

ERP INTEGRATION IN UTTARAKHAND OPEN UNIVERSITY (UOU)



UTTARAKHAND OPEN UNIVERSITY

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Enterprise Resource Planning Integration in Uttarakhand Open University (UOU)

Introduction

ERP or Enterprise Resource Planning is a term coined for industries depicting the phenomena of integration of various software packages that are used for the ease of multiple functions. IN Uttarakhand Open University, this includes using various software packages, for e-governance of admissions management, students management, faculty, and staff management, resource management, SILM management, library management, examinations management, IT policy and last but not the least, the management of finances.

Scope

ERP is integrated in various functional areas of UOU categorized as:

S. No.	Name of Section/ Department/ Functional Area	Title of ERP Integration
01	Admission Section	Online Admission Module
02	Students Support	1. Student's Information System (SIS) 2. App Based Support 3. Video lectures and Virtual Counseling
03	Faculty and Staff Management	Human Resource Information System (HRIS)
04	Resource Management	Inventory Management System
05	SILM Management	Online MPDD Tracking
06	Library Management	e-Granthalaya
07	Examination Management	Examinations Management System
08	IT Policy	IT Policy Document
09	Management of Finances	e-payments system of UOU
10	Feedback system	Online feedback of Learners and Stakeholders

Areas of ERP Integration in UOU

1. **Online Admission Module:** Admission in Uttarakhand Open University is allowed in online and offline modes. The online mode of admission is integrated with the website of UOU (<https://online.uou.ac.in/>), however, the offline mode of admission (based on Admission Form) is also very effective. All the admission forms, submitted in hard-copy format by the learners are collected by the respective LSCs. All the LSCs are provided with a Login I.d. and Password of the Student's Information System (SIS). This SIS contains all the required information of all the Learners enrolled in UOU. Using their login i.d. and password all the LSCs are permitted to enter the data, of all those learner who have filled-in admission form in hard-copy format, in the SIS. A date is decided to fill-in the entire data in the SIS so that the University may have detailed information of all the learners enrolled during a session. This includes the data of fresh learners and already enrolled

learners. This online form also provides an option to upload all the required testimonials of prospective learners which are verified by the admission section before granting admission to a learner.

Apart from the conventional programmes, there are some other programmes of study which have a provision of Entrance Test such as MBA, Special B.Ed., B.Ed (ODL) and Ph.D programmes. For these programmes the online form which is required to be filled-in by the applicants is also available in online mode only (<http://www.uou.ac.in/12.9>). Using these online forms the applicants may fill-in the entrance test form and apply for any programme of study of their area of interest. Upon filling-in the form for entrance test all the applicants may also download their admit cards through online mode from the website of UOU only. Upon qualifying the entrance test, the eligible candidates are allowed to proceed with the admission process as detailed above.

2. **2.1. Student's Information System (SIS):** SIS is a unique and benchmark initiative of the University which is now successfully able to handle the data of more than 02 lakh learners and their details of marks for more than 15 lakh entries. SIS is a platform or software developed in-house, dedicated solely for management of all the records of learners. SIS contains information pertaining to admission, LSCs, fee, exams and finally the marks-sheets/ transcripts and degrees of all the learners. The SIS is divided into two user-interfaces, *i.e.*, Learner's Interface and University's Interface. The Learners Interface is called as 'One View' (<http://apps.uou.ac.in/>), in which a learner can access all information related to his record using his enrollment number and Date of Birth. Learners can also have a quick view of their marks (theory, assignment, practical, project, field-work, *etc.*), books and LSC record. Another interface, *i.e.*, *University's Interface* is sub-categorized as Admin and User interface. The Admin interface is used by the University to update and maintain the record of all the learners and make modifications (as per the IT Policy of UOU) as and when required. However, the user interface is used by various representatives, such as admission, LSC (Learner Support Center), examinations, and MPDD (Material Production and Distribution Division). Admissions have an access of SIS to maintain the records related to admissions, LSC are permitted to enter the data of admission forms and obtain information, examination interacts with the process of evaluation and marks of learners, whereas MPDD deals with the detailed record of dispatch of SILM (Self Instructional Learning Material) to the learners.

2.2. App Based Support: App based support is another form of support provided to the learners for receiving push-messages, notifications and notices uploaded by the University on the website of UOU. Using this Play Store based Android app, learners may fill-in their admission or examination form (Back-paper or improvement paper) and may even download assignments, e-SILM, Video-Lectures, admit-card/ hall-ticket, date-sheet, results *etc.* Learners can also raise any query using this app based support. (URL for app based support: https://play.google.com/store/apps/details?id=com.navneet.uou_app)

2.3 Video lectures and Virtual Counseling: The University has a detailed procedure for preparation of Video Lectures and conducting Virtual Counseling for the learners of UOU. Webinars are also a form of virtual counselling in the University.

3. **Human Resource Information System (HRIS):** HRIS is an in-house developed software package for managing the information related to the academic and non-academic staff of UOU. Using HRIS all the members of UOU are provided with a login i.d. with which they can submit and access their detailed information. Implementation of HRIS is two stage project, in phase one the University has created the profile all the faculty members of UOU pertaining details of their academic achievements, work experience, publication details, research guided, research scholars *etc.*. On the other, phase two is concerned with integrating service rules, leave rules and promotion policy of staff with HRIS. Presently phase one has been implemented successfully in UOU and the process of designing of phase two has been initiated. (HRIS of UOU can be accessed via URL: <http://hris.uou.ac.in/>)
4. **Inventory Management System:** This is an initiative of UOU for effective allocation of resources available in UOU (this can be accessed via URL: <http://ics.uou.edu/> available over intranet only). Using the Inventory Management System, the system monitors the entries of consumable and non-consumables required by the University to perform its day-to-day tasks. Inventory Management System is Intranet based application developed by Uttarakhand Open University. This application is hosted in-house in the headquarters at Haldwani. The objective is to automate the process of inventory management of the store department of UOU. The system incorporates modules for master management, user management, automated indent process, inventory management, gate pass generation and reporting. These are detailed as under:
 - a. *The master management module* facilitates store department to manage details related to categories, items, departments, employees, and supplier related information.
 - b. *The user management module* contains details of employees of the university and access to the modules.
 - c. *The indent management module* has automated the process of indent, issuing items against indents and returning items.
 - d. *The inventory management module* enables store department to keep records of purchase order, receive orders, items, bills *etc.* The system also facilitates uploading of scanned copies of documents related to purchases (Purchase Order, Receiving Note, and bills).
 - e. This application has a *Reporting Tool* for Purchase Order, Receiving Note, Bills, items, employees, stock related (indents, issued items, Balance of items), purchase indents.
 - f. This is used to *Generate Purchase Indent*, in case employee wants to purchase items in case of any requirement. Gate Pass can also be generated using this software.
5. **Online MPDD Tracking:** Application Software for MPDD (Material Production and Distribution Department) is also developed In-house by Uttarakhand Open University. This application is hosted on the intranet of University's headquarter at Haldwani. The objective is to automate the process is of MPDD (URL: <http://admdesk.uou.ac.in/>). The system incorporates modules for management of inventory of SILM (Self Instructional

Learning Material), issuing of SILM and reporting *etc.* The module developed for the MPDD department has the following work flow:

- a. Bar codes of each book are generated.
 - b. The parts of the books against subjects are inserted in the software using barcode reader.
 - c. Inventory related information is maintained using purchase order, Receive order, issued books and returning books.
 - d. SILM is issued by scanning bar-code.
 - e. SMS are sent to the learners at various points, during the movement of SILM in University and outside (Postal/ by hand) during the process of issuing the SILM.
 - f. The issued SILM can be tracked using a speed post tracking number (available if books are posted by India post).
 - g. The information related to SILM is also available for students in student one view <http://apps.uou.ac.in/>.
 - h. Reporting tool for issued SILM, remaining SILM, student's address, inventory *etc.* are available.
6. ***e-Granthalaya***: e-Granthalaya is a Digital Platform developed by National Informatics Centre, Ministry of Electronics and Information Technology, Government of India for the Automation of In-house activities in Government Libraries as well as member services and Networking for resource sharing. e-Granthalaya is useful to transform traditional libraries to e-Library with *Digital Library Services* and to provide various online member services using *Single Window Access System*. In UOU we are using e-Granthalaya approach in the library since 2013 for the automation of issuing and return process of books. Entry of books is done in software with full cataloguing and classifications. University's Library is using this software partially, for issue/return service. Simultaneously, for few of learners/ newly recruited/ non-academicians in the University issue/return is also done manually or on register. Web OPAC (Online Public Access Catalogue) service is also available through in the website of UOU, through which, users can find the details of books available in the library of UOU, from anywhere.
7. ***Examination Management System***: The process involved in the governance of various functions in Examination Section of UOU is digitized. This digitization has upgraded the entire process ranging from filling-up of examination form in online mode only, allotment of exam center, exam center change, downloading hall ticket, declaration of result, availability of marks-sheet/ transcripts, online verification of documents *etc.* The detailed description regarding digitization involved in Examination Management System is provided in the '*Manual of Examination Automation System*' and '*Manual/Handbook for conduct of Term End Examinations*' on UOU.
8. ***IT Policy Document***: UOU has designed and successfully implemented its IT policy for the governance of various ICT function in UOU. This policy covers the following areas in its purview:
- a. IT equipment usage policy.
 - b. Software usage policy.
 - c. Network usage policy.

- d. Email account usage policy.
- e. Back-up policy.
- f. User account.
- g. University's Database usage policy.
- h. Guidelines for desktop users.
- i. Video Surveillance.
- j. Non-compliance.

A detailed document having information regarding IT policy document is uploaded on the web-portal of UOU which can be accessed through the following url: www.uou.ac.in/it-policy

9. ***e-Payments system of UOU:*** Uttarakhand Open University strictly adheres to the concept of Digital India initiative and has the detailed procedure of digitization for making payments to various parties. The payment through e-transaction involves payment to unit-writers for developing SILM, guest lectures, viva-voce, evaluation of Ph.D thesis and dissertations, evaluation of term-end answer sheets, question paper setters, salary, vendors, LSC, fee refund, *etc.* Apart from this the mode of collection of fee from all the learners is also through online payment mode. For this the University has embedded Payment Gateway service from Canara Bank and Bank of Baroda in the web-portal of UOU for collection of fees related to admission, examination, marks-sheet/ transcripts, NOC, Provisional Degree, and degree. The stakeholder has to provide their bank account details for receiving payment such as Name, PAN, Name of Bank and bank account number along with IFSC. Upon obtaining these details from the recipient, the University makes the necessary transfer of amount in their bank accounts.

Apart from this, the University has a POS machine in the accounts section of University's headquarters provided by Canara Bank for the ease of learner in making payments towards their fee.

10. ***Online feedback of Learners and Stakeholders:*** The University has a continuous feedback mechanism in place (URL for feedback is: <http://www.uou.ac.in/feedback>). Feedback is collected from various stakeholders such as Learners, Counsellors, LSC, Coordinator, Faculty, Unit Writers, Administration, Regional Centers, *etc.* They are, therefore, broadly categorized under two categories, *viz*;
- a. Online Student Satisfaction Survey Questionnaire of Uttarakhand Open University, Haldwani (URL: <https://forms.gle/ZL9nvZE3vAohHHbj8>)
 - b. Online Curriculum Survey Questionnaire of Uttarakhand Open University, Haldwani (URL: <https://forms.gle/99ABE2328K4zv7EU>)

After receiving the responses from the respondents, a detailed analysis of responses is carried out by the University, based on the futuristic plan of action. These plans of action and action taken reports enable the University to make necessary modifications in the identified grey areas for betterment of all the stakeholders leading to improvement in the quality of services of the University.
