



# SR ENGINEERING COLLEGE

*(Affiliated to JNTU, Hyderabad, Recognized by AICTE, New Delhi, Accredited by NBA, New Delhi)*

## Quality of class room teaching

### Class room Teaching

The lecture delivery by the faculty is through a set of educational technology/ tools such as

- Chalk and talk
- Power point presentation (PPT)
- ELearning
- Group discussion
- Quiz

#### **Chalk and talk:**

Lecturing is done using black board. Lecturing is often accompanied by visual aids (PPTs and PDFs) to help students visualize an object or a problem.

#### **Demonstration of the courses:**

1. Demonstrations include explanation of the theoretical concepts, principles involved in the courses with practical implementation examples. Demonstration helps to stimulate student's thinking capacity and reinforce memory retention, as they interlink facts and real-world applications.
2. Courses such as Physics, Chemistry, Mathematics, **Computer Programming, Electrical circuits-1, Electromagnetic field theory** are demonstrated using the above mentioned methods.

The sample pictures illustrating the usage of class rooms for teaching are shown below.



## **Prototype model/components**

1. To enhance the quality of class room teaching, various components and prototypes are used. The sample pictures of the components and prototypes that were used in teaching mechatronics subject are shown in the figure 1 to figure 6.

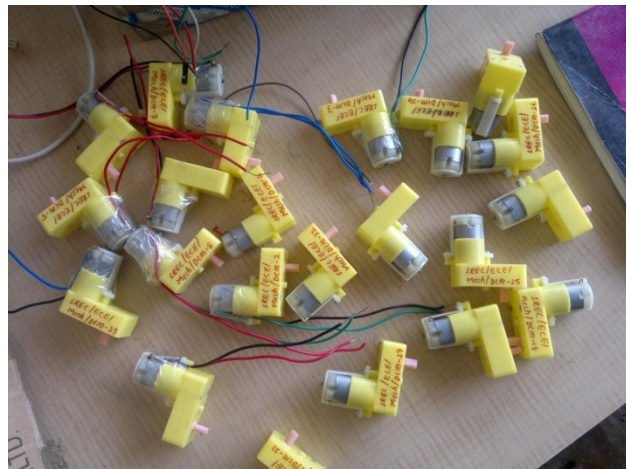


Figure 1. 5V DC Motors



Figure 2. Arduino Mega 2560 Boards



Figure 3. PIR Sensor





Figure 4. RF Transmitter and Reciever

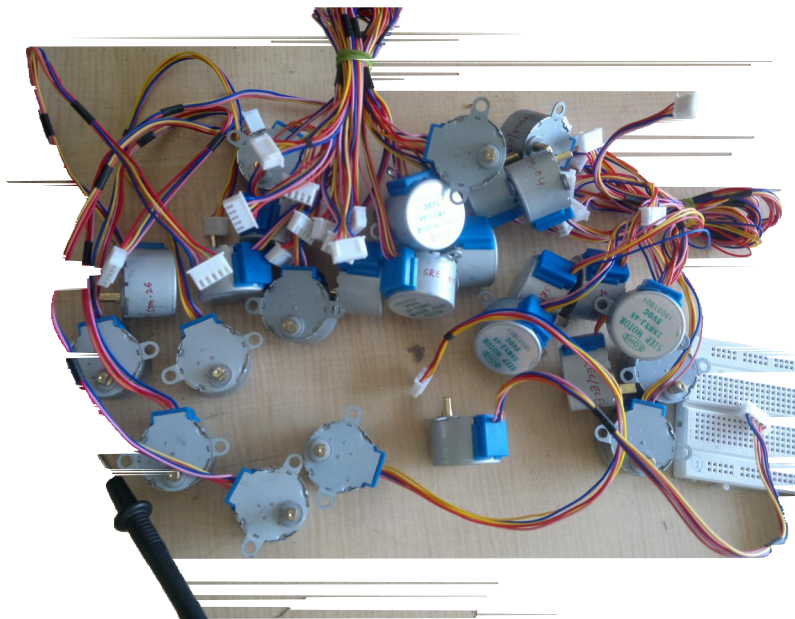


Figure 5. Stepper Motors

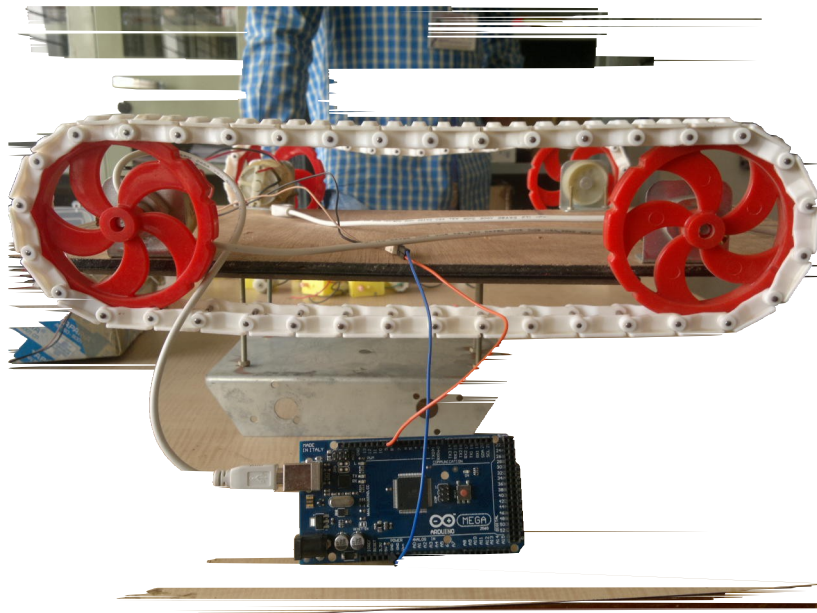


Figure 6. Escalator Prototype

### Seminar by students:

We encouraged the students to give seminars on technical topics to improve their communication skills, demonstration skills, to remove stage fear.





### **Student interaction with staff:**

At the end of every theoretical explanation, the students are given enough time to interact with the staff regarding the concepts discussed in the session. This helps students to get clear knowledge of the content discussed.



### **Content beyond syllabus:**

Our department has explored teacher's views and student's experiences by going beyond the syllabus to an advanced level to keep the students abreast of the latest technology. Such provisions are made in each theory subject.

The department arranges for guest lectures on recent developments in the field of Electrical and Electronics Engineering to bridge the gap between curriculum and industry requirements. Tutor course materials for various subjects are kept in the department library for benefiting students for studying beyond college hours.

Self-learning is promoted in the institute by creating facilities such as NPTEL E-Learning.

**Assignment submission by students:**

In every semester, the students are asked to submit assignments for specific topics by referring books, websites etc., for all the courses.

The assignment topics to be submitted by students are planned in advance and noted in the course files. The students submit the assignment within the prescribed time period.

**Guest lectures**

1. To enhance the quality of class room teaching, the valuable resource persons from outside the institutions are invited to deliver lectures to the students.
2. The list of various expert talk that were delivered in the department of ECE are shown in the below table (Table.1)

S.No	Topic	Resource person	Date
1	“Creativity and Innovation in Education”	Dr. Sridhar Condoor, Department of Aerospace and Mechanical Engineer, St Louis University, USA	25-07-2012
2	“ Mobile Devices”	Dr. Santosh Pande, Associate Professor, in CSE, Georgia Institute of Technology, Atlanta, USA	31-07-2012
3	Computing Colloquium	Mr. Aditya Rao, Chair IEEE Gold membership, Development Committee IEEE , CS Senior Manager Oracle , Oracle India	15-09-2012
4	“Financial Planning for Young Investors”	Dr. B. Vishnu Kumar, Certified Financial Trainer of Securities and Exchange Board of India (SEBI)	19-01-2013
5	“Advances in Electrical Engineering”	Mr. Kannan Raja Gopalan, Past Chair, IEEE Hyderabad Section and Chair, Technology Management Council (retired GM BHEL, Hyderabad)	06-09-2013
6	“Recent trends in web Applications and Frame Work”	Mr. P.V.S Maruthy Rao, Chair IEEE Computer Society, IEEE Hyderabad Section and CEO, Vidcentum R&D (P) Ltd., Hyderabad	06-09-2013
7	“Intel and Scope for Embedded Systems”	Mr. Kiran Nambiav, Project consultant and Business Development Manager, Intel college excellence program, Fice, Bangalore	30-10-2013
8	“Gender Diversity is the way forward”	Mrs. S. P. Girija, Assoc. Prof., Department of ECE, KITS, Warangal	08-03-2014
9	“Blogging and Internal Marketing”	Mr. M. Praveen, founder and CEO of Shukra Enterprises, Hyderabad	29-03-2014



10	“MEMS and its Application in Automobile Engineering”	Dr. Usha Shree, Professor & HOD (ECE), Dean Academic, JBIT, Hyderabad	25-07-2014
11	“Success Secrets for Personality Empowerment”	Mr. Shanti Swaroop, Director, L’avenir, Hyderabad	12-08-2014
12	“Unleash the Power within and create your greatest life”	Mr. Shanti Swaroop, Director, L’avenir, Hyderabad	12-08-2014
13	“EMBEDDED SYSTEMS- ITS APPLICATIONS IN AUTOMOBILE ENGINEERING”	DR. USHA SHREE, Dean (Academics), JBIT, Hyderabad	13th Aug 2015
14	“CAREERS FOR ENGINEERING GRADUATES”	Dr. E.MUNEENDER, Deputy Director for career and counselling cell at Kakatiya University (K.U)	26-08-2015
15	“HIGH TECHNOLOGY ENTRENURSHIP”	Mr. N.Venkatesh, Senior Vice President of Advanced Technologies at Red Pine Signals	31-01-2015
16	“IMAGE PROCESSING USING MATLAB”	Dr. KRISHNA MANOHAR, CEO, Tech.Moven, Hyderabad	06-08-2015
17	“Micro Electronics”	Andrezej Rucinski, Professor New Humpshire USA	23rd - 25th Feb-2016
18	Modern Trends in Digital Communicatins	A. Athif Shah, Chairman & Managing Director, ABE Semiconductor Design, Chennai	21-01-2017
19	Guest Lecture on “Overview of Research Activity at OHIO State University”	John L. Volakis Professor and Chope Chair, Electrical & Computer Engr.Professor and Director,	13th June 2016
20	LATEST TRENDS IN COMMUNICATION”	CH. RAMESH I.E.S.	3rd MARCH,2017

## PPTs

1. Many faculties are following Power Point Presentations (PPTs) to deliver lectures to the students. The sample pictures illustrating the usage of PPTs in class room teaching are shown in the figure



Figure 1. 5V DC Motors



Figure 2. Arduino Mega 2560 Boards

## ICT

1. The laboratories in the department of ECE are equipped with personal computers with internet connection. Students can access the internet facility to browse the useful data. Students also use the internet facility to communicate to others via emails.
2. Faculties use the laptops/PC or smart phones to communicate to the students. Faculties share the subject materials through internet facility.
3. All class rooms in the department of ECE are equipped with LCD projectors through which the faculty can present PPTs and show subject related videos and pictures
4. Students use the tools such as MS word to prepare the documents for mini and major projects.
5. Many faculties also use the tools such as MS word, MS excel to present the lectures to the student in easier manner.

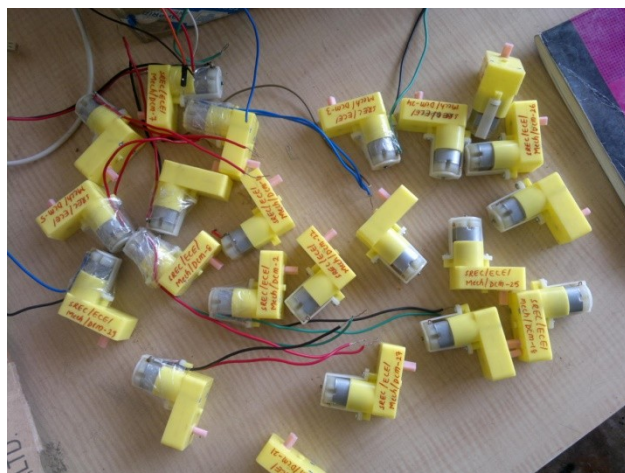


Figure 1. 5V DC Motors



Figure 2. Arduino Mega 2560 Boards



## LCD Projectors

3. All class rooms in the department of ECE are equipped with LCD projectors through which the faculty can present PPTs and show subject related videos and pictures.

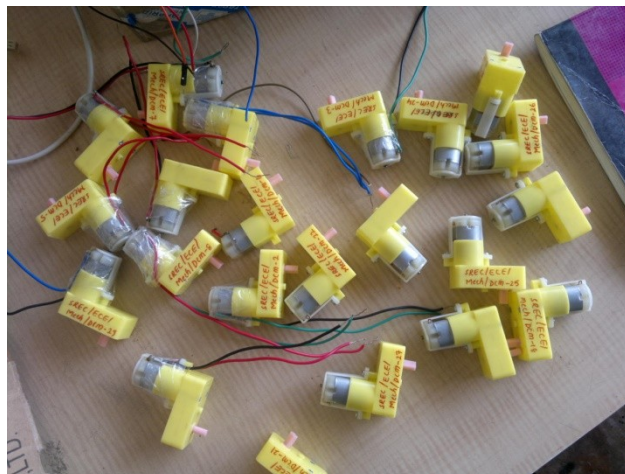


Figure 1. 5V DC Motors



Figure 2. Arduino Mega 2560 Boards

Table.

S.No .	Room Description	Usage	Shared/Exclusive ?	Capacity	Rooms equipped with
1	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
2	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
3	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
4	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
5	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
6	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
7	Class room	Class room	Exclusive	72	LCD projector,

	No.2216	for 2 <sup>nd</sup> year			Black Board, Student Benches
8	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
9	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
10	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
11	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
12	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
13	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
14	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
15	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
16	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
17	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
18	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
19	Class room No.2216	Class room for 2 <sup>nd</sup> year	Exclusive	72	LCD projector, Black Board, Student Benches
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