## P. R. Government College (Autonomous), Kakínada



State Level Faculty Development programme On Project work in Mathematics

> On 27<sup>th</sup> October, 2017

> > Organized by



Department of Mathematics & Statistics

 $\pi$  – Club



### About the college:

Pithapur Rajah's College, Kakinada which ranks among the earliest institutions of English Education in south India was started in 1852 and was raised to the status of a second grade college in 1884. The UGC conferred autonomous status from the academic year 2000-2001.

The college leaves no stone unturned to strengthen the existing infrastructural facilities for teaching, learning, evaluation, research and extension activities to transform this century old institution into a global level academic campus.

#### **About the Department:**

Mathematics department is one of the oldest of this college. In B.Sc, Mathematics stream the department is having various combinations like MPC(TM), MPC (EM), MCPc, MCCs, MPCs, MSCs, MECs, MPE and MSAS. M.Sc. Mathematics course is running from 2014-15. Further NASSCOM & APSSDC has selected the college to start "Data Analytics" – A skill development course from December, 2015.

#### **Objectives of the Programme:**

- To motivate the teachers on projects in Mathematics to be assigned to Final year degree students.
- To bring the awareness in teachers about the contents to be included in Mathematics project.
- To facilitate the Mathematics faculty to interact with the resource persons and other members for getting a clear idea about the projects in Mathematics.

# Chairman : Dr. C. Krishna, Principal Advisory Committee:

Dr. R. David Kumar, Principal, Govt. College (A), Rajamahendravaram.
Dr. K.V. Anandam, Principal, MVN JS & RVR College, Malikipuram
Dr. K.L. Saraswathi, HOD of Mathematics, CHSD St. Theresa's College for Women, Eluru.
Dr. P. Subhashini, Lecturer in charge, Dept. of Mathematics, GDC, Ramachandrapuram.

#### **Organizing Committee:**

Sri T. Vara Prasad, I/C Dept. of Chemistry & Vice Principal Dr. K. Jyothi, I/C Dept. of Physics & ElectronicsDr. K. Hari Rama Prasad, I/C Dept. of HindiDr. K. Subhashini, Lec. In EconomicsSri P.V. Krishna Rao, Lec. In English*Guest Faculty in Mathematics and Statistics Department*  Ms. N. Suneetha Ms. V. Hari Priya Ms. G. Subha Ms. T. Varsh Mr. S. Raj Kumar Mrs. C. Chinnamamba

#### Convener: Dr. V. Anantha Lakshmi,

I/C Dept. of Mathematics & Statistics 9963786386

## **Registration:**

Participants are requested to make spot registration at 9.00 am by paying registration fee 100/-.

Further, the participants are requested to confirm their participation to the mail <u>mathsprgc@gmail.com</u> on or before 24-10-2017.

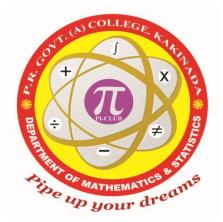
Registration	: 9.00 am to 9.30 am		
Inaugural Function	: 9.30 am to 10.00 am		
Chairman :	Dr. C. Krishna, Principal		
Chief Guest :	Prof. P.V. Arunachalem,		
	Former Vice chancellor of Dravidian		
	University, Kuppam		
<b>Guests of Honor</b> :	Dr. R. David Kumar, Principal,		
	Government College (A), Rajamahendravaram.		
	Dr.A.K.S.Chandrasekhar Rao,		
	Dept. of Mathematics, D.N.R.College (A),		
	Bhimavaram.		
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Session I (10.00 to 11.30 am)			
<b>Resource Person:</b>	Prof. P.V. Arunachalem,		
	Tea Break: 11.30 am to 11.45 am		
Session II (11.45 am to 1.00 pm)			
<b>Resource Person:</b>	Dr. K.V.Anandam, Principal, MVN JS &		
	RVR College, Malikipuram		
	Lunch Break: 1.00 pm to 2.00 pm		
Session III (2.00 to 3.15 pm	)		
<b>Resource Person:</b>	Dr. R. David Kumar		
Session IV (3.15 to 4.30 pm	)		
<b>Resource Person:</b>	Dr. K. Venkata Rao,		
	Lecturer in Mathematics, GDC, Alamuru		
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Valedictory Function : 4.45 pm to 5.15 pm			
Chairman :	Dr. C. Krishna, Principal		
Chief Guest :	Prof. S. Teki, Dean, Academic Affairs,		
	AKNU, Rajamahendravaram		
Guest of Honour :	Prof. B.V.Subba rao, Retired Professor		

### **Programme Scheduled**

## P.R.GOVERNMENT COLLEGE (AUTONOMOUS), KAKINADA



## DEPARTMENT OF MATHEMATICS AND STATISTICS



## REPORT ON FACULTY DEVELOPMENT PROGRAMME ON

## **"PROJECT WORK IN MATHEMATICS"**

27-10-2017

## **REGISTRATION: (9.00 am to 10.00 am)**

The registration was started at 9.00 am. From Srikakulam, Visakhapatnam, East Godavari, West Godavari and Guntur districts 104 members are participated in the programme. Final year students and the staff of the college are participated in the programme.





**INAUGURATION : (10.00 am to 11.15 am)** 

Ms. V. Hari Priya, guest faculty in Mathematics invited the guests on to the dais. The programme is started with prayer by the students and followed the lighting the lamp by resource persons. The incharge principal Dr. K. Jyothi, presided the programme and she has spoken about importance of projects in UG level and appreciated the organisers for initializing this innovative programme. Chief guest of the programme Prof. P.V. Arunachalam, formar vice chancellor of Dravidian University, Kuppam explained the participants that Mathematics has the three valuable qualities of human life "Satyam, Sivam and Sundaram". Dr. A.K.S. Chandrasekhar Rao, HOD of Mathematics, Sri D.N.R.College (A), Bheemavaram shared his personal experiences to the participants about the logical thinking capacity of Mathematics background persons and how they apply that efficiency for solving the problems. Prof. B.V. Subba Rao, retired professor of Mathematics enlightened the participants about the applicability of Boolean Algebra in coding and decoding. Dr.V.Anantha Lakshmi, convener of the seminar presented the objectives and theme of the Programme to the participants. Ms. Y. Padmaja, lecturer in Mathematics, GDC, Pithapuram proposed vote of tanks.



PRAYER



LIGHTING THE LAMP



OPENING REMARKS BY THE INCHARGE PRINCIPAL DR. K. JYOTHI



MESSAGE BY PROF. P.V. ARUNACHALAM, FORMAR VICE CHANCELLOR OF DRAVIDIAN UNIVERSITY, KUPPAM



DR. A.S.K. CHANDRASEKHARA RAO, HEAD OF THE DEPARTMENT OF MATHEMATICS, SRI D.N.R. COLLEGE (A), BHEEMAVARAM



PROF.B.V. SUBBA RAO, RETIRED PROFESSOR IN MATHEMATICS



OBJECTIVES OF THE PROGRAMME BY DR. V. ANANTHA LAKSHMI, LECTURER IN CHARGE, DEPT. OF MATHEMATICS AND STATISTICS & CONVENER



VOTE OF THANKS PROPOSED BY MS. Y. PADMAJA, LECTURER IN MATHEMATICS, GDC, PITHAPURAM

## Session I (11.30 a.m. to 1.00 p.m.)

Dr. K.L. Saraswathi, HOD of Mathematics, St. Theresa's College (A), Eluru introduced the resource person of this session Prof. P.V. Arunachalam. In this session Prof. P.V. Arunachalam has discussed the following points:

- Why Choose a Project?
- Opportunities to do Project Work
- Project Based Learning : PBL
- Prblem Based Learning
- PBL Vs. Problem Based Learing
- List Of Individual or Team Projects



PROF. P.V. ARUNACHALAM, FORMAR VICE CHANCELLOR OF DRAVIDIAN UNIVERSITY, KUPPAM



LUNCH BREAK (1.00 pm to 2.00 pm)





## Session II (2.00 pm to 3.15 pm)

**Sri C. Chitti Babu**, lecturer in Mathematics, GDC, Ramachandrapuram, E.G.Dt. introduced the resource person of this session Dr. K. V. Anandam, Principal, MVN JS & RVR College, Malikipuram, E.G.Dt.

Dr. K.V. Anandam enrich the knowledge of participants on projects in Numerical Analysis.

Some of them are

- Methods of curve fitting and some applications using 'c'.
- Numerical differentiation and integration methods- some applications using 'c'.
- Numerical solutions of Algebraic and Transcendental equations using 'c'.
- a) Solution of system of non-Linear equations using
  - i) Method of Iteration.
  - ii) Newton-Raphson Method.
  - Numerical solution of ordinary differential equations using 'c'.

Smt. K. Parameswari, Lecturer in Mathematics, GDC, Ganapavaram, W.G.Dt. proposed vote of thanks.



DR. K. V. ANANDAM, PRINCIPAL, MVN JS & RVR COLLEGE, MALIKIPURAM, E.G.DT



## Session III (3.15 pm to 4.30 pm)

Ms. Y. Padmaja, Lecturer in Mathematics, GDC, Pithapuram introduced the resource person Dr. K. Venkata Rao, Lecturer in Mathematics, GDC, Alamuru. Dr. K. Venkata Rao has given clarity to the participants about the difference between Research Oriented Project and Study Project. He has given the format for a project. He also enhance the knowledge of participants on Project works in group theory.

Some model project he had given are

- Graphical Approach to Group Theory.
- Interpretation of some group concepts geometrically.
- Cayley grphs to some finite groups.
- Concepts in group theory in the contex of Rubic Cube.
- Categorical study of groups.



DR. K. VENKATA RAO, LECTURER IN MATHEMATICS, GDC, ALAMURU



#### Valedictory of the seminar: (4.30 pm to 5.00 pm)

Ms. T. Varsha Sri, guest faculty in Mathematics invited the guests on to the dais. The In charge principal Dr.K. Jyothi congratulated the faculty members in Department of Mathematics and Statistics for the successful organisation of the programme. Dr. V. Anantha Lakshmi, convener of the programme had given a brief report on the programme. The chief guest Prof. S. Academic Affairs. Adi Kavi Teki. Dean Nannayya University. Rajajmahendravaram appreciated the organisers and participants for making this innovative programme grand success. The guests Prof. B.V. Subba Rao, Dr. K.V. Anandam and Dr. K. Venkata Rao expressed their satisfaction about the organisation of the programme. Sri Bhaskara Rao, Lecturer in Mathematics, GDC, Guntur had given his feedback on the programme. He feel that this programme has provided the topics can be selected for doing project work and the format of a project work. He felt very happy for the hospitality, arrangement of invited talks. Dr. P.Subhashini, Lecturer in Mathematics, GDC, Ramachandrapuram proposed vote of thanks. This programme was concluded with National Anthem.



PROF. S. TEKI, DEAN, ACADEMIC AFFAIRS, ADI KAVI NANNAYYA UNIVERSITY, RAJAMAHENDRAVARAM



**REPORT BY DR. V. ANANTHA LAKSHMI, CONVENER** 



FEEDBACK BY SRI BHASKARA RAO, LECTURER IN MATHEMATICS, GDC, GUNTUR





**CERTIFICATES DISTRIBUTION TO THE PARTICIPANTS** 





FELECITATION TO PROF. S. TEKI, DEAN ACADEMIC AFFAIRS, ADI KAVI NANNAYYA UNIVERSITY, RAJAMAHENDRAVARAM



FELECITATION TO DR. A.K.S. CHANDRASEKHAR RAO, HEAD OF THE DEPARTMENT OF MATHEMATICS, SRI D.N.R. COLLEGE (A), BHEEMAVARAM



FELECITATION TO PROF. B.V. SUBBA RAO, RETIRED PROFESSOR IN MATHEMATICS



FELECITATION TO DR. K.V. ANANDAM, PRINCIPAL, MVN JS & RVR COLLEGE, MALIKIPURAM



FELECITATION TO DR. K. VENKATA RAO, LECTURER IN MATHEMATICS, GDC, ALAMURU



FELECITATION TO DR. K. JYOTHI, INCHARGE PRINCIPAL

The staff members were extended their co operation for successful organisation of the seminar through the following committees.

### 1. ACCOMDATION AND TRANSPORT COMMITTEE

1. Dr. P. Hari Ram Prasad	Lecturer in charge, Dept. of Hindi
2. Sri V. Mallikarjuna Sharma	Lecturer in Mathematics

2. Dr.Naveen Babu Lecturer in Zoology

### 2. HOSPITALITY COMMITTEE

1. Sri P.V.Krishna Rao	Lecturer in English
2. Dr. Ch.Balaji	Lecturer in Commerce
3. Sri S. Raja Kumar	Lecturer in Statistics
4. Mrs. G. Subha	Lecturer in Mathematics
5. Ms. T. Varsha	Lecturer in Mathematics
6. Ms. Sirisha	Lecturer in Chemistry

Three Students

### 3. STAGE ARRANGEMENT COMMETTEE

1. Sri UVBK Krishna Prasad	Lecturer in Physics
2. Dr. J. Panduranga Rao	Lecturer in charge, Dept. of Commerce
3. Ms. N.Suneetha	Lecturer in Mathematics
4. K.V.V.S. Murthy	Mechanic

Three students

### **4. REGISTRATION COMMITTEE**

1. Dr. K. Subhashini	Lecturer in Economics
2. Smt. K.N.B. Kumari	Lecturer in Commerce
3. Smt. C. Chinnamamba	Lecturer in Statistics

Four students

### 5. DISCIPLINE COMMITTEE

1.	Sri K. Ammanna Chowdary	Lecturer in Physical Education
2.	Sri R.V.Swami	Lecturer in Physical Education

3. Sri P.V.V.Satyanarayana Lecturer in charge, Dept. of Politics

## 6. CERTIFICATES PREPARATION AND ISSUE COMMITTEE

1. Dr. P. Hari Ram Prasad	Lecturer in charge, Dept. of Hindi
2. Sri B.Ali Baba	Lecturer in charge, Dept. of Zoology
3. Sri D. Rama Rao	Lecturer in Chemistry
4. Ms. V. Hari Priya	Lecturer in Mathematics
5. Sri T. Venkateswara Rao	Lecturer in Zoology