**המכללה האקדמית להנדסה אורט בראודה**

**המחלקה להנדסת תוכנה - קורס מחשוב ענן**

**תרגיל בית 2**ב – עבודה ביחידים

בחרו מאמר מהמאמרים אשר נמצאים בפורום "מאמרים אקדמיים בנושא מחשוב ענן" (ניתן להציע מאמר משלכם, יש לקבל אישור מהמרצה).

ניתן להיעזר גם באתרים של כנסים אקדמיים למציאת מאמרים, כגון כנס closerאשר הוצג בהרצאה.

**Name**: Peter Zidane.

**שם המאמר:**

Vision: Towards an Extensible App Ecosystem for Home Automation through Cloud-Offload

**מטרת המאמר:**

The first contribution of this paper is to propose exactly such a programmable cloud-enabled home controller architecture. While at first glance it might appear that systems proposed in the vast literature on mobile offloading might work in the home automation space, our second contribution in is to demonstrate that there are crucial differences between the two in terms of the user interaction model, the timesharing model, and in reliability requirements. The final contribution of this paper in is to identify the mechanisms that will be needed to address the challenges and opportunities resulting from these differences.

**תיאור טכנולוגיות\ מחקרים במאמר:**

Cloud Computing, Data Transfer Functionary, Failure Detections, System Wide Scheduler.

**סיכום המאמר:**

Home automation is a well demand subject in this life every house asks for home automation, the cost of home automation is so expensive mainly because each house asks for its own feature, and there is differ between feature and feature, the main automation problem is that the system consumes a high CPU resources therefore the motivation to offload computation to the cloud.

It will be easy to attack the system of home automation therefore a challenge will be to prevent those attacks on the cloud server, another challenge to be is to decide which functions should run on the applications and which on the servers.

For all these reasons it will be easier to do a mobile code offloading but the problem is that it is hard to do it with a multiple application without losing application state.

Additional to that in the paper we can see the experimental results, and it showed that the server can remotely control weight devices such as mouse and keyboard but cannot capture the video stream on a server due to frame loss and by that we can see that they need a better transfer mechanism than the USB/ IP they used.

**האם מטרת המאמר הושגה?:**

In the paper we have seen that they achieved to deal with the offloading decisions, CPU problems but they still not high efficient in synchronizing data and they intend to find a new offload decision algorithm, so we understand that the solution that they suggested isn’t 100% efficient.

**הצעות נוספות שלי:**

We suggest a platform that is user friendly, has many functionality, you can take picture of your home, load it to the platform, that platform will measure the sizes, the user can see the functionality by visual and he can edit or mark any functions he needs by making sure that this functions uses low CPU and are not DDOS attackable.