

Online Admission System

Background

The Indira Gandhi National Open University (IGNOU) is the world's largest Open University offering high-quality higher education through Open and Distance Learning (ODL) system. IGNOU fulfills the educational needs of more than 3 million students in India and other countries by offering about 228 Certificates, Diploma, Degree, Master and Doctoral level programmes. The programmes are being offered through a network of 56 Regional Centres (RCs), around 2,667 Learner Support Centres and 29 Overseas Partner Institutions. With the diverse range of programmes and inherent features like low cost and learner friendliness, the IGNOU has succeeded in reaching out to a significant group of learners from amongst the disadvantaged and marginalized groups. Access, quality and equity have always been the matter of concern for the university. In this context, the university has made specific efforts to increase the access, improve the quality of education and provide equal opportunities for all irrespective of gender, caste, region, religion and creed, socio-economic background, etc. by way of using technology to reach out to all equally. Admission is the first step of the students' life cycle in an educational institute. It should be so easy and user friendly that their entry into the system is smooth and hassle free.

Need of This Innovation

The off line admission process in IGNOU starts with releasing of notification by the Student Registration Division to all the Regional Directors for both January and July sessions every year. The applicant needs to collect the IGNOU prospectus by visiting directly at the Regional Centres, Study Centres or by sending the request along with demand draft by post or courier service to the Regional Centre. As of now the candidates willing to take admission in IGNOU used to fill up the admission forms and submit them at the nearest Study Centre (SC) and the Regional Centre (RC) of IGNOU by post or by hand. After receiving the duly filled in application form and documents, the respective Regional Centres enter the data of admission forms into computer systems. The demand drafts received with the admission forms are deposited in the bank. Admission data of each RC is then forwarded to Student Registration Division (SRD) at IGNOU Head-Quarters through file transfer facility called Registration Data Transfer System (RSTS).

However, on reviewing the existing admission system, it was observed that the offline admission system had some limitations and difficulties such as printing of prospectus for around 250 programmes, their transportation, sell, maintenance and storage at the RCs and SCs, receiving and storing of the filled in applications and related documents, lack of trained manpower for error free data entry of applications, cost and time involved in all these activities and so on.

In view of the limitations of the offline admission system and the increased use of Information Communication Technology (ICT) in the field of education, it becomes imperative to design, develop and implement an online admission system at IGNOU. Particularly in a situation when most of the candidates aspiring to pursue their higher education through open and distance mode are geographically spread all over the country and it becomes difficult for them to visit the university or RCs every time, it becomes more important to provide access through online admission system.

Moreover, in view of the notification from the University Grant Commission (UGC), Government of India vide which the UGC has made it mandatory for all the central universities to implement Online Admission System for all the programmes. Besides making the admission system more learner friendly and cost effective, the need of hour is to keep pace with the technology.



Description of the Innovation

As discussed above, offline system of admission was being used in IGNOU since its inception. There were certain problems and limitations of this traditional system of admission. Moreover, with the increased use of technology and also to keep pace with other institutes, it was necessary to introduce the technology enabled online admission system. But, in view of the vast number of admissions every year, it was not advisable to switch over completely to the online admission system. There were several reasons not to completely go for the online admission system. For example, all aspiring candidates may not have facility of internet and computers, they may not be able to handle the online admission portal for filling and submitting the application forms, they may have apprehensions in making online payments, and so on. That is why the IGNOU decided to develop a hybrid model of admission integrating both online and offline admission systems at IGNOU. Accordingly, an architectural design of the hybrid model as shown in the Figure 1, was designed, developed and implemented.

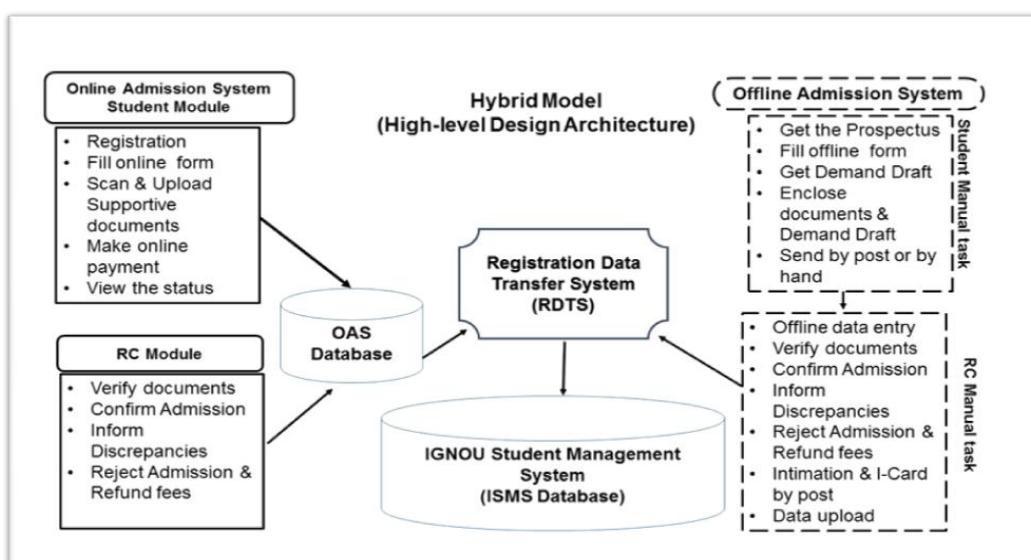


Figure 1 : Hybrid Model : High-level Design Architecture

This model has basically three components- Online Admission System, Offline Admission System and the Registration Data Transfer System (RTDS). RTDS plays a very crucial role as it captures students' data both from Online and Offline Admission System and then integrates the data with the existing IGNOU Student Database Management System (ISMS). ISMS is basically the main database of the students receiving data from both the admission models. This database is then used for all purposes like admission card, identity cards, material distribution and for examination purpose. The students seeking admission through online mode access the OAS portal through IGNOU website <https://onlineadmission.ignou.ac.in/admission/>.

Online Admission System

Online Admission System is one of the important components of the hybrid model of admission at IGNOU. The OAS has mainly four modules- Student Module, RC Module, SRD Module and Admin Module.

- a. **Student Module :** The candidates aspiring to take admission at IGNOU are the main users of OAS portal. They get access to the OAS portal through Student Module as the main interface for the students. For online admission, the aspiring candidate has to register on the OAS portal to obtain login information by providing his/her basic information like name, date of birth, email address, mobile number, password and confirm password. After registration, an automated email/SMS is sent to the student on his/her registered email address/mobile number which contains unique registration ID which is required for future login to the portal. A workflow diagram of the Student Module is shown in Figure 2. After registration, students again login to the OAS using their login information and then fill up the online admission form, which includes the details of programme, courses, regional centre, study centre, eligibility and personal details like religion, category and correspondence address, etc.

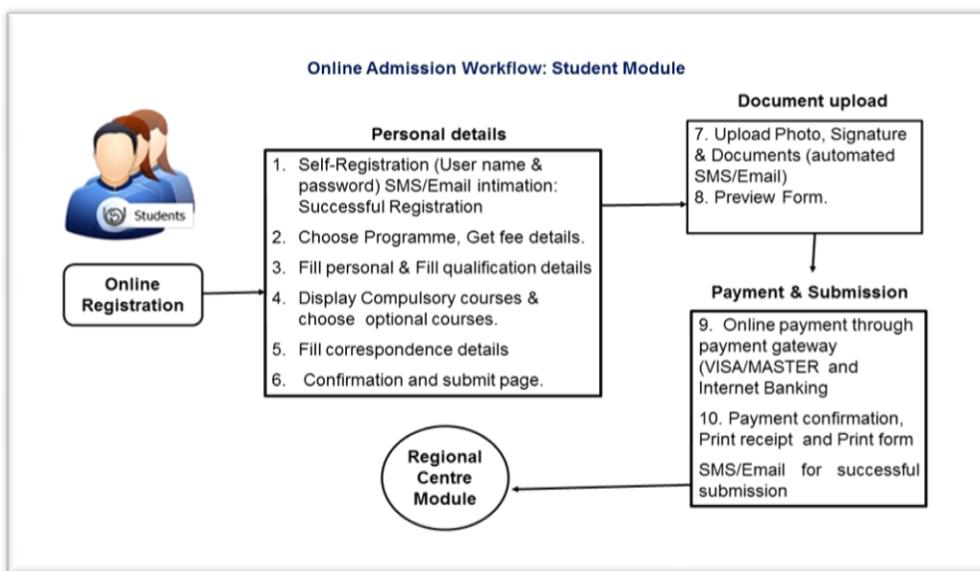


Figure 2 : Online Admission Workflow : Student Module

After entering the personal and programme details, the student is required to upload his/her photograph, signature and supporting documents with specific file format and size. A confirmation page allows the student to verify or check details provided by him/her so that typing or any other mistakes could be corrected before final submission of the form. A separate edit option is also made available in the

admission form for each section like personal details, qualifications, courses, etc. so that changes, if any, could be made directly by the candidate in the appropriate section. Subsequently, student can pay the programme fee online through payment gateway by using credit/debit card or net banking; automated payment confirmation is sent to the student through SMS and email. However, no change or editing is allowed in the application form after successful payment of fees. After successful submission of the admission form, an auto-generated acknowledgment slip is also sent to the candidates through email and SMS. Candidates can also print and save the acknowledgement in PDF format for reference and further use.

- b. RC Module :** The second important user in this system is the staff of Regional Centres. They are given different types of authorized access to the OAS portal through RC Module. RC users have a separate login and password to view the RC dashboard. A workflow diagram of the RC Module is shown in the Figure 3. In order to process the online admission forms, the Regional Centres are given following facilities and responsibilities with authorized access

- i. They can view the overall status of the online registration at their RC including the details of the individual admission forms by selecting/searching the forms.
- ii. They can view the details of the documents attached with each individual admission form and verify the admission forms with the attached documents for approving or rejecting the admission form.
- iii. After verification of the admission forms with the documents, RCs can confirm admission, if satisfied and inform the candidates accordingly.
- iv. If there is any discrepancy in the admission form, the same can be intimated to the concerned candidate through SMS and email.

RCs can generate the welcome letter and identify cards for the confirmed students.

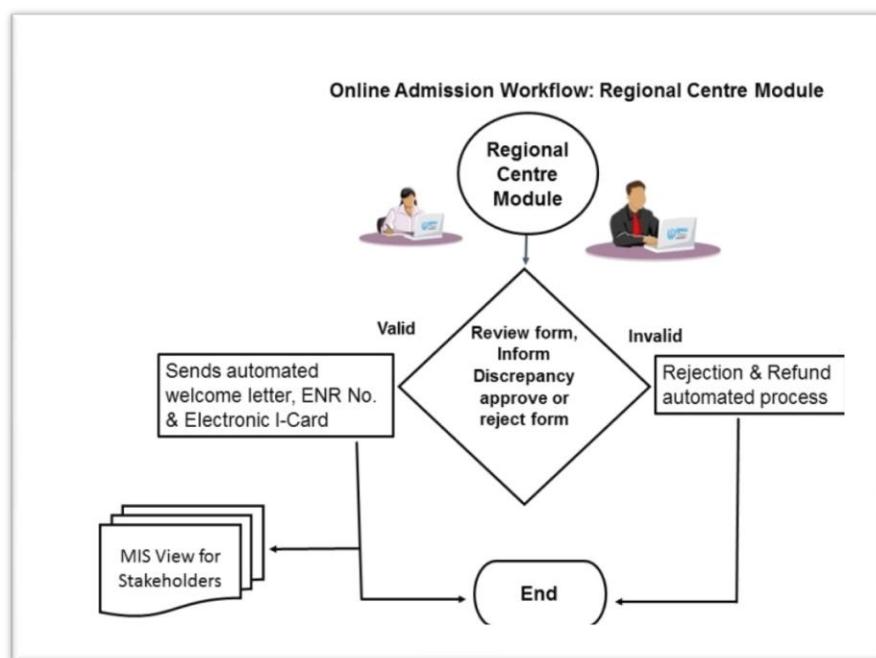


Figure 3 : Online Admission Workflow : Regional Centre Module

- RCs can reject the admission forms, if not found suitable or eligible just by clicking a button. This action automatically triggers for refund of fee online as per norms of the university.

- RCs can download various kinds of reports and data of admitted students for the purpose of study material dispatch and other support services.
 - RCs can also activate or de-activate programmes or study centre as and when required.
- c. **SRD Module :** Student Registration Division (SRD) is the basic custodian of admission database. The SRD module enables them to use master-data setup including session wise admission, programme activation/de-activation and details of programme fees, etc. Besides it, they can view the student data, generate specific query based reports like RC-wise, course-wise, school-wise, programme-wise reports on day to day basis for monitoring the admission process. This SRD Module also enables the SRD to take decisions on all those cases of admission which are beyond the powers of RCs such as refund of fee, confirmation or rejection of admission, etc. It also enables SRD to coordinate with the banks regarding payment gateway and related issues like chargeback cases.
- d. **Admin Module :** The Admin Module is basically used by the Coordinators and other support staffs of the OAS to resolve the day to day technical queries of the students seeking online admission such as problems in uploading documents, fee payment, error correction, etc. and for over all support to all the stakeholders.

In addition to the above mentioned modules, the OAS has a VCO Dashboard also using which the Vice Chancellor can view the overall status of the admissions programme wise, RC wise, and Study centre wise, etc. VCO can also view on regular basis the status report of online admission with details like total number of registration, number of filled up forms, number of forms with which complete documents have been uploaded, number of candidates who have paid fee and number of candidates who have submitted forms complete in all respect.

OAS has been used by all the stakeholders successfully and regular updation is being done on the basis of the queries and feedbacks received from RCs, RSD, SRD and students. The entire functioning of the online admission system was also monitored by a Quick Response Team and Monitoring Committee of OAs comprising of senior officers of IGNOU.

The server of the OAS is located in Computer Division, IGNOU headquarters. The server is active through Internet Information Services (IIS) for web based access to all the students, RCs, SRD, RSD and administrators of OAS. Using DNS services, the OAS server is connected to IGNOU server and from there all stakeholders can access the Online Admission System. This OAS application is developed in dot NET framework 4.0 with ASP.NET 2.0, C# language, IIS 7.0 along with Oracle 10g database. OAS and ISMS both are Oracle 10g databases.

As mentioned earlier, the OAS database is finally integrated with the database of other students registered through offline mode. For that purpose, Regional Data Transfer System (RSTS) plays a key role. It is basically a network communication tool between a local (client) and a remote computer (server) to provide transfer of data facility. This tool has been developed by IGNOU to transfer data from Regional Centres to IGNOU Student Management Database (ISMS). Offline and online admission data are passed through this system to ISMS, which is the main core database for entire hybrid model of admission process and from this database specific information, are shared among the stakeholders as and when required.

Innovative Features of the Innovation

The Online Admission System integrated with the existing system of admission is quite innovative in the sense that without disturbing the traditional method of admission, a new and technology enabled admission system was implemented very successfully. Following are the innovative features of this model :

- It is an online interactive, web enabled admission system having a provision of fresh admission as per common prospectus and online application tracking system for students.
- It is a step towards creating a centralized database of the university which could be used in run time by the authorized stakeholders.
- This system facilitates the RCs to view, review, approve and reject the online application forms and also to refund the admission fee in case of rejection or otherwise.
- It facilitates the data integration between the data captured through online admission and offline admissions by reusing RDTS options.
- It has a web interface for online fee payment using the Online Credit or Debit card as well as Net banking facilities.
- It has a provision of auto-refund of the course fee for rejected applications through any kind of online payment.
- It has a MIS dashboard for Regional Service Division (RSD), Student Registration Division (SRD), and Regional Centres with authorized access.
- There is provision of automated acknowledgement and communication to the candidates about their admission status through SMS, e-mail, etc.

Achievements

So far the admission to various programmes of IGNOU was done offline through RCs and SCs. But to make it easy and more user friendly, the University has implemented the Online Admission System (OAS) from July, 2015 session. The new system of Online Admission in IGNOU has been implemented along with the existing offline admission system in a hybrid mode. In July, 2015 session total 131340 candidates registered for online admission out of which 43632 candidates finally got admission in various courses of IGNOU. In the next July, session, i.e. in July, 2016 the number of registered candidates (255403) as well as the admitted candidates (85508) through online admission system was almost doubled. Similarly, during January session also the trend of registration and admission was same. This trend of increasing number of candidates opting for online admission system in IGNOU indicates the need and effectiveness of the new and technology based system of admission. After successful implementation of the scheme for four admission sessions, it has been transferred to the concerned division, i.e. the Student Registration Division.

Applications and Uses of the Online Admission System

The online admission system has many advantages not only from the students' point of view but from the university point of view also. Some of the advantages are discussed below :

A well-designed online admission system provides easy access to the students for selecting appropriate programme, electives, regional centre, study centre, etc. from anywhere any time. Instead of going through the common printed prospectus page by page, students can search required information online. Readily available instructions and help menu facilitate the students in seeking admission and filling admission form easily. Students need not to depend on postal services for ensuring whether the application has reached to RC within specific time. Online admission system intimates about the successful submission of forms and documents through email and SMS immediately after submission of form. Student can access the online admission system from anywhere, anytime across the world. This system facilitates the candidates with disabilities as well. Payments can also be made easily online without going to a bank physically. For using the online admission system, aspiring students only need a computer and internet connectivity.

Online admission system is highly useful for the university also as there is no need to maintain paper based application forms and related documents at RCs and SCs. This system is not only eco-friendly as lot of paper is saved, but it is cost effective also. The online admission system enables the university to capture error free data without any additional manpower for data entry of the application forms received from the students. The information which is mandatory for the university can be easily captured from the students' data. Moreover, students' fee is directly deposited in the bank and instant acknowledgement is sent to the students for their successful completion of admission. In fact online admission system facilitates to maintain effective student database with accuracy.

Way Forward

The critical review of the existing offline system and the feedback of the applicants on the Online Admission System reveal that a majority of applicants are finding the online admission system useful and simple to use. Moreover, the OAS gives solution to almost all those problems and limitations which are faced with the offline admission system. This facilitates the university to provide better services to the students so that they could access the system at their own pace and place. Overwhelming response of the candidates towards the online admission system and continuous increase in the online registration in IGNOU during different admission sessions is certainly an indication that the candidates prefer technology enabled solutions in ODL system. In future the OAS can be extended for all the programmes offered by IGNOU and the entire admission system can be made online. It can also be integrated with the Learning Management System (LMS) and modules of Pre and Post Admission Counselling. The OAS may be further strengthened by providing sufficient infrastructure and technical support both at the headquarters and RCs for more efficient and robust system.

In future the synchronous and asynchronous learner support mechanism can be embedded with the online admission system so that learners' grievances could be minimized. A dedicated support system may be set up for instant solution and support to the applicants. Further, instead of the hybrid model of admission, efforts should be made to completely switch over to the online admission system. It will not only facilitate in creating and maintaining a centralized database of the students which could be updated and used by the different stakeholders in a runtime, but it will help in cutting cost and time in the entire process of admission. In fact, in future this OAS application may also be integrated with entire student life cycle at IGNOU. It would be suggested to develop a complete Student Life Cycle Management System (SLCMS) covering all the phases of the life cycle of a student at IGNOU starting from pre-counseling to admission, material

distribution, learning management system, supplementary e-content, virtual class, assignment submission and evaluation to the final result processing, convocations, placement and alumni portal, etc.

Coordinators and Innovators

Dr. Oum Prakash Sharma

Dr. K. Gowthaman, Deputy Director, IUC, IGNOU, New Delhi

Innovators : Dr. Oum Prakash Sharma

Dr. K. Gowthaman, Deputy Director, IUC, IGNOU, New Delhi

Dr. Jyotsana Dikshit

Facilitators : Dr. Gautama Bose, Former ICT Advisor, IGNOU

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