# St.Joseph's Degree & PG College (Autonomous) Department of Physics & Electronics

Departmental Activities
Annual Report 2013-14

## **Curricular Programmes**

## **Bridge Course**

Bridge course is basically a foundation course designed by the department for 10+2 pass out students for their smooth induction into B.Sc.

### **Objective**:

The objective is to provide adequate foundation in the core applied science

Duration: 1 Week (July 1st to 6th, 2013)

**Target Group**: I year/I Sem B.Sc

Subjects: Electronics (Incharge-Mr.MLN Rao)

Physics (Incharge-Mr.Sravan Kumar)

# <u>Tutorials</u>

#### **Assessment Tools:**

Tools	Purpose	Tutorial Class Activities	
Oral/Discussion/written	Assessment of knowledge and understanding :For detection of lagging	Review of lesson.	
tests	students	Special attention towards slow learner.	
		Exercise: Problems	
Demonstrative	Assessment of practical, intellectual and		
	general skills.		

## **<u>Certificate Course</u>**

#### Title of the Course: PCB Design

**Resource Person/ Organization**: Prayog Lab Pvt Ltd., Hyderabad.

Duration/Hours: 20 Hrs

Number of students Registered: 60

#### About Course:

This training is conducted through a series theory and Hads on experience introducing the fundamentals underlying knowledge used in the PCB designing. It includes various examples and case studies presented to the class for three days.

#### **Course Objective**

PCB is the heart of any Electronic System. Without PCB, we can't think of an electronic system. Among the various challenging tasks relating the design of modern electronic equipment, Printed Circuit Board design and fabrication occupies an important position. The shrinking size of modern electronic gadgetry such as mobile phones, laptop computers and camcorders has become possible due to innovations in PCB technology in terms of reduction in conductor width, inter-conductor spacing and multiplayer board design and fabrication facilities. The design of the PCBs as per the international standards is essential if we want to develop our export market and be competitive.

## Curricular Orientation/training Programme

## **Event: A two day Workshop on Embedded C Programming for Embedded** Systems.

Date: 2<sup>nd</sup> & 3<sup>rd</sup> September 2013.

#### **Objective**:

The objective of two day Workshop is to provide refresher training that serves to reacquaint one with material previously studied/ to bring one's knowledge/ skills up to date.

Resource Organization: Prayog Lab Pvt.Ltd. Kukatpally, Hyderabad

 Resource Persons: 1. Mr.Naveen Pr.Engineer
 2. Mr. Kiran Sr.Engineer
 Target Group: 1. Faculty of St.Joseph's Degree & PG College, Shadan Degree College for women, Shadan Degree College for Boys.
 2. Students of St.Joseph's Degree & PG College & Shadan Degree College for women

#### **Coordinators**: 1. Mrs.L.Mihira Priya

2. Mr. MLN Rao

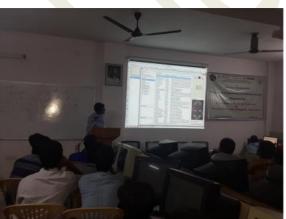
3. Mr. Sravan Kumar

### No. of Participants: 56



Day 1 & 2: Technical Sessions





## **Student Centric Programmes**

## **Event: Project Exhib 13'**

Date: 30/8/2013

Participants: III B.Sc

Items Exhibited: Mini Projects & Summer Projects

• Project titles: Optical eye testing, Hardware solution for traffic safety, unmanned railway crossing system, Android based Bluetooth Robo, fire fighting robo, Electronics voting system etc.

**Target group**: II, III B.Sc students & faculty.

**Coordinator**: Mrs .L.Mihira Priya

#### **Objective:**

- To raise awareness of different technologies, practicalities and their limitations.
- To disseminate the findings and ideas in the technology.



## **Event: Extension Activity: Land to Lab Programme**

Date: 13/03/2014

Target Group: St.Joseph's Girls High School (TM)

Theme: 125th C.V.Raman Birth Day Celebrations: "Sir C.V. Raman and His contributions to Society"

(Department of Physics & Electronics Lab – OPEN DAY)

Items Exhibited: Posters, Mini Projects, mind games based on physical Science concepts.

**Organized group**: I,II, III B.Sc (Phy & Elec) students & faculty.

Coordinator: Mrs .L.Mihira Priya/Mr.Sravan Kumar/Mr. MLN Rao

#### **Objective**:

- To raise awareness of different technologies, practicalities and their applications.
- To disseminate the findings and ideas in the technology.
- To impart scientific temperament among students.





### Name of the Activity: Guest lecture

Nature of the Activity: Student Centric

Incharge/Coordinator: Mrs. L.M.Priya /Mr.Sravan Kumar

Date: 6th August, 2013.

Title: Nanotechnology towards Smart Materials.

Venue: Language lab

Target Group/Participants : I/II/III Year B.Sc (MPCs) students

**Resource Person & Organization**:

Sunkra V Manorama

Senior Principal Scientist

CSIR-IICT ,Tarnaka,Hyd.

#### **Objective:**

To enrich students with the latest updates of the Industry and technicalities.

#### About the Activity :

Students are bestowed with knowledge about latest technical updates & Avenues for higher studies along with basic concepts in the subject.

#### Photos :



Inaugural & Interaction Sessions



## Name of the Activity: GUEST LECTURE

Nature of the Activity: Subject Oriented Extension lecture

In charge/Coordinator: M.Sravan Kumar, L.M. Priya and MLN Rao

Date: 23/11/2013

Title: 'PRINCIPLES OF QUANTUM MECHANICS-A PERSPECTIVE APPROACH'

Venue: Seminar hall-I, St. Joseph's College, Hyderabad.

Target Group: B.Sc (MPCs) Sem-2, Sem-4 & Sem-6

No. of Participants: 54

**Resource Person & Organization**: Dr. M. Sreenath Reddy, Assistant Professor, NIZAM COLLEGE

## **Objective:**

- To create awareness and interest in the PHYSICS areas particularly in Quantum Mechanics.
- > To understand the principles and basics in Quantum particles.
- > To get the adequate Knowledge in dual nature of light, potential well.

## About the Activity:

- 1. Familiarized about advancements in Quantum Mechanics.
- 2. Focused on Heisenberg's Uncertainty Principles, De Broglie hypothesis, phase velocity & Group velocity.
- 3. Explained about Schrodinger wave time independent and dependent wave equations, Eigen functions Potential step, potential barriers and its applications.

## **Photos:**





**Feedback (if any)**: Students are very much passionate to learn about the principles of Quantum mechanics and they inspired with the talk of eminent professor.

Students found the seminar is very much useful and it meets the vision mission of the Department.

## Name of the Activity: FIELD VISIT

Nature of the Activity: Communication for societal Development

Incharge/Coordinator: L.M.PRIYA and MLN Rao

Date: 13/12/2013

Title: AMATEUR (HAM) RADIO

Venue: Raj Bhavan Road, SomajiGuda, Hyderabad.

Target Group: B.Sc(MECs) & B.Sc (NHAEM) SECOND AND THIRD YEARS

No. of Participants: 44

**Resource Person & Organization**: Mr .S.Ram Mohan, Director, NATIONAL INSTITUTE OF AMATEUR RADIO

## **Objective:**

- Create awareness and interest in the in communication and information technology through Amateur Radio and disaster management as career build in interest of young talented dynamics.
- Also understand the technology implication
- > To get the adequacy in curriculum framing and design.

## About the Activity (few lines):

- To familiarize in advancement of communications of global Amateur Radio activity in terms of promotion training, advocacy, technical support ,Knowledge repository and research with commitment ,quality and service to the society.
- HAM Radio learning mechanism in the field of electronics and radio theory.
- How to communicate message for all king of emergencies including cyclones, Earthquakes, floods Rail/Road &Air Accidents.(work in disaster conditions)
- Social Responsibility, Skill Development and Technology Development Information.

## **Photos:**







## Name of the Activity: Inter departmental Activity

**Nature of the Activity:** Enhancement of Practical Knowledge in Audio- video Communication for Technical Development

In charge/Coordinator: L.M.PRIYA & R. Ashok

Date: 10/12/2013

Title: Mass communication video visit.

**Venue:** Mass communication lab, Dept. of communication, St.Joseph's College. Hyderabad.

Target Group: B.Sc (MECs) & B.Sc (NHAEM) SECOND Year

No. of Participants: 34

**Resource Person & Organization**: Fr. J. Kingston Jeganathan, SVD Head, Department of Mass communication, SJDC, Hyderabad.

## **Objective:**

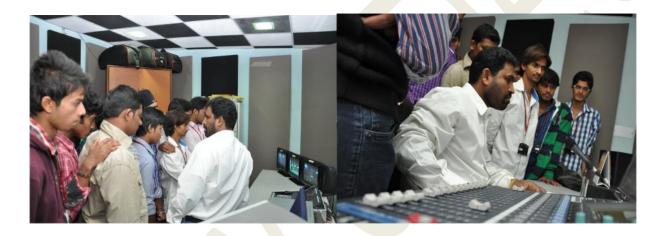
- To create awareness and interest in the communication and technology usage in labs.
- > To understand the technology implication

## About the Activity (few lines):

- To familiarize in advancement of ACR and PCR techniques in labs.
- Working mechanism in the audio video signals to send the communication in various levels.
- Students have learned about analog and Digital conversions.

## Photos:





**Feedback** : Students have come across with various equipments.

## Name of the Activity: Inter departmental Activity

### Nature of the Activity: Guest Lecture

In charge/Coordinator: L.M.PRIYA

Date: 18/1/2014

Title: Mobile Computing

Venue: Computer lab, III floor

Target Group: I/II B.Sc (ME/P Cs) & B.Sc (NHAEM)

**Resource Person & Organization**: Mr.M Joseph Rajakumar, Assoc Professor, Dept .of Computer Science , SJDC, Hyderabad.

## **Objective:**

- To create awareness and interest in communication and technology related applications.
- To understand the technology implication

## About the Activity:

- To familiarize in advancement of wireless devices.
- To familiarize about applications of mobile computing and
- About future of mobile computing.



## Name of the Activity: Physics - Scrambled Words

Nature of the Activity: Science Club -Student Centric Programme

Incharge/Coordinator: Mr.Sravan Kumar

Date:30/9/2013

Venue: Physics Lab

Title: Physics - Scrambled Words

Target Group: III B.Sc(MPCs)-Sem 5

No. of Participants: 16

**Objective**: To acquaint and update knowledge of students with new words in the Subject.

**About the Activity:** This event was organized during class hours and evaluated the same after conducting the competition.

## **Result** :

Top Scorers

1. Abdul Moiz 2. Md.Ashfaq

## Name of the Activity: Fresher's

Nature of the Activity: Student Centric Programme

Incharge /Coordinator: Mrs .L. Mihira Priya/Mr. Sravan Kumar/Mr.MLN Rao

Date: 3/10/2013

Venue: St.Joseph's Hall

Title: Mr.& Miss Fresher Hunt

Target Group: IYear /Sem I B.Sc

Total No. of Participants: 250

**Objective**: To re charge students with co curricular activities.

**About the Activity :** This event was organized after class hours from 2:00 PM to 5:00 PM with cultural items in between Intro, Talent & questionnaire rounds conducted for I Year. The final round winners were awarded with Mr & Miss fresh face, Mr & Miss Graceful, Mr & Miss Fresher.



Contestants for Mr & Miss fresher

## Name of the Activity: Josephiesta

Nature of the Activity: Student Centric Programme

Incharge /Coordinator: Mrs .L. Mihira Priya/Mr. Sravan Kumar/Mr.MLN Rao

**Date**: 1.02.2014

**Objective**: To re charge students with co curricular activities.

S.No	Activity	Faculty Incharge	Student Coordinators	Prize winners
1	Jeopardy-Dart Quiz	Mr.M.L.N.Rao	AJR Yehowa Micheal –III	1.Nikhil&Rvindra-SJC
			B.Sc	2.Rajeev Reddy -SJC
			Prasanth –III B.Sc	
2	Free Hand Drawing	Mr.Sravan Kumar	I B.Sc(Phy & Elec)-Girls	1.Gerald Green Wood-Loyola
				Academy
				2.Ashwini.C-Bharat PG
				College
				3. Pramod.sarvade-Aurora
				college
3	Thambola	Mrs.L.Mihira Priya	Ravi Raja-IB.Sc(Phy)	Informal Game
			Vasu – IB.Sc(Elec)	

## **Student Support Activities**

## **Event: Parent - Teacher Meeting**

#### Date: 31/8/2013

#### Purpose:

- Parents can let the teacher know of any special circumstances at home that might have some bearing on the student's performance or behavior.
- To allow Parents and teachers work together to try and provide the best environment for learning, the child stands to benefit the most.

Target Group: I /I Semester students (MPCs/MECs/NHAEM) & Parents

Coordinators: Class in Charge



Principal's address on the Interface day

## Event: Alumni Interaction with III B.Sc students

### Date: 24/8/13

Alumni: Sanu George Sr.H/W & Infra Head Rhythm & Hues studios pvt.Ltd.

Group: MECs Batch: 2002

### **Objective**:

- Students and alumni will have the opportunity to get to know each other and connect.
- To provide a platform for mutual inspiration and entrepreneurial opportunities.

## **ROLE OF ALUMNI:**

- The alumnus is free to speak on the field in which he is working. However, to help the students in a better way we would like to suggest a few points which he may like to incorporate in the lecture.
- His academic background, professional life and his career up till now.
- Possible career options in the core field, apart from the one in which the alumnus is pursuing
- The present and future scenario of the sector in which the alumnus is working

The 2 PM to 3:30 PM interaction between the students and the alumni would start with the alumni delivering a short lecture regarding the field of his expertise followed by MOCK INTERVIEW.

#### **Event: Placement assistance programme**

S.No	Date	Department	Activity
1.	26/7/2013	Department of Mathematics & Statistics	Aptitude Test
2.	24/8/2013	Alumni (Batch-2002)	Resume preparation & HR
			interview tips

## **B.Sc 2013-14 Placement Information: Company Visit/registered/placed details**

 Placement Officer:
 Mr Srinivas .N

 Faculty, Department of Business Management

 B.Sc placement coordinator:
 Mrs.L.M.Priya

 HoD,Department of Physics & Electronics

Total registered: 37

S.No	Date	Company	Annual pay pack	Appeared	Selected	Selected Candidates Names
1	27/8/2013	Amazon(Parttime)		37	1	M.Ankit Kumar
2	11/9/2013	Genpact	12,000 per month	30	3	J.sai kumar, M.Pradeep Kumar, Abraham Joseph
3	19/9/2013	HGS	2.07 L	12	-	-
4	25/11/13	Amazon Full time	2.25,2.00,1.85L	18	-	-
5	28/11/13	Cognizant	2.04L	12	4	Ravindra, G.Sai Kumar,Prabhu Ankit
6	13/12/13	WIPRO BPO	-	17	-	-
7	24/1/2014	Intelli Group(NTT Data) Off Campus	2L	5	1	Ravindra Reddy
8	6/2/2014	Southern Land- Apollo	-	18	-	-
9	26/2/2014	Sonetel	1.85-2.0L	5	-	-
10	25/1/2014	TCS (Off Campus)	1.65L	1	-	-

### **Activity: Counseling Programme**

Name of the Counselor: G Angela

Issues taken: 1. Psychological Counseling

2. Understanding Problems

Target Group : I/II B.Sc

Timing: Between 9:00AM-11:30 AM

#### Activity: Mentoring

S.No	Faculty	Allotted Group		Issues Handled
1	Mrs.L.M.Priya	II B.Sc(MECs)-Roll.No:1-29	26)	Academics/Irregularity
2	Mr.Sravan Kumar	II B.Sc(MPCs/NHAEM) (29)		/Fee: Financial
3	Mr.M.L.N.Rao	III B.Sc(MECs)-R.No1-30	(22)	Problems/focus on backlog
				papers etc.

## **Faculty Enrichment Programmes**

- Mrs.L .Mihira Priya , HoD Department of Physics& Electronics has attended two day workshop on "Modern Navigation" held at R & unit for navigational Electronics, Osmania University on 29<sup>th</sup>-30<sup>th</sup> November ,2013.
- Mrs.L. Mihira Priya, HoD Department of Physics & Electronics presented a paper titled "Tracking Devices for Visually impaired & Elderly care system by using GPS and RFID tags-An Enhanced scope for Indian Retail" in the one day National seminar on Emerging Trends in Commerce –An Edge, held on 19<sup>th</sup> Dec ,2013 organized by Department of Commerce, St.Joseph's Degree & PG College, Hyderabad.
- Mr.M.L.N Rao as resource conducted a workshop on MOODLE software for the faculty of all the Departments in st. Joseph's Degree & PG College.
- Mr.Sravan Kunmar attended workshop as NSS programme coordinator of the college conducted by Osmania University.