorism-related crimes (including terrorism financing), child labor or human trafficking (including persons having powers of representation, decision-making or control)
- shown significant deficiencies in complying with main obligations under a procurement contract, grant agreement or grant decision financed by the GoB (including persons having powers of representation, decision-making or control)
- have misrepresented information required for participating in the contest or fail to submit such information
- were involved in the preparation of the prize documents and this entails a distortion of competition.

## Prizes

- After the ideas are selected, the team will have all support for the prototype development phase which may take 3 to 6 months. A2i will sit with the innovators to assess the requirements in terms of equipment, human resources and any others until a functional prototype is executed and tested in real time.
- After the prototype is successfully run and tested, further commercialization or upscaling process may begin with relevant government ministries and departments.

## Documents

The mandatory supporting documents will be set out in the application form.

Participants may be asked at a later stage for further documents (for legal entity validation, bank account validation, ethics review, declaration of honor on exclusion grounds, etc.).