

# **Intelligent Coffee Maker using SCADA and PLC; Design and Implementation**



## **Final Year Project Report**

Submitted by

Muhammad Omer Raza	091420-043
Abdul Hannan Sadiq	091420-280
Zubair Ahmad	081220-036

DEPARTMENT OF ELECTRICAL ENGINEERING

SCHOOL OF ENGINEERING

UNIVERSITY OF MANAGEMENT AND TECHNOLOGY

November, 2014

# Final Year Project Report Intelligent Coffee Maker using SCADA and PLC; Design and Implementation



## A PROJECT REPORT

Submitted by

Muhammad Omer Raza	091420-043
Abdul Hannan Sadiq	091420-280
Zubair Ahmad	081220-036

*In partial fulfillment of the requirements for the award of degree of*

BACHELOR OF SCIENCE

IN

ELECTRICAL ENGINEERING

APPROVED

Project Advisor \_\_\_\_\_

Director Projects' \_\_\_\_\_

DEPARTMENT OF ELECTRICAL ENGINEERING

SCHOOL OF ENGINEERING

UNIVERSITY OF MANAGEMENT AND TECHNOLOGY

November, 2014

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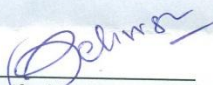
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Project ID 56

Date 28-05-2014

Project Title: Design & Implimentation of intelligent Coffee Maker  
using SCADA & PLC.

CGPA = 2.97  
 Particulars of the Students

Code	ID	Name	Semester in which Registered	Contact Number
A	081220-036	Zubair Ahmed Butt	Spring-14	0334402598
B	091420043	Omer Raza	Fall-13	0332-4789689
C	091420-280	Abdul Hannan Siddiq	Spring-14	05345431465
D				

2.97  
CGPA

CGPA = 2.0

S.No	Topic	Max Marks	Obtained Marks
1	Problem Statement	10	
2	Objective/Scope	10	
3	Methodology	10	
4	Scope of the Project/Utilization	10	
5	Literature Review/Data collection	10	
6	Design and Analysis	10	
7	Expected Output/Outcome/Final Deliverable	10	
8	Conclusion and Recommendation	10	
9	FYP-1 Documentation	20	

243 x 20 = 16.2  
 300

~~203~~ x 20 = 9

- Suggested Changes
- ① customized coffee
  - ② 2 ft by 3 ft size
  - ③ 2 liter water capacity
  - ④ 5 recipes & customized option
  - ⑤ Rs 5 coin to be used 3 coin system
  - ⑥ Solar system (using lab's solar panel)

Name \_\_\_\_\_ Role: (adviser/member) \_\_\_\_\_ Signature: [Signature] 28/5/14

## **Dedication:**

*We dedicate our work to Hazrat Ali Al-Murtaza KaramUllahWajhu (R.A), who is a gate of knowledge and always been a guiding star in our lives*

## **Declaration of Originality:**

Here by we declare that all the content of this student project report is completely based on our sole efforts and nothing in this project or in this report is a product of plagiarism and intellectual theft.

Advisor Signature

---

Group Members' Signature

Muhammad Omer Raza

---

Abdul HannanSadiq

---

Zubair Ahmad Butt

---

## **Acknowledgement:**

First of all we like to give thanks to the Almighty who blessed us with wisdom, courage, and observation to conceive the idea of this project and completing it with facing every challenge. We thank to our resource person and project advisor Mr. Muhammad Harris who has helped us a lot throughout the project. He guided us like a north star. His support, guidance and confidence in our group enabled us to work on such a challenging project.

We also like to thank our family and friends who have supported us through this whole process. Especially we would like to thank Dr. Ahmad Raza whose research experience is renowned in the University of Management and Technology. He helped us in writing our final dissertation. Whenever we get frustrated and depress he boost up our confidence by saying “Even Rome was not built in one day”. We found ourselves extremely lucky to have these people around us.

## **Abstract**

The final year project is describes the design and implementation of intelligent coffee maker using SCADA and PLC. The project report further describes the applications of this particular machine and its usage according to need in daily life.

Details of the design of hardware as well as of software are discussed in this project report. Their operation, testing and verification are elaborated in this report. The improvements, changes and problems are also included in this project are also discussed in the report.

This particular project is based on intelligent coffee making machine using PLC. PLC is an industry level automation technology and that's why it was our main focus to build up an intelligent machine using PLC. As a matter of fact PLC is a tough machine technically that's why it was our matter of choice to build a coffee maker based upon PLC as control system of it.

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