**LOYOLA ACADEMY DEGREE & PG COLLEGE**

**DEPARTMENT OF MATHEMATICS, STATISTICS& COMPUTER SCIENCE**

**Departmental Report 2018-19**

# I. DEPARTMENTAL ACTIVITIES

## 1. A Talk on Personality Development

**Objective:** The main objective of the program was to familiarize students with the emerging ideas and trends on how to develop personality in the 21st century contexts.

**Report:** A talk on Personality Development was organized by Department of MSCS on 23-06-2018 in the PG Seminar hall for II and III year students by Mrs.Shruthi, Relationship Manager in TCS.

The programme also aimed to teach participants to work with various professionals, people and groups to understand the meaning of life and work in the present context; to enhance their communication skills and interpersonal skills in order to function in professional and social settings effectively; to enrich the academic language skills (writing and presentation skills) for academic writing and presentations; to understand effective planning, time management and implementation for setting goals and achieving both personal and professional goals; to learn to evaluate oneself (self appraisal and introspection) for further growth, personally and professionally. The speaker focused on Modified behavior, Time Consuming, Stress Management, Interview skills and Developing IQ levels.

**Outcome:** Students were able to learn the comprehensive set of skills and knowledge for life success (of self and others) gained from one's Saddleback College education.

**Reviews:** To get a good personality is all about gaining confidence. Those people have an identified set of disorders that the students face and they help them to groom those thus making the students more confident.





## 2. A Two-day Seminar on "Applications of Mathematics and Statistics" MATH- ORIGINS 2018 on 6th-7th September, 2018

**Objective:** To promote mathematical skills and knowledge, effectiveness in developing proficiency in analytical reasoning, and utility in modeling and solving real world problems.

**Report:** The Department of Mathematics, Statistics and Computer Science has organized a two day seminar "Applications of Mathematics and Statistics: Math Origins 2018" on 6th& 7th September 2018 at Loyola seminar Hall of Loyola Academy. The inaugural function began at 9:45 am with a prayer song and lighting of the lamp. The chief guest for the day was – Prof. V.V. Hara Gopal. We also had our Principal most Rev. Fr. Anthony, our Vice Principal Fr. Balaswami, Mr. Jagdesh COE, Head Dr. K. Vijayalakshmi on the dais. Principal Fr.P.Anthony gave a beautiful message to the students on how to build up courage, generosity and to become a successful person in life .Then our vice Principal Fr. Balaswami shared his own experiences in his childhood and made us to know the importance of studies at the right time. Mr.V. Jagadhish, Controller of Examinations, Loyola Academy emphasized on the problem solving approach so that we may learn something out of it. The Head Dr. K.Vijayalakshmi read out the report about the overall achievements of MSCS department .We began our first session with the chief guest message Prof V.V. Hara Gopal. He mainly concentrated on importance of Statistics in today's world .The second speaker for the day was Dr. RVSS Prasad who spoke on the theme role of Statistics in Data Analysis. His way of expression was quite simple but attracted the crowd .He began by saying "Statistics is going to change the entire world in few years ".He spoke about the great statistician.

Dr. W.Deming who contributed towards the world of Statistics. Dr. Deming is so famous that we even have a highest award in the world for quality by his name. He concluded by saying "Though we have complex problems we should have simple solutions for it. So believe in yourself and not in the market ".

The afternoon session began at 12:45 pm by three speakers Prof. Narsimha Chari, Dr.K.M.R.Chari, Mrs. G.Shailaja .They gave a historical account on Bio-Aero-Dynamics. They spoke about application of Mathematics in Physics and Zoology.

They explained different topics like

1. Daniel Bernoulli
2. Magnus Effect
3. Reynolds Number
4. Flight Parameters and Wind Beat Frequency
5. Moment of Inertia
6. Aero Dynamic Equations
7. Migration of Birds

The last talk of the day was given by Dr. Sudheer Reddy who spoke on Function Approximation and Data Modeling.

The various topics on which he emphasized was

- The goal of Function Approximation Issues with Polynomials
- Regression
- Trigonometric Function
- Linear Algebraic Framework
- Fourier and Wavelet Series and its different applications Data and algorithm modeling culture

Dr. G.S.R.Murthy .He spoke on application of Statistics in industries On the second day of the Seminar.

The department has also organized the following events.

- Olympiad
- JAM session
- Collage Making Quiz
- Power Point Presentation on Application of Mathematics and Statistics

45 members have been participated in Olympiad. 15 members in JAM, 17 groups in quiz, 10 groups in collage making and 12 members presented papers on Application of Mathematics and Statistics. Students of St.Fransis College for Women, Begumpet, Hyderabad, Bhavan's Vivekananda Degree & PG College, Sainikpuri, Secunderabad and Little Flower Degree College, Uppal, Hyderabad were also participated in the seminar. The following Students Got Prizes in the Events.

**OLYMPIAD**

I Prize- A. Tharuni, St.Francis College For Women, Begumpet.

II Prize - S.Lakshmi, .Lakshmi, St.Francis College For Women, Begumpet.

**JAM**

I Prize- Mayank ,Little Flower Degree College, Uppal.

II Prize- A. Tharuni, St.Francis College For Women, Begumpet.

**COLLAGE MAKING**

I Prize – Khushbo (DCS)

II Prize- P. Manasa Reddy- Little Flower Degree College, Uppal.

**QUIZ**

I Prize - Tharuni, S.Lakshmi, Binitha, St.Francis College For Women, Begum Pet

II Prize- N.S.Yasaswini, Renuka, Prasuna (NCH) Loyola Academy

**PAPER PRESENTATIONS**

I Prize – Richard (DCDS)

II Prize – Mayank, Little Flower Degree College, Uppal.

All Prizes were distributed to students in valedictory Ceremony at 3.00pm for which

Mrs.B.Rama was chief guest.

**OUTCOME:** Students were able to communicate mathematical and statistical ideas. Also they learned how to evaluate mathematical and statistical work.

**REVIEWS:** Applications of Statistical and Mathematical ideas are projected in different fields. Subjective information is provided by the speakers in an effective way. A small break is to be provided in between of the sessions to concentrate more on the topics.






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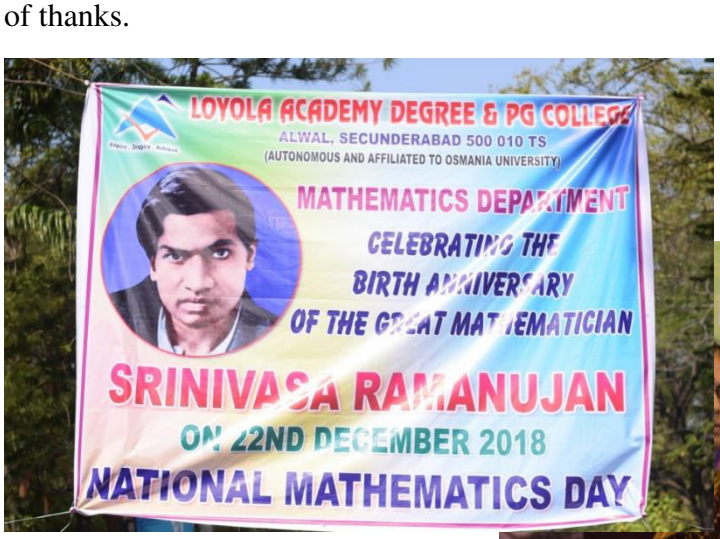
## *3. REPORT ON NATIONAL MATHEMATICS DAY*

**OBJECTIVE:** The objective of the programme was to create awareness among the students about the immense contribution made by Legendary Indian Mathematician **Srinivasa Ramanujan.**

**REPORT:** Department of B.Sc Mathematics, Statistics and Computer Science celebrated 131st birthday of **Srinivasa Ramanujan** i.e., on 22nd December 2018. The day started by invoking the blessings of god with a prayer song this was then followed by the felicitation of Srinivasa Ramanujan. The event began with the encouraging words of **Dr. K.Vijayalakshmi,** Head, department of Mathematics who has given a brief review on the importance of National Mathematics Day and on some works of Srinivasa Ramanujan. The Principal Rev. Father Dr. P.Antony has given a brief talk on Srinivasa Ramanujan's life and motivated the students towards learning mathematics. The presentation was about life and achievements of famous mathematician S. Ramanujan.

On the occasion of NATIONAL MATHEMATICS DAY, there was an Olympiad held on 19th December 2018 conducted by the MSCs department whose winners were announced during this event. The first three prize winners are D. Tejaswini, AMSCS, Aron Nicholas, AMSCS Ramona D'Lima of NCDS respectively. Prizes were given by Rev. Father Dr. P.Antony .The students of MSCs dept. spoke about the life history and achievements of Ramanujan followed by few power point presentations on Srinivasa Ramanujan.

Then the session was concluded with a short video clipping on Ramanujan followed by vote of thanks.







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### 4. A Seminar on Applications of Statistics in Data analytics and Data science

**Objective:** To make the students to understand applications of Statistics in Data analytics and data science and to do projects there on.

The Department of Mathematics, Statistics and Computer Science has organized a seminar on Applications of Statistics in Data analytics and Data science on 28th January 2019 to the second year students of B.Sc. The resource persons for the day are the employees from Asian technology hub which provides related courses on Data Science and data Analytics. A Dynamic speaker Mr. C. Srinivasulu imparted his vast knowledge to the students on the following aspects;

- Data science and development of technology.
- Data classification- Structured and unstructured.
- Artificial intelligence
- Big data- Collection of huge amount of data generated in high speed
- Challenges of big data
- Measures of big data
- Data scientist – Roles and Responsibilities
- Mr. Rithish shared few guidelines on how to go about with projects.

**Outcome:** Students were able to learn the comprehensive set of skills to do projects.

**Reviews:** Student felt that this is a very useful seminar for them because they learned so many concepts of Data science and data analytics as they Study statistics as a core subject.









## I. Staff achievements:

1. Dr. K.Vijayalakshmi has participated at the National conference on "Recent Advances and applications in Mathematics" held during February 26-27, 2019 and presented a paper on "Modular Arithmetic – An Approach to Conventional Matrix Cryptography".
2. Dr. K. Vijayalakshmi is the one of the author of Degree Final year Text Book "Vector Calculus" At Telugu Academy, Hyderabad released on 25-02-2019.
3. Dr. K.Vijayalakshmi gave avideo lecture on "**Infinite Series of Functions"** for second year UG Students of Dr. B.R. Ambedkar Open University which was telecasted on yadagiri Channel on 22-2-2019 from 5.30am- 6am.
4. Dr. K.Vijayalakshmi attended a tele-conference on **Infinite Series** for second year UG Students of Dr. B.R. Ambedkar Open University which was telecasted on yadagiri Channel on 20-1-1019 from 2pm-3pm.
5. Mrs. Sailaja.M qualified Pre-Ph.D Exam from Kakatiya University Warangal.
6. Mrs.K.Rajini Kumari Attended One week work shop Sponsored by AICTE.
7. Dr. K.Vijayalakshmi is one of the three course writers of the Course "Linear Algebra" and "Discrete Mathematical Structures "of UG third year at Dr BRAOU, Jubilee Hills, Hyderabad.
8. Dr. K.Vijayalakshmi is the author of the book "Combinatorics and Graph theory" Published on 8th August 2018 by Telugu Academy, Hyderabad.
9. Dr. K.Vijayalakshmi is participated in the one Day seminar on "Mathematics and its Applications" on 4th August 2018 organized by Telugu Academy, Hyderabad on the Occasion of its Golden Jubilee Celebrations.



**Student Activities:**

1. Student of DMSCS Ms. Sireesha Dinavahi (24023) has participated at the National conference on "Recent Advances and applications in Mathematics" held during February 26-27, 2019 and presented a paper on "Modular Arithmetic – An Approach to Conventional Matrix Cryptography".
2. B. Sanjay Kumar the student of DMSCS (24026) participated in the event "Coding" and got First prize at the inter-college level in the "Infocom-2K19" on 1st February 2019 organized by Department of B. Com Computers, Loyola Academy.
3. P. Keshavan the student of AMSCS participated in promoting the spirit of democracy and leadership organized by MIT School of government, PUNE in the month of January 2019 and won first prize.
4. P. Keshavan the student of AMSCS participated in the event "Debugging" and got first prize at the inter-college level in the "Infocom-2K19" on 1st February 2019 organized by Department of B. Com Computers, Loyola Academy.
5. P. Keshavan the student of AMSCS participated in the event "Coding" and got Second prize at the inter-college level in the "Infocom-2K19" on 1st February 2019 organized by Department of B. Com Computers, Loyola Academy.
6. K. Hari Prasad Rao the student of AMSCS participated in the event "Debugging" and got Second prize at the inter-college level in the "Infocom-2K19" on 1st February 2019 organized by Department of B. Com Computers, Loyola Academy.
7. Student of DMSCS Ms.Sireesha (24023) GOT PLACED IN SAP
8. Students of DMSCS Ms.Sireesha (24023),Ms.Antara(24003)and Ms. Sujitha(24016)were participated in the one Day seminar on "Mathematics and its Applications" on 4th August 2018 organised by Telugu Akademi, Hyderabad on the Occasion of its Golden Jubilee Celebrations.
9. P. Keshavan the student of AMSCS got best speaker award in "**Perspective (v2.0)**" on

   28th-29th August2018 organized by Department of B.Com Honors, Loyola Academy, Secunderabad.
10. P. Keshavan the student of AMSCS Participated in **LAMUN 2018** on 19th-20th September 2018, organized by Department of MBA, Loyola Academy, Secunderabad.
11. P. Keshavan the student of AMSCS participated in "Sreevision-2k18" which is the annual fest of Sreenidhi College of Engineering and Technology , in the Technical

Paper Presentation event held on 18th September,2018 and secured the second position

12. Roshan Mathew the student of AMSCS Participated in "**Perspective (v2.0)**" on 28-29th August2018 organized by Department of B.Com Honors, Loyola Academy, Secunderabad.
13. Roshan Mathew the student of AMSCS Participated in **LAMUN 2018** on 19th-20th September 2018, organized by Department of MBA, Loyola Academy, Secunderabad.
14. Madirai Nag the student of AMSCS Participated in "**Perspective (v2.0)**" on 28-29th August2018 organized by Department of B.Com Honors, Loyola Academy, Secunderabad.