

SMART HOME

Home Automation System

User Manual

by Tranquillum

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1. Introduction

1.1 System Overview

1.2 Scope of the Document

1.3 Contact Us

If you have any questions or comments about the project, you can send us an e-mail to tranquillum.group@gmail.com

2. Prerequisites

2.1 Hardware Requirements

Hardware requirements are specified within STD documentation provided in project webpage.

2.2 Software Requirements

Hardware requirements are specified within SRS documentation provided in project webpage.

3. Installing

The first part of the system which requires to be set up in order to build a fresh system is the Coordinator Box provided with other system devices.

To start using your Coordinator Box in conjunction with your home appliances, a simple installation procedure will follow in Raspberry PI Linux Box. Binary scripts for Control Box scripts provided in project web page are to be downloaded first. Afterwards, you need to upload those binary scripts to your new Control Box with either direct internet support or a flash drive right away. Then, through a terminal interface, running bash shell script provided in tar.gz file needs to be run in root privileges such as “`sudo bash ./install_coordinatorbox.sh`”. Rebooting the device will let startup scripts to be up and running. And that’s it, your Coordinator Box is ready to gather statistical information from and send commands to your home appliances.

The second part of the system to be set up is your dedicated remote server. If you want standard database and web interface provided by SmartHome system to be used, you don’t need to install anything further. But in case you have another alternative dedicated MySQL and Apache supporting server, you can follow steps described below.

Firstly, web sources for remote web interface of SmartHome system which are provided on project webpage needs to be downloaded. Next step is to deploy those files into your own Apache server. As another bash installation script “`install_remotewebinterface.sh`” is provided for you to set few parameters regarding web interface, they need to be run on your Apache server. This script is run by 3 parameters, first one corresponding to MySQL server you will be directing your remote interface to, second one is username to reach to this server and third one is the password belonging to this username (note that root privileges are required for that as well). After this script is run, your web interface is good to go.

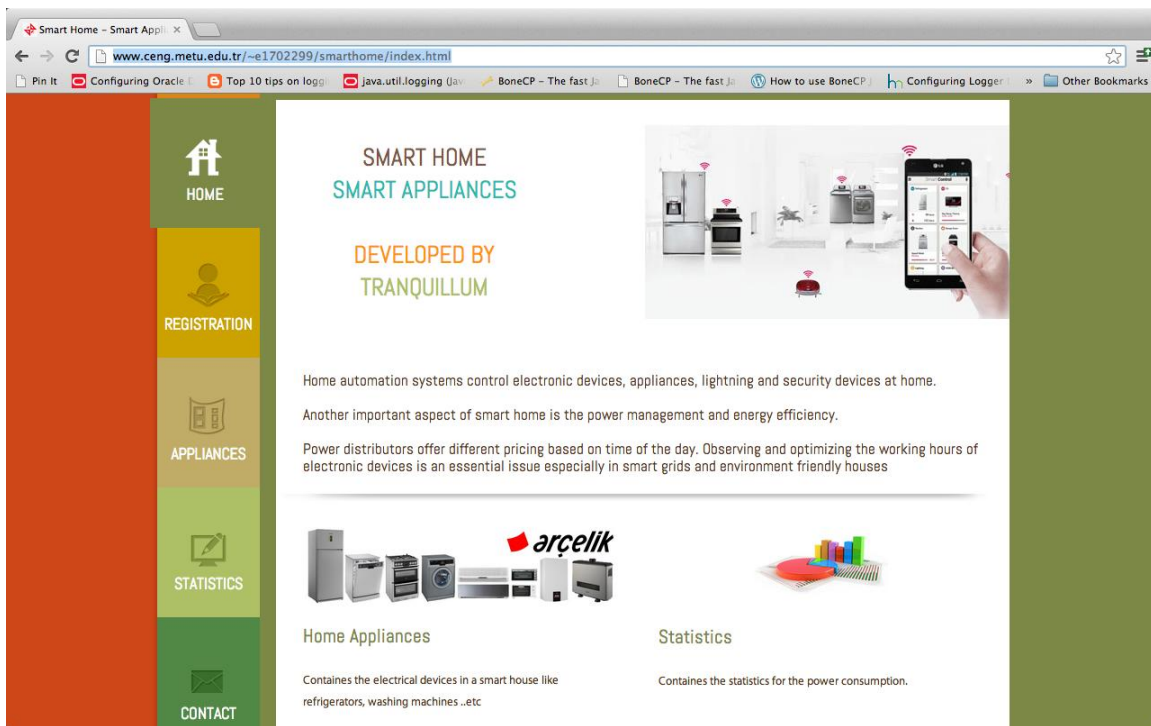
Secondly, your Coordinator Box must be informed that default server addresses will not be used. In that case installation script defined above (“`sudo bash ./install_coordinatorbox.sh`”) can be run with additional parameters, first 3 being identical to “`install_removewebinterface.sh`” scripts’ arguments and the fourth one being root address of your web server, in which remote web interfaces reside. After executing this script with indicated parameters, Coordinator Box will be up and running (after a reboot)

4. Usage

4.1 Remote Control Interface

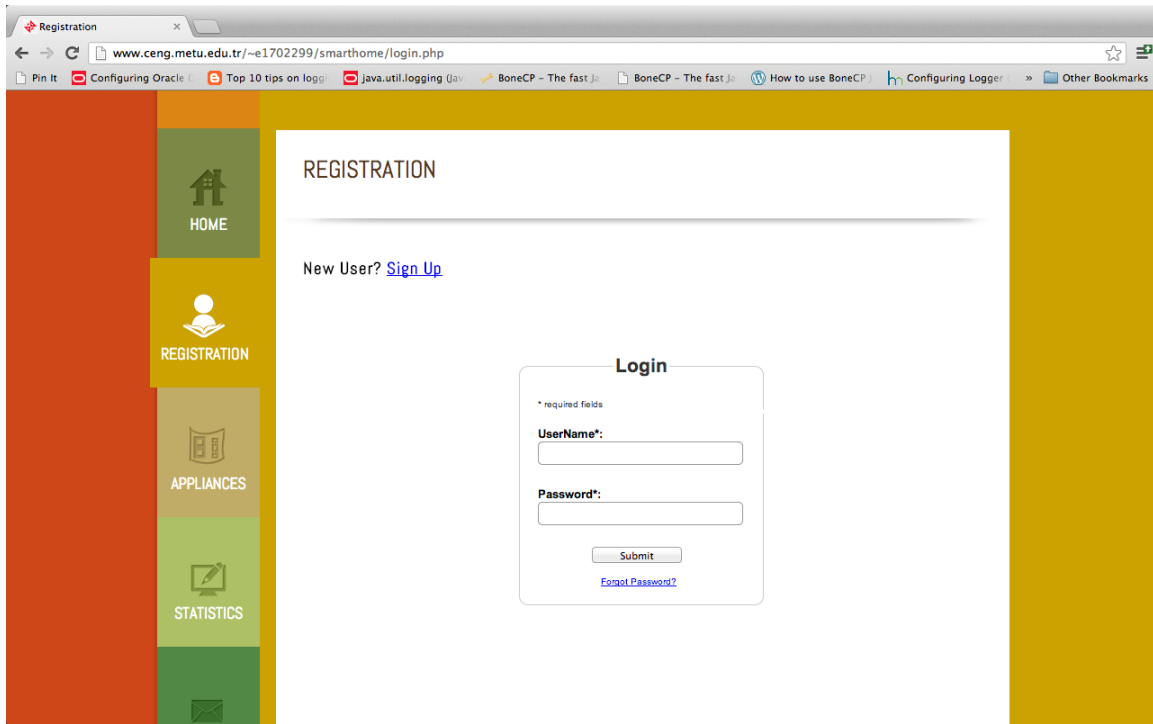
4.1.1 Main Page of Smart Home Application

- Open “**Smart Home Application**” in any Internet browser by entering the path for the folder where you installed Smarthome GUI files.
- You will be directed to the Main Page of the application



4.1.2 Registration

- Click on **REGISTRATION** button on the left slider to access Registration page.



4.1.2 Sign Up

- If you are a new user (or would like to register with a different user name) Click on **Sign Up** button on the previous page to access **Register** page.

Registration

www.ceng.metu.edu.tr/~e1702299/smarthome/register.php

Pin It Configuring Oracle Top 10 tips on logg java.util.logging (jav BoneCP - The fast jo BoneCP - The fast jo How to use BoneCP Configuring Logger Other Bookmarks

REGISTRATION

Register

* required fields

Your Full Name*:
Abdullah Bayraktar

Email Address*:
abdullahbayraktar9@gmail.com

UserName*:
tranquillum

Password*:
.....
[Show](#)

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Home | Registration | Appliances | Statistics | Contact

- Fill in the required fields then click **Submit** to register.

Registration

www.ceng.metu.edu.tr/~e1702299/smarthome/thank-you.html

Pin It Configuring Oracle Top 10 tips on logg java.util.logging (jav BoneCP - The fast jo BoneCP - The fast jo How to use BoneCP Configuring Logger Other Bookmarks

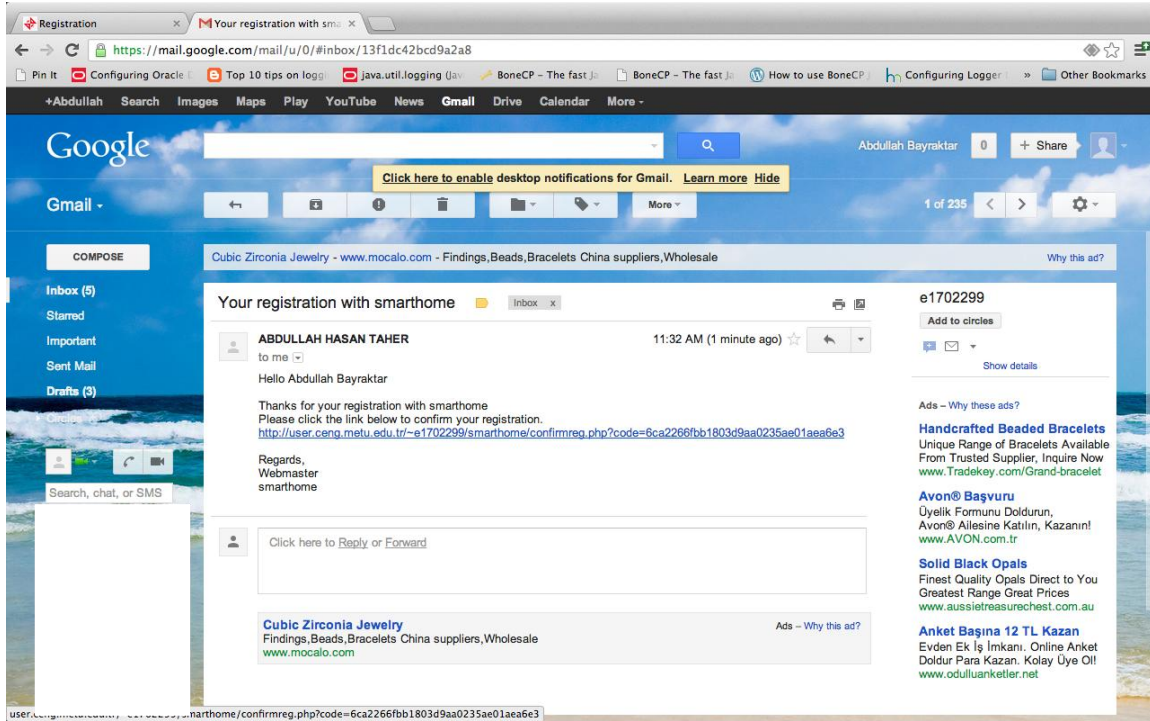
THANKS FOR REGISTERING!

Your confirmation email is on its way.
Please click the link in the email to complete the registration.

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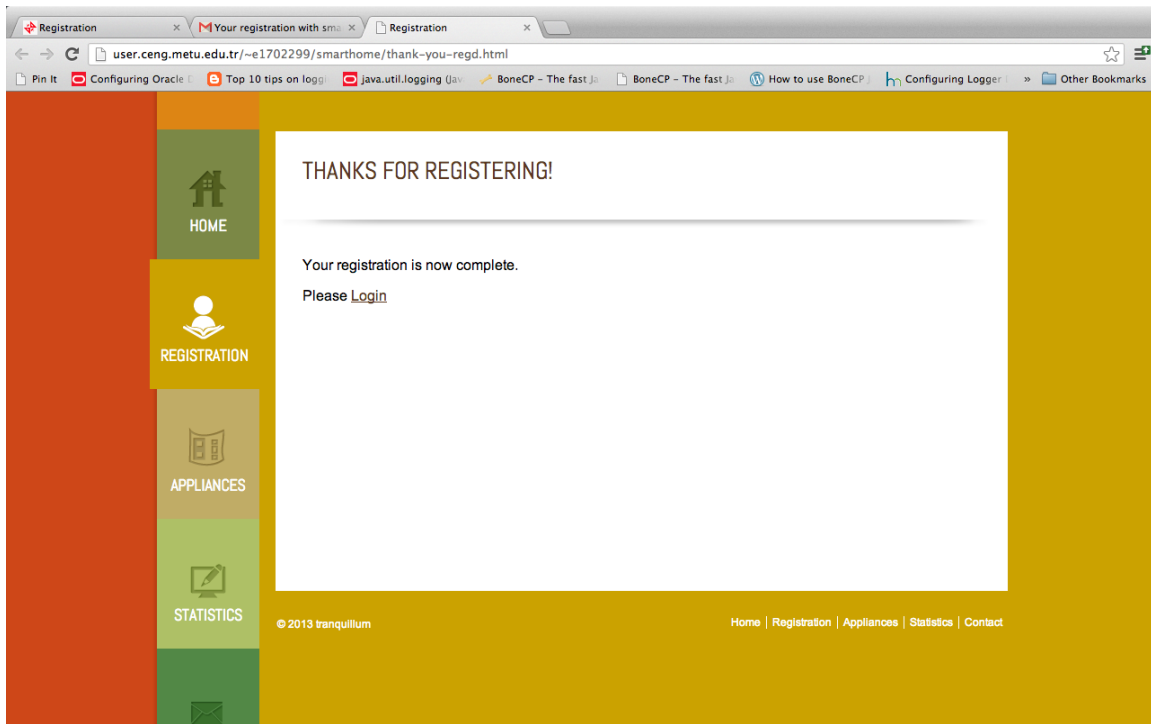
Home | Registration | Appliances | Statistics | Contact

- A confirmation mail would be sent to your e-mail address. Complete the registration by clicking the link in the mail.



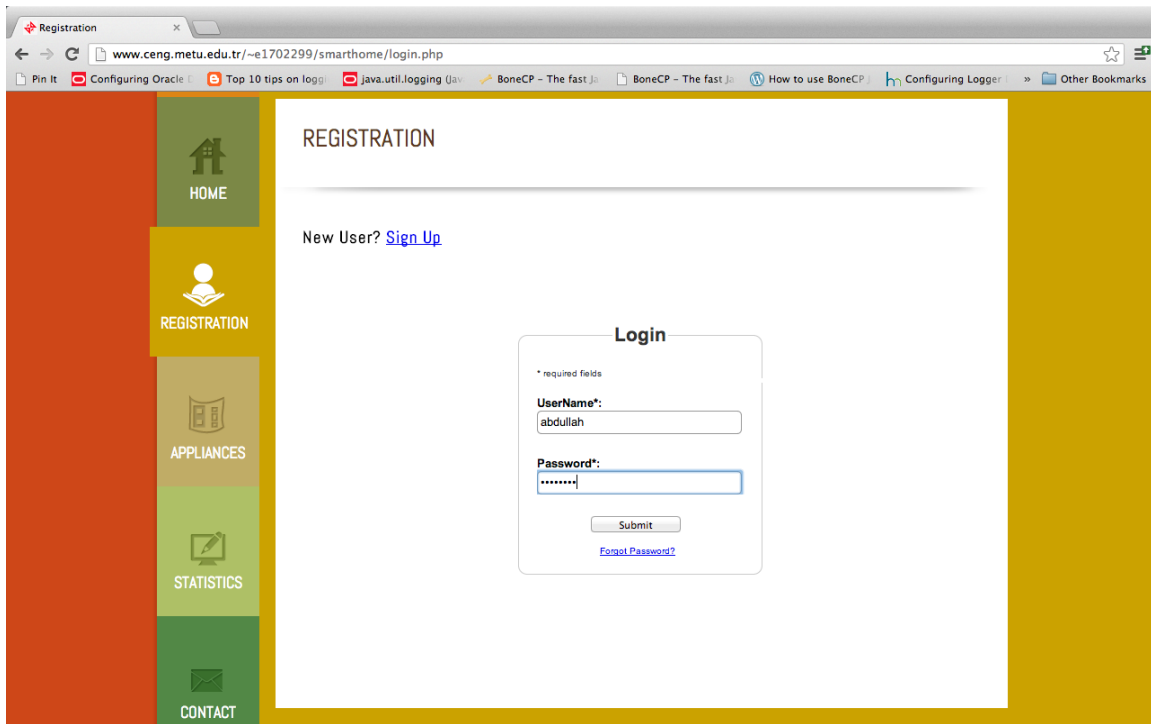
4.1.3 Registration Completed

- After clicking the link, registration to the system would be completed



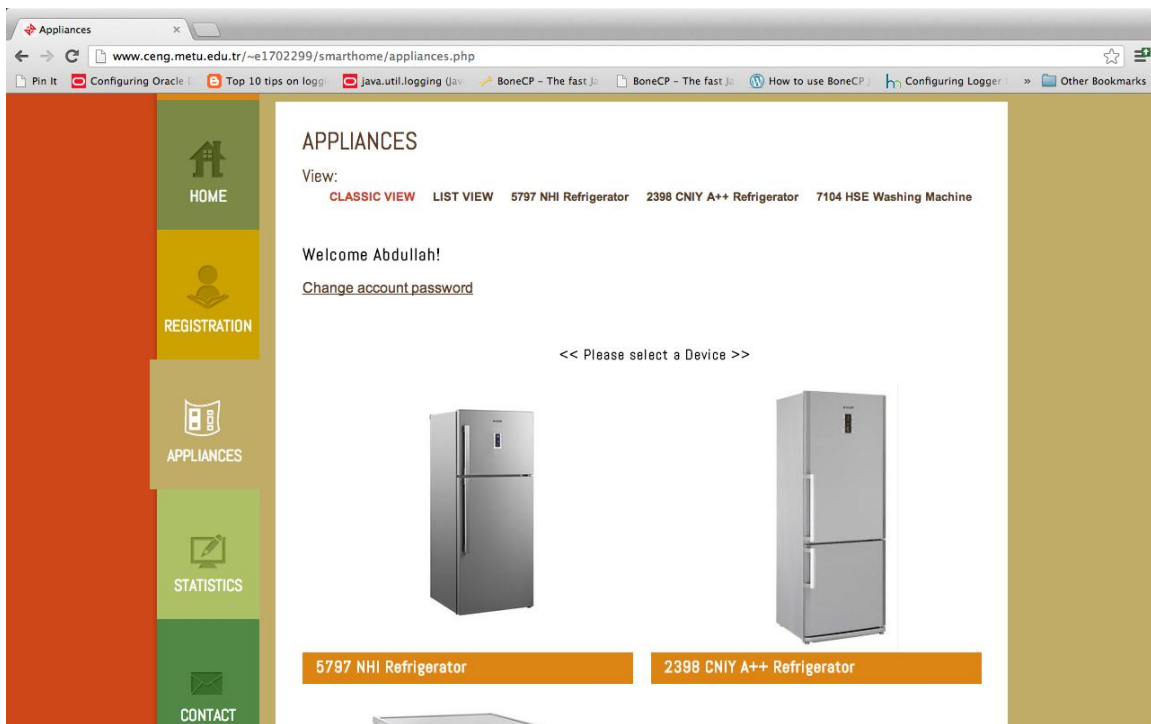
4.1.4 Login

- From the **Registration** page fill in **UserName** and **Password** fields then click **Submit** to sign in to the system.



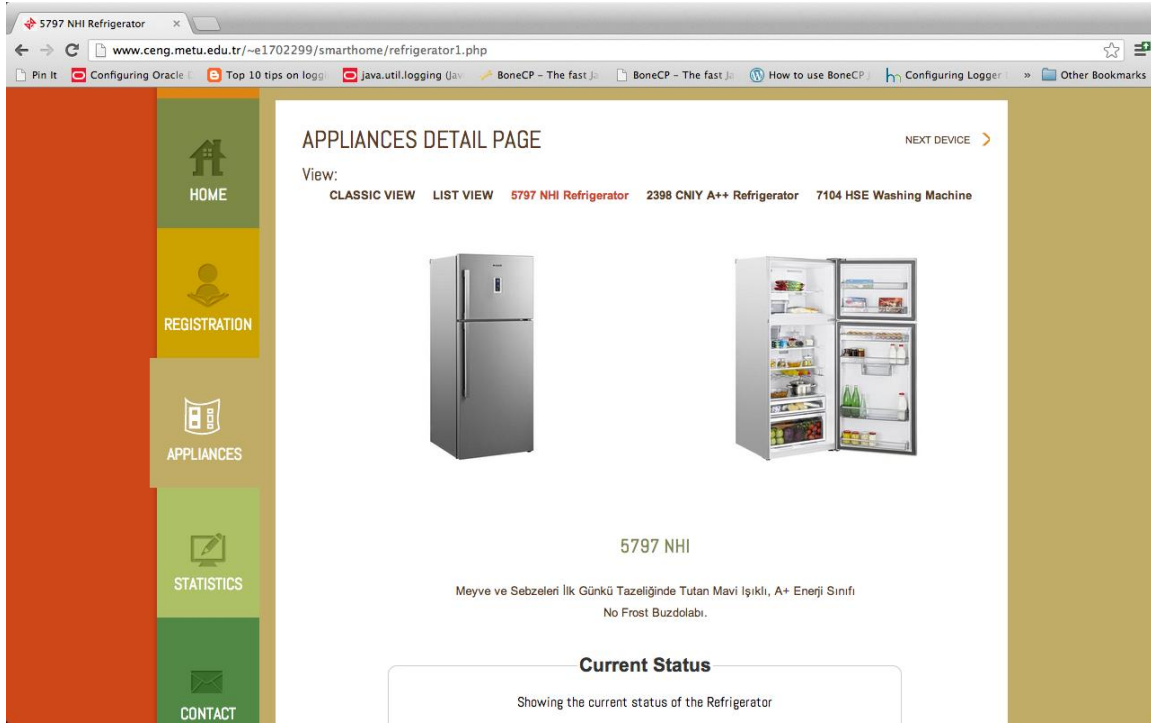
4.1.5 Appliances (Classic View)

- Click on **Appliances** button on the left slider to access Home Appliances page.

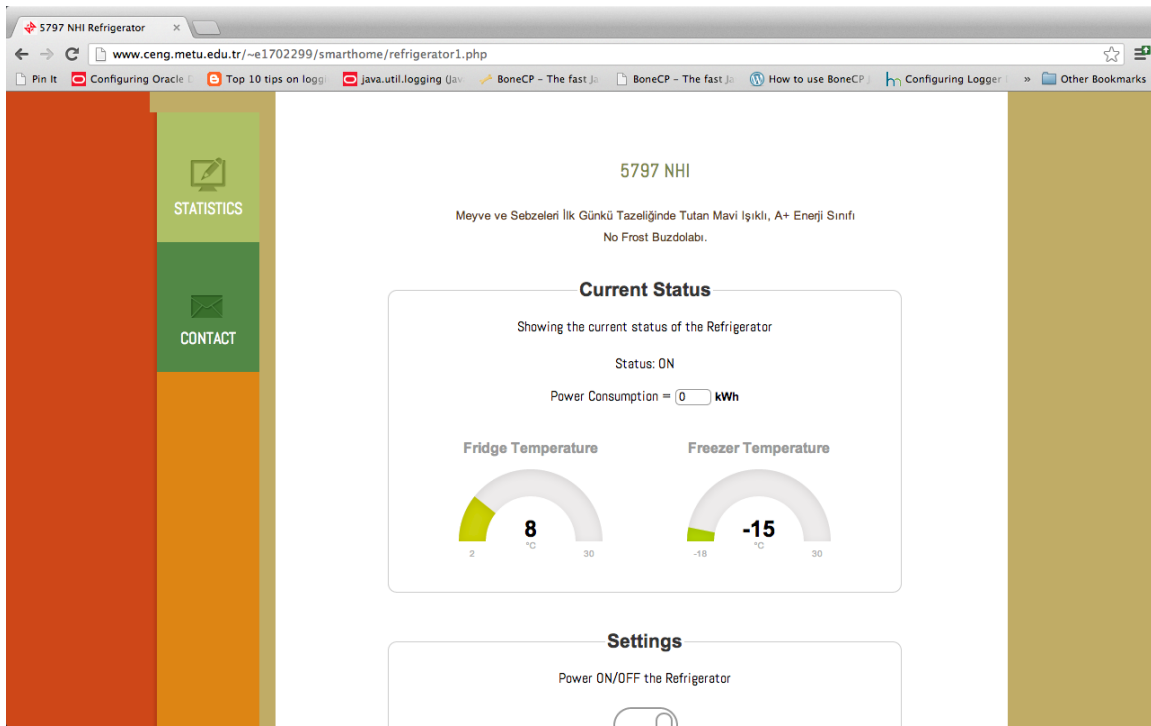


4.1.6 Refrigerator Control Page

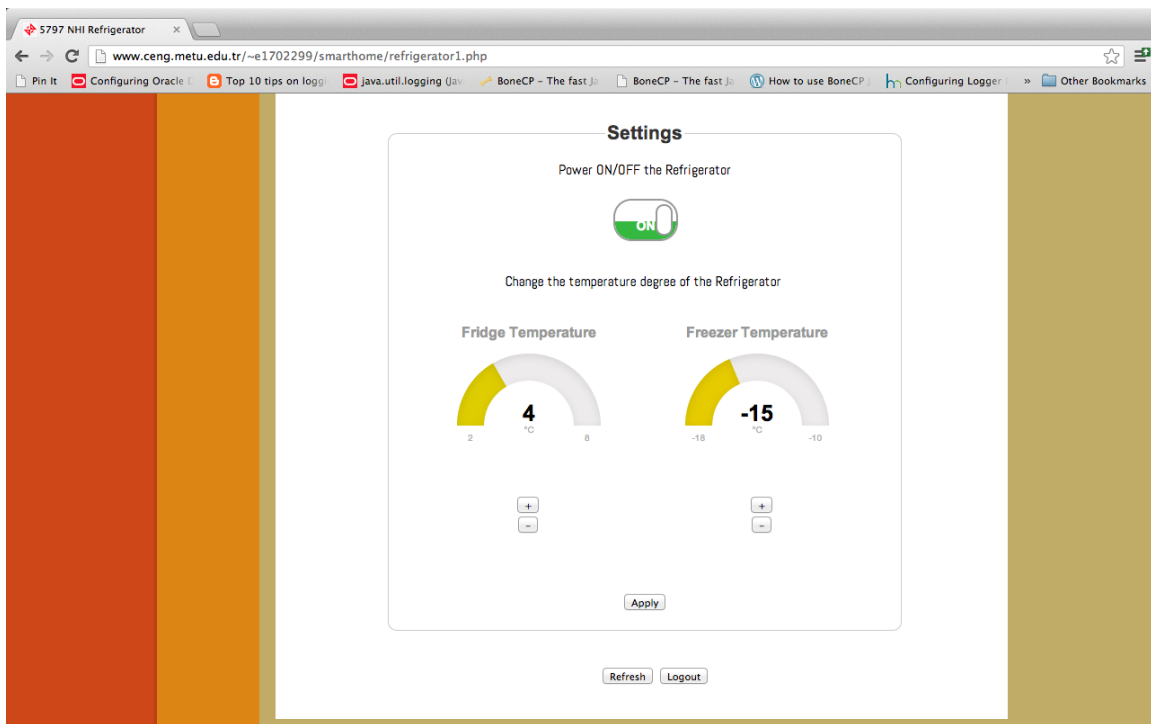
- Click one of the refrigerator devices.
- Control page for that device will be opened.



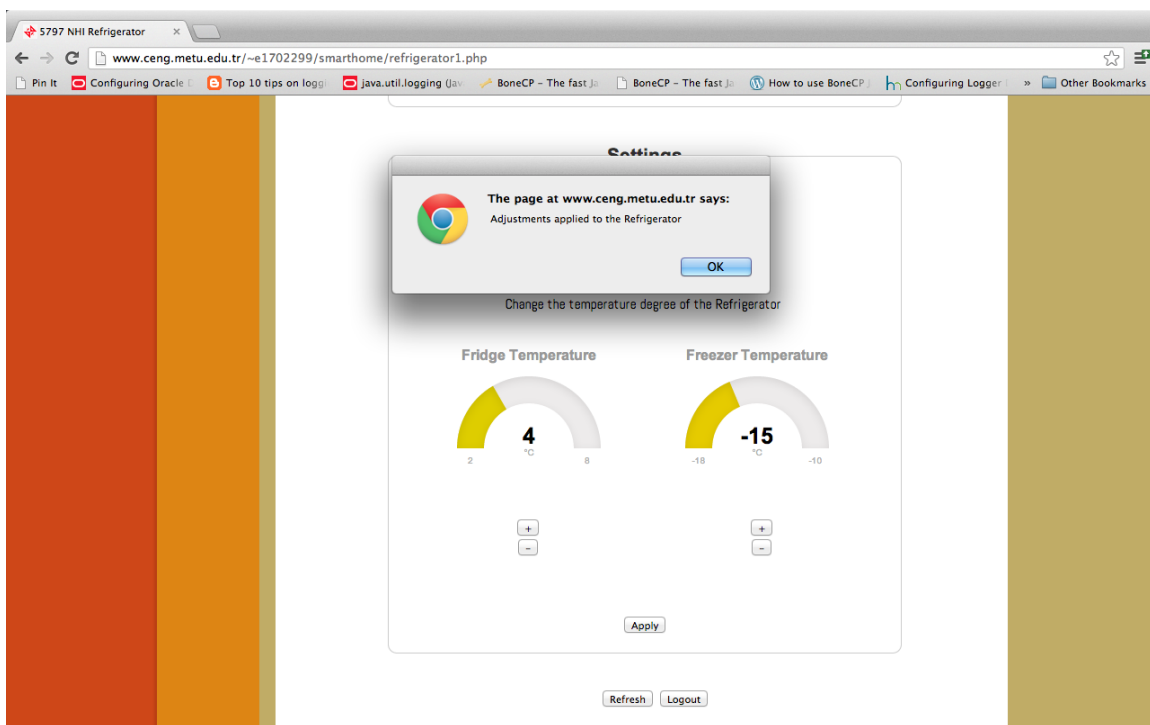
- On the Current Status box, the current status of the chosen device (Power on/off, Power Consumption, Fridge Temperature and Freezer Temperature) is displayed.



- On the Settings box, the user could change status of the device and alter the Temperature degrees for both Fridge and Freezer of the chosen device.



- Click on + or – buttons below the Fridge Temperature Gauge to increase or decrease the Fridge Temperature of the refrigerator.
- Click on + or – buttons below the Freezer Temperature Gauge to increase or decrease the Freezer Temperature of the refrigerator.
- Click on **On/Off** button to change the status of the refrigerator (Power on/off).
- After deciding on the new settings of the refrigerator click on **Apply** button to submit the changes to the Refrigerator.
- To refresh the current page please click on **Refresh** button.
- To logout from the system click on **Logout** button.

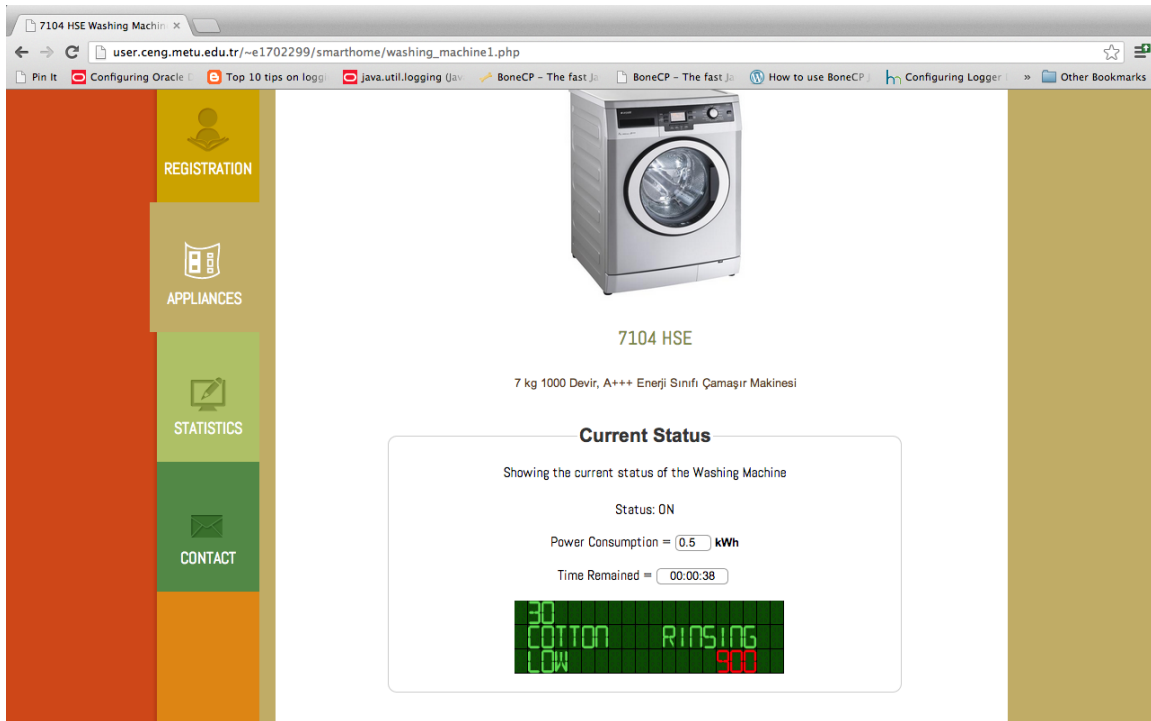


- After pressing **Apply** button “Adjustments applied to the Refrigerator” message would be appeared. Click **OK** to close the message box.

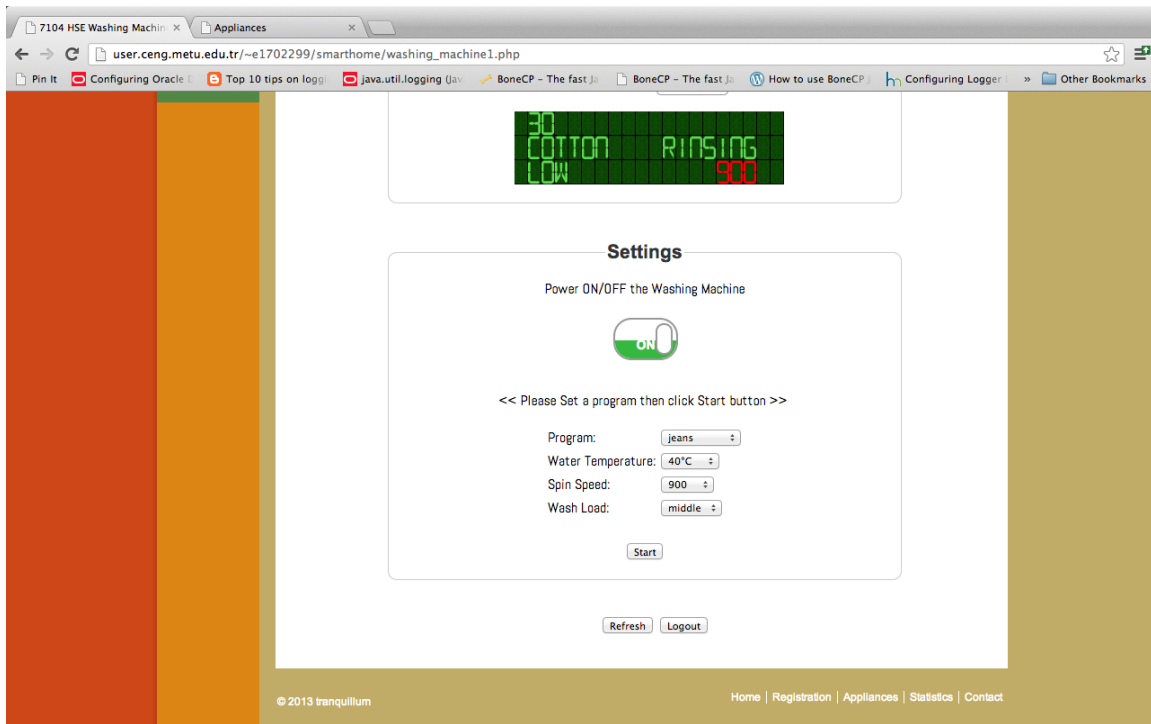
4.1.7 Washing Machine Control Page

By choosing one of the Washing Machine pages (from the Appliances page):

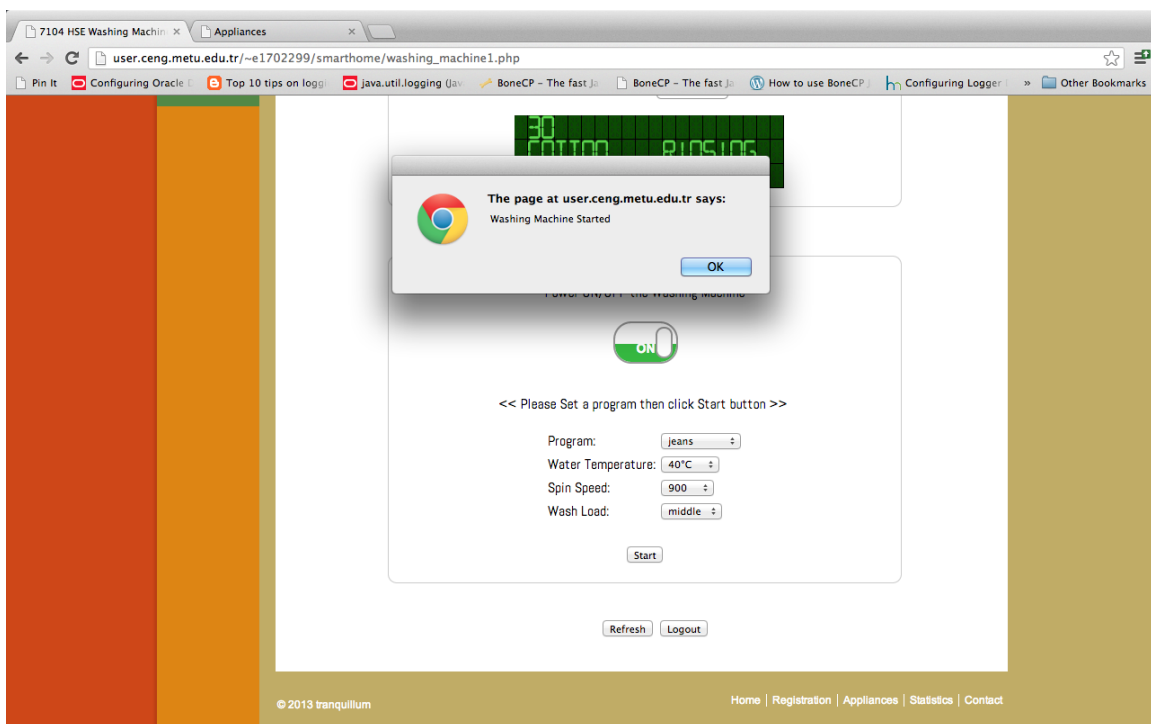
- On the Current Status box, the current status of the chosen device (Power on/off, Power Consumption, Time remained, Cloth type, Wash load, Spin speed and Stage info) is displayed.



- On the Settings box,
- Change the status of the machine by clicking **On/Off** button,
- Choose a **Program** from program menu,
- Choose **Water Temperature**, **Spin Speed** and **Washload** from the other menus,
- Then click **Start** button to start the washing machine.



- After pressing **Apply** button “Washing Machine Started” message would be appeared. Click **OK** to close the message box.



4.1.8 Appliances (List View)

- Click on **Appliances** button on the left slider then click on **LIST VIEW** to list all the available devices with their status.

APPLIANCES

View: CLASSIC VIEW LIST VIEW 5797 NHI Refrigerator 2398 CNIY A++ Refrigerator 7104 HSE Washing Machine

Model	Off/On	Fridge(°C)	Freezer(°C)	Power(kWh)	Page
5797 NHI	OFF ON	7	-15	0	View
2398 CNIY A++	OFF ON	6	-13	14	View

Model	Off/On	Water(°C)	Stage	Power(kWh)	Page
7104 HSE	OFF ON	30	rinsing	0.5	View

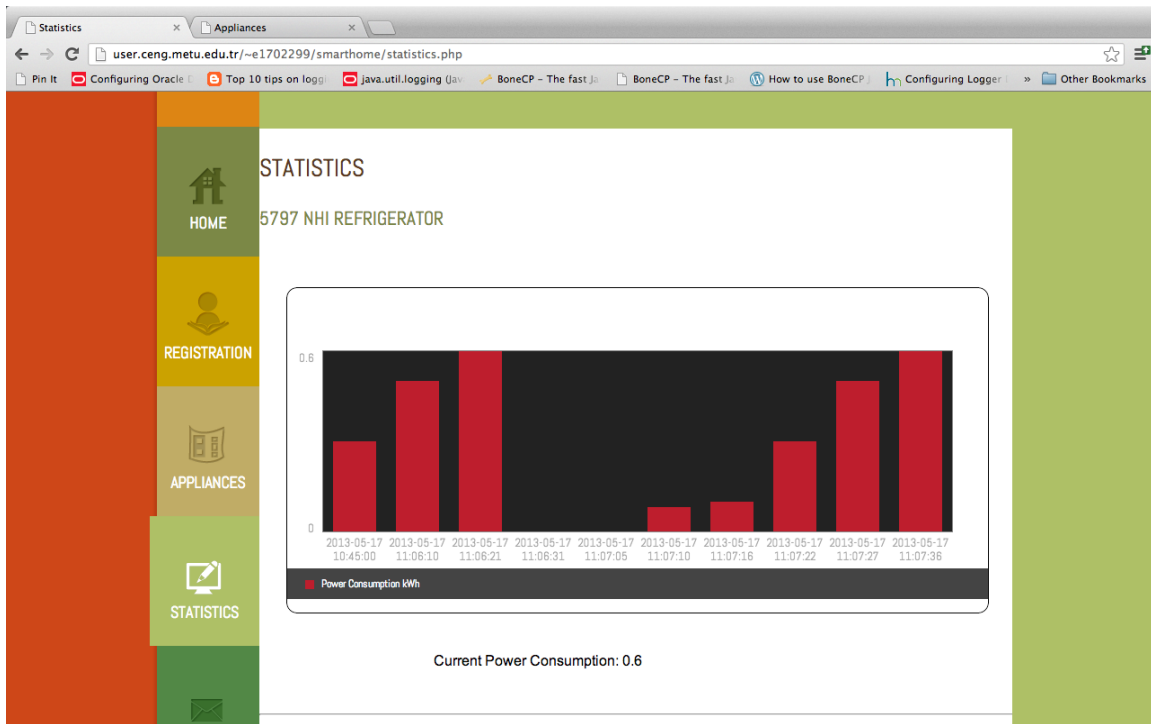
Sign Out

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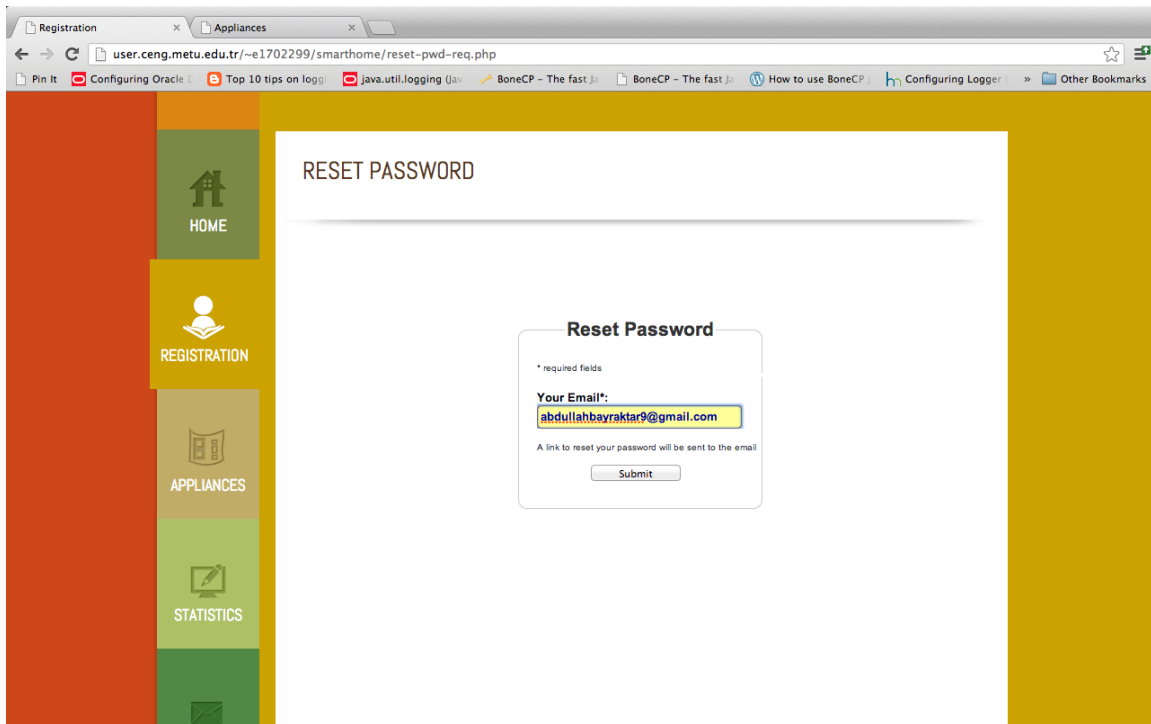
4.1.9 Statistics

- Click on **Statistics** button on the left slider to access statistics of the power consumption for all devices.



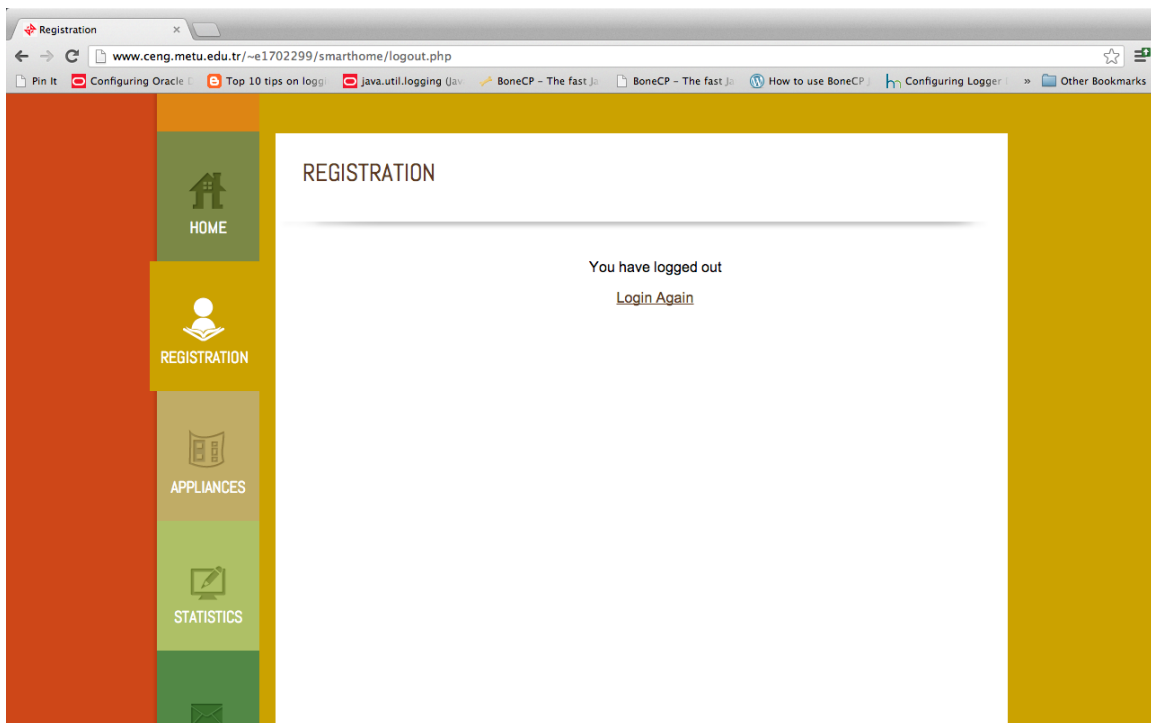
4.1.10 Reset Password

- Click on **Registration** button on the left slider then click **reset password** to reset the password for the current user.



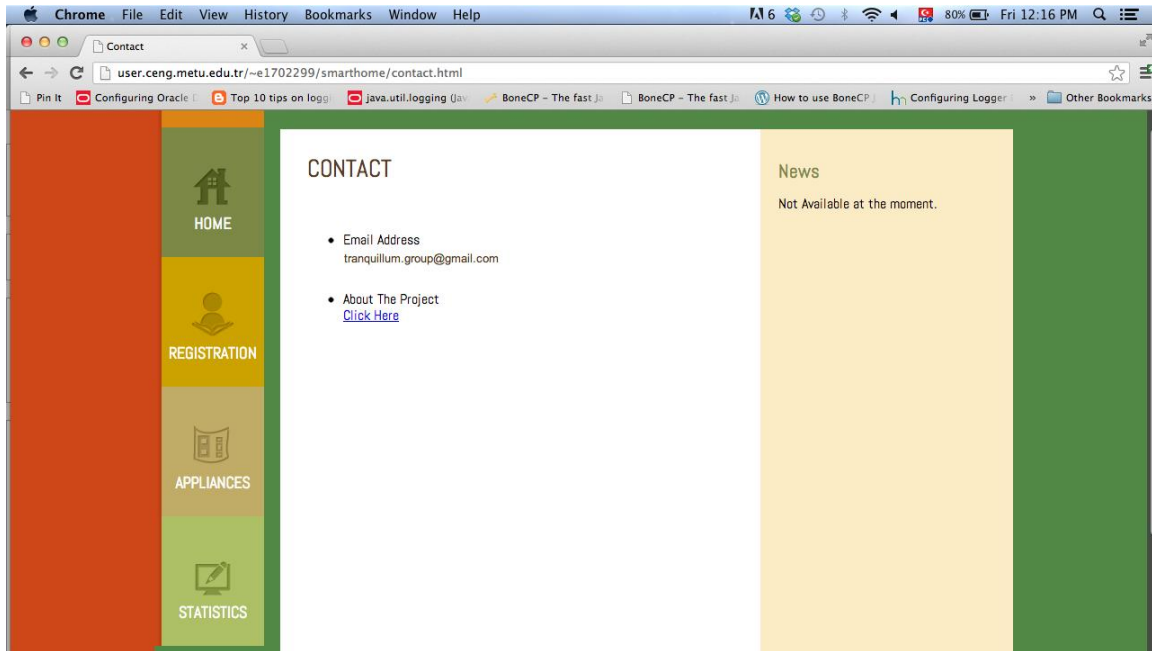
4.1.11 Logout

- In any page, if **logout** button is clicked then the user would be logged out and the page below would be displayed.



4.1.12 Contact

- Click on **Contact** button on the left slider to access e-mail address of the developers and website for the project.



4.2 Coordinator Box

No usage specification is required for Coordinator Box. Device will not need any further intervention after steps in Installing section are properly followed.

5. Troubleshooting

Other than well-specified installation and usage information provided within this document, we don't currently provide any Q&A and Troubleshooting for the project. Any other help request or problem can be directed to tranquillum.group@gmail.com which is main communication channel for developers.