

## SHORT SUMMARY OF THE WORK DONE ON THE UGC MINOR RESEARCH PROJECT

<b>Title of the Research Project</b>	:	<b>Study of Design and Development of Cloud Environment in Autonomous Institution</b>
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### Summary of the Findings

Computer technology has become widespread in Institutions of higher learning with increasing demand for access and use. Universities and colleges cannot function without ICT, which is ubiquitous for administration, communication, information gathering and research. In Developing Countries like India, majority of the Institutions have developed ICT strategic plans to aid in ICT resource utilization and ICT service delivery to support pedagogical objectives. ICT Services provided at majority of learning institutions include, MIS, e-Learning, Network construction and management, Internet, Intranet and email, Computer Equipment Maintenance, User Support, digital library. In order to overcome challenges of inability to adequately provide ICT services as a result of lacking adequate resources such as small classrooms, staffing cuts, shortage of qualified ICT personnel, qualified teachers and constantly changing standards, many institutions are turning to cloud computing. Cloud computing can be used to enable educational institutions to actually make use of the global internet resources for data storage and data analysis. Cloud computing presents a significant advancement in the delivery of information technology and services as it is capable of enhancing collaboration, agility, scaling, and availability. It also provides potential for cost reduction through optimized and efficient computing. Thus, Cloud Computing offers compelling advantages in cost, speed and efficiency by providing on-demand access to a shared pool of computing resources in a self-service, dynamically scaled and metered manner. The cloud is a valuable tool that can be used to improve ICT service delivery for institutions of higher learning and also accessibility to quality education at minimal costs. This Project presents a "Study of Design and Development of Cloud Environment in Autonomous Institution". To show the study about hosting of System on cloud, we first designed a College Management System (CMS) Portal (Module-1) with some important functions like User Login, CCE Assignments upload and view, Academic Timetable & regular class timetable, Recent-activities upload and view.

We have also used, already designed and developed, "Online Examination System" (Module-2) of our own institute, to integrate with CMS portal. Then we hosted our portal and its integrated module on Free Cloud provided by "espsofttech.com". After hosting we tested the functionality of the system on cloud and found that it is working properly. We also discovered that by utilizing cloud, system development & maintenance cost reduced dynamically.

Also by utilizing cloud for transferring and storing information in digital form rather than in hard-copies, we saved a lot of paper work and hence paper. So directly or indirectly by using cloud computing we save our environment, and we can contribute to our society by Green Computing.

So in all, Cloud environment will provide the Cloud based College management Portal and Online Examination System where student/ faculty/ administrative staff, with secure login, can manage all the profile, get the assignment, submit the assignment, get time-table for academic and examination, get subject-wise course scheme & syllabus, Academic Calendar, get and submit exam forms, admit-card, CCE evaluation record, Final exam result, digital copy of mark sheet etc. Parents can also view some of the general and specific information regarding their wards. Student can also give issue/complain direct to the Management administrative staff through student grievances link.