



I.2: Development of Information Systems at RRCAT

A) Design, Development and Migration of existing Pay and Allowance Processing System to new platform:

Web based Pay & Allowance Processing System is a comprehensive computerized system addressing the needs of all functional requirements of pay processing in RRCAT. The system has been designed as per the recommendations of Sixth Central Pay Commission and developed on web based platform using n-tier architecture with zero client deployment concept. Some of the main features of the developed system are – code standardization, flexibility, provision to generate reports dynamically with various filter options and adaptability to changing requirements & rules.

Xeon based Oracle 10g Database Server and Application Server were installed and configured for authentication from Oracle Internet Directory. Migration and re-engineering of data from FoxPro to Oracle 10g was carried out while maintaining data integrity and consistency. Oracle Developer Suite 10g is used for development of forms & reports and Oracle Application Server 10g is used for deployment of software. Single sign-on feature is implemented to centrally manage user and application identities and their authorizations.

The system has integrated modules for handling monthly pay processing, various recoveries, supplementary payments, income tax and provident fund. The system has been linked to various modules of Administration Software and Integrated Accounting Software to avoid duplicate data entry and to ensure consistency and correctness of data.

This system has been optimized using Oracle 10g optimization techniques like, logical partitioning of database, based on financial year. The software is fully parameterized and customizable to suite the present as well as anticipated future requirements. Access rights within the system are dynamically set according to the logged-in user based on 'need to know principle'. This software can be used by any other DAE unit, by configuring standard codes. To ensure consistency and interoperability across DAE units, standardization of procedures is incorporated in the software.

This software has been implemented for processing the salary of RRCAT & IRPSU staff from current financial year i.e. 2009-10 onwards. Comprehensive training to all users of Salary section was also provided. The software was enhanced for arrear calculation and disbursement of organizational incentive under PRIS as per the guidelines of DAE.

B) Generation of Automatic Delay Notification as Alert emails during procurement cycle:

Software has been developed and implemented for generation of automatic alert mails from on-line Integrated Purchase-Stores-Audit Software and Integrated Accounting

Software. This software reviews the status of purchase files every day and generates delay notification as alert emails automatically. These mails are based on status of files captured automatically by the software at various stages and also on file movement details being entered by Purchase, Stores and Accounts Section.

Alert emails are generated at various stages - file with quotations pending (for PO recommendation) with Indentor for more than 15 days, file pending with IRPU for release of Purchase Order (after pre-audit) for more than 10 days, file pending with Accounts for Payment (after Requisition Voucher is sent by IRSU) for more than 10 days etc. Indentors and Project Coordinators receive alert mails for their respective files, while JCFA and RD, IRPSU receive mails for all the files of RRCAT.

Continuous enhancement and strengthening of IRPSU and Accounts application software packages has introduced many new functional points in the systems. It was felt that the data available through these functional points should be available to Indentor and project coordinator to get clear picture of procurement cycle through budget monitoring and project monitoring software available on RRCATInfonet. Many new status codes have been introduced and application software packages have been suitably modified to incorporate these codes. These new status codes facilitate in file tracking and generation of automatic notification emails.

C) Enhancements to various Information Management software packages as per Sixth Central Pay Commission:

Pay fixation module was re-designed and modified to take care of the recommendations of Sixth Central Pay Commission. Fixation calculation sheet and fixation order can be generated from this software, which was used for pay fixation of promotion cases.

'Due statement' was re-generated and revised arrears were calculated for all the employees affected by recommendation of 'Suri Committee'.

Promotion arrears module was re-designed, developed and implemented for calculation of arrears as per the recommendations of Suri Committee, DAE.

D) Software for ID Card Swipe Data:

Software to maintain ID Card swipe details of employees has been developed and implemented. The software can be accessed by Division/ Section/ Lab heads after authentication on RRCATInfonet. Swipe details can be viewed employee-wise. The software is developed in Java & Hibernate and data is stored in MySQL database. Scripts are developed to automatically collect daily swipe details from the PC housed in Guard House. This data is populated into MySQL database for further use.

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