

A Report on
Joint venture of Electronics & EC department and under ISTE Students' chapter
Two-week Students Internship Training On
“Embedded System Design and IoT”
From 20th June – 2nd July, 2022

- ❖ Two weeks internship training on “Embedded system design and IoT” from 20th June to 2nd July, 2022 was jointly organized by Electronics Engineering and Electronics and Communication department of BVM Engineering College, V. V. Nagar under the banner of ISTE Students chapter.
- ❖ The training was delivered by industry expert Er. Komal Soni, Co-founder Electronics Hunter, Baroda. The Internship was Co-ordinated by Dr. Hiren Patel, Asst. Prof. EC and Prof. Mahendra P. Prajapati, Asst. Prof. EL Department.

❖ **Program Objectives:**

This program is intended:

1. To fulfillment of internship training ECIS-I, ECIS-II, ELIS-I and ELIS-II during the summer vacation as a part of industry training.
2. To understand the Embedded system design and IoT technology.
3. To understand new system architectures, programming and interfacing.
4. To study various microcontrollers like 8051 Core, 89C51, ARM Cortex-LPC 2148, ESP8266/32 and its applications.

❖ **Course Contents:**

Following course contents are to be covered during two-week internship training

Day	Topics	First Half	Second Half
1	Embedded System	Introduction to Embedded System, Overview of controllers and its families, fundamentals of digital circuits and embedded systems.	Hardware project/ Case study (Design and implementation)
2-5	8051 Core	Architecture, programming and interfacing*	
6-9	ARM (LPC2148/Cortex M)	Architecture, programming and interfacing*	
10-12	IOT (ESP8266/32)	Architecture, programming and interfacing*	Demonstration of Projects
12	Summary	Doubt Solving and Question Answer Session	

❖ **Program Outcomes:**

1. Got exposure to the knowledge of various embedded systems and IoT, Programming, Interfacing, RTC, and ecofriendly technology concept.
2. Got familiar with various strategies and policies for smart city.
3. Understood the usage of various IoT devices and their usages for various applications
4. Prepare some small hardware projects to fulfillment of the IoT concepts and their applications.

Total **26 students** have actively participated in the on-campus internship training successfully from EL and EC department.

Sr. No.	Name	ID NO.
1	Shivam Dineshbhai Prajapati	19EC401
2	Parth Raj Singh	19EC452
3	Maharshi Soni	19EL001
4	Panchal Poojan Jitendrakumar	19EL004
5	Burhanuddin Garbadawala	19EL014
6	Suthar Yagneshbhai Atulbhai	19EL017
7	Meet Suthar	19EL073
8	Ayush Shah	20EC451
9	Chauhan Yogeshbhai Somabhai	20EL001
10	Devang Jagdishbhai Rathod	20EL007
11	Ajani Mohit Mukeshbhai	20EL014
12	Muzammil Firoz Chaklasiya	20EL015
13	Roshni Bharatbhai Prajapati	20EL018
14	Deep Patel	20EL023
15	Pankti Machhi	20EL030
16	Kalp Shah	20EL035
17	Jainesh B Pithadiya	20EL050
18	Pokiya Dev Manubhai	20EL062
19	Gunjan Sharma	20EL071
20	Priyanshu Saurabh Bateriwala	20EL074
21	Soni Keyanshi Priyeshkumar	20EL081
22	Mohammad Fahim Intekhab Mansuri	20EL085
23	Vishant Dharmeshbhai Parikh	20EL097
24	Roshan Kanjibhai Prajapati	21EL319
25	Sikka Inderpreet Singh	21EL329
26	Shivam Jayswal	29EL027

❖ Some Glimpse of the pictures during the ongoing session



❖ The whole training is under the banner of ISTE Students' chapter.

વિધાનગર બી.વી.એમ. ખાતે ઈનહાઉસ ઈન્ટર્નશિપ ટ્રેનિંગનું આયોજન



આણંદ, તા. ૧૩

હતી.

પ્લેટિનમ જ્યુબિલી સેલિબ્રેશનના ભાગરૂપે બિરલા વિશ્વકર્મા મહાવિદ્યાલય ખાતે ઈલેક્ટ્રોનિક્સ એન્ડ કોમ્યુનિકેશન એન્જિનિયરીંગ ડિપાર્ટમેન્ટ, ઈલેક્ટ્રોનિક્સ એન્જિનિયરીંગ ડિપાર્ટમેન્ટ, ઈલેક્ટ્રિકલ એન્જિનિયરીંગ ડિપાર્ટમેન્ટ તથા શ્રીજી ચરણ ઈલેક્ટ્રોનિક્સના સંયુક્ત ઉપક્રમે એમ્બેડેડ સિસ્ટમ યુસીગ આઈઓટી તથા ઈલેક્ટ્રિકલ ઈન્ડસ્ટ્રી ડિવાઈસ કંટ્રોલ વિષય પર અનુક્રમે બે અઠવાડિક તથા ત્રણ અઠવાડિક ઈનહાઉસ ઈન્ટર્નશિપ ટ્રેનિંગ યોજાઈ

આ પ્રસંગે સંસ્થાના પ્રિન્સિપાલ ડૉ. ઈન્દ્રજિત એન. પટેલે જણાવ્યું હતું 'સંસ્થા તેના વિદ્યાર્થી પ્રોડ્યુસ ગ્લોબલી એમ્પ્લોયેબલ ઈનોવેટિવ એન્જિનિયર્સ વિશ્વ કોર વેલ્યુઝ પર સતત પ્રયત્નશીલ છે. AICTE ના ટોપ ૧૦ ટેકનોલોજીકલ ઈમર્જિંગ ટ્રેન્ડસમાં ઈન્ટરનેટ ઓફ થિંગ્સ સ્થાન પરાવે છે.

આ ઉપરાંત ઈન્ડસ્ટ્રી ૪.૦ માં ઈન્ટરનેટ ઓફ થિંગ્સની ભૂમિકા કેન્દ્ર સ્થાને છે. આગામી વર્ષોમાં આર્ટિકિશિયલ ઈન્ટેલિજન્સ, મશીન લર્નિંગ, ૩ડી પ્રિન્ટિંગ, ક્વોન્ટમ,

કમ્યુટિંગ, ઈન્ડસ્ટ્રીઅલ ઓટોમેશન, એન્ટેના ડિઝાઈન, RF, PLC, SCADA, VLSI, PCB ડિઝાઈન, AR-VR, રોબોટિક્સ, સિવિલ તથા સ્ટ્રક્ચરલ એન્જિ તથા અન્ય ઈમર્જિંગ વિષયો પર ઈન્ટર્નશિપ ટ્રેનિંગ યોજાશે.

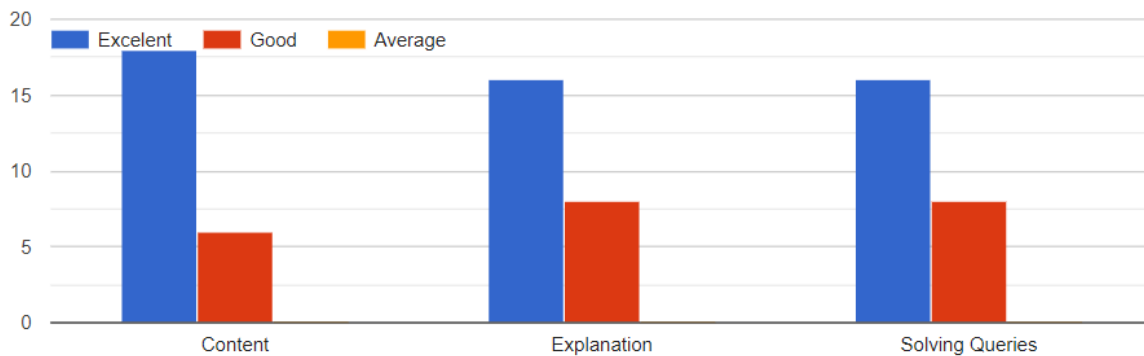
આ પ્રસંગે ડૉ. ભાર્ગવ ગોરડિયા, ડૉ. તન્મય પવાર તથા ડૉ. રમેશ મહેતાએ પ્રાસંગિક પ્રવચન કર્યું હતું. ઈન્ટર્નશિપ પ્રોગ્રામને સફળ બનાવવા માટે પ્રો. અનીશ વઘોરા, ડૉ. હિરેન પટેલ, પ્રો. મહેન્દ્ર પ્રજાપતિ, પ્રો. ગૌરાંગ શર્મા તથા પ્રો. જયદીપ ખારીયાએ જહેમત ઉઠાવી હતી.

Feedback

1. Rate the content, explanation and query solving during the internship.

Rate the following

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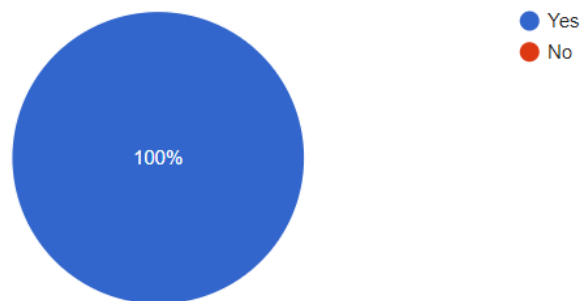


2. Was this Internship useful to you?

Was this internship useful to you?

 Copy

24 responses



3. What you liked most in this internship?

- Good explanation and nature of teachers.
- Project work
- Coding
- Practice on hardware
- To work on microcontroller and iot
- IOT
- I like node mcu part
- The way they teach out the Topics of the Internship.
- To motivate the student to come up with a solution to the problem on his own and help him if it doesn't happen
- The way of teaching and solving our errors.
- Practical sessions
- Project Part was most interesting for me.
- Best part is i able to use hardware products as well as implement software also. And instructor was so helpful to everyone. Thank you

- 8051 programming
- Teaching and communication with instructors
- It's explanation content
- Interfacing of led with Node NCU
- 8051 hands on
- Working atmosphere
- How do they Deliver the content and all other endless doubt solving practices and Appreciation after every little Improvement. I enjoyed being at this internship really a lot
- In Internship certain tasks were provided on a day. Coordinator of internship give us basic information but they didn't directly give us the answer. They let us find it in our own way and that's what I like most about internship.
- Project - we learn so many thing from that
- Learning about 8051 Controllers

Dr. Hiren Patel
Prof. M. P. Prajapati