

# CHIP DESIGN

Presented by:-Mr. Shriram

Working at: - Intel

The session was conducted in Chanakya seminar hall on 11/08/2018 at 10:00 AM.

Mr. Shriram started his presentation by going briefly into the history of the transistor. The transistor was invented in 1947 by William Shockley, John Bardeen and Walter Houser Brattain in BELL laboratories.

It was the first point contact transistor. William Shockley was only a supervisor of John Bardeen and Walter Houser and his participation in the invention of the transistor was very less. A patent image of the Point contact transistor was shown. All the three scientists got noble prize in 1956 for their invention.

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“Gordon Moore” the co-founder of Intel who made an observation and gave a statement that every 18 months the number of transistors in an integrated circuit doubles. He also showed us a graph of how Moore’s law is obeyed in the past years.

By the current rate at which transistor size is reduced the Moore’s law may be valid for two decades and after which it may not hold good, as the channel length decreases we will decrease it so much that the fundamentals of physics do not allow us to go beyond the atomic size. This may give rise to a new technology.

Intel is the largest chip manufacturing company and their chips are used all over the world. He showed us different chips that have been manufactured by Intel in the past from the very first 4004 processor to the latest i-9 processor.

A introduction to the current technology that Intel is working on was explained, products containing 5nm and 7nm technology will be launched in 2020.

The major difference between the micro processor and the micro controller and various places where they are being used such as washing machine, oven etc,

The various approaches for designing a chip such as bottom up and top down was explained. The different methods such as ASIC and FPGA.

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FPGA is suitable for prototyping and testing and it is field programmable as per the needs of the user. ASIC is factory or application specific programmed. He also explained the complications that are faced during the design of micro controller and micro processor, by giving us the example of the Samsung S3 micro processor.

Overall, the session was informative and inspirational and the basic fundamentals and problems faced in chip design were well presented.

# ~~Expert~~ guest lecture

The lecture was held on 11<sup>th</sup> August 2018, Saturday in Chanakya seminar hall at 12pm. Sir Shreeram, alumina of New Horizon College of Engineering shared his experience and thoughts with the students of ECE department.

It gave us a lot of knowledge about the outer world. He helped us to streamline our focus on our interest. He briefed us through the "art of engineering" which was a very apt title. He gave us an overview of our syllabus. The whole content was divided into three main streams

1. Analog electronics
2. Digital electronics
3. Embedded systems

The lecture helped us to put our thoughts in the correct direction.

More significance was given on

- What to study?
- How to study?
- Mini projects

We were briefed on how to approach the chapters. We understood that more importance must be given to understanding and applying the theory concepts in practical application. We got an idea on what the industries expect from the students. We got tips to prepare for the interview, an awareness was created that it was the right time to start thinking about our career seriously and self-study was very much important.

A beautiful idea was shared through a thought "we under estimate what we can do in a day and we over estimate what we can do in a year". Sir also share a small exercise of reading about one new technology a day . If we could do this for a year then we will be learning about 365 new things which will add a lot to our technical knowledge . We can note it and share our knowledge with others and help them as well . We can put them in the form of blogs or journals and can publish it as well which will add up to our resume .

Points like how to select our topics for the upcoming mini projects where focused. The projects that we do can help us find our area of interest . It helps to understand more about a particular technology. These can be developed into trainer kits and sold as well . When projects related to current crises are made, it gives a solution to the problems which society is facing. Having complete information about what we do is very important. Doing a background study of our topic is essential while presenting a project .

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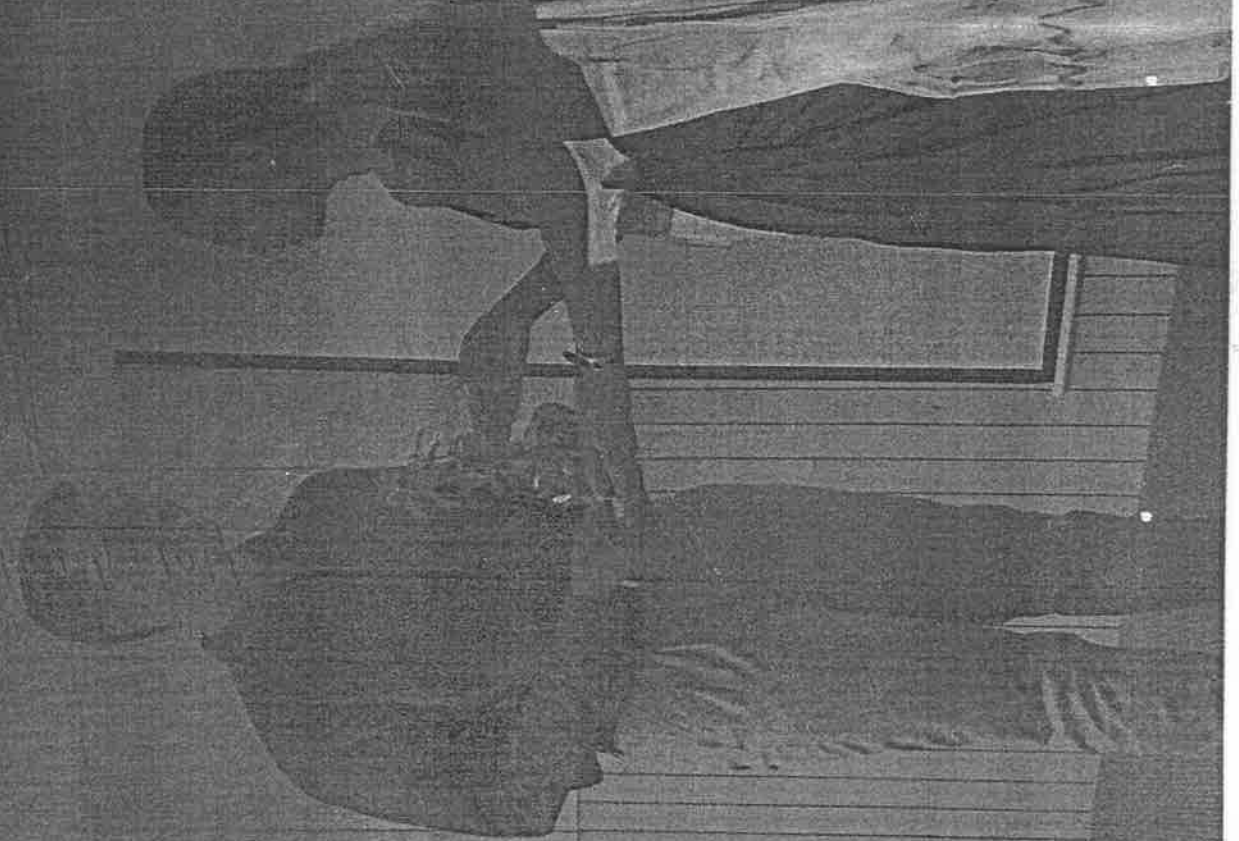
Apart for the knowledge we acquire from our faculties, effort has to be put to gather more information. Making best use of the available resources is essential for our development .We should not be satisfied with the present techniques , but aim to minimise the drawbacks of them . Questioning everything is very important . Questions help us in finding large number of possible answers and gives a better understanding .Nothing should be accepted without a satisfactory explanation.

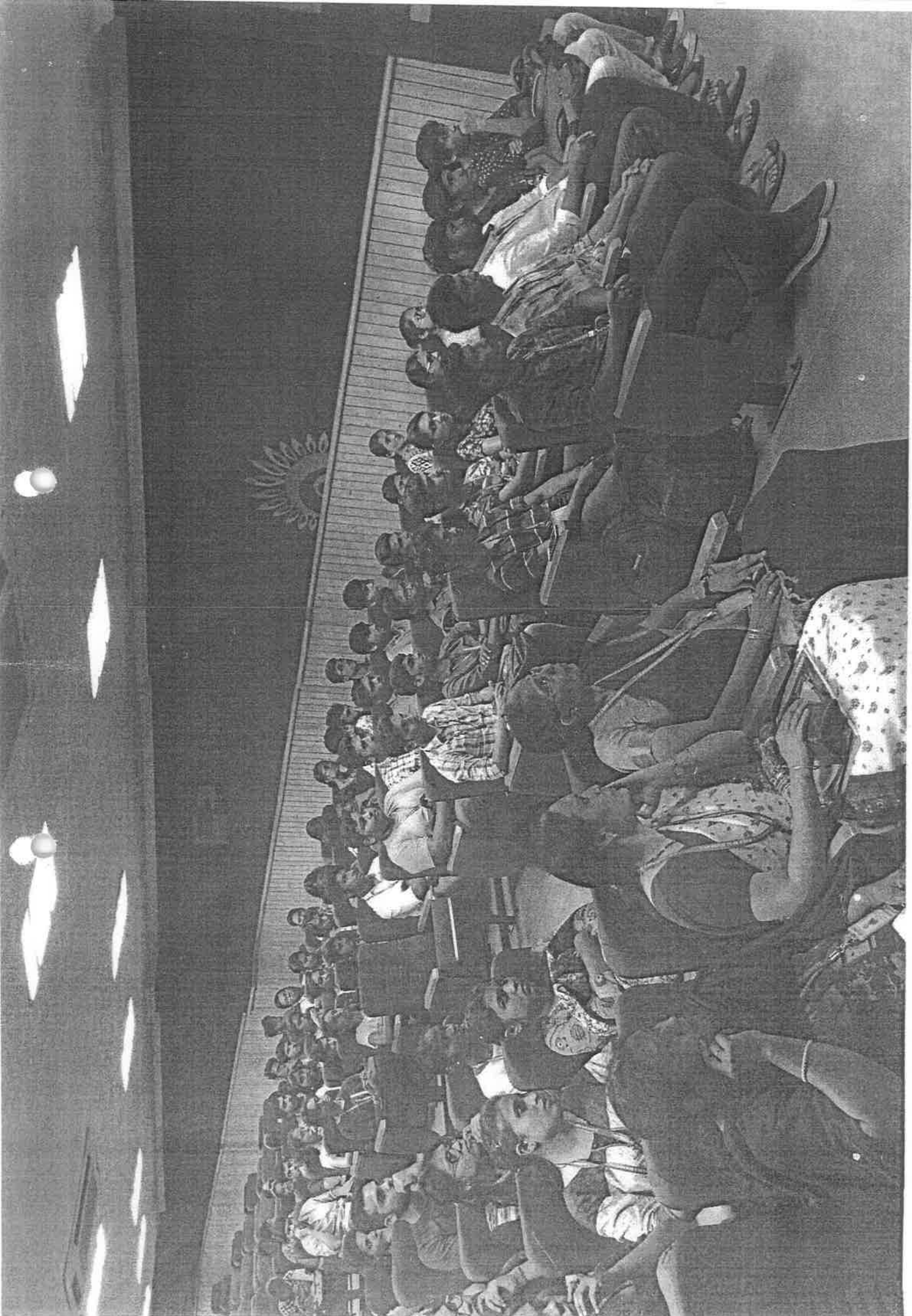
Relating the concepts to the real world makes it easier to understand them. These few tips and techniques will surely guide us through the tough path of life.

Reach out

iramspark@gmail.com

iramspark.wordpress.co





NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING  
III Sem "A" Sec

11/5/18

SL.No	USN	NAME	Stream	Batch	Date
1	1NH16EC038	KARROTU PRUDHVI	EXE	A1	
2	1NH17BT002	ANISHA DEVI	EXE	A1	
3	1NH17BT005	BATHULA SRI SAI KRISHNA	EXE	A1	
4	1NH17BT007	GANGADHARA VARSHITHA	PROF	A1	<i>vedha</i>
5	1NH17BT016	MURAKONDA AVINASH	EXE	A1	
6	1NH17BT020	PAGADALA VAMSI KRISHNA	EXE	A1	
7	1NH17BT023	SAI KARTHIK P R	PROF	A1	
8	1NH17BT024	SATYA MANOJ BASINA AGASTYA	EXE	A1	
9	1NH17BT025	SUHAIL PASHA	EXE	A1	
10	1NH17BT026	SUMAN PAL	EXE	A1	
11	1NH17BT031	THURPUNATI SURYA PRAKASH REDDY	EXE	A1	
12	1NH17EC001	AARTHY P JAITH	EXE	A1	
13	1NH17EC002	ADESH V	PROF	A1	
14	1NH17EC003	ADITYA OMPRAKASH CHOUDHARY	EXE	A1	
15	1NH17EC004	AKSHITHA R	EXE	A1	
16	1NH17EC005	ANAND T	EXE	A1	
17	1NH17EC006	ANAND T	PROF	A1	
18	1NH17EC007	ANKIT KUMAR	EXE	A1	
19	1NH17EC008	ARUN Y S	EXE	A1	
20	1NH17EC009	B S ABHISHEK	EXE	A1	
21	1NH17EC010	B YAMINI	EXE	A1	<i>VB</i>
22	1NH17EC011	BHARATH M	PROF	A1	
23	1NH17EC012	BHARATH Y R	EXE	A1	
24	1NH17EC013	BHASKAR K	EXE	A1	
25	1NH17EC014	BOGGARAPU MOURYA YASWANTH BOREDDY NAGA MAHESWAR REDDY	EXE	A2	
26	1NH17EC015	BOGGARAPU MOURYA YASWANTH BOREDDY NAGA MAHESWAR REDDY	EXE	A2	
27	1NH17EC016	C O PRUTHVI	EXE	A2	
28	1NH17EC017	CHANDANA N	PROF-G	A2	
29	1NH17EC018	CHETHAN B R	PROF-G	A2	
30	1NH17EC019	DEEKSHITH N REDDY	PROF-G	A2	
31	1NH17EC020	DEEPAK S	EXE	A2	
32	1NH17EC021	DEVASHRUTHA S	PROF	A2	<i>S. Devashrutha</i>
33	1NH17EC022	DHANYASHREE V REDDY	EXE	A2	<i>Ranya Shree</i>
34	1NH17EC023	DIVYA SAGAR REDDY	EXE	A2	<i>Divya</i>
35	1NH17EC024	DUDDUKURI VAISHNAVI	EXE	A2	
36	1NH17EC025	G ASAD	EXE	A2	
37	1NH17EC026	G R VARSHA	EXE	A2	<i>Varsha</i>
38	1NH17EC027	GAGAN B K	EXE	A2	
39	1NH17EC028	GAUTAM SINHA	EXE	A2	<i>Gautam</i>
40	1NH17EC029	GIRIDHARAN P K	EXE	A2	
41	1NH17EC030	H K BHASKAR	EXE	A2	
42	1NH17EC031	HARSHITHA G	EXE	A2	

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11/8/18

**NEW HORIZON COLLEGE OF ENGINEERING**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
**III Sem "B" Sec**

SL.No	USN	NAME	Stream	Batch	Date
1	1NH17EC060	NISHMITHA C SHETTY	EXE	B1	<i>Nisha</i>
2	1NH17EC061	NITHIN DEVANG B S	PROF	B1	
3	1NH17EC062	NITHIN R KALLIGUDI	EXE	B1	
4	1NH17EC063	PALAGIRI JYOTHI KRISHNA <i>PTK</i>	EXE	B1	<i>PTK</i>
5	1NH17EC064	PANUGANTI VIKAS	EXE	B1	<i>Panuganti</i>
6	1NH17EC065	PARTHASARATHI N <i>Parth</i>	EXE	B1	<i>Parth</i>
7	1NH17EC066	PASSAVULA PHANINDRA	EXE	B1	<i>P. Phanindra</i>
8	1NH17EC067	PATAN BABA SOHAIL KHAN	EXE	B1	
9	1NH17EC068	PRANAY CHATURVEDY	EXE	B1	<i>Pranay</i>
10	1NH17EC069	PRAVEEN KUMAR S <i>Praveen S</i>	EXE	B1	<i>Praveen S</i>
11	1NH17EC070	PREETHU C	EXE	B1	
12	1NH17EC071	PRINCE CHAURASIYA	PROF	B1	
13	1NH17EC072	PUNEETH REDDY V <i>Puneeth</i>	EXE	B1	<i>Puneeth</i>
14	1NH17EC073	R BARATH	EXE	B1	<i>R Barath</i>
15	1NH17EC074	R KISHAN KUMAR SAI	EXE	B1	<i>R Kishan</i>
16	1NH17EC075	R RAGHAVA	PROF-G	B1	<i>R Raghava</i>
17	1NH17EC076	RAHUL MONDAL	PROF	B1	<i>Rahul Mondal</i>
18	1NH17EC077	RAHUL V	EXE	B1	<i>Rahul V</i>
19	1NH17EC078	RAVI KIRAN M B	EXE	B1	<i>Ravi</i>
20	1NH17EC079	RENUKA D N	EXE	B1	
21	1NH17EC080	RIYA RAKESH	EXE	B1	<i>Riya</i>
22	1NH17EC081	ROHITH P GOWDA	EXE	B1	<i>Rohith</i>
23	1NH17EC082	RUPSA DATTA	EXE	B1	<i>Rupsa</i>
24	1NH17EC083	S RISHITA	EXE	B1	<i>S Rishita</i>
25	1NH17EC084	SAIKAT SAMANTA	EXE	B2	<i>Sai Kat</i>
26	1NH17EC085	SAIMANTI SAHA	EXE	B2	<i>S. Saha</i>
27	1NH17EC086	SAMYUKTHA V	EXE	B2	<i>Samyuktha</i>
28	1NH17EC087	SATEESH R HEGDE	EXE	B2	<i>Sateesh</i>
29	1NH17EC088	SHAKTHI A	EXE	B2	<i>Shakthi</i>
30	1NH17EC089	SHALINI P N	EXE	B2	<i>Shalini</i>
31	1NH17EC090	SHARAN KUMAR K S	EXE	B2	<i>Sharan</i>
32	1NH17EC091	SHIVA S	PROF	B2	<i>Shiva</i>
33	1NH17EC092	SHOAIB AHMED	EXE	B2	<i>Shoaib</i>
34	1NH17EC093	SHRESTHA PATNAIK	EXE	B2	
35	1NH17EC094	SHREYANKA S	EXE	B2	<i>Shreyanka</i>
36	1NH17EC095	SHWETA S	EXE	B2	<i>Shweta</i>
37	1NH17EC096	SOUVIK DAS	EXE	B2	<i>Souvik</i>
38	1NH17EC097	SOWMIYA A	EXE	B2	<i>Sowmiya</i>
39	1NH17EC098	SRINIDHI DAMODHAR	PROF	B2	<i>Srinidhi</i>
40	1NH17EC099	STANISLAUS LASRADO	PROF	B2	<i>Stanislaus</i>

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11/8/18

NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING  
III Sem "C" Sec

SL.No	USN	NAME	Stream	Batch	Date
1	1NH16EC065	NILOTHPAL	EXE		Re:joiner
2	1NH16EC732	NAVEEN ALLAM	EXE	C1	
3	1NH17EC700	AATHIRA VIJAYAN	EXE	C1	
4	1NH17EC701	AJAYS S	EXE	C1	
5	1NH17EC702	AKSHAJA SHIMALNA O K	EXE	C1	
6	1NH17EC703	ARAVIND P M	PROF	C1	
7	1NH17EC704	ASHIKA P	EXE	C1	
8	1NH17EC705	BHARGAV!	EXE	C1	
9	1NH17EC706	CHANDU V J	PROF-G	C1	
10	1NH17EC707	DHANUSH S	EXE	C1	
11	1NH17EC708	DHINAKARAN S	EXE	C1	
12	1NH17EC709	DISHANTH M P	PROF	C1	
13	1NH17EC710	G DEEPIKA	EXE	C1	
14	1NH17EC711	GAGANASHREE P S	EXE	C1	
15	1NH17EC712	GRACE GLADYS A	EXE	C1	
16	1NH17EC713	HARSHITH NAIDU J	EXE	C1	
17	1NH17EC714	J BHAVANA	EXE	C1	
18	1NH17EC715	JAYADEEP G P	EXE	C1	
19	1NH17EC716	JILLELLA RUPASAGAR REDDY	EXE	C1	
20	1NH17EC717	K AISWARYA	EXE	C1	
21	1NH17EC718	KONDURU SIVARAMA RAJU	EXE	C1	
22	1NH17EC719	KOTEPALLI RAMCHARAN	PROF	C1	
23	1NH17EC720	LAVANYA S N	EXE	C2	
24	1NH17EC721	MANISHA M N	EXE	C2	
25	1NH17EC722	MANOHAR G	EXE	C2	
26	1NH17EC723	MANOJ M R	PROF	C2	
27	1NH17EC724	MUNAGALA BHARATH KUMAR REDDY	EXE	C2	
28	1NH17EC725	NAINI NARAMA	EXE	C2	
29	1NH17EC726	NAVEEN KUMAR M S	EXE	C2	
30	1NH17EC727	NEHA KRISHNA	EXE	C2	
31	1NH17EC728	NIDUJUUVVI CHAKRADHAR	EXE	C2	
32	1NH17EC729	NIKHIL DWIVEDI	EXE	C2	
33	1NH17EC730	P K KANAKA SHARANYA	EXE	C2	
34	1NH17EC731	PALVADHI VENKATA SAI PAVAN KALYAN	PROF-G	C2	
35	1NH17EC732	PAVAN U	EXE	C2	
36	1NH17EC733	PRACHI VERMA	PROF	C2	
37	1NH17EC734	PRAJWAL P	EXE	C2	
38	1NH17EC735	R PAVITHRA	EXE	C2	
39	1NH17EC736	RAHUL BALAJI P S	EXE	C2	
40	1NH17EC737	RISHIKA POTEPELLI	EXE	C2	
41	1NH17EC738	RITWIK SHOME	PROF	C2	
42	1NH17EC739	S DENILA GRACELIN	EXE	C2	
43	1NH17EC740	S RAHUL YADAV	EXE	C2	

*Nilothpal*

*Aravind*  
*Ashika*

*Chandu*

*Deepika*

*Gaganashree*

*Grace*

*Harshith*

*Jayadeep*

*Jillella*

*Kanaka*

*Kotepalli*

*Lavanya*

*Manisha*

*Manoj*

*Munagala*

*Naveen*

*Neha*

*Nidujuvvi*

*Nikhil*

*P Kanaka*

*P Pavan*

*Pavan*

*Prachi*

*Prajwal*

*R Pavithra*

*Rahul*

*Rishika*

*Ritwik*

*S Denila*

*S Rahul*

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** *Art of electronics*

**FEEDBACK ON(Mention the topic):** *Art of electronics*  
**Instruction:** Please put a tick mark at the appropriate column.

**DATE:** *11/8/18*  
~~10/8/18~~

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent					
Good					
Average				✓	
Satisfactory	✓	✓	✓		✓

**Comments/Remarks/Suggestions:**

- 1.
- 2.
- 3.

**Name & USN No.(optional)**

**Signature (optional)**

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

NAME OF THE EVENT/CLUB: *Art of Electronics*

FEEDBACK ON (Mention the topic):

DATE: *16/8/18*

Instruction: Please put a tick mark at the appropriate column.

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent					
Good				✓	✓
Average	✓	✓	✓		
Satisfactory					

Comments/Remarks/Suggestions:

- 1.
- 2.
- 3.

Name & USN No. (optional)

Signature (optional)

*402*

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** *Digital / analog*

**FEEDBACK ON (Mention the topic):** *as*

**DATE:** *16/8/18*

**Instruction: Please put a tick mark at the appropriate column.**

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent	✓		✓		
Good		✓			
Average			✓		✓
Satisfactory				✓	

**Comments/Remarks/Suggestions:**

- 1.
- 2.
- 3.

**Name & USN No. (optional)** *INW17ECO77*

**Signature (optional)** *Rohit V*

*403*

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** *API of electronics (Guest lecture).*

**FEEDBACK ON (Mention the topic):**

**DATE:** *16/08/18*

**Instruction: Please put a tick mark at the appropriate column.**

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent					
Good	✓	✓	✓		
Average				✓	✓
Satisfactory					

**Comments/Remarks/Suggestions:**

- 1.
- 2.
- 3.

**Name & USN No.(optional)**

**Signature (optional)**

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** *Art of Electronics*

**FEEDBACK ON (Mention the topic):**

**DATE:** *16/8/18*

**Instruction: Please put a tick mark at the appropriate column.**

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent					
Good	✓	✓	✓		✓
Average				✓	
Satisfactory					

**Comments/Remarks/Suggestions:**

- 1.
- 2.
- 3.

**Name & USN No. (optional)**

**Signature (optional)**

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** Guest Lecture

**FEEDBACK ON (Mention the topic):** Art of Electronics

**DATE:** 11/08/18

**Instruction:** Please put a tick mark at the appropriate column.

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent					
Good	✓		✓		✓
Average		✓			
Satisfactory				✓	

**Comments/Remarks/Suggestions:**

1. —
2. —
3. —

**Name & USN No. (optional)** INH17EC 737

INH17 EC 733

**Signature (optional)**



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**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** GUEST LECTURE

**FEEDBACK ON(Mention the topic):** ART OF ELECTRONICS **DATE:** 11-08-18

**Instruction:** Please put a tick mark at the appropriate column.

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent					
Good	✓	✓	✓		✓
Average				✓	
Satisfactory					

**Comments/Remarks/Suggestions:**

1. Good

2.

3.

**Name & USN No.(optional)**



**Signature (optional)**



**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** GUEST LECTURE

**FEEDBACK ON (Mention the topic):** ART OF ELECTRONICS **DATE:** 11/08/18

**Instruction:** Please put a tick mark at the appropriate column.

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent	✓	✓	✓	✓	✓
Good					
Average					
Satisfactory					

**Comments/Remarks/Suggestions:**

- 408
1. Good.
  2. -
  3. -

**Name & USN No.(optional)**

**Signature (optional)**

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

NAME OF THE EVENT/CLUB: Guest lecture.

FEEDBACK ON (Mention the topic): Art of electronics      DATE: 11/8/18  
Instruction: Please put a tick mark at the appropriate column.

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent		✓	✓		
Good	✓			✓	✓
Average					
Satisfactory					

Comments/Remarks/Suggestions:

- 409
1. Nice lecture.
  2. Visuals can be made better.
  3. -

Name & USN No. (optional)

Signature (optional) J. [Signature]

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

NAME OF THE EVENT/CLUB: *Guest Lecture*

FEEDBACK ON (Mention the topic): *Chip design*

DATE: *16-8-18*

Instruction: Please put a tick mark at the appropriate column.

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent					
Good	✓	✓	✓	✓	✓
Average					
Satisfactory					

Comments/Remarks/Suggestions:

1. *lecture was informational*
2. *learnt about s n n micro processor*
- 3.

Name & USN No. (optional) *Kiran N (1NH16EC039)*

Signature (optional) *Kiran N*

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**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** *Guest Lecture*

**FEEDBACK ON(Mention the topic):**

**DATE:** *11.8.18*

**Instruction: Please put a tick mark at the appropriate column.**

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent	✓				
Good		✓	✓	✓	✓
Average					
Satisfactory					

**Comments/Remarks/Suggestions:**

- Mr. Sriram spoke about chip Design & Fabrication*
- He really motivated us and made us realize the value of today's technology.*
- The audience could have been more interactive*

**Name & USN No.(optional)** *Kushi Ponnamma K.P (INH16EC043)*

**Signature (optional)**  
*Kushi Ponnamma*

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:** *Guest Lecture*

**FEEDBACK ON(Mention the topic):**

**DATE:** *11/8/18*

**Instruction: Please put a tick mark at the appropriate column.**

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent			✓	✓	✓
Good	✓	✓			
Average					
Satisfactory					

**Comments/Remarks/Suggestions:**

- 4/2*
- The audience could have been managed better*
  - 
  -

**Name & USN No.(optional)** *LEHARIKA  
INHIBECOLA*

**Signature (optional)**

**NEW HORIZON COLLEGE OF ENGINEERING  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
FEEDBACK FORM**

**NAME OF THE EVENT/CLUB:**

**FEEDBACK ON (Mention the topic):**

**DATE:** 16/8/18

**Instruction: Please put a tick mark at the appropriate column.**

Rating	Clarity	Visuals	Skills	Guidance	Overall
Excellent		✓	✓		
Good	✓			✓	
Average					
Satisfactory					Good

**Comments/Remarks/Suggestions:**

1. The topics were brief and understanding
2. It was Interacting and good.
- 3.

**Name & USN No. (optional)** Anusha. H. N INH16EC010

**Signature (optional)**  
Anusha. H. N

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