

Outreach Programmes

2020-21

1. Outreach Program for school students

An outreach program for high school students was organized for 2 days, on 22nd and 23rd Feb. 2021 by dept. of Mathematics and Statistics, Bhavan's Vivekananda College, Sainikpuri, Secunderabad, at MJPTBCWR School, Yakuthpura, Karwan, Hyderabad, located at Kompally. The main focus was to familiarize the students with few mathematical concepts and Geogebra software. A total of 200 students of IX standard and 140 students of X standard participated in this program.

The program started with a warm welcome organized by Mrs.Sarala Devi, Principal, MJPTBCWR School, and their team. Later Mrs.Sarala, retd. Principal, MJPTBCWR School, also joined the Program.

Under this program the faculty members Mrs.G.S.Mini, Mrs,P.Krishnaveni, Mrs.P.Rajini, Mrs. Santi Rohit Rao, Mr.N.Chandan Babu and Mrs.K.Srilatha, BVC, took the classes on the following topics: Triangles, Surface Area and Volume, Polynomials and Quadratic Equations, Pythagoras theorem, Probability, Geogebra/Trigonometry, Statistics and Tangents and Secants.

On Day 2, activities were conducted in which all the students of class IX actively participated. Students who won 1st, 2nd and 3rd positions and also the students who were responsive and interactive with the teachers during both the days were awarded prizes.

This Outreach was of great help to the students of the Govt. School in understanding mathematics through geogebra software.













Bhavan's Vivekananda College
of Science, Humanities & Commerce
Sainikpuri, Secunderabad - 500094
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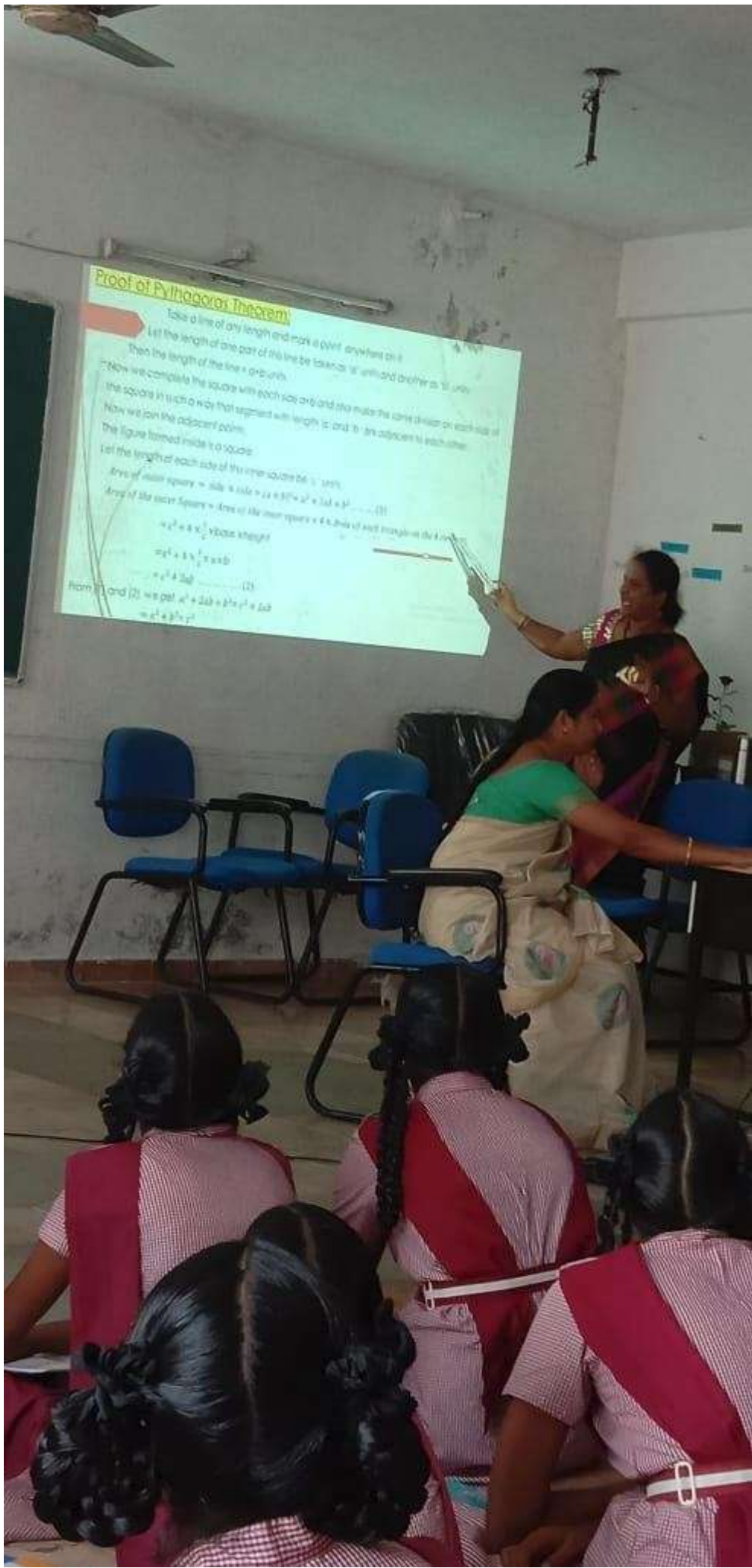
DEPARTMENT OF MATHEMATICS AND STATISTICS

OUT REACH PROGRAM FOR SCHOOL STUDENTS

Under DBT Star College Scheme

DATE: 22nd, 23rd Feb 2021

Trigonometry



Proof of Pythagoras Theorem

Take a line of any length and mark a point anywhere on it.
Let the length of one part of this line be taken as 'a' unit and the other as 'b' units.
Then the length of the line = a+b units.
Now we complete the square with each side a+b and also make the same division on each side of the square in such a way that adjacent sides are equal and also make the same division on each side of the square.
Now we join the adjacent points.
The figure formed inside is a square.
Let the length of each side of this inner square be 'c' units.
Area of outer square = side x side = (a+b) x (a+b) = a² + 2ab + b² (1)
Area of the inner square = Area of the inner square + 4 x Area of each triangle in the corner
$$= c^2 + 4 \times \frac{1}{2} \times a \times b$$
$$= c^2 + 2ab$$
 (2)
From (1) and (2) we get a² + 2ab + b² = c² + 2ab
$$= a^2 + b^2 = c^2$$





2. Outreach Programme for college teachers on Research Methodology and Statistical Analysis using spreadsheet

An Outreach Programme for college teachers on “Research Methodology and Statistical Analysis using spreadsheet” was conducted on 9th Feb 2021 which has two sessions, on the platform of Teams, for faculty of various colleges and Research scholars from different Universities.

Session I: The Resource person Mr. N. Chandan Babu, Assistant Professor, Department of Mathematics and Statistics, BVC delivered a lecture on Research methodology. He explained in detail about the difference between Project and Research. Then he suggested how to write objectives of the Research. Next he explained the difference between Research and Research Methodology, types of research, steps for writing a research article, and the process of Research.

Session II: The Resource person P. Rajini, Assistant Professor, Department of Mathematics and Statistics, BVC delivered a lecture on Statistical Analysis Using MS- Excel. She explained basic statistical concepts using secondary data which was downloaded from statistical data sets from Google search engine. The statistical concepts like Descriptive statistics, Correlation, Regression, Testing of hypothesis (parametric tests), and ANOVA were discussed.



2019-20

1. Outreach programme for college teachers

No. of Lectures attended : 30

No. of colleges participated : 17

The Department of Mathematics and Statistics at Bhavan's Vivekananda College of Science, Humanities and Commerce conducted an Outreach programme on 'Data Analytics with R-Programming' sponsored by DBT- Star College Scheme.

The Resource persons were Mr. K. Srikanth and Mrs. P. Rajini. This programme was attended by 30 Lecturers from 17 different colleges on 15 February. The programme was about Data Analytics, Statistical analysis, Quantitative methods and Computer based models to gain insight about business operations, make better decisions and analyze the future. There were three sessions, First session was about introduction to R and the other two sessions were carried out in the lab with hands-on experience.

The programme was concluded by Vote of thanks by the department of Mathematics and Statistics.

The following students actively helped in the conduct of the programme

SNO	ROLL NO	NAME OF THE STUDENT
1	107219467030	M.Deshik Datta
2	107219467032	N. Shreya
3	107219467006	D. Anil
4	107219467040	P. VineethKumar
5	107219467031	M. Gnyanadeep Sharma



2. Outreach programme for high school teachers

No. of Teachers attended :47

No. of schools participated :30

Outreach programme for high school teachers was conducted by the Department of MATHEMATICS & STATISTICS on 27 July 2019 on the concepts of Geometry and basic Statistics. The Resource persons were Mrs. G. Santhi Priya, Mrs. P. Rajini and Mr. N. Chandan Babu. There was an overwhelming response by the teachers from twin cities . There were 47 teachers from 30 schools including private and government schools who attended the programme and participated in all the activities very actively.

The following students actively helped in the conduct of the programme.

SNO	ROLL NO	NAME OF THE STUDENT
1	107219467030	M.Deshik Datta
2	107219467032	N. Shreya
3	107219467006	D. Anil
4	107219467040	P. VineethKumar
5	107219467031	M. Gnyanadeep Sharma



2016-17

Outreach Program

As a part of department activities, Mathematics and Statistics department organized a 3 day Outreach program on “STATISTICS, STATISTICAL DATA AND ANALYSIS OF STATISTICAL DATA THROUGH MEASURES OF CENTRAL TENDENCY” from 26,27,29 AUG 2016 at Z.P.H. School, Nagaram, Ranga Reddy District for 10th class students.

Following faculty members of our department took classes .

- Mrs. P. Rajini
- Mr. N Chandan Babu

The Following Student Volunteer took part in this Program

- G Rajashree (B.Sc (MSCs IIIA))
- R Gowtham Kumar (B.Sc (MSCs IIIA))
- V Swathi (B.Sc (MSCs IIIB))
- N Sandhya (B.Sc (MSCs IIIB))

The course covered the topics :

- Introduction to Statistics and Computation of Mean, Median, Mode
- Drawing Ogive Curve
- Computation of Mean, Median, Mode through Ms Excel

The faculty were happy and got a different experience from teaching to school students. The feedback from school students is appreciated. We are thankful to ZPH School Headmaster, Mr. Aravindan Kumar and faculty members for their cooperation and support for the successful completion of the Outreach program. We will try to provide more topics in the forthcoming programs to improve more student understandability.