

Annual Report 2016-17

Department of Physics and Electronics

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The college reopened for the academic year 2016-17 on 9th June for staff. A small prayer meeting was conducted by Rev.Sr.Showrilu, Vice Principal in a meaningful way in the general body meeting at 10 AM.

College reopened for II and III year students on 13th June and for I years on 20th June 2016.

Student strength:

For Physics:

YEAR	STRENGTH OF THE STUDENTS
I B.Sc.	191
II B.Sc	175
III B.Sc	171

For Electronics:

YEAR	STRENGTH OF THE STUDENTS
I B.Sc	51
II B.Sc	29
III B.Sc	45

Results of II,IV,VI semesters:

For Physics:

YEAR	PASS PERCENTAGE
I B.Sc.	90.6%
II B.Sc	98%
III B.Sc paper III	95%
Paper IV	93.8%

For Electronics:

YEAR	PASS PERCENTAGE
I B.Sc	97.7%
II B.Sc	96.6%
III B.Sc paper III	91.1%
Paper IV	97%

Results of I,III,V semesters:

For Physics:

YEAR	PASS PERCENTAGE
I B.Sc.	94%
II B.Sc	86%
III B.Sc paper III	87%
Paper IV	97%

For Electronics:

YEAR	PASS PERCENTAGE
I B.Sc	84%
II B.Sc	100%
III B.Sc paper III	99%
Paper IV	91%

This year the department has taken up the celebration of “**Teacher’s Day**”.

For this year the **departmental duties** were as follows:

Mrs.SK.Razia & T.L.Vijaya Lakshmi	- Secretary
Ms.P.Sethu Madhavi & A.Anantha	- SCOPE CLUB in charge for different Semesters.
Mrs.M.Saraswati & K.Satyavathi	- Treasurer
Mrs.B.Swathi & K.Satyavathi	- Library In charge
Ms.A.Anantha & Ms.K.Satyavathi	- Notice Board

Lab in Charge :

Ms.A.Anantha & Ms.K.Satyavathi	- Electronics Lab
Mrs.B.Swathi , Mrs.M.Saraswati	- Physics Lab
Practical Cycle Incharge	- Ms.P.Sethu Madhavi & Mrs.M.Saraswati
NGPE Exam Incharge	- Mrs.B.Srivani & Ms.P.Sethu Madhavi

Ms. P.Hemalatha joined the department in the month of December in place of Ms.P.Sethu Madhavi .

The work load was distributed equally among all the staff members. The seniors gave guidance on teaching techniques to the new staff members and prepared them for taking theory and practical classes.

Student activities:

- The department is happy to note that the outgoing batch of 2016 got good ranks in ANURCET Physics exam .
- On 23rd July 2016, students of II B.sc MPCS and II B.Sc MECS were taken to **Maris Stella College, Vijayawada** to participate in **Inter collegiate Physics meet**. D. Vijaya Lakshmi II B.Sc MPC and team bagged **I prize in Dumb Charade** and B.dayana got **Consolation prize in Debate** competition.
- On **19th August 2016** Poster painting competition on **“Swatch Andhra Pradesh”** was conducted by the department of Physics and Electronics in Physics department from 3 P.M to 4 P.M . In this competition 12 students from different classes have actively participated.
- On 23rd and 24th August Annual Sports and Games meet was Organised in which Physical Science group bagged the overall championship.

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- On 29-7-2016 **Two day workshop** was organized by the Department of Physics and Electronics on **“PCB Designing and Manufacturing”** in which Mr.V.Govinda Rao, Director Technical, **Microlink, Vijayawada**, was the Resource person. In this technical

session 120 students have actively participated and the students completed the projects by connecting the components on the board and soldering it. They have done 2 projects on “555 Timer” and “Temperature Controlled Fan”.



- On 7th & 8th September 2016 Dr.A.Nirmala Jyothsna ,Sr.Showrilu , SK,Razia Sultana Begum attended a training program on Bhuvan Overview organised at NRSC, Hyderabad Bhuvan, an online Geoportal with versatile viewing capabilities such as providing 2D/2.5D/3D photo-realistic pictures draped on image-based footprints for viewing experience, full-pledged interactive thematic services and free data downloads from NRSCOpenEarthObservationDataArchive(NOEDA).



- On 19th Jan 2017, Dr.A.Nirmala Jyothsna has attended a National workshop on “**Dissemination of Geospatial Technology for development of Andhra Pradesh**” organised by Krishna University in association with Andhra Pradesh Space Application Centre,Vijayawada.

- **Bhuvan Familiarization Workshop**

- On 14th November 2016 the Department of Physics and Electronics organized “**Bhuvan Familiarization Workshop**” in collaboration with National Remote Sensing Centre /ISRO . The resource persons for this workshop are Mr.Vinod M Bothale, Group director, Geo portal & web GIS services NRSC / ISRO and Ms Vijay Banu ,Manager, Bhuvan Technology incubation outreach, RC, NRSC/ISRO.

He focused on various programs taken up by ISRO for the development of our nation. He also has given an elaborative and clear picture of Bhuvan the leading National Geoportal.

They strongly expressed the need to extend the reach of Bhuvan and asked the student community to take up few projects related to Bhuvan. He motivated the students to map every inch of Eluru. All the students and staff have participated enthusiastically and also clarified their doubts regarding Geotagging.

- On the occasion of the two institutions coming together to start a collaborative and innovative program using Bhuvan, the Center for Innovation &Incubation was inaugurated .
- . Both the resource persons had an interactive session with the council members of the college and have discussed the scope of extending the activities of Bhuvan to Eluru in

collaboration

with

our

college



- On 21st Jan 2017 the department has organised an **Awareness Session** on the **“Ongoing programmes , Career opportunities and Future prospects in the Department of Atomic Energy”** . In this session Mr.G.V.S.M. Siva Kumar , Sr. Manager , Computer & IT division , Nuclear Fuel Complex, Hyderabad has addressed P.G. Science students & Final year B.Sc M.P.C students. He has enlightened the students on different research activities which could be taken up by PG Physics & Chemistry students in various research organizations of DAE. His lecture was focused on the different job avenues available in the field of DAE for PG Physics & Chemistry students



- On 20th August 2016 the department of Physics and Electronics has organised a Guest lecture on **“Basics of Entrepreneurship”** by Dr.P.Paul Divakar, Lecturer in physics , Sir C.R.R College, Eluru in **Media centre at 12 noon**. All the students of IIB.Sc.M.E.Comp

and IIB.Sc.M.P.Comp and M.Sc.Physics have participated in this. This lecture threw light on precautions to be taken to be an enterprenuer.



Field trip to Hyderabad :

The students of Mathematics ,Physics, Electronics and Computer combinations were taken to Hyderabad on 29th and 30th November 2016 accompanied by four faculty members.

The students visited **Nuclear fuel complex** on 29th Nov in which they have witnessed the extraction of U_{235} and also the manufacturing of U_{235} pellets and also bundling unit of U_{235} .

On 30th November students were taken to **NRSC / ISRO** , Balanagar where the students were given a video lecture on different Satellite Sensors which are placed at Shad Nagar and the retrieval of data using Antennas. They were also taken to Aerial facility where 3 - D pictures of different locations are developed The Scientists also explained the use of Satellite data and pictures in Disaster management .



- On 28th June 2016 at 10AM all the students of III BSc MEC's were taken to a **fieldtrip to SIR C.R.R.College of Engineering** and the students were accompanied by Dr.Mrs.A.Nirmala Jyothsna,H.O.D , Mrs.B.Srivani, Mrs.Sk.Razia. The department of Physics & Electronics had an MOU with ECE Department of SIR C.R.R.College of Engineering.



- On 11th July 2016, all the II B.Sc M.E.Comp ,and the project students of III B.Sc M.P.C were taken on **Field trip to V-Guard stabilizer unit ,Vijayrai**. The students have learnt about the various electronic components in the manufacture of stabilizers and have witnessed the assembling of stabilizer unit which gave them a good technical exposure.



- On 13th July 2016, Science Awareness program using **Mobile lab** was organized for IX and X class students of **Suresh Chandra Bahuguna Police school, Eluru** .In this program the concepts related to Physics like Light, Electromagnetism, Electricity were explained through experimental demonstration and by showing interesting videos on an LCD projector .This program was organized by Dr.A.Nirmala Jyothsna, H.O.D of Physics & Electronics along with the staff members of the department.



- On 6th August 2016 and 9th September 2016 Science Awareness program using **Mobile lab** was organized for X class students of **Juvenile Home for Boys, Sanivarapupeta, Eluru** .In this program the concepts related to physics like Light , Matter and Atomic Structure , Heat & Thermodynamics ,Vectors & Scalars, Electricity, were explained through experimental demonstration and by showing interesting videos on an LCD projector .This program was organized by Dr.A.Nirmala Jyothsna ,H.O.D of Physics & Electronics along with the staff members of the department .



- On 20th June 2016 Dr.Mrs.A.Nirmala Jyothsna,H.O.D of Physics & Electronics, Mrs.B.Srivani, Ms.P.Sethu Madhavi, Mrs.Sk.Razia along with four students of III BSc MPC-II attended one day workshop on “Spectrophotometry and Chromatography”at SIR C.R.R. College,Eluru.
- On 4th & 5th October 2016, All the staff of Physics department both UG & PG along with 38 students attended a National Seminar on “**Energy & Ecology**” organised at Sir C.R.R

College Eluru. In this seminar staff and students presented 11 PPT's related to "Energy & Ecology".

- On 10th November 2016 a Knowledge exchange program was organized by the department of Physics and Electronics on "Internet of Things" by the ward students of Ms.P.Sethu Madhavi(III B.Sc MPC) and Mrs.Razia Sultana Begum (III MEC students). In which they have explained various applications of IOT such as Smart Home, Smart agriculture, Smart environment ,Smart shopping ,Smart clothes and Smart cities in an elaborate manner.
- On 3rd August,2016 the Department of Physics and **Electronics inaugurated SCOPE club** in which Dr.G. Jyothi Head of the department of chemistry was the Chief Guest. In this the students of SCOPE club members presented power point presentations on "**My Shake**" and "**Wireless Charging**". The students who secured 50 out of 50 in II and IV semesters were awarded prizes. The Chief Guest appreciated the students for their informative PPT presentations and congratulated the students who got prizes.

Student Projects completed

The students of III B.Sc M.E.CS have successfully completed the project of "**Geo tagging of prominent places of Eluru**" under the joint guidance of **Bhuvan,NRSC/ISRO & Dept.of Physics & Electronics**,St.Theresa's College for Women,Eluru in which the students uploaded the photos and information into **Bhuvan National Geoportal**

Physics Projects:

- Study of the Ultrasonic Velocity in Binary Liquid mixture N-N Dimethyl Formamide & Ethanol.
- Study of the Ultrasonic Velocity in Binary Liquid mixture N-N Dimethyl Formamide & Methanol.
- Synthesis growth of Organic – Inorganic novel compound DCTZ.
- Synthesis growth of Organic novel compound CSAS.

Electronics Live projects:

- Construction and working of Cell Phone detector
- Construction and working of Magic Eye using IC 4049.

Achievements of students

➤ On 23rd July 2016, students of II B.sc MPC and II B.Sc MECS participated in **Inter collegiate Physics meet** at **Maris Stella College, Vijayawada** and they won the following prizes

- **I prize** in Dumb Charade Competition ----- D. Vijaya Lakshmi,P.Dhana Lakshmi and Sk.Shabiya Banu of II B.Sc MPC

- **Consolation prize** in Debate on “Use of mobile phones – Boon or Bane” -----
----- B.Dayana of II B.Sc MECS

➤ From 15th to 22nd December 2016 “ **Resonance 2K16**” **National level competitions** were organised on the topic “**Internet of Things**” by Physics dept of Andhra Loyola college,Vijayawada in collaboration with Dept of biotechnology(Govt. of India),MHRD(Govt. of India) and IAPT in which our physics and Electronics students have participated and secured the following prizes.

I prize in PPT competition -----M.Neelima, III B.Sc MECS

I prize in Role play “Be a Scientist”----- D. Vijaya Lakshmi, II B.Sc MPC

II prize in Essay writing competition-----B.Aruna, III B.Sc MPC