

# **Annual Report**

**2010-11**

**DEPARTMENT OF MATHEMATICS & STATISTICS**

## **1. Activities reflecting the goals and objectives of the Department:**

- **Student related activities**

### **1. Student -orientation programme:**

An Orientation programme was conducted for B.SC I year students on 13<sup>th</sup> and 14<sup>th</sup> July, 2010.

### **2. Seminar attended by Students:**

The students of B.SC I year have presented the papers on “Conventional Energy Sources, Water Cycle and Ozone Layer-effect on environment” at Andhra Loyola College, Vijayawada in the month of Sep, 2010 under the Guidance of the faculty.

Students Names: 1. K.Srikanth

2. S.Srikanth

### **3. Tutorial classes :**

Tutorial classes are incorporated in regular time table. These classes are conducted by department staff for clear understanding of concepts related to different subjects. This helps the students to improve their academic standard.

### **4. Remedial classes:**

The department strives to uplift the weak and interested students through conducting remedial classes after the college hour.

### **5. Quiz Programme:**

The department of Mathematics & Statistics conducted quiz competition on 27<sup>th</sup> October, 2010 on the occasion of Srinivasa Ramanujan’s Birthday for B.Sc Students exclusively



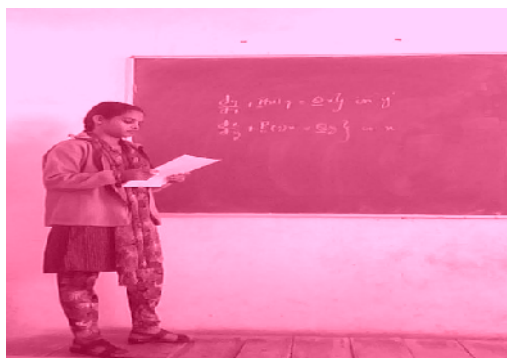
The winners for the quiz competition were awarded with a certificate and memento.

**Prize winners:**

<i>S.No</i>	<i>Names</i>	<i>Class</i>	<i>Position</i>
1	Jasinthamary, Dhruv Gopinath, Anand and Quasim Ali	B.ScII year	I
2	Sunitha, Marian, Adhnan and Rebha Vergeese	B.ScIII year	II

**6. Student class room seminars:**

The Department conducts student seminars in class rooms to improve their communication and presentation skills.





### Seminar's on Mathematics:

S.no	Date	Name	Class	Topic
1	7.9.2010	Sunitha	B.SC III year	Theorem on root test
2	10.9.2010	Marian	B.SC III year	Theorem on ratio test
3	12.9.2010	Bernadine	B.SC III year	Theorem on Leibnitz's test
4	15.9.2010	Linga reddy	B.SC III year	Theorem on root test
5	17.9.2010	Gogon	B.SC III year	Theorem on ratio test
6	7.11.2010	Barath Kumar	B.SC III year	Bolzano intermediate value theorem
7	8.01.2010	Premalatha	B.SC III year	Properties on Reimann integration.
8	9.1.2010	Claudius	B.SC III year	Properties on Reimann integration
9	11.1.2010	Rojarani	B.SC III year	Properties on Reimann integration
10	15.1.2010	Reeba varghese	B.SC III year	Properties on Reimann integration
11	15.1.2010	Marian	B.SC III year	Properties on Reimann integration
12	16.1.2010	Sunitha	B.SC III year	Properties on Reimann integration
13	16.1.2010	Shristi	B.SC III year	Properties on Reimann integration
14	18.1.2010	Linga Reddy	B.SC III year	Properties on Reimann integration
15	19.1.2010	Deepika	B.SC III year	Properties on Reimann integration
16	22.1.2010	Nihar Goud	B.SC III year	Properties on Reimann integration
17	23.1.2010	Ragavendhra	B.SC III year	Properties on Reimann integration

18	23.01.2010	Preethi	B.SC III year	Uniform continuity
19	6.1.2010	Ridhima	B.SC II year	Exact differential equations
20	6.1.2010	Merina deephi	B.SC Iyear	Linear equations
21	6.1.2010	J.Rohit Kumar	B.SC II year	Non-homogeneous equations
22	7.1.2010	Harish	B.SC II year	Homogeneous equations
23	7.1.2010	Roarke Wilfred vaz	B.SC II year	Variable separable method
24	7.1. 2010	M.Anand	B.SC II year	Clairauts equations
25	9.1.2010	Vinay Sai Krishna	B.SC II year	Exact differential equations
26	9.1.2010	Jasinta Mery	B.SC II year	Higher order differential equations

#### Seminar's on Statistics:

S.no	Date	Name	Class	Topic
1	23.12.2010	Quasim Ali	B.SC II year	Simple random Sampling without replacement
2	11.1.2010	Komal Jain	B.Sc II year	Simple random Sampling with replacement
3.	17.11.2010	Vikranth reddy	B.SC III year	Testing of Hypothesis
4	19.11.2010	Sristhi	B.Sc III year	Correlation & Regression
5	21.11.2010	Ravi Kumar Reddy	B.Sc III year	Large Sample Test

#### 7. Student Extension Activities:

- B.Sc Students participated in "5K Run" organized by St.Josph's Degree & PG College.
- NSS programme (8<sup>TH</sup> NOV'2010 TO 14<sup>TH</sup> NOV'2010):

DAY 1: Our College conducted NSS Special camp in the month of November from 8<sup>th</sup> Nov to 14<sup>th</sup> Nov 2010. The camp started with a prayer by Rev. Fr.Dr.V.K.Swamy, our Principal and Mrs. Mary Vinaya Sheela, Head Department of Commerce of our college. 51 students started in the bus from college to the adopted village Thatti Annaram, which is 16 Km from our college.

On first day inauguration was done at the village by Prof.P.Prasad, Director, Life Long Learning, O.U and Rev.Fr.Sunder Reddy, Vice-Principal of our college. The theme of the programme was given by Mr.D.Thirumala Rao, our NSS P.O.and faculty from department of Science.village sarpanch and other ward members were called for the inauguration



### Day 2:

The second day was started with survey in the entire village of Thatti Annaram village. Nearly 60 NSS Volunteers participated in the survey. Villagers gave their opinions on various aspects such as water facility medical facility.etc



Day 3 : Survey was continued on the third day also in the village by our volunteers . They met the ward members and women folk in the evening and conducted a personality development programme. In the night our supervisors of the camp Mr.Veladri, from O.U. assisted the volunteers in conducting adult education programme in the R.Krishnaiah Nagar till night 9 p.m



Day 4: On the fourth day our volunteers conducted survey in the Hamlets of Thatti Annaram Village. They are Mathu Guda, R.Krishnaiah Nagar and nearby hamlets of the village. Villagers expressed their problems and the latest developments in the village. They asked the volunteers to provide assistance from the government for their problems like Medical Facilities, Bus Facilities, etc....



Day 5: Our volunteers conducted clean & green programme on the fifth day of the camp. Because of rains the roads were filled with water and mud. Our volunteers covered the water with sand concentrate, and ploughed the unwanted plants on the roads. The MCH staff of the village assisted our volunteers in providing the necessary tools to clean the roads and eliminate the waste plants.



Day 6: Our volunteers conducted a Health Camp & Health Survey on the sixth day of the Camp with the assistance of Mr.Veladri, Dr. Chakrapani Prof from Osmania Hospital visited the village and conducted the camp there. Nearly 100 Patients have been served with medical check up and gave awareness on various diseases in the village. Some of the students of our college sponsored medicines for the camp.



Day 7: Seventh day was the closing ceremony of the special camp. Valedictory programme was conducted by our NSS Team. Prof.K.Ramakrishna, NSS Cordinator, from O.U. was the chief Guest, Guest of Honour was our Vice-Principal. Our P.O. gave the report on the camp conducted for seven days to the student volunteers and the sarpanch and other ward members. Few students also prepared the report and addressed the gathering on that day. Sarpanch of the village, President of the village, ward member and Mr.Veladri were felicitated by the Vice-Principal and the NSS Volunteers.



Vote of thanks was given by one of our student volunteer, which was followed by National Anthem and then all are invited for the lunch.





- Students of B.SC participated in one Week NSS Camp conducted at Thatti Annaram, under the guidance of NSS coordinator D. Tirumal Rao.



Participated Students:

1. Sathish Kumar M.P.Cs -II Year
2. Michel M.E.Cs-II Year
3. Thalib M.S.Cs-I Year

- Students of B.SC attended NCC camp at A.V College, Domalguda, Hyderabad under the guidance of Physical Director Sridhar Reddy.

Participated Students: 1) S.Naveen Kumar

2) Praveen Kumar

- 3) Sravan Kumar
- 4) Pradeep
- 5) Ritesh
- 6) Vijay Kumar
- 7) Rahul Kulakarni

## **8. New academic programme initiated (UG and PG):**

### **Bridge Course :**

Bridge course is conducted at the beginning of the academic year to fill the gap found in students with respect to the soft skills and basic knowledge to understand the prescribed syllabus.

#### **1. Bridge course for B.Sc I year: 2010-11**

**Topic 1:** Differentiation

**Topic 2:** Integration

**Topic 3:** Introduction to three dimensional geometry

**Duration:** 8 hrs

#### **2. Bridge course for M.C.A I year I semester: 2010-11**

**Duration:** 7 hrs

##### **Topic 1: Descriptive Statistics**

- **Measures of central tendency**
  - i) Mean
  - ii) Median
  - iii) Mode for grouped and ungrouped data.
- **Measures of central tendency**
  - i) Range
  - ii) Quartile Deviation

- iii) Mean Deviation
- iv) Standard Deviation
- v) Range for grouped and ungrouped data.

### **Topic 2: Probability**

- i) Introduction and Basic definitions
- ii) Mathematical and Axiomatic Definition of Probability
- iii) Addition, Multiplication and Conditional theorems and
- iv) It's Applications with Example problems.

### **9. Inter- disciplinary programmes started:**

- M.S. Ramesh, lecturer in Mathematics handled the paper "Operations Research" for the MCA II year III semester students during the period August-November, 2010
- P. Rajeshwar, lecturer in statistics handled the paper "Probability & Statistics" for the MCA I year I semester students during the period September-november, 2010.
- M.S. Ramesh, lecturer in Mathematics, handled the paper "Discrete Mathematics" for the MCA I year I semester students during the period September-November, 2010.

### **10. Initiative towards faculty development programme:**

[Career Advancement Programme, Research Development and Consultancy Cell, Deputing teachers to conferences/symposia/workshops organized both at national and international levels, Grant of sabbatical leave]

With the permission of the management, P. Bhaskar Reddy lecturer in statistics, gave guest lectures at Forensic science Department, Osmania University on 'Bio-Statistics' for M.SC I year students from March-May, 2011.

### **11. Faculty Development Programmes Attended by Faculty:**

#### **Mr. M.S. Ramesh:**

1. Attended TWO day Colloquium on "Computational Intelligence" held from 23<sup>rd</sup> to 24<sup>th</sup> March, 2010 at University of Hyderabad which is sponsored by Department of Science & Technology.

#### **Mr. P. Bhaskar Reddy:**

1. Attended a work shop on “FACULTY DEVELOPMENT PROGRAMMEE IN REVISED SYLLABUS” in the Department of Statistics, Osmania University on 19<sup>th</sup> September, 2010.

2. Attended Departmental conference in the Department of Statistics, Osmania University on 27<sup>th</sup> November, 2010.

### **13. Departmental Events:**

#### **CONCEPTUAL INSIGHTS IN MATHEMATICS & STATISTICS FOR HAES HIGH SCHOOL TEACHERS**

HAES in collaboration with the Department of Mathematics and Statistics, of St. Joseph’s Degree & PG College conducted a two day Seminar on Conceptual insights in Mathematics and Statistics for high school teachers of HAES on 4<sup>th</sup> and 5<sup>th</sup> June 2010. The program was conceived and organized by Mr. M.S.Ramesh, Vice-Principal PG under the able guidance of Principal Rev. Fr. Dr. V. K. Swamy with excellent Resources persons from various areas.

The objective of the seminar was to explore the conceptual understanding *in* Mathematics and Statistics that enhances mathematics learning and support good instructional practice. In this context this programme “train the trainer” was designed to spread the right knowledge to right people through proactive knowledge dissemination. The Seminar was inaugurated by Rev. Fr. Dr. V. K. Swamy. He welcomed the participants and enlightened them by addressing that being a teacher is the most important job on the planet, and Mathematics opens doors to all kinds of options for students. He said that one must possess all three levels of understanding for teaching the mathematical concrete, representational/semi-concrete, and abstract. The seminar was attended by 50 teachers representing 16 schools.

On the first day we had five Technical sessions. The first session was addressed by Professor Shiva Ram Prasad Retd. from Dept. of Mathematics, OU on Number system and its applications. He lucidly demonstrated the root level of number system and hidden concepts in construction of number system. Mrs. Dorothy Roy, Dept. of English, Christ Church College, Kanpur motivated the teachers in the second session on Student teacher relationship. The Third Session was conducted by Prof. Parushuram (Retd.), SCERT, Hyderabad on methods of teaching in Mathematics. He discussed vividly about teaching methodologies that can be adopted in teaching Mathematics. Prof. Battacharya, Dept of Statistics, OU briefly described about Linear Programming and demonstrated LPP using power point presentation. The final session of the first day was conducted by Prof. C. Govardan, Dept. of Mathematics, OU on Internet Resources in Mathematics. He demonstrated clearly the usage of internet resources, search engines which are available for teaching Mathematics.



On the Second day we had four Technical sessions. The first session was on topic Relations by Prof. K.Satyanarayana from Dept. of Mathematics, Rajiv Gandhi Knowledge Technologies, Hyderabad. He is a simple, versatile and dynamic teacher and inspired all the teachers with his thought provoking talk. Vice Chairman, Msgr.Swarna Bernard too was present during his session and appreciated his inspiring talk.The second session was conducted by Prof. V. Srinivas, Dept. of Mathematics,Dr. B.R.Ambedkar Open University. He dealt with the Topic Functions. He gave various illustrated examples and graphical representation of functions. Prof. Parushuram(Retd) SCERT, Hyderabad addressed on concept developments in Mathematics in the Third Session. He clearly demonstrated concept building and various methods that can be used to teach the concepts at primary and high school level. The last Technical session was conducted by Prof. Hara Gopal, Head Dept of Statistics, OU. Using Power point presentation he presented the topic on Statistics and its application and focused on the applications of statistics.



The two day seminar concluded with Valedictory function. Rev. Fr. Dr. V. K. Swamy appreciated the Dept for organizing the seminar effectively and distributed the certificates to the participants. The participants expressed their happiness for having attended an insight seminar that enhanced their conceptual clarity and gave them new insights.

#### 14. Teachers and Officers Newly Recruited:

Mr. P.Rajeshwar was appointed as a lecturer in Statistics on Aug, 2010.

**15. Teaching and Non-teaching Staff Ratio:**

No of teaching Staff: 5

No. of non-teaching staff: 1

Ratio of teaching and non-teaching Staff = 5:1

**16. Improvements in the Library Services:**

Departmental Library has issued text books for all B.SC I, II and III year students.

**17. Computer and internet access and training to teachers and students:**

The Department of Computer Science conducted the “faculty awareness programme” for the faculty

Members on the topic “MS- Office and internet access”, on 20<sup>th</sup> June, 2010

**18. Health services:**

- Ms. P.Bhaskar Reddy lecturer in Statistics and students of B.Sc donated blood for YRC (Youth Red Cross Society) in the college premises.

**19. Performance in sport activities:**

- Our college students won Third position in inter-college cricket “Ranga Reddy Division ENNADU Cricket tournaments”, which is conducted at O.U., Hyderabad on 26<sup>th</sup> Febraury-2010.

**20. Students Achievements and awards:**

- The college management rewarded Miss. Ridhima, B.Sc I year student with Rs. 1000 cheque and a certificate, who scored 100 marks in Mathematics.

**21. Activities of the guidance and counseling cell:**

- The Department of Mathematics and Statistics conducted a “General Ability Test” for B Sc I year students on 22.11.2010 to encourage them to attend job oriented programme and Competitive exams
- The college management allotted a regular hour for “Guidance and Counseling” for the B.Sc students in various aspects of their personality.

## 22. Placement Services provided to students:

### Placement Details:

S.No	Company Visited	Visited Date	No of students registered	No of students selected	Remarks
1	Wipro BPO	18.08.2010	15	01	
2	Cognizant	06.10.2010	07	02	
3	DELL	08.11.2010	07	01	
4	ADP	10.11.2010	04	00	
5	Apollo Health Street	11.11.2010	08	03	
6	MRF	18.11.2010	04	01	
7	Deloitte	24.11.2010	08	02	

## 23. Best practices of the institution:

- The unit planners of the concerned subjects are prepared well in advance and displayed for student information purpose, where in it contains Information regarding topics to be dealt, content to be covered, prescribed Author to be followed along with specification of volume and page No.
- Remedial classes are innovatively updated to incorporate the inputs from regular Feedback obtained from the students.
- Student seminars are conducted to develop their presentation skills.
- Mentoring and Counseling for individual students.
- Rewarding the students for maintaining 100% attendance.
- Conducting the Quiz programme.

## 24. Any other relevant information:

- **LIBRARY:**

There are two libraries (1) General Library

(2) Departmental Library

General library consists of 179 titles and 488 of Mathematical and statistical related books and departmental library consists of subject related 48 titles and 98 books related to mathematical, statistical and competitive exams. In addition, the department has four National journals for research purpose.

The department is enriched with 1 laptop, 2 LCD's, 2 OHP's and 4 CD's for teaching and learning process.

The students and the faculty can access both the libraries during the time **9.00 am** to **5.00 pm** on all working days.

- **INTERNET:**

There is a common Internet facility for all the degree students which include Mathematics and statistics students. The department encourages students to upgrade the knowledge of the subject using Internet.

- **AUDIO-VISUAL ROOM:**

There is a common Audio-Visual room with home theatre which is available for both academic and co-curricular activities.