SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled "**An efficient clinical framework for PHI records of E-Healthcare System in Cloud**", carried out by **Aishwarya N R (1SG13CS007), Asha T N (1SG13CS020), Ashritha Shetty S (1SG13CS021), Divya Singh(1SG13CS040)**, bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Ancy Thomas	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
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ABSTRACT

E-Healthcare system monitors the health condition and gives treatment. This system helps in health condition monitoring and early prediction of diseases. It also provides information electronically about protocols and standards for healthcare professionals to use in diagnosing and treating patients. It is used to provide medical treatment by extracting information from image features and medical data.

Due to the constraints of resources the data is outsourced into the cloud but storing the collected Personal Healthcare Information (PHI) in untrusted entity would bring a series of security and privacy issues. The file hierarchy based storage and slicing algorithm for user privacy preserving is propounded to compute the encryption cost and storage overhead in a protected multi-owner data sharing scheme for dynamic groups in the cloud. Using this technique, the user can protect the sensitive clinical data seen by other admins. The proposed layered access structure is integrated into a single access structure and then the hierarchical files are encrypted with the integrated access structure. Therefore, both ciphertext storage and time cost of encryption are saved and security level is increased. Also, there is Clinical Document Architecture (CDA) through which hospitals are enabled to conveniently generate CDA documents without having to purchase proprietary software and physicians and patients can browse the clinical data in chronological order and historical wise.