

# Department of Botany

## Annual Report- March, 2018

College was reopened on 1<sup>st</sup> June 2017 for the academic year 2017-18. A general body meeting was conducted by Principal Dr.Sr.P.Mercy for the faculty members and assigned the duties such as time table setting, work load allotment and planning of department activities for the academic year 2017-18. Mother Ernestine Fernandez welcomes the faculty members for the new academic year. Classes were started on 5<sup>th</sup> June 2017 for II & III year degree students and on 20<sup>th</sup> June 2017 for I Year degree students.

### Number of BZC student's on the rolls for the academic year 2017-18

S.No	Class	No: of students admitted	No: of students left	No: of students newly admitted	Present strength
1	I BZC	75	5	-	70
2	II BZC	71	2	1	65
3	III BZC	68	2	1	66

Work load of Botany was distributed equally among 3 members of the department. Syllabus was planned & classes were taken accordingly. Faculty members succeeded in taking classes regularly and completed the syllabus in time.

### Results: October 2017 results

S.No	Class	Paper	Semester	No. of students appeared	No. of students passed	No. of students failed	Pass percentage
1	I BZC	I	II	65	65	Nil	100%
2	II BZC	II	IV	63	61	2	96.8%
3	III BZC	III	VI	49	47	2	95.9%
4	III BZC	IV	VI	49	48	1	97.9%

## Results: April 2018 results

S.No	Class	Paper	Semester	No:of students appeared	No:of students passed	No:of students failed	Pass percentage
1	I BZC	I	II	71	65	6	91.54%
2	II BZC	II	IV	63	63	Nil	100%
3	III BZC	III	VI	64	61	3	95.30%
4	III BZC	IV	VI	64	64	Nil	100%

To improve the subject skills of average and above average students, the teaching and learning methods implemented were, Power point presentations, Seminars, Discussions, Quiz Programmes. For the slow learners Field study, Group study, Question & Answer sessions methods were implemented during remedial coaching.

## Botany Activities 2017-18

### College activity:

- As college activity Botany department organized Fresher's day celebrations to I Year Degree students on **24<sup>th</sup> June 2017**.

### Guest Lectures Organized:

Five Guest lectures were organized for I, II & III BZC students for the academic Year 2017-18. They are as follows-

1. **17<sup>th</sup> July 2017: Guest lecture organized** - Dr. Bhimayya, DFO of East Godavari, delivered a guest lecture to I BZC student on topic "Importance of Plantation and precautions to be taken during sapling plantation".
2. **22<sup>nd</sup> July 2017: Guest lecture organized** - Dr. Sai, Forest Range Officer gave a Lecture on "Objectives of forest preservation and significance on developing forest near Rajahmundry" to II BZC students.

3. **28<sup>th</sup> July 2017: Guest lecture organized** - Dr. P. Rama Krishna, owner of Satya Deva Nursery gave a Lecture on “How to Establish and Maintain a Nursery” to III BZC students.
4. **28<sup>th</sup> August 2017: Guest lecture organized** - Prof. Indu Sekhar, Professor in S.V. University, Tirupathi gave a lecture on “Role of Youth in Research” to II BZC students.
5. **23<sup>rd</sup> February 2018: Mrs. M.K. Padma Latha & Mrs. Sonia Priyadarsini, Faculty of PG English**, delivered a lecture on “Resume writing skills and opportunities for higher education ” to III BZC students.

### **Guest lectures Delivered:**

1. **28<sup>th</sup> July 2017: Guest lectures delivered** - Dr.N.Nagavardhanam delivered a lecture on “Herbal beauty tips” to all MBA students.

### **Field Trips:**

1. **8<sup>th</sup> July 2017: Field trip** - Botany department organized a field trip to II BZC students to Rajahmundry, Gowtham arboretum, Satya Deva Nursery and Kadium Nurseries. 56 students attended the field trip. Dr. Balaji, Research Scientist imparted the knowledge on medicinal plants which were established and maintained in Gowtham arboretum under the guidance of forest department.
2. **14<sup>th</sup> November 2017: Field trip** – Botany department organized a field trip to III BZC Botany Cluster students to Vijaya Gardens, Janampeta. Dr. G.Shiva Kumar, Manager, Mondelez India Foods Private Limited, Eluru, A.P & Mr. Vijay, Junior Research Scholar gave a detailed explanation on “Cultivation of Cocoa crop and seed processing”. Botany faculty Dr.N.Nagavardhanam, Mrs.G.Rani and Ms.B.Asha Latha accompanied the students.
3. **30<sup>th</sup> November 2017: Field trip** - Botany department organized a field trip to III BZC Botany Cluster students to mango gardens at A. Gokavaram. Mr. Subba Rao, who is practicing organic farming technique in Mango, Coconut and Sugar cane cultivation enriched the students with practical Knowledge. 20 students acquired knowledge and enriched with organic farming techniques.
4. **9<sup>th</sup> January 2018: Field trip** - Botany department organized a field trip to III BZC Botany Cluster students to Gopala Krishna Gosala, Nachugunta, Vunguturu Mandal. Mr.Ratnaji and Mr.Raju acted as Resource persons. 21 students benefitted with this

workshop. Botany Faculty Dr.N.Nagavardhanam and Mrs.G.Rani accompanied the students.

- 5. 9<sup>th</sup> January 2018: Field trip** - Botany department organized a field trip to II BZC Botany project students to Gopala Krishna Gosala, Nachugunta, Vunguturu Mandal. 22 students attended and empowered with this field trip.

### **Seminars attended, papers presented and published:**

- 1. 5<sup>th</sup> to 10<sup>th</sup> June 2017: International Conference** - Dr. N. Nagavardhanam attended International conference on “Innovation, Entrepreneurship and Sustainable value chain in a challenging Environment”, organized by PRIMAX Foundation, Bangalore, Karnataka, India at Malaysia.

**Paper published** - Dr. N. Nagavardhanam Presented a paper and won 2<sup>nd</sup> best paper award on “Evaluation of Perception of life insurance Policy Holders in Eluru, W.G.Dist” and published in Primax International Journal of Marketing (PIJM). ISSN: 2348-0491.

- 2. 21<sup>st</sup> and 22<sup>nd</sup> August 2017: International Conference** - Dr. N. Nagavardhanam attended International conference on “Recent Advancement in Technical fields of Computer Science and Mathematics” organized by Computer and Mathematics Depts of Ch.S.D.St.Theresa’s (A) college for women ,Eluru in association with Spectrum Solutions.

**Paper published** - Dr. N. Nagavardhanam presented a paper on “Mathematics in Biology”. It was published in International Journal of Advanced Research Trends in Engineering and Technology (IJARTET), Vol.4, Special Issue 21, August 2017. ISSN 2394-3777, ISSN 2394-3785.

- 3. 3<sup>rd</sup> and 4<sup>th</sup> October 2017:** Dr. N. Nagavardhanam, Mrs. G. Rani and Ms. B. Asha Latha attended two day seminar on “Effective Teachers are Principle- Centered” by Rev. Dr. Joe Arimpoor, Sd.b, Priest of Don Bosco organized by Ch.S.D.St.Theresa’s Autonomous college for women, Eluru.
- 4. 7<sup>th</sup> February 2018: One day Seminar** - Dr. N. Nagavardhanam, Mrs. G. Rani and Ms. B. Asha Latha Botany faculty and 12 students of I BZC and II BZC participated in one day seminar VRUKSHA-2018- “Dynamism of the plants in the present Millenium” organized by P.G Botany Department, Andhra Loyola College, Vijayawada.

5. **9<sup>th</sup> to 10<sup>th</sup> February 2018: International Conference** - Dr. N. Nagavardhanam attended International conference on “Women in 2<sup>1st</sup> century- Challenges and Opportunities” organized by Management studies, Social Sciences and Women cell departments, Ch.S.D.St.Theresa’s Autonomous college for women, Eluru.  
**Paper presentation** - Dr. N. Nagavardhanam Presented a paper on “Rural Self – employed Women Entrepreneurs: A Case study in Eluru, Andhra Pradesh.
6. **Paper published** - Dr. N. Nagavardhanam published a paper on “Anthropometrically determined nutritional status of school children aged 4-14 years – A case study of West Godavari District, Andhra Pradesh” in “STC Scholars Vision” Annual Journal. ISSN No: 2321- 6425, Vol. 1 No: 6, Jan – Dec.2017.
7. **Paper published** – Mrs.B.B.R.G.Vijaya Lakshmi Published a paper on “Floral Diversity of Common Flora in Kolleru Lake A.P” in “IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)”. e-ISSN: 2319-2402, p-ISSN: 2319-2399. Volume 11. Issue 6 Ver.III (June.2017), PP 01-11.
8. **Paper published** – Mrs.B.B.R.G.Vijaya Lakshmi presented a paper on “Assessment of Heavy Metal distribution of Water and Sediments in Kolleru Lake A.P” published in “IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS)”. e-ISSN: 2278-3008, p-ISSN: 2319-7676. Volume 12. Issue 4 Ver. V (Jul – Aug 2017), PP 40-46.
9. **Paper published** – Mrs.B.B.R.G.Vijaya Lakshmi presented a paper on “Evaluation of Physico-chemical parameters to determine the Water Quality Criteria in Kolleru Lake A.P, India” published in “International Journal of Engineering Research and Application”. ISSN: 2248-9622, Vol. 7, Issue 9, (Part-2) September 2017, pp. 07-12.
10. **Paper published** – Mrs.B.B.R.G.Vijaya Lakshmi presented a paper on “A Review on Environmental Threats and Challenges of Kolleru Lake” published in “International Journal of Computational Engineering Research (IJCER)”. ISSN (e): 2250-3005\\ Volume, 08\\Issue,2\\February – 2018\\.

## **Workshops and Training programmes attended:**

- 1. 5<sup>th</sup> and 6<sup>th</sup> December 2017: Training Programme attended** - Mrs.G.Rani attended 2 day training programme on “Disaster Management” organized by SETWEL organization.
- 2. 12<sup>th</sup> December 2017:Workshop attended** - Dr. N. Nagavardhanam, Mrs. G. Rani and Ms. B. Asha Latha Botany faculty attended a work shop on “Recent Trends in Pollution Control – Role of Community” organized by Department of Zoology & Pollution Control Board, Andhra Pradesh.
- 3. 9<sup>th</sup> January 2018: Workshop attended** - III BZC students participated in one day work shop on “Preparation of Organic fertilizers and Organic pesticides” organized by ‘Gopala Krishna Gosala, Nachugunta, Unguturu Mandal’. Mr. Ratnaji and Mr. Raju acted as Resource persons. 21 students benefited with this work shop. Botany faculty Dr. N.Nagavardhanam and Mrs.G.Rani accompanied the students.
- 4. 9<sup>th</sup> February 2018: Training Programme attended** - II BZC Botany Project students participated in one day Training programme on “Organic farming techniques” at ‘Gopala Krishna Gosala, Nachugunta, Unguturu Mandal’. Mr. Ratnaji and Mr. Raju who are practicing organic farming techniques were organised the training programme. 20 students benefited with this training programme. Botany faculty Mrs.G.Rani accompanied the students.

## **Project work:**

- 1. 27<sup>th</sup> June 2017: Project Rough Draft Submission – 20** III BZC students submitted rough draft of projects on Grafting, Air Layering, Vegetable and Ornamental Propagation in Nurseries, Bonsai cultivation and Azolla cultivation Under the Guidance of Dr.N.Nagavardhanam, Mrs.G.Rani and Ms.B.Asha Latha. Dr.K.L.Saraswathi Devi, HOD of Mathematics reviewed the projects.
- 2. 15<sup>th</sup> July 2017: Project Viva – External viva panel members:**  
Dr.Saja Nayak, Deputy Director of Horticulture, Eluru, Ms. R.Ripsee, Lecturer in Microbiology, Mrs.Bhavani, Lecturer in Telugu acted as external panel members and Dr. N.Nagavardhanam, HOD of Botany acted as Internal Viva Panel member. Mrs.G.Rani acted as external Viva panel member to Microbiology students.

## **Topics:**

- A study on Vegetative propagation of Mango plants by grafting technique at Dr.Y.S.R.Horticulture University, Venkataramannagudem.
- A study on Vegetative propagation of plants by Air layering technique at Dr.Y.S.R.Horticulture University, Venkataramannagudem.
- A study on Vegetative propagation in Nursery Management at Dr.Y.S.R.Horticulture University, Venkataramannagudem.
- A study on Ornamental propagation in Nursery management at Dr.Y.S.R.Horticulture University, Venkataramannagudem.
- A study on Cultivation methods of Bonsai at Dr.Y.S.R.Horticulture University, Venkataramannagudem.
- A study on Azolla cultivation technique at Dr.Y.S.R.Horticulture University, Venkataramannagudem

## **BOS attended:**

1. **4<sup>th</sup> December 2017: BOS meeting** – Dr. N. Nagavardhanam attended BOS meeting as University Nominee at Government Autonomous Degree College, Rajamahendravaram.

## **BOS meeting Organized:**

1. The Boards of Studies meeting in Botany was held on Friday 16.02.2018 at 02.00 p.m. in the Department of Botany. Dr.R.V.S.K.Reddy, Director of Extension, Dr.Y.S.R.Horticulture University, Venkataramannagudem as External subject expert, Mr.G.Shiva Kumar, Manager, Modelez India foods, Private Ltd, Eluru as Industrialist. Dr. N.Nagavardhanam, HOD of Botany was Botany Chair person, Mrs.B.B.R.G. Vijaya Lakshmi, Mrs.G.Rani & Ms.B.Asha Latha, Lecturers in Botany were internal subject experts and Sr.B.Swathi, III B.Sc. BZC, Ms. L.N.V.S.M.Gayathri II B.Z.C were Student Representatives.

## Botany week celebrations: 28<sup>th</sup> August to 4<sup>nd</sup> September 2017:

Botany department is organizing Botany week celebrations every year on one theme to bring out the hidden talents of the students. The theme for the year 2017 is 'Nature Protection'. In this connection department organized various competitions like Poster painting, Singing, Elocution Mehendi competitions to the students of various disciplines.

- 1. 28<sup>th</sup> August 2017: Guest Lecture Organized** – Prof. Indu Sekhar, Professor in S.V. University, Tirupathi gave a lecture on “Role of Youth in Research” to II BZC students. 69 students were benefited with this talk. The students were inspired by his lecture and motivated very much. Many of them decided to do research work in their future studies.
- 2. 29<sup>th</sup> August 2017: Mehendi competitions** – Mehendi competition was organized in Botany lab at 3-4pm. 18 students participated. Mrs.Y.Neeraja, Lecturer in Microbiology, Mrs.K.Chukkamma, Lecturer in Chemistry acted as judges.
- 3. 30<sup>th</sup> August 2017: Poster painting competition** - Poster painting competition was conducted in Botany lab from 3-4 pm on the theme “Nature-Past and Present”. 9 students were participated. Dr.N.Nagavarhanam, HOD of Botany and Ms.B.Asha Latha were acted as judges.
- 4. 31<sup>st</sup> August 2017: Singing Competition** –Singing competition on “Nature” was organized in Botany lab at 3-4 pm. 16 students participated. Dr.N.Nagavardhanm, HOD of Botany, Ms.Ch.Sushma, Lecturer in Nutrition acted as judges.
- 5. 1<sup>st</sup> September 2017: Elocution competition** – Elocution competition was organized by Botany department in Botany lab on “Role of plants in pollution Free Nature” from 3-4 pm. 12 students participated. Mrs.B.Mariamamma, Lecturer in Telugu, Mrs.G.Rani, Lecturer in Botany acted as judges.
- 6. 4<sup>th</sup> September 2017: Valedictory** of botany week celebration was organised in botany lab from 3-4 pm. For all the competitions 1<sup>st</sup> and 2<sup>nd</sup> prizes were specified. Prizes were distributed to all the prize winners.

### 7. Prize winners list:

S.No	Event	1 <sup>st</sup> prize	2 <sup>nd</sup> prize
1	Songs on 'Nature'	Ms.J.Lavanya I BZC	Sr.Joji Mary, I BZC
2	Mehendi	Ms.G.Udayaini II B.Com	Ms.P.Geetanjali III BZC



		Finance	
3	Elocution “Role of plants in pollution free Nature”	Ms.A.Anusha III BZC	Ms.D.Hema sri II BZC and Sr.Thertesamma II BZC
4	Poster painting “Nature-Past and Present”	Ms.T.Roja II ZNC	Ms.Ch.Mani Deepica II MPC

### Student Seminars:

1. I B.Sc BZC students gave a seminar on Importance of plants in Health, Archaeobacteria, Mycoplasma, Albugo structure & Reproduction, Economic Importance of Bacteria, Marchantia thallus, Marchantia sporophyte, Anthoceros sporophyte, Botanical name, Family, Economic importance of Teak wood, Neem wood, Rose wood, Red sanders wood on 9<sup>th</sup> August to 14<sup>th</sup> August 20167 & Last week of January.
2. II B.Sc BZC students gave seminar on Bentham &Hooker classification, ICBN, Herbarium techniques, Cucurbitaceae, Types of Embryosac, Structure of anther, Types of Endosperm, Polyembryony, Osmosis, Imbibition, Ascent of sap, Macronutrients, Micronutrients, Glycolysis, Kreb’s cycle, Nitrogen fixation
3. III B.Sc BZC students gave a seminar on Mitosis, Mutations, Linkage, Plant cell, DNA Replication, Vavilov centers of crop plants, Cereals- Rice, Wheat, Millets- Jowar, Bajra, Legumes- Red gram, Green gram, Black gram, and Bengal gram.
4. III B.Sc BZC students gave a seminar on Ayurveda system, Naturopathy, Homeopathy, Ecological pyramid, Xerosere, Hydrosere, Components of Ecosystem
5. III B.Sc BZC cluster students gave a seminar on Construction of Nursery, Layering, Bonsai cultivation, Hydroponics and presented a model, Mushroom technique, sericulture, Panchagavya, Nadep compost, Cocoa cultivation, Mango cultivation, Cashew cultivation.

## **Extracurricular Activities:**

- 1. 15<sup>th</sup> June 2017: Graduation day** - Dr. N. Nagavardhanam, Mrs.G.Rani and Ms.B.Asha Latha actively participated in graduation day celebrations.
- 2. 8<sup>th</sup> July 2017: Vanamahosthava week celebrations** – During ‘Vanamahosthava week celebrations Forest Dept of E.G.Dt.’, conducted “Prakruthi Pilusthundi” and planted saplings in Gowtham Arboratum. Staff and students of Botany dept participated in this programme and planted about 100 saplings.
- 3. 10<sup>th</sup> to 11<sup>th</sup> July 2017: Plantation Programme** – Botany department organized plantation programme to III BZC students. 25 saplings were planted in hanging pots and 52 saplings were planted in pots near Botany lab and department.
- 4. 17<sup>th</sup> to 31<sup>st</sup> July 2017 & 1<sup>st</sup> to 15<sup>th</sup> September 2017: Nomenclature of plants** – Scientific naming of the plant in college campus was taken up by Botany department faculty and I, II and III BZC students. Scientific nomenclature plates were fixed for 400 trees in the college campus with local name, Botanical name and Family. And care has been taken to maintain the above work.
- 5. 14<sup>th</sup> August 2017: Academic competitions** – Botany department organized Academic competitions on “Kalpatharu- Medicinal plants display” in Botany lab. 9 students were participated in this competition. Dr.R.Indira, HOD of Zoology, Mrs.N.Lakshmi Prasanna, Lecturer in Zoology acted as Judges.  
Mrs.G.Rani acted as judge to PPT presentation on “Animal welfare” and Virtual dissection organized by zoology department on the eve of Academic competitions.
- 6. 24<sup>th</sup> August 2017: Knowledge Extension** – Dr.N.Nagavardhanam ward of III BZC students performed an extension programme on “Herbal therapy”. Students acquired knowledge regarding various plant products used in curing Pimples, dandruff, Hair loss. They also depicted the medicinal uses of plants and plant products such as Hibiscus, centalla, eclipta, tulsi, turmeric, Aerva lanata etc. Students enjoyed the knowledge extension programme and was appreciated by the audience.
- 7. 4<sup>th</sup> to 8<sup>th</sup> September 2017: Medicinal garden** - I BZC students Upgraded ‘Susruta Vanam’ Herbal garden by planting 18 varieties of rare and endangered medicinal plants such as, Sarpagandha, Aswagandha, Pippement, Air purifier, Insulin, Anti-cancer, Anti-diabetic plants etc.
- 8. 2<sup>nd</sup> to 6<sup>th</sup> September 2017: Organic kitchen garden** - II BZC students Cultivated five varieties of leafy vegetables namely Cannabinus, Amaranthus, Spinach, Sorrel,

- Pudina in Botany organic kitchen garden. All these vegetables were grown with organic manure in the STC Kitchen garden.
9. **11<sup>th</sup> to 16<sup>th</sup> September 2017: Roof garden** - As soil area is decreasing day by day due to Apartment culture vegetation is decreasing. As a result environmental pollution is increasing and causing health hazards. Keeping this in view Botany department along with III BZC students established Roof garden in 3<sup>rd</sup> floor of science block.
  10. **9<sup>th</sup> September 2017: Herbarium cabinet up gradation** - Botany department upgraded herbarium cabinet with more than 1000 herbarium sheets belonging to 40 families. All the herbarium was arranged according to Bentham and hookers Classification.
  11. **16<sup>th</sup> November 2017: Knowledge Extension** - III BZC students performed a knowledge extension programme on “**Save Nature**” on 16<sup>th</sup> November 2017 under the guidance of ward tutor Mrs.G.Rani and HOD of Botany Dr.N.Nagavardhanam. Students explained the importance and protection of trees through Mime. They touched the hearts of audience by their performance. Staff and students appreciated the ward students.
  12. **22<sup>nd</sup> November 2017: Mission fete** - On the eve of mission fete Botany department organised a snacks stall ‘Saggubiyam punukulu’ and game zone ‘Jolly round’.
  13. **4<sup>th</sup> February 2018: External Practical Examiner** – Mrs.G.Rani acted as external practical examiner to II Vocational students of intermediate campus, Ch.S.D.St.Theresa’s College for Women, Eluru.
  14. **5<sup>th</sup> February 2018: Science day competitions** - Botany department organised PPT Presentations competitions on topic ‘Role of plants in day to day life’ and Poster painting competitions on topic ‘Role of plants in Pollution control’ to celebrate National Science Day to I BZC, II BZC and III BZC students. Ms.B.Suvartha Rani-I BZC, and Ms.P.Divya Theresa-I BZC Won 1<sup>st</sup> and 2<sup>nd</sup> Prizes in PPT Presentation respectively. Ms.S.Sri Madhavi-II BZC, Ms.B.Sri Sarvani-II BZC, Won 1<sup>st</sup> and 2<sup>nd</sup> Prizes in poster painting competitions respectively.
  15. **7<sup>th</sup> February 2018: Loyola College Seminar and competitions** - I BZC and II BZC students (12) attended one day seminar ‘VRUKSHA-2018-Dynamism of the plants in the present Millennium’ organised by PG Botany department, Andhra Loyola College, Vijayawada. Students participated in various competitions and won prizes.

Ms.B.Suvartha Rani-I BZC, Ms.B.Sri Sarvani-II BZC, Ms.D.Srivalli-II-BZC won 3<sup>rd</sup> prize in Quiz, Sk.Kushnuma-I-BZC won 3<sup>rd</sup> prize in Drawing, Ms.S.Sri Madhavi-II BZC won 3<sup>rd</sup> prize in Collage competitions.

**16. 7<sup>th</sup> February 2018: Judge** – Dr.N.Nagavardhanam acted as a judge to INNOMAN-2K18, “Innovation is the Journey from Mindset to Market place” organized by Department of Management studies.

**17. 17<sup>th</sup> to 19<sup>th</sup> February 2018: District Science Fair Inspire Judge** - Dr.N.Nagavardhanam acted as judge in district level INSIPRE-MANAK, Science Exhibition organised by DST, at Ramchandra engineering college, ELURU.

**18. 20<sup>th</sup> February 2018: M.C** – Dr.N.Nagavardhanam acted as M.C to college day celebrations and college valedictory function.

### **Future plans:**

1. Publishing at least 4 papers in national and international journals.
2. Applying for MRP.
3. Organizing Work-shops.
4. Internships to II Year BZC Students.
5. MOU's With NGO's, AYUSH dept and Horticulture Departments.
6. Establishing nursery.

### **Requirements:**

1. Switch board.
2. Ceiling Repairs.
3. Ceiling fans in Room no 53 and Botany Lab.