



# LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC with 'A' Grade, ISO 9001:2015 Certified Institution

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Report On Event Five-Day Skill Development Training Program on  
“Industrial Automation using PLC,SCADA and IOT ” in association with INDWELL Institute of  
Technology, Pune

**Event Type** : Certified Training Program  
**Date / Duration** : 11<sup>th</sup>- 15<sup>th</sup> Februray, 2019/(Five Days)  
**Resource Persons** : 1. Mr.Himanshu Kumar , Director, INDWELL Institute of Technology, Pune  
2 Mr. Praveen Saushin , Project Engineer INDWELL Institute of Technology,  
Pune

**Name of Coordinator** : Dr.A.V.G.A.MARTHANDA

**Target Audience** :B.Tech Students

**Total no of Participants** :71

**Objective of the event:** The main objectives of this Five-Day Skill Development Training Program are:

To educate the basic fundamentals of Automation among the students and equip them with employability skills., make them aspiring engineering students with practical knowledge of the Industrial Automation & latest technologies being used to achieve Industrial Automation, drive control and monitoring using IOT

**Outcome of event:** In this Five day training program the students were able to acquire practical knowledge how to control, design and monitoring an industrial drive by using IOT .

**Description / Report on Event:** The Department of EEE conducted a Five-Day Skill Development Training Program on “**Industrial Automation using PLC,SCADA and IOT** ” in association with INDWELL Institute of Technology, Pune jointly organized by IEEE student branch of LBRCE and Association of Electrical Engineers of LBRCE (AEEL),**during: 11<sup>th</sup> – 15<sup>th</sup> February, 2019** in Skill Development Lab (Admin block) for B.Tech students of EEE Department of LBRCE.

### **Inaugural Session:**

- The **Chief guest Dr. K.Appa Rao** Principal ,LBRCE inaugurated the Five day Training Program.
- Dr. K.Appa Rao in his inaugural address, encouraged the students to participate in these types of events to acquire additional skills required for the industry apart from class room lectures. . Finally he congratulated the students who have registered for this Five day Training Program
- Resource person Mr.Himanshu Kumar in his speech explained about his organization which develops PLC,SCADA systems and is contributing the development of student career .
- **Program Convenor, HOD of EEE, Prof.M.Umavani** in her address welcomed the Participants, Resource persons and Chief Guest. In her welcome address she spoke on importance of **Industrial Automation in modern Industrial techniques and controls using PLC,SCADA and IOT.**
- Coordinator Dr.A.V.G.A.Marthanda welcomed and given a word about industrial utilisation of PLC,SCADA and IOT controls.
- In the First Day i.e. on 11/2/2019, Session-I (FN) was taken by resource person Mr. Himanshu kumar. In this session he has covered the basic theoretical concepts of **PLC:** Introduction, types, leading hardware and software, logic development, important instructions, Industrial I/Ps & O/Ps, PLC wiring & Industrial project development

- Session-II (AN) was handled by Mr.Himanshu kumar along with Mr.Praveen Saunshi.In this session the participants are engaged effectively in practicing some applications like flashing,blinking LEDs and serial monitor with digital and analog pins.
- **On the Second Day i.e. on 12/2/2019**, Session-I (FN) Mr.Himanshu kumar along with Mr.Praveen Saunshi discussed about **HMI/MMI**: Introduction, interfacing with PLC, screen development, digital & analog data configuration, analog data scaling, password level, screen display & Industrial project development with practical examples like pushbutton ,counters, timer control. In Session-II (AN) Mr.Himanshu kumar along with Mr.Praveen Saunshi discussed with the help of sensor. Participants practised with HMI interface .

**On the Third Day i.e. on 13/2/2019**, Session-I (FN) Mr.Himanshu kumar along with Mr.Praveen Saunshi discussed about **SCADA**: Introduction, interfacing with PLC, screen development, digital & analog data configuration, analog, data caling, driver selection and configuration, tag creation and configuration & Industrial project development.

.In Session-II (AN) Mr.Himanshu kumar along with Mr.Praveen Saunshi discussed with the help of tag creation and configuration & Industrial project development Participants. practised with HMI interface with practical examples like pushbutton ,counters, timer control.

**On the Fourth Day i.e. on 14/2/2019**, Session-I (FN) Mr.Himanshu kumar along with Mr.Praveen Saunshi discussed about **ANALOG & IOT INTERFACING PROJECT**: Complete interface of PLC, HMI, SCADA, AC DRIVE, AC motor, Digital I/Os with a real Industrial application.

In Session-II (AN) Mr.Himanshu kumar along with Mr.Praveen Saunshi discussed with the help of AC motor .Participants,practised with **ANALOG & IOT** interface with practical examples like pushbutton ,counters, timer control,transmitter.

**On the Fifth Day i.e. on 15/2/2019**, Session-I (FN) Mr.Himanshu kumar along with Mr.Praveen Saunshi discussed about **AC DRIVES**, hardware, parameter setting, speed, direction, acceleration and de acceleration time control of induction motor, interfacing with PLC, multispeed & multi directional control project

.In Session-II (AN) Mr.Himanshu kumar along with Mr.Praveen Saunshi discussed overall concepts of plc,scada and IOT. Participants. practised with HMI interface, motor controls using IOT, Timer controls,etc.,

At the end, a test was conducted among the participants on Automation using PLC,SCADA,IOT controls of Electrical appliances.

During the valedictory session Dr.K.Appa Rao ,Principal presented the Merit certificates to the winners in the competition .HOD of EEE Prof.Dr.M.Uma Vani felicitated the resource persons with memento and Mr. Himanshu kumar presented the Merit certificates to the winners in the competition.

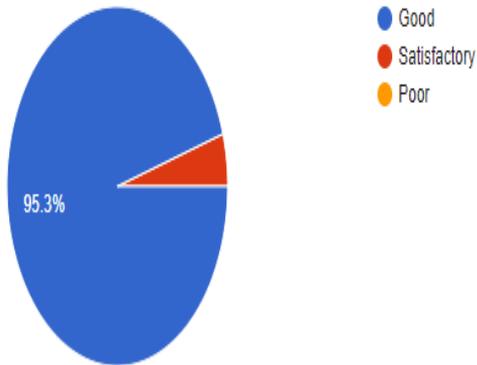
During the valedictory session coordinator Dr.A.Marthanda thanked all the dignitaries, participants and other members who are involved for the smooth functioning of the workshop.

### **Feedback / Suggestions from the participants:**

1. Program duration to be extended for two more days.
2. More number of such programs is to be conducted for improving of practical knowledge

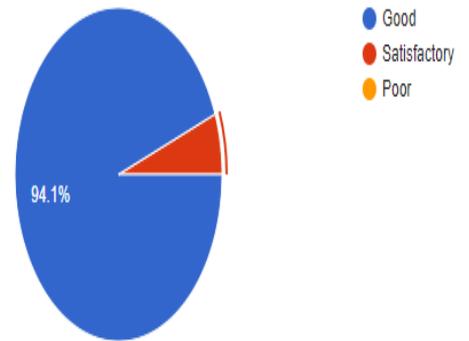
## 1.Theory Sessions by experts

85 responses



## 2.Laboratory / Practical Sessions by experts

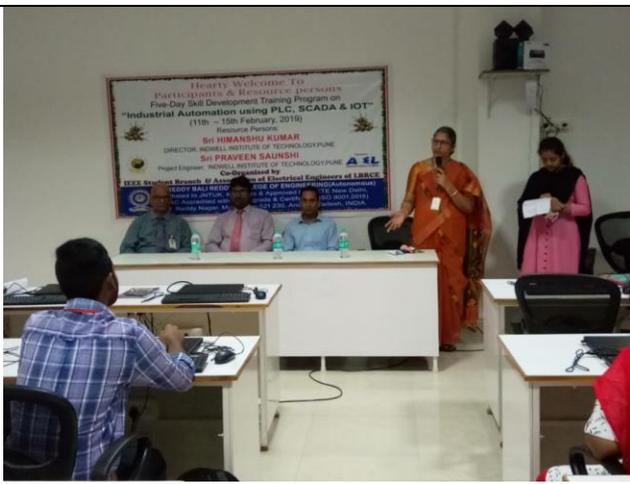
85 responses



## Photographs:

Addressing by Chief Guest of the Program Dr.K.Appa Rao Principal, LBRCE





Addressing by convenor , HOD EEE Dr.M.Uma Vani LBRCE.



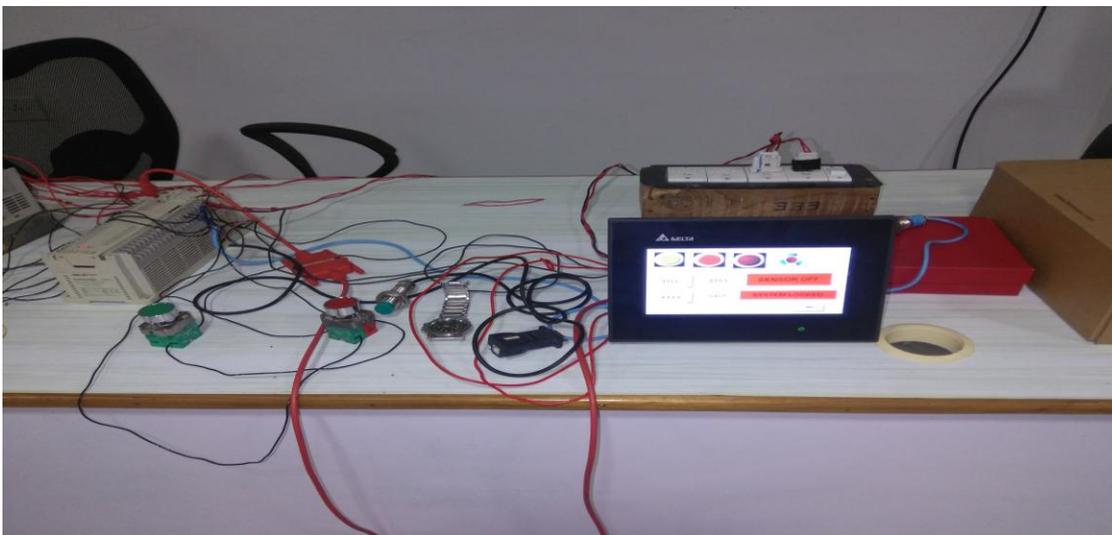
Addressing by Resource person Mr.Himanshu Sharma.



Chief Guest Dr.AppaRao, Principal presenting certificate to the participant.



Convenor ,HOD of EEE Felicitating Resource person with a Memento.



Practical Session With HMI Using Push Button ,Relay Controls, Proximity sensors

Paper clips:

12.2.2019 కంఠశాస్త్రం

## యాంత్రికతల ఉపయోగాలపై అవగాహన



మరింతగా తెలుసుకోవడా ప్రయత్నించండి

మొదల, ఏడాది 11: విద్యార్థులు యాంత్రికతల ఉపయోగాలపై ఎలక్ట్రోనిక్స్ లో అవి రోజులు పాటు ఉపయోగించే సులభమైన సాధనాలను తయారు చేయడం ద్వారా యాంత్రికతల ప్రాథమిక అవగాహనను పెంచుతారు. ఈ సందర్భంగా ప్రాథమిక అవగాహనను పెంచుతారు. ఈ సందర్భంగా ప్రాథమిక అవగాహనను పెంచుతారు.

12.2.19

### ఆటోమేషన్ లో పట్టు సాధిస్తే ప్రయోజనం



మొదల, మ్యాగిస్ట్రేట్: ఆటోమేషన్ ద్వారా పట్టు సాధించడం అనేది ఆటోమేషన్ లో ఉన్న అంశం. ఇది ఆటోమేషన్ లో ఉన్న అంశం.

ఆటోమేషన్ లో ఉన్న అంశం. ఇది ఆటోమేషన్ లో ఉన్న అంశం. ఇది ఆటోమేషన్ లో ఉన్న అంశం.

12.2.19

### ఇంజనీయర్ ఆటోమేషన్ పై శిక్షణ తరగతులు



మొదల, ఏడాది 11 (గ్రేడ్ మ్యాట్): యాంత్రికతల ఉపయోగాలపై అవగాహనను పెంచుతారు. ఈ సందర్భంగా ప్రాథమిక అవగాహనను పెంచుతారు.

ఇంజనీయర్ ఆటోమేషన్ పై శిక్షణ తరగతులు. ఇది ఆటోమేషన్ లో ఉన్న అంశం.



కంఠశాస్త్రం - 16/12/19

## ఎలక్ట్రోనిక్స్ లో ముగిసిన ఇంజనీయర్ శిక్షణ

మొదల, ఏడాది 11: విద్యార్థులు యాంత్రికతల ఉపయోగాలపై ఎలక్ట్రోనిక్స్ లో అవి రోజులు పాటు ఉపయోగించే సులభమైన సాధనాలను తయారు చేయడం ద్వారా యాంత్రికతల ప్రాథమిక అవగాహనను పెంచుతారు. ఈ సందర్భంగా ప్రాథమిక అవగాహనను పెంచుతారు.

ఇంజనీయర్ శిక్షణ తరగతులు. ఇది ఆటోమేషన్ లో ఉన్న అంశం.

16/12/19

### ముగిసిన అధ్యాపక శిక్షణ కార్యక్రమం

మొదల, ఏడాది 11 (గ్రేడ్ మ్యాట్): యాంత్రికతల ఉపయోగాలపై అవగాహనను పెంచుతారు. ఈ సందర్భంగా ప్రాథమిక అవగాహనను పెంచుతారు.

ముగిసిన అధ్యాపక శిక్షణ కార్యక్రమం. ఇది ఆటోమేషన్ లో ఉన్న అంశం.

16/12/19

### ఇంజనీయర్ ఆటోమేషన్ పై ముగిసిన శిక్షణ



మొదల, ఏడాది 11 (గ్రేడ్ మ్యాట్): యాంత్రికతల ఉపయోగాలపై అవగాహనను పెంచుతారు. ఈ సందర్భంగా ప్రాథమిక అవగాహనను పెంచుతారు.

ఇంజనీయర్ ఆటోమేషన్ పై ముగిసిన శిక్షణ. ఇది ఆటోమేషన్ లో ఉన్న అంశం.

16/12/19

