## P.B.SIDDHARTHA COLLEGE OF ARTS AND SCIENCE

## **DEPARTMANT OF ELECTRONICS**

## **DEPARTMENTAL ACTIVITIES FOR YEAR 2019-20**

	DATE	ACTIVITY PERFORMED
S.NO		
1	1-07-19	Students of II B.SC (M.E.Cs) presented PPT's to I &III B.SC in seminar hall
2	4-07-19	Students of II B.SC (CA.M.E) presented PPT's to I &III B.SC in seminar hall
3	11-7-2019	Guest lecturer in "DSP IN BROAD CASTING" by P.Kalle Prasad, Assistant Engineer, Doordarshan.
4	16/7/19	Students of II B.SC (M.E.Cs) conducted Mini project expo to I &III B.SC.
5	17/7/19	Students of II B.SC (CA.M.E) conducted Mini project expo to I &III B.SC .
6	3/8/19	Students of IIIB.Sc (M.E.Cs) Visited" <b>EFFTRONICS</b> " as part of technical visit
7	29/8/19 to	Students of IIIB.Sc(M.E.Cs) &II B.Sc(M.E.Cs)
	31/8/19	Participated in SCIENCE FAIR 2019 held at S.R.R
		&C.V.R GOVT DEGREE COLLEGE and won
		second prize in project expo.
8	16/11/19	Sri D.Srinivasareddy, Attend B.O.S meeting in
		Department of Electronics at Sri.C.R.REDDY , COLLEGE, Elluru.
9	27/11/19	Sri K.S.V.Sambasivarao, Attend B.O.S meeting in Department of Electronics at St.Maris stella College , VZA.
10	2/12/19	Guest lecturer in "INTERNET OF THINGS " by Dr.GRKPRASAD, Associate dean, K.L. University
11	4	Students of final and second year participated in
	&5/12/19	59 <sup>TH</sup> GORA SCIENCE CENTER and won
12	16/12/19	Sri D.srinivasareddy attended workshop on Embeddded systems using arduino at sri.c.r.reddy college,elluru.
13	18/12/19	Sri.K.S.V.Sambasivarao acted as a resource person in National one day workshop on "INTERNET OF THINGS AND IT'S APPLICATIONS" organized by sri.y.n.college,narsapur.

14	4/1/2020	Students of III &II B.Sc(M.E.Cs) participated in NALANADA DEGREE COLLEGE Electro2k20 and won first prize in quiz, first prize in PPT, first prize in art carnival, Second prize in code hunt, second prize in tik-tok
15	6/1/2020	Students of III B.Sc (M.E.Cs) conducted "E.S.A.S QUIZ COMPETITION" to I <sup>st</sup> and II <sup>nd</sup> years and screening test for selecting the students held on 24-12-2019.
16	21/1/2020	ISO VISIT TO ELECTRONICS DEPARTMENT
17	23/1/2020	Students of III &II B.Sc(M.E.Cs) participated in Sidhhartha mahila degree college Mindsparkle 2k20 and won second prize in project.
18	28/1/2020	Final year students visited to <b>SRIHARIKOTA</b> , Andhrapradesh as part of <b>INDUSTRIAL VISIT</b> .
19	12/2/2020	FINAL, SECOND, FIRST YEAR STUDENTS OF ESAS ORGANIZED <b>ELECTROVISION 2020</b>
20	2/3/2020	Sri K.S.V.Sambasivarao, Attend B.O.S meeting in Department of Electronics at St.Maris stella College , VZA.
21	12/3/2020	Final MECs Students conducted major project expo to first and second year students.

K.S.V.SAMBASIVARAO, HEAD, DEPARTMENT OF ELECTRONICS

## **POWER POINT PRESENTATION:**

Students of II B.SC (M.E.Cs) presented PPT's to I &III B.SC in seminar hall on 1-07-19.

- > The students of second year presented PPT'S on modern technology with the base of electronics and this PPT'S.
- > These PPT'S can develop communication skills for their better presentation.

  They can also explain more innovative PPT'S. The number of students attended is 110.







## **POWER POINT PRESENTATION:**

Students of II B.SC (CA.M.E) presented PPT's to I &III B.SC in seminar hall on 05-07-19.

> The students of second year presented PPT'S on modern technology with the base of electronics and this PPT'S.

These PPT'S can develop communication skills for their better presentation.
They can also explain more innovative PPT'S. The number of students attended is 120







#### **GUEST LECTURE:**

Guest lecturer in "DSP IN BROAD CASTING" by P.Kalee prasad on 11-7-2019

- A guest lecture organized by the department of Electronics on **DSP IN BROAD CASTING** which makes the students of Electronics to understand about Digital signal processing.
- > DSP means is the process of analyzing and modifying a signal to optimize or improve it's efficiency or performance.
- In the year 1959 Doordarshan was started .It was implemented in TV at 1960 and later in the year 2000 HDTV was implemented in TV's.
- Kondapalli transmitter was constructed in the year 1983 with the cost of 10 crores, around India 1500 transmitters were build up.
- > The highest height of an Antenna is 128m that is parabolic dish antenna.
- The highest height of an antenna is 64m telescope parabolic antenna is located near kodikanal through which we can observe remaining seven planets.
- In space we are eight geo stationary orbits covering 100 channels.
- One channel requires 36MHZ receiving frequency from satellite in this transponder and it act as MODEM.
- ➤ MP3- act as MPEG2 and 8 channels are compressed in one analog channel.
- Low frequency transmits the signal for Long distance, High frequency transmits the signal for short distance communication systems.
- > Three Geo stationary satellites are required to cover the whole earth.
- For every country who launch their satellite, certain angles were provided to park their satellites.
- Angles 42°,83°,93° are given to India to rotate their satellites in orbits.
- > The number of students attended is 200









## **MINI PROJECTS EXPO:**

Students of II B.Sc (M.E.Cs) conducted mini project expo to final and first year students on 16-7-2019.

- > Students are progressively taking up mini projects to build up their skills
- > By doing mini project they will gain practical knowledge in spite of theory concepts
- > They can also show their capability by doing such innovative projects.
- > These Experiences definitely help in designing major project as well as higher education.
- > The number of students attended is 130











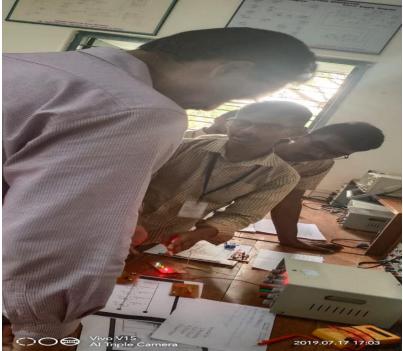
## **MINI PROJECTS EXPO:**

Students of II B.Sc(CA.M.E) conducted mini project expo to final and first year students on 17-7-2019.

- > Students are progressively taking up mini projects to build up their skills
- > By doing mini project they will gain practical knowledge in spite of theory concepts
- > They can also show their capability by doing such innovative projects.
- > These Experiences definitely help in designing major project as well as higher education.
- > The number of students attended is 300







## **TECHNICAL VISIT:**

The students of III B.Sc (M.E.Cs) visited **EFFTRONICS** as part of Technical visit on 3-08-2019.

#### **Efftronics**:

1985 with collaboration of two persons and the first product for this organisation is single colour LED display board after they introduce so many product like multicolour LED display board etc.

#### > Smart Cities:

In smart cities LED's are used.

In LED there is RGB colours.

In can be done by using different light techniques.

These LED's can be used in Railway signalling.

The initial stage of smart cities LED's are 60v.

These smart LED's save the 1/10 part and they saves the voltage and make to 5v.

#### **LENS** operation on LED's and angle operation.

There are some applications like Two way switches and They can be operate one switch to operating many LED's.

**IOT**: IOT means interconnections of physical and visual objects.

#### > Applications of IOT

IOT system is used in Ambulance system when there is any call from patient the call connect to all server's of the ambulance where the patient call is near to ambulance that ambulance go to that patient.

#### > Smart Signalling:

Smart signalling can be used in many ways:

1. <u>Railway signalling</u>: In railway signalling smart cities can be used to communicate between two stations. They done operations between stations also mean block part.

#### 2. Types of signalling:

Automatic signalling: In this signalling the signal will pass by itself.

Manual signalling: In this signalling the signal will pass by operators.

3 .By smart signalling we have to set the tracks easily.

## > Smart building:

In smart building there is some products like 3D printer.

<u>3D printer:</u> 3D printer means soft engineering program or process change theoretical to practical.

It has cost estimation which is correct for the production there is some optimum production of products into the market.

IOT also used in apps like OLA, UBER.

IOT also used in upcoming experiments like tesla.

IOT used in customer oriented services.

Food deliveries

**Travelling services** 

These IOT has sensor application is used to develop the idea for research to give a proper result.

In IOT some updated technologies for developing applications for the market to get good profit.

## The number of students attended is 50





## **SCIENCE FAIR -2019:**

Students of IIIB.Sc (M.E.Cs) &II B.Sc(M.E.Cs) Participated in **SCIENCE FAIR 2019** held at **S.R.R &C.V.R GOVT DEGREE COLLEGE** and won second prize in project expo. The number of students attended is 05





Amaravathi Balotsavam Oscience Fair 2019



## **Guest lecture:**

Guest lecturer in "INTERNET OF THINGS" by Dr.GRKPRASAD, Associate dean, K.L. University.

He has given a brief idea on IOT it relates to physical objects and visual objects, these devices can collect and exchange data embedded with sensors, internet connectivity. He said that father of IOT is Kevin Ashton discovered that entire data is processing by a third party server known as cloud computing.

Sensor is a device to convert physical to electrical examples: gas,temperature,wind miles,,

Actuators can convert physical in to electrical examples: fan, AC, Hydrolic,

The life cycle of IOT is collect, communicate, analyze, act.

IOT are playing a vital role in smart cities, smart grid, Agriculture, Energy waste management, Industries, cars.

Albert Einstein use 10% of his brain our brain has 200tb of data storage and laptop is 20tb. **T**he number of students attended is 110





# నైపుణ్యాలను అందిపుచ్చుకుంటేనే ఉజ్వల భవిష్యత్తు

మొగలాజపురం(విజయవాడ సిటీ), న్యూస్టుడే: అత్యాధునిక సాంకేతిక పరిజ్ఞానంతో పాటు నైపుణ్యాలను అందిపుచ్చుకుంటేనే ఉజ్వల భవిష్యత్తు ఉంటుందని కేఎల్యూ అసోసియేట్ డీన్ జీఆర్కే ప్రసాద్ అన్నారు. పీబీ సిద్ధార్థ కళాశాల ఎలక్ట్వానిక్స్ విభాగం ఆధ్వర్యంలో 'ఇంటర్నెట్ ఆఫ్ థింక్స్'పై అవగాహన సదస్సు సోమవారం నిర్వహించారు. ట్రిన్సిపల్ డాక్టర్ ఎం. రమేష్, డైరెక్టర్ వి. బాబురావు, డీన్ ఆచార్య రాజేష్, ఎలక్ట్వానిక్స్ విభాగాధిపతి కె. సాంబశివరావు పాల్గొన్నారు.

## **GORA SCIENCE:**

Our students of final and second year participated in gora science expo and first prize in land trace robot(P.sai kiran,L.Y.Vishnu and second prize in Garbage system(D.pavan,Chandra,yaseen) and second prize in Automatic tool collection using

RFID(M.S.D.Sriram,P.R.teja,Ch.c.Akyath) The number of students attended is 08

3rd and 2nd B.Sc (mecs) Students Participated In 59th GORA Science Exhibition On December 4,5 2019



## 18/12/19:

National one day workshop on internet of things and Applications acted as Resource person by K.S.V.Sambasivarao at sri.y.n.college, narsapur



జగదీష్ చంద్రబోస్ను సన్మానిస్తున్న పైఎన్ పాలకవర్గం

# 'అంతర్వాలం వినియోగించుకోవాలి'

నరసాపురం, డిసెంబరు 18 : యువత అంతర్మాలాన్ని సద్వినియోగం చేసుకుని ఎదగాలని చైన్నె యగ్నమయ్య చీఫ్ టెక్నీషియన్ జగదీష్ చంద్రబోస్ అన్నారు. వైఎస్ కళాశాలలో బుధవారం అంతర్జాల విషయాలు, వాటి అనువర్తనాలు అనే ఆంశంపై నిర్వహించిన జాతీయ సదస్సులో ఆయన మాట్లా డారు.అంతర్మాలంలోని విషయ పరిజ్ఞానాన్ని విద్యార్థులు అంది పుచ్చుకోవాలన్నారు.విజయవాడ సిద్దార్థ కాలేజీ ఫ్రొఫెసర్ సాంబశివరావు మాట్లాడుతూ అంతర్జాలంలో విషయాలను యువత ఆకలింపు చేసుకోవాలన్నారు.అనంతరం బోస్ను ఘనంగా సన్మానించారు. ఈ కార్యక్రమంలో కళాశాల కరస్సాం డెండ్ంట్ డాక్టర్ చినమిల్లి నత్యనారాయణ, కోశాధికారి రామా రావు, ట్రిన్సిపాల్ వెంకటేశ్వరావు,అధ్యాపకులు కనకారావు, అందే రమణ, తోట సత్యనారాయణ, మల్లేశ్వరి, చినమిల్లి (శీని వాస్ తదితరులు పాల్గొన్నారు.



**േറ്റ്രൂ** ABN Thu, 19 December 2019 https://epaper.andhrajyot



















Students of III &II B.Sc(M.E.Cs) participated in NALANADA DEGREE COLLEGE Electro2k20 and won first prize in quiz, first prize in PPT, first prize in art carnival, Second prize in code hunt, second prize in TIK-TOKThe number of students attended is 10



## **E.S.A.S QUIZ COMPETITION:**

Final year students conducted ESAS quiz program to I B.sc(M.E.Cs)&II B.Sc(M.E.Cs) students and to select participants a Screening test on 24/12/19. This type of activity conducted every year to increase their subject skills and organizing skills on 6/1/2020. The number of students attended is 120





## **ISO VISIT:**



ISO visited Electronics department on 21/1/2020.

Students of III &II B.Sc(M.E.Cs) participated in **SIDHHARTHA MAHILA DEGREE COLLEGE MIND SPARKLE 2K20** and won second prize in project. **The number** of students attended is 02





## ISRO: (INDIAN SPACE RESEARCH ORGANIZATION)

**Final students visited sriharikota as part of Industrial visit. T**he number of students attended is 50

The headquarters of ISRO is in Bangalore. There was another vehicle making & control system centre in Trivendrapuram. In is ISRO, having MCC (Machine control centre) & having two launch pads which are far away from 6 to 7 kms. In the 2<sup>nd</sup> launching pad they have launched GSLV's & 2<sup>nd</sup> launch pad they launched CHANDRAYAN-I, II.

In MCC, they have variable parts to authorised launching a rocket, they have VVIP's sitting space here. They communicate while launching a rocket with nearly 700 NEWS channels.

While launching process there count down time (CDT), when it reaches to 15 mins time launch with auto controlling method.

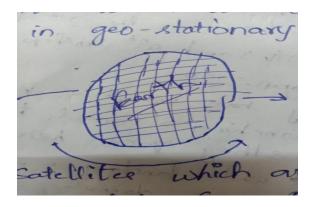
There was a hold button for all if anyone press the hold button then the launching process being stopped. Later director only can able to start the launch.

#### **LAUNCH PADS:**

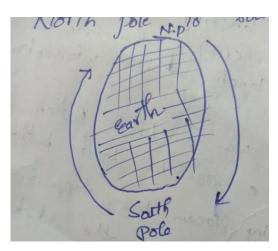
SDSC has two launch pads

- One is used for GSLV (Geo-stationary Launching Vehicle)
- Another for PSLV (Polar Satellite Launching Vehicle)

The satellites which are launched by GSLV rotates in Geo-stationary orbit.



The satellites which are launched by PSLV are rotates from pole to pole i.e. North pole to South pole.



Launch pad I	Launch pad II

1. The capacity is 2.5 ton.	1. The capacity is 5 ton.
2. Same reaction time & it boosts the	2. Same reaction time & it boosts the
rocket at 18km/sec.	rocket at 18km/sec.
3. It is used for PSLV & other.	3. It is used for GSLV
4. The satellites which are launched from	4. The satellites which are launched from
this pad (PSLV's) are used for GSM &	Lp-II (GSLV) are used for
Surveillance.	Communication process.
5. It has 4 stages of Assembling	5. It has 3 stages of Assembling
Ground stage	Ground stage
Mark-1	Mark-1
Mark -2	Mark -2
Mark-3	Mark-3
	Mark-4

- > The main purpose of launch pads is to assemble the launching vehicle and essentials required for mission.
- > The coding part is from Hyderabad.
- ➤ The Mectronics i.e. R&D from Bangalore.
- For ISRO, there are more than 100 Communication Satellites.
- > Till 2020 ISRO did not collect any satellite or rocket parts from space.
- > From 2021 ISRO, planned to reuse the Satellites.

For ex: If a satellite has a life span of 5 years then it returns to earth with help of parachute.

- ➤ There are 4 series of launching vehicles:
  - 1. SLV
  - 2. ASLV
  - 3. PSLV
  - 4. GSLV
- ➤ The satellites & rockets are controlled from MCC (Machine Control Centre) which is responsible for all activities done in ISRO
- ➤ And LCC (Launch Control Centre) is responsible for controlling of launching pads.







#### **ELECTROVISION 2020**

#### **ELECTROVISION**:

Electronics department of P.B.Siddhartha College of arts and science organized Electro vision 2020 "A one day state level symposium in this event our chief guest is D.Haribabu Prasad,DGM,BSNL ,K.Sridhar(P.B.S college-poster),V.Rohini kusuma- and our honourable guest of event Principal is Dr.M.Ramesh garu, V.Baburao garu (Director) ,Dr.Rajesh.c.jampala garu(DEAN) ,our principal have his valuable speech thereafter. Our chief guest address the students that in our competitive world, we are behind the technology and we have to improve our knowledge about new technology. In this 10 colleges are been participated and students participants are 178.

## 12న్ సిద్దార్జ్లలో 'ఎలక్రైవిజన్-2020'

మొగలాజపురం: ఎల్క్షానిక్స్ విద్యను అభ్యసి స్తున్న విద్యార్థుల్లోని సృజనాత్మకతను వెలికి తేయడానికి తమ కళాశాల ఎల్మక్టానిక్స్ స్టాడెం ట్స్ యూనియన్ ఆధ్వర్యంలో ఈ నెల 12వ తేదీ బుధవారం ఎల్మ్ర్టోవిజన్-2020 పేరుతో బోధనాంశాలు, సాంస్కృతిక అంశాలల్లో రాష్ట్ర స్థాయి పోటీలను నిర్వహిస్తున్నామని పీబీ సిద్ధార్థ కళాశాల డీన్ రాజేష్, డ్రీన్సిపల్ రమేష్ చెప్పారు. శుక్రవారం ఉదయం కళాశాల సెమీ నార్ హాలులో ఎల్క్ట్ విజన్ – 2020కి సంబం ధించిన పోస్టర్ ఆవిష్కరణ కార్యక్రమం జరిగిం - టెక్నికల్ క్విజ్, పవర్ పాయింట్ ప్రజంటేషన్, ది. ఈ సందర్భంగా రాజేష్ మాట్లాడుతూ స్పాట్ సర్కూట్ మేకింగ్, పోస్టర్ ద్రజంటేషన్, 2004 నుంచి ఎలక్ట్రోవిజన్నను నిర్వహిస్తు ప్రాజెక్ట్ ఎక్స్ ఫో, రోటో రేస్, ట్రెజర్ హంట్, న్నామని చెప్పారు. కళాశాల ఎలక్ట్రానిక్స్ విభా స్పాట్ ఫోటోగ్రఫీ, టాలెంట్ హాంట్, మిస్టర్ గాధిపతి కేఎస్ఏ సాంబశివరావు మాట్లాడుతూ అండ్ మిస్ ఎల్మక్టోవిజన్ అంశాల్లో పోటీలు 12వ తేది జరిగే ఈ కార్యక్రమాన్ని బీఎస్ఎన్ జరుగుతాయని వివరించారు. కళాశాల డైరెక్టర్



#### డీన్ రాజేష్, డైరెక్టర్ బాబురావు తదితరులు

ఎల్ రిటైడ్ డిప్యూటీ జనరల్ మేనేజర్ హరిబా వేమూరి బాబూరావు, ఉపాధి విభాగాధికారి బుడ్రసాద్ పాల్గొని ప్రారంభిస్తారని చెప్పారు. కావూరి శ్రీధర్ పాల్గొన్నారు.



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ముగలాజపురం(విజయవాద సిటీ), స్వూసేటుడే: విద్యార్థుల్లో దాగి ఉన్న సృజనాత్మకతను వెలికితీయడానికి వివిధ పోటీలు నిర్వహిస్తున్నామని పీవీ సిద్ధార్థ కళాశాల డ్రిన్సెపల్ డాక్టర్ ఎం.రమేష్ అన్నారు. కళాశాల ఎలక్ష్మానిక్స్ సిమాన్ తోరనానాజు స్టాంస్ ఈ నెల 12న 'ఎలక్ష్మ్'విజన్-2020' పేరుతో తోరనానాజు స్టాంస్ ఎక్కువిక్కారు. స్వాడంట్స్ యీనాంశాలు, సాంస్కృతిక అంశాల్లో రాష్ట్ర స్థాయి పోటీలు నిర్వహిం చనున్నారు. కార్యక్రమానికి సంబంధించిన గోడడ్రతులను శుక్రవారం డ్రిన్స్టాపల్ ఆవిష్కరించారు. డీన్ ఆచార్య రాజేష్ సి.జంపాల, ఎలక్ష్యానిక్స్ విభాగాధపల్ కేఎస్వీ సాంబశివరావు మాట్లాడుతూ టెక్నికల్ క్విజ్, పవర్ పాయింట్ ప్రజం టేషన్, స్పాట్ సర్క్యూట్ మేకింగ్, పోస్టర్ ప్రజంటేషన్, ప్రాజెక్ట్ ఎక్స్ప్లో, రోటో రేస్, ట్రెజర్ హంట్, స్పాట్ ఫొటోగ్రఫీ, టాలెంట్ హంట్, మిస్టర్ అండ్ మిస్ ఎలక్ష్ విజన్ అంశాల్లో పోటీలు జరుగుతాయని వెల్లడించారు. డైరెక్టర్ వి.బాబు రావు, కె. శ్రీధర్ తదితరులు పాల్గొన్నారు.

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