

CHANAKYA: Registration & Examination System

Fostering Better Education System In Bihar

CHANAKYA, the Registration and Examination System is a web enabled, role & workflow based software solution for the Universities and Educational Institutions to accomplish various tasks for enrolment, registration and examination.



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The world of business is changing very fast. In order to raise the standards for efficient and effective working of universities and in turn resulting in good academic environment in the universities, intervention of technological advancement is inevitable. Higher education has to synchronize itself with the technological advancement according to the needs of people.

Bihar, once the centre of excellence in the ancient era had two world famous universities established namely Nalanda and Vikramshilla. But, over the years, scenario has changed, and now a large number of students of the State are migrating to other States for pursuing advanced and higher studies. The reasons could be late sessions in different courses, un-manageable size of universities as far as number of students are concerned, tardy process of admission to final examination system, compiling various activities by human intervention gradually ends up delay in final results.

The challenge at hand is to achieve systematically the following:

- By capturing data at right place and on time in a systematic and planned manner to re-use the data at most of the time in the process of

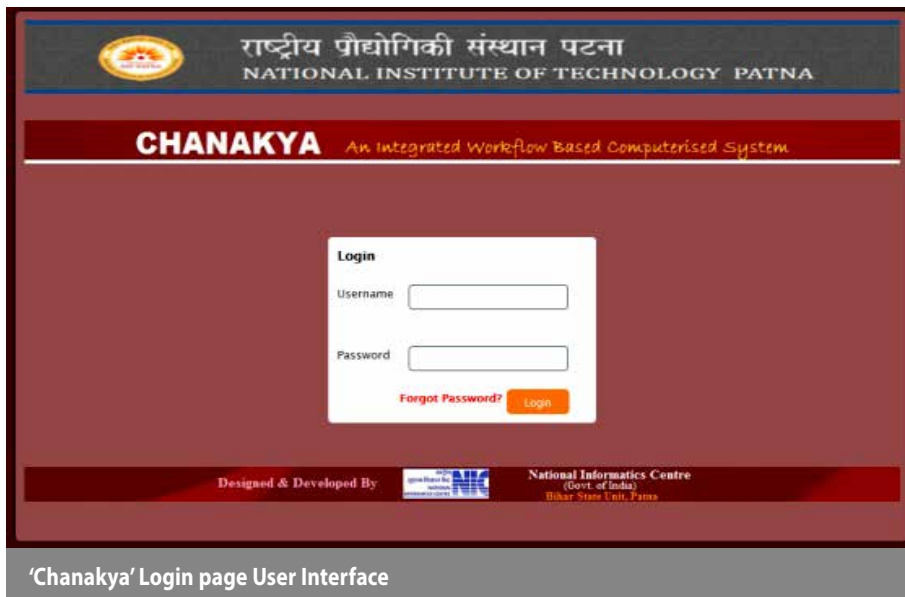


“ Chanakya, the integrated ICT solution for academic activities including student registration and examination system developed by NIC Bihar State centre has been implemented at NIT Patna. It has a significant effect on the overall activities of academic section of NIT Patna. Now all the activities like student registration, issuing of admit cards, result processing have become online. It is worthwhile to mention that result processing has become error free and publication of result has become on time.”

PROF. (DR.) ASOK DE
Director NIT, Patna

the system and ultimately creation of the student's profile

- To successfully restore the academic/examination calendar in the universities/institution
- To reduce pendency, errors, grievances, tarnished image – through implementing the solution in workflow manner including security issues



'Chanakya' Login page User Interface

- By putting Registration Card, Admit-Card, Results on Portal – ensuring transparency benefiting the employer and institutions at large

Earlier, in the year 2007, Chanakya was conceived as a framework incorporating ICT based solutions consisting of Examination system, Portal, Virtual Class-room i.e. Vidya Sagar and Library Automation i.e. eGranthalaya for universities. Now, “CHANAKYA” is a web enabled, role & work flow based software solution for the universities/educational institutions to accomplish enrolment, registration and examinations task which offers a better solution to improve the productivity and efficiencies of the manpower and for the entire system covering Registration & Examination Branch of the University/Educational Institute.

OBJECTIVES

- Enabling Universities with ICT based e-Governance to cater the Enrolment, Pre and Post Examination Processes
- Role based solution for each unit of the university to perform the

assigned activity in effective and efficient manner

- Creating Centralized database and integrated system so that any changes made in one module can be easily made to reflect to all related modules
- Uniform Rules and Regulation to be applied to avoid any discrepancies in the result Processing

MAIN FEATURES

- A web-based application with SQL Server 2008 as backend and .NET framework as frontend using AJAX
- Role Based users access to perform assigned task. User at Apex level can create user-id and password and further role is also assigned to perform specific task
- Apex level user can also deactivate/activate user and view day-to-day tasks performed by the associated users at any moment. Entire activities have been divided into two parts i.e. 1) Activities associated with Students 2) Activities associated with Administrative Section, Academic Section & Examination

Section

- Online Enrolment & Registration of Students, Students can view their detail and download Registration Card, Admit Card, Grade Card, Transcripts etc.
- Payment Gateway Integration for payment of fees by students
- Email/SMS facility incorporation for dissemination of notifications to Students and Faculty members
- Android app for two-step login authentication
- Interface for faculty to enter marks for their respective subjects and they can put students attendance as well. They can write their feedback online or register their problems faced while marks entry or updating marks to MIS team for resolving.

IMPACTS & BENEFITS

It is highly beneficial for students as implementation of Chanakya software at institute/university level enables the institutes/universities to conduct admission in time, and issuance of various certificates within stipulated time. Most importantly, almost 100% error free result processing in time makes the other activities to carry on smoothly. Students' proper information management is another aspect where this CHANAKYA software plays a vital role as any kind of information of a student can be retrieved online quickly.

- Transparency in entire pre and post examination processes
- Unique User-ID & Password for all students to explore the student history for entire enrolment of registration process
- An integrated and centralized database for the entire System

- Error free processing pre and post examination activities and to generate Tabulation Register (TR) and mark sheets a within time frame
- Centralized database helps a lot to the apex authority to make many statistical reports.
- Time spent on manual and paper work can be cut down to a maximum extent and maintains the accuracy
- Extract details in controlled and faster way
- Periodic Back up and restoring options
- Provision of different levels security i.e. Role based security at user level, application level, database level and log transaction
- Transparent, smart and better administration
- Streamline the collation of procedures associated with enrolment and examination tasks
- Centralized, secured and robust database of students without dupli-

cation of records

- The compiled students' data can be used to generate Statistical reports to help in taking strategic decision by top level management of the University/Institute
- Effective monitoring of enrolment & examination processes by the Director of the Institute, Academic and Examination Section to minimize the fraudulence
- Online information dissemination to students, faculties and the section concerned
- Different units of examination wings are connected so that all these are able to share up-to-date without redundancy of database at various stages

TOOLS AND TECHNOLOGY

- **OS :** Window Server
- **Web Server :** IIS (Internet Information Server)
- **Database System (Back End**

Technology) : SQL SERVER

- **Front End and Business Logic:** ASP with C# using .net Framework, CSS, Bootstrap, JavaScript, JQuery and Web Services

IMPLEMENTATION

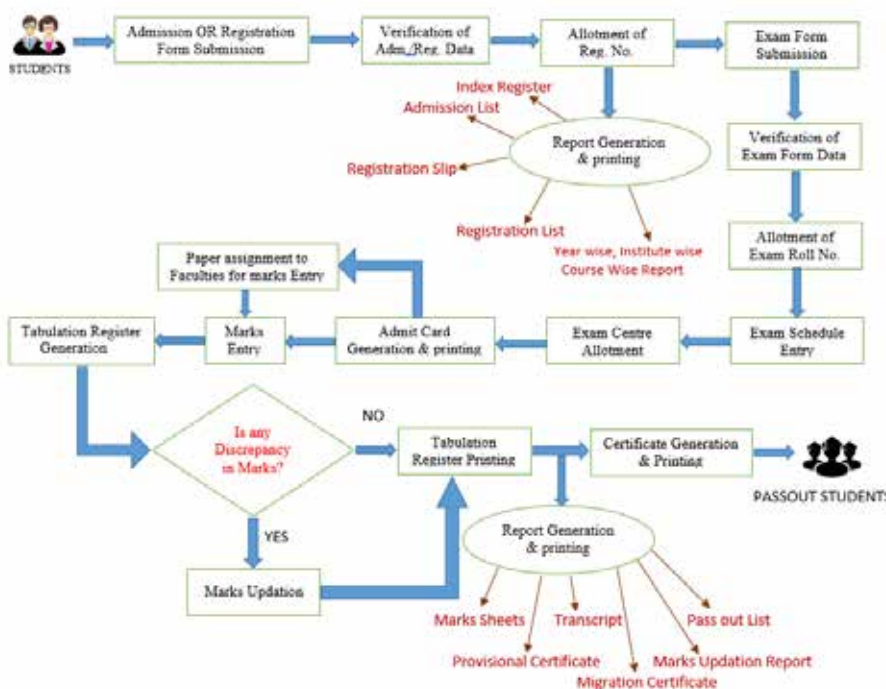
- National Institute of Technology (NIT) Patna
- MMH A&P University, Patna
- Aryabhata Knowledge University, Patna

Implementation of the automation of Registration and Examination activities for the following Universities are also underway:

- J P University (JPU), Chapra
- BRA Bihar University (BRABU), Muzaffarpur
- Chanakya National Law University (CNLU), Patna
- Veer Kunwar Singh University (VKSU), Arrah
- North East Hill University (NEHU), Shillong, Meghalaya
- Indian Institute of Management (IIM), Shillong
- Uttar Pradesh Technical Universities (UPTU), Uttar Pradesh
- Kerala Technical University, Kerala

AWARD

Chanakya was recognized and conferred State E-Governance Excellence Award at eBihar Summit held during 19-20 February 2015.



Graphical Representation of Chanakya Work Flow System

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