



## Indian Universities Use ABBYY Software for Speedy & Accurate Exam Forms Processing

### Customer Overview

#### Name

Indian Universities

#### Location

India

#### Industry

Education

In India every year more than 6.5 million young people graduate from the country's 226 universities, and more than 65,000 students complete courses at almost 500 polytechnic institutes. Some of these educational institutions are rather small and have only one faculty or specialty, but some of them are giants — like Bangalore University and Kanpur University — having more than 150 thousand students. Taking into account that each student takes several graduate exams, it's easy to imagine the enormous number of resulting paper forms.

### Challenge

In order to unify the evaluation system and decrease the number of the mistakes made in the process, the educational institutions worked out special forms, although the scale was still quite broad. Manual checking of the exam forms took up to 6 months. Obviously the process badly needed automatization.

TRS Forms & Services (P) Ltd — the company catering to the needs of various government and private institution in the field of data capturing and imaging activities for more than a decade — took the initiative to automate the result processing in universities and professional institutes by introduction both hardware and software into the process.

The crux of the problem in all these universities and institutes is the volume of processing. For example, Bangalore University checks 1.5 million booklets after every exam, in Kanpur University there are 5 million exam booklets, in the Institute of Chartered Accountant of India there are 1.2 million, Institute of Company Secretary of India and Institute of Cost Accountant of India - 0.4 million each. Before introducing this automation the exam forms were processed manually and it took enormous number of man-days to check up and publish the results.

To create a solution fitting the above-mentioned requirements, TRS team based the system on ABBYY FineReader Engine — a powerful OCR SDK — in order to integrate ABBYY's state-of-the-art document recognition and conversion software technologies: optical character recognition (OCR), intelligent character recognition (ICR), optical mark recognition (OMR), and PDF conversion.

### Challenge

Automate entrance exam forms processing

### Solution

ABBYY FineReader® Engine

### Results

- Accurate data recognition provided;
- Processing timeframe decreased by 9 times.

## ABBYY Partner



trsforms.com

## Solution

TRS has developed the capturing software for OMR data and has integrated the ICR and template matching features using ABBYY FineReader Engine. On the average 10 to 12 automatic dummy number scanners were used per university with the volume of answer booklets of 1 to 1.5 million.

The process involved allocating an alternate number to the subject exam answer booklets and removing the identity of a student before sending the paper for valuation. After the valuation the marks were written on the first page of the answer booklet and also transcribed on OMR marks tabulation sheet.

The booklets were scanned using special automatic dummy number scanners, designed and developed mainly for Subjective exams, and image of the first page was captured. This equipment helped to avoid manual numbering and speeded up the process along with increasing the level of confidentiality.

The OMR data from the marks tabulation sheet were captured. The marks written on the answer booklet were captured using ICR. Both data were compared and the discrepancies were corrected immediately viewing the image.

*“After the introduction of this revolutionary process of automatic dummy numbering system the results are out within 20 to 25 days which used to take around 6 months in general. With introduction of ICR and OMR type of processing the errors in result preparation have come down drastically and also the request of revaluation has been reduced.”*

*Dr. Prabhu Dev, Vice Chancellor of Bangalore University*

## Results

The team of certified engineers of TRS — technological partner of ABBYY in India — has successfully coordinated the whole project. The timeframe of the entire process has decreased by up to 9 times in some cases.

With the introduction of automatic processing students and their parents are now free from a terrifying half a year of suspenseful waiting for exam results. For teachers and supervisors, there are no more sleepless nights spent on monotonous, mechanical, boring, error-prone manual checking of paper forms.

The solution has been applied for processing exam results in such well-known educational institutions of India as Bangalore University, Kanpur University, TN Open University, TN Law University, Institute of Chartered Accountants of India, Institute of Company Secretary of India, Institute of Cost Accountant of India and many others.

## About ABBYY

ABBYY is a leading global provider of technologies and solutions that help businesses effectively action information.

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