MES COLLEGE OF ENGINEERING-KUTTIPPURAM

DEPARTMENT OF COMPUTER APPLICATIONS

KTU-2017 Admissions

FINAL SEMESTER MAIN PROJECT- RLMCA 352

**Final Semester Project Proposal**

Normally students are expected to do the project within the college. The Course Objectives are to to apply the software engineering principles on a real software project and develop a software product using the Agile methodology.

The general guidelines are as follows:

*Identify Real projects - Any project useful to the Society. The project must be done in house. The student*

*has to spent the time in the lab for project work. Attendance as per MCA regulations is applicable for*

*appearing for the final viva-voce. However the evaluation committee can give consent to students in*

*exceptional cases to do their project in Industry which has real live projects. Local* *industries and*

*training Institutes which offer live projects should not be permitted. Students, individually have to do a*

*project approved by their faculty Supervisor. Project evaluation weights shall be as* *follows:-For*

*convenience the marks are allotted as follows.*

*Project Progress evaluation details*

* *Total Marks for the Final Project: 100*
* *Project evaluation by the supervisor/s : 30 Marks*
* *Presentation & evaluation by the Committee: 40 Marks*
* *Evaluation by the External expert : 30 Marks*
* *Chairman: Head of the Department*
* *Members: Project supervisor/s of the student*
* *One faculty member from the Department*
* *One faculty member from a sister Department*
* *An external expert, either from an academic/research institute or Industry*

*A faculty/technical staff should act as the Scrum Master of each Project team. The Customer or a Senior faculty is the Product Owner. Frequent meetings are highly encouraged, at the convenience of the crum Master which should not exceed 15minutes. Ensure meetings once in three days. A sprint is two weeks, so ensure biweekly reviews. A review should not exceed 30 minutes. A demo to the Product Owner is compulsory in each review.*

Approval of the project proposal is mandatory to continue and submit the project work. The following documents are to be submitted for approval

1. Pro forma for approval of the project (Present in this document)
2. Synopsis/Abstract with following contents
   1. Title of the Project.
   2. Introduction and Objectives of the Project.
   3. Tools / Platform, Hardware and Software Requirement
   4. Motivation or Relevance of the project
   5. Problem Definition & Draft Product Backlog
   6. Basic functionalities of the project
3. . Copy of the Paper selected for the topic.

The abstract should be submitted in the format given along with this document. Three different project tittles with abstract in the priority order may be submitted. The title will be finalised after the evaluation by the committee.

The Abstract in the given format shall be submitted to the **Project Co-ordinator on or before** **06/01/2020)** after the evaluation and approval by the concerned guide and the Head of Department. Listof guides and assigned roll/register numbers will be published along with this.

The final project report has to be uploaded in the KTU Portal in Latex Format for appearing to Viva-Voce.

MES COLLEGE OF ENGINEERING-KUTTIPPURAM

DEPARTMENT OF COMPUTER APPLICATIONS

FINAL SEMESTER MAIN PROJECT- RLMCA 352



PRO FORMA FOR THE APPROVAL OF THE FINAL SEMESTER PROJECT



*(Note: All entries of the pro forma of approval should be filled up with appropriate and complete information.* *Incomplete Pro forma of approval in any respect will be rejected.)*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Project Proposal Number | | | : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  |  | Academic Year | : 2020 | |  |
| *(Filled by the Department)* | | |  |  |  |  | Year of Admission | : 2017 | |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  | Admission Number | : 14645 | |  |
| E-Mail | | : bhavyavelath@gmail.com | | |  |  |
|  |  |  |  |  |  |
| Mobile No. | | : 8943752121 | | |  |  | Roll Number | : 17MCA11010 | |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  | Register Number | : MES17MCA010 | |  |
|  |  | | |  |  |  |  |  |  |  |
| 1. | Name of the Student (in BLOCK LETTERS) | | | | : |  | BHAVYA M M |  |  |  |
| 2. | Title of the Project | | : |  |  |  |  |  |  |  |
| Privacy and Quality Preserving Multimedia Data Aggregation for Participatory Sensing Systems | | | | |  |  |

Date : Signature of the Student:



**Comments of The Project Guide**

1. Name of the Guide Assigned : (Internal-Department)



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 2. Thrust Area of the Project: | | | |  |  |
| Initial Submission | : |  |  |  |  |
|  |  |  |  |
| Approval Status | : | Approved / Not Approved Dated Signature of Guide | | HOD |  |
| First Review | : |  |  |  |  |
| Second Review | : |  |  |  |  |



**Comments of The Project Coordinator**

Initial Submission:

First Review

Second Review



Dated Signature of Project Coordinator:



ABSTRACT

PRIVACY AND QUALITY PRESERVING MULTIMEDIA DATA AGGREGATION FOR PARTICIPATORY SENSING SYSTEMS

Bhavya M M, MES17MCA010,17MCA11010



Introduction:

With the popularity of mobile wireless devices equipped with various kinds of sensing abilities, a new service paradigm named participatory sensing has emerged to provide users with brand new life experience. However, the wide application of participatory sensing has its own challenges, among which privacy and multimedia data quality preservations are two critical problems. Unfortunately, none of the existing work has fully solved the problem of privacy and quality preserving participatory sensing with multimedia data. Here propose SLICER, which is the ﬁrst k-anonymous privacy preserving scheme for participatory sensing with multimedia data. SLICER integrates a data coding technique and message transfer strategies, to achieve strong protection of participants’ privacy, while maintaining high data quality. Speciﬁcally, two kinds of data transfer strategies, namely transfer on meet up (TMU) and minimal cost transfer (MCT). For MCT, two different but complimentary algorithms, including an approximation algorithm and a heuristic algorithm, subject to different strengths of the requirement.

Objectives:

The design of a privacy preserving scheme should prevent both the external and the internal attacks. Speciﬁcally, ﬁrst, the design needs to prevent external eavesdroppers from obtaining any meaningful information. Second, the design needs to prevent service provider from recognizing the identity of the participant who contributes a particular sensing record, and to prevent the participants from knowing the content of the relayed sensing record. Especially, we require the privacy protection scheme be k-anonymous against the service provider.

Besides the objective on privacy preservation, the design should also satisfy the following requirements:

* The design should maintain high quality of the sensor readings.
* The design should be tolerant of packet/message loss.
* The design can only induce low computation and communication overhead.

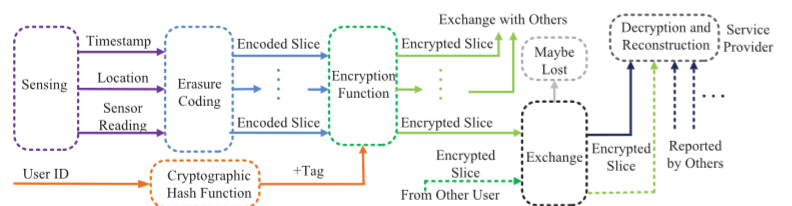
Motivation or Relevance:

Proposed to hide participants’ travel paths via collaborative message exchanging in physical proximity. However, although by carefully setting the exchange strategies and the reporting strategies, various levels of privacy preservation against the application administrator can be achieved (e.g., k-anonymity), the approach is still vulnerable to privacy breach from malicious participants, since the triplets encapsulating the whole sensor readings are directly transferred to the encountered participants. Here elegantly implemented a data aggregation method for supporting various aggregation functions on numerical data. However, their method cannot be applied to multimedia sensing data. Here, SLICER is a coding-based k-anonymous privacy preserving scheme for high quality multimedia data aggregation in participatory sensing systems..

Problem Definition and Draft Product Backlog :

Here proposes a coding-based privacy preserving scheme, namely SLICER, which is k-anonymous privacy preserving scheme for participatory sensing with multimedia data. SLICER integrates the technique of erasure coding and well designed slice transfer strategies, to achieve strong protection of participants’ private information as well as high data quality and loss tolerance, with low computation and communication overhead. Here two kinds of data transfer strategies, including TMU and MCT. While TMU is a simple and straightforward strategy, MCT contains two complimentary algorithms, including an approximation algorithm and a heuristic algorithm, designed for satisfying different levels of delivery guarantee. And also implement SLICER and evaluate its performance

using publicly released taxi traces.



Work ﬂow of SLICER.

Tools / Platform, Hardware and Software Requirements:

* Operating system : Windows 10