ICT INITIATIVES IN HIGHER EDUCATION DEPARTMENT, GOVERNMENT OF KARNATAKA.

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Higher Education Institutions in Karnataka

- College Education: 2992 colleges
  - 411 Government Colleges
  - 321 Aided Colleges
    - 433 B.Ed. Colleges
    - 24 Univ. Constituent Colleges
    - 1803 Private Colleges
- Technical Education: 305 polytechnics
  - 81 Govt. Polytechnics
  - 44 Aided Polytechnics
  - 180 Private Polytechnics
- University Education: 49 universities
  - 25 State Universities
  - 9 Private Universities
  - 15 Deemed Universities

Engineering Colleges: 207
- 14 Govt. Eng. Colleges
- 11 Aided Eng. Colleges
- 182 Private Eng. Colleges
egovernance Activities in Higher Education

Higher Education Department is envisaging to leverage the potential of ICT in Teaching-Learning and Administrative processes for the benefit of the stakeholder in Higher Education. eGovernance activities are expected to bring-in

- Better Learning Ecosystem in Colleges and Universities
- Transparency and Efficiency in Administration
- Effective use of Existing Recourses
- Increase in Higher Education Gross Enrolment Ratio (GER)
- Quality in Higher Education in Karnataka.

ICT Schemes in the Offing

Academic and Student Related

85 ICT based Activities
Administration Related-15
Exclusively Universities 16
Colleges and Polytechnics 7
Universities, Colleges and Polytechnics-47

Major ICT Schemes could share...

- Administration system- Office suite
- E-Content sharing
- Interconnectivity of Universities and Colleges.
- E- Attendance system for students and teachers.
- Feedback system from student about Teachers.
- E-Affiliation system
- Examination management (EMS) / Electronic answer script evaluation system (EASE)
- Link to portal of National Educational Agencies and NAAC
- UMIS
- HRMS
- Online question bank.
- E Library.
- Karnataka Moocs
- Class matrix and Monitoring
- Adoption of Rural colleges by Universities.
Office Suit

- **Features**
  - Timeliness
  - Accuracy
  - Consistency
  - Completeness
  - Relevance

**Components of Office Suit:**

- Letter Monitoring System
- File Monitoring System
- Court Case Monitoring System
- Disciplinary Enquiry Cases Monitoring System
- Paperless office
- Grievance Monitoring System
- Audit para Monitoring System
- Online Proceedings Management System
- Project Monitoring System
- Assets Management System

**E-Content sharing:**

- In an on-line multimedia learning environment:
  - teaching & learning is ‘one-to-one’ (individual)
  - more interactivity (in normal classroom, it varies with the class size)
  - Learner-centered
  - Learner monitoring & grading system

**Benefits:**

- **Convenient**
  - Self-service (mix and match)
  - On-demand (anytime, anywhere)
  - Private learning
  - Self-paced
  - Flexibility: (modular package)

- **Cost-effective**
  - Virtual learning environment
  - Share lessons among Colleges
  - Reduce material cost
- Reduce travel/accommodation

- **Consistent:**
  - Central control of content
  - Same quality of content for all
  - Same quality of education for all

- **media-rich**
  - Easier to understand & more engaging

- **repeatable**
  - As many times as you like
  - easier to monitor progress
  - less administrative work
  - can be more precise

- **Inter Connectivity of University:**
  - Sharing of e-content
  - Content created could be share
  - Quality of content accessible for all
  - Quality of education for all
  - Sharing of Digital library
  - Rare collection can be share.
  - Optimum utilization of resources.
  - Avoid redundant investment

- Exchange of faculty
  - University can exchange eminent faculty.

**E-Attendance Monitoring system (Teachers and Students)**

- **Features**
  - E-Attendance Monitoring System is attendance monitoring system using IT technologies.
  - Biometric attendance is already introduced in 370 Govt. Colleges.
  - Enrollment of student and faculty.
  - Linked with Time table and teacher.
  - Capturing attendance through system.
  - Send absentee information to Parents immediately.
• Generate various reports like daily attendance and monthly attendance reports.
• System transfers data automatically to web server,
• Staff related statistical reports can be viewed.

E-Feedback system by student about Teacher

➢ Features
• E-Feedback System is student give feedback using mobile and IT technologies.
• Student can access the Apps through their mobile.
• In every class hour they could give feedback of the class and teacher.
• They can grade the class and teacher.
• Report will be consolidating in system and system generate grade of the class and teacher.
• Head of the institution can monitor day/monthly wise.
• It is linked with Attendance and Timetable.

Online affiliation system:

• Features
➢ Applicable to Universities and Department of Technical Education.
➢ Colleges need to apply online for affiliation to concerned University
➢ Application will process and members for LIC visit will be assign.
➢ Data for the member accessible online.
➢ Evaluation after spot visit can be done.
➢ Report need to upload online same day only.

Examination Management system (EMS) / Electronic Answer Script Evaluation (EASE)

• Features
• It is end to end solution.
• It covers from admission to Degree certificate printing.
• Data capture in admission will be processed throughout his study.
• Highly secured, robust, efficient system
• Scanned answer script of the student will be send to authenticated evaluator,
• Teacher evaluate script electronically, which will supported by QP and scheme of valuation.
• Marks allotted process automatically and generate mark sheet.
• Process the result.
Electronic Answer Script Evaluation

- Digital Evaluation System is being used in Vishwesvaraya Technological University (VTU), and Rajeev Gandhi University for Health Sciences (RHUHS).

- Application Software design, development, deployment and maintenance will be carried out by National Informatics Center (NIC), Bangalore.

- The software developed by NIC is being tested by Universities.

Electronic Answer Script Evaluation:

➢ Implemented in other Universities

- Chhattisgarh Swami Vivekananda Technical University, Bhilai, India.

- Gujarat Technological University, Ahmedabad

- Central Board of Secondary Education, New Delhi

- Mumbai University, Mumbai

- Rajiv Gandhi University of Health Sciences, Bangalore.

- Saurashtra University, Rajkot

- Anna University of Technology, Coimbatore

EMIS

EMIS modules already implemented Director of Technical Education/Collegiate Education.

➢ Student record management system.
➢ Academic record management system.
➢ Attendance management system.
➢ Time table management system.
➢ Student response system.
➢ Project Management system.
➢ Video Conference thought internet.
➢ Fees and cash book management system.
➢ Store management system.
➢ Leave management system.
➢ Payroll management system.
➢ Digital library system.
➢ SMS/Email broadcast.
➢ Academic record.
➢ Meeting Scheduler.
➢ 16) Website Integration.

Question Paper Delivery System (QPDS)

Features

- Secured question paper delivery so as to avoid any leakage of question papers

- Fool proof delivery of the question papers at the Exam Centers

- Secret key authentication system for QP printing

- Generating different types of question papers

- Randomization and Selection of the Question Papers will be easy
● QPDS ensures the complete QP delivery process to exam halls securely within the specified time.
● Secured evaluation process to ensure there is no chances of malpractices
● Simultaneous evaluation of one answer script by multiple evaluators
● Accuracies in evaluation and totaling of marks
● Valuation anywhere anytime using specially customized laptops or mobile devices
● e-allocation of answer script to the evaluators by Registrar
● No loss of answer scripts due to accidents like fire, floods etc
● Easier multiple valuation process
● Faster turnaround in publishing the results
● Enables for quick view answer scripts option for students after publication of results

 UMIS Modules: Student Office Information System; Course Information System Faculty Information System; Student Information System Library Information System; Infra structure Information System; Quality Management and Assessment System; Finance Information System Smart Card Project; Human Resources Information System e-Document Management (e-Signature); Inventory Information System
● **Program URL developed by NIC (33/86)**

- File Monitoring system http://164.100.133.129:81/lpohe/
- Letter Monitoring System http://164.100.133.129:81/lpohe/
- DE Monitoring S/W. http://164.100.133.129:81/lpohe/
- Online Digital Government Communication http://164.100.133.129:81/lpohe/
- Grievance Monitoring System http://164.100.133.129:81/lpohe/
- Project Monitoring System. http://164.100.133.129:81/pms
- Court Cases Monitoring system. http://164.100.133.129:81/lpohe/
- Dash Board at Management level. http://164.100.133.129:81/dashboard/
- Online proceedings follow up Action. http://164.100.133.129:81/e-pra/
- Placement cell http://164.100.133.129:81/placementcell