



## ICS Faculty

### Student Graduation Project Form

<b>Student Name:</b>	<b>Student ID:</b>	<b>Specialization:</b> CS
----------------------	--------------------	---------------------------

<b><u>Supervisor Name:</u></b>
--------------------------------

<b><u>Project Title:</u></b> Decentralized distributed mobile application to service the elderly.
---

<p><b><u>Abstract:</u></b></p> <p>As time passed, I've realized my grandparents have aged and they are not able to take care of themselves like they used to, they need day-to-day help and support. Since everyone in the family is busy with their lives, none have the time to spend with them on daily basis to ensure they have received the care and assist my grandparents need. In Egypt, it is considered a duty to take care of an old relative, yet it's not shared among all family members [1]. One would think why not just place them in a healthcare institution or get them a qualified nurse to do the job. That is not the case in Egypt, "Egyptians in general remain distrustful of formal care options" [2]. Most elderly like to spend the rest of their lives independent in their homes without the interference of a third party.</p> <p>Therefore, <u>instead of spending unnecessary expenses over homecare nurses and institutions, it would be more suitable for the family members to arrange the tasks among themselves to help their elderly spouse when they are in need even if it is just companionship. My goal is to provide a service to connect the families together through a decentralized android mobile application.</u> The communication is achieved by <u>creating an online family community</u> which will include all members in the family. <u>The elderly will be able to request tasks</u> which will be listed in categories, such as: Personal care and hygiene, fix something, grocery/ medicine, companionship, going out, and if need for medical help they can request a nurse or doctor. Then <u>the request will be in a form of a transaction broadcasted to all members in that community using an approach based on blockchain to record the transaction. Using a decentralized peer-to-peer network will be a faster way to request assistance among the community.</u> Meanwhile <u>blockchain is a secure and authenticated network that will keeps track of verified and approved transactions</u>, save and synchronize them on a distributed ledger , which will build trust between family members and get them closer to each other. After finishing one of the tasks, the member will be paid for completing his job. I'm still looking for a service to support the payment, but</p>
---

initially it can be through cash. In this project I will develop a decentralized distributed mobile application to service the elderly.

## References

- [1] M. Sinunu, M. Sinunu and N. A. W. E. Afify, "Informal and Formal Long-term Care for Frail Older Adults in Cairo, Egypt:," *Family Caregiving Decisions in a Context of Social Change*, p. 15, 2008.
- [2] M. Abowd, "IN DEPTH - Elderly Care On The Rise," *Elderly Care On The Rise*, July 2009.

### **Supervisor Feedback:**

\_\_\_\_\_ I have discussed this project with the student and find it is **ACCEPTABLE**.

\_\_\_\_\_ I have discussed this project with the student and find it is **UNACCEPTABLE**.

### **Comments, suggestions, or concerns:**

---

---

---

---

---

Supervisor Signature:

Date:

Student Signature:

Date: / /