



DEPARTMENT OF MATHEMATICS
SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA
(SCSVMV)

(University u/s 3 of UGC Act 1956) (Accredited with "A" Grade by NAAC)
Enathur, Kanchipuram-631561.

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GANITH VAARTHA

Issue - VI

July- December 2019

DEPARTMENT

The department of Mathematics established in 1994, took the role of supporting all B.E/B.Tech, M.C.A and M.B.A courses. Presently, the department offers B.Sc., M.Sc., and Research Degrees (M.Phil. / Ph.D) programmes in Mathematics.

The department is actively engaged in research in the frontier areas of Mathematics and its applications. Current areas of research of the department includes Algebra, Graph Theory, Queueing Theory, and Operations Research. Interdisciplinary research is also encouraged.

So far more than two Ph.D degrees have been awarded and more than 5 scholars are pursuing research under the department. More than 157 research papers have been published in the last five years.

GREETINGS FROM DEPARTMENT CHAIR

It is a great pleasure to extend my heartfelt greetings to the readers of the eighth edition of Ganitha Vaartha, departmental newsletter. I sincerely hope you will enjoy reading about the accomplishments of our faculty. The Newsletter will be published two times a year. This issue contains the activities about our department from July to December, 2019. The Department is regularly organizing workshops, seminars, quality enrichment programs, research colloquiums etc., to be familiar in latest trends in mathematics and Career guidance programmes and skill development courses are introduced for our students to face the competitive world. Also our students are encouraged to actively participate in various competitions organized by other departments and to present papers in conferences and seminar. |



Dr. K. Srinivasa Rao

FACULTY TEAM

Sl.No.	Name	Designation	Area of Specialization
1.	Dr.K.SrinivasaRao	Professor & Head	Algebra
2.	Dr.N.Saradha	Assistant Professor	Graph Theory
3.	Dr. R.Malathi	Assistant Professor	Artificial int. &Mult. logic.
4.	Dr. D.Vijayalakshmi	Assistant Professor	Graph Theory
5.	Dr. E.Geetha	Assistant Professor	Fluid Dynamics
6.	Dr. R.Mageswari	Assistant Professor	Graph Theory
7.	Dr. P.Nagarajan	Assistant Professor	Queuing Theory
8.	Dr. P.Balaji	Assistant Professor	Petri Nets
9.	Dr. S.Vijayarathi	Assistant Professor	Algebra
10.	Dr.K.Pramila	Assistant Professor	Fuzzy Set Theory
11.	Dr.J.SengamalaSelvi	Assistant Professor	Applied Mathematics using ICT
12.	Dr.V.K.Radhakrishnan	Assistant Professor	Operations Research
13.	Dr. A.Dhanalakshmi	Assistant Professor	Graph Theory
14.	Dr.K.Bharathi	Assistant Professor	Operations Research
15.	Dr.T.N.Kavitha	Assistant Professor	Algebra
16.	Dr. A.Gayathri	Assistant Professor	Applied Mathematics
17.	Mrs.A.Shakila	Teaching Assistant	Algebra
18.	Mrs.B.Amudha	Teaching Assistant	Graph Theory
19.	Mr.K.Saravanan	Teaching Assistant	Graph Theory
20.	Mrs.P.Revathi	Teaching Assistant	Topology
21.	Mrs.G.Subhasri	Teaching Assistant	Graph Theory
22.	Mr. A. Balamurugan	Teaching Assistant	Applied Mathematics
23.	Mrs.N.Meenakshi	Teaching Assistant	Algebra

PROGRAMS ORGANIZED BY DEPARTMENT OF MATHEMATICS

Program 1: Workshop on Basics of Vedic Mathematics

With the benign blessings of Aachariya's of Kanchi Kamakoti petam, department of Mathematics has organized a workshop on Basics of Vedic Mathematics jointly with Akila Bharadha Vidya Bharathi Shiksha Samatan, New Delhi from 3rd September to 5th September 2019. First day of the workshop started with an inaugural function by 1.00 p.m. Inaugural function started with a prayer song by Kamakshi, II B.Sc Mathematics. Dr.K.SrinivasaRao, Professor and Head, Department of Mathematics welcomed the gathering. Respected Registrar Prof.Dr.G.Srinivasu, delivered presidential address. Chief guest of the inaugural function, Sri.T.Chakaravathy, President Vidya Bharathi, Dakshin Sekhtra Vice President, Vivekananda Educational Society gave his inaugural address and explained clearly the importance of vedic mathematics and motivate the students to study vedic mathematics.

Respected professor Dr.T.Venugopal, Controller of Examinations felicitated the gathering and he pointed out department of mathematics brought right persons as resource persons and he conveyed his heartiest wishes to the Department of Mathematics for organizing workshop on vedic mathematics. Dr.R.Mageswari, Assistant Professor of Mathematics proposed vote of thanks.

After the inaugural function, the first session of the workshop started with multiplication by the resource persons Mr.M.Rajendran and Mrs. R.Lakshmi. Session 1 followed by Mr.M.Rajendran and Mrs.S.P.Arasi on multiplication with additional examples.

Session 1 of Day 2 started with the topic Katapayadhi Sankhya and Vedic Ganitha Sutras by Mrs.Vimala Sanjeevi. Session 2 of Day 2 follows session 1 immediately on Squaring by Mr.M.Rajendran and Mrs.S.P.Arasi.

Session 1 of Day 3 started with division by Mrs.Divya Gopinath and Mrs.S.P.Arasi. Session 2 of Day 3 followed the session 1 on Square root, Cube root by Mrs.Divya Gopinath.

All the student participants are from faculty of science. All the sessions are highly interactive, and went well. Finally, the workshop came to an end with the Valedictory function. Respected Prof.Dr.G.Ramakrishna Pisipaty, Dean, Sanskrit and Indian Culture, being the chief guest, delivered valedictory address. Our special invitee Sri.R.Ravindran, Ganitha Vigna Pramuk, Vidya Bharathi gave a special lecture to the student participants. Prof.Dr.G.Ramakrishna Pisipaty, Dean, Sanskrit and Indian Culture, gave certificates to the participants and resource persons.

Mr.Rajendran.M, Veda Ganitha Pramuk, Akila Bharatha Vidya Bharathi coordinated the Workshop on Basics of Vedic Mathematics organized by the Department of Mathematics jointly with Akila Bharatha Vidya Bharathi Shiksha Samatan, NewDelhi from 3rd September to 5th September 2019 at SCSVMV, Enathur, Kanchipuram and make it as a grand success.



Program 2: Faculty Development Program on Computational Tools: Megastat and Solver(Ms-Excel Add-Ins)

Faculty Development Program on Computational Tools : Megastat and Solver (MS-Excel Add-ins) was held during December 19-20, 2019.

This programme is mainly organised for creating interest among the staff members in the software Megastat and Solver (MS-Excel Add-ins). Department of Mathematics and other department of SCSVMV, about 40 staff members participated in the programme and benefitted from the programme. MegaStat and Solver (MS-Excel Add-ins) is an excellent tool for learning statistics and Operations Research.

Resource Persons:

Dr.D.Vijayalakshmi, Asst. Prof. of Mathematics, SCSVMV

Dr.A.Dhanalakshmi, Asst. Prof. of Mathematics, SCSVMV

Dr.A.Gayathri, Asst.Prof. of Mathematics, SCSVMV

Mr.K.Saravanan, Teaching Assistant of Mathematics, SCSVMV

Topics Covered :

Linear and Non-Linear Programming	Transportation Problem	Assignment Problem
Network Scheduling	Descriptive Statistics	Frequency Distribution
Probability	Hypothesis test	Analysis of Variance
Correlation/Regression	Chi-Square test	Non-Parametric test

On December 20th during the valedictory function, Prof. Dr K. Srinivasa Rao, Convener of the Programme, Professor and Head, Department of Mathematics distributed the certificates to the participants.

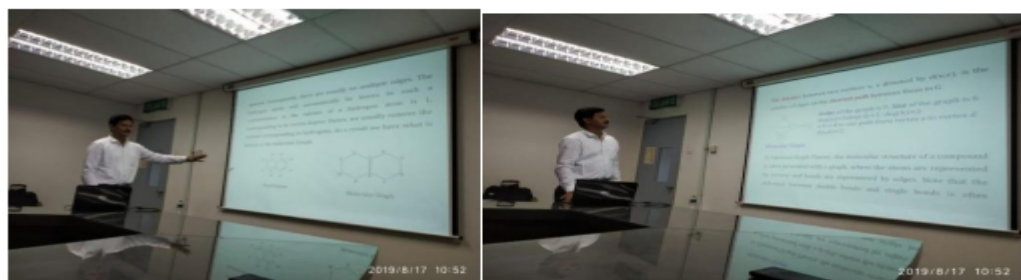


OUTREACH PROGRAMS

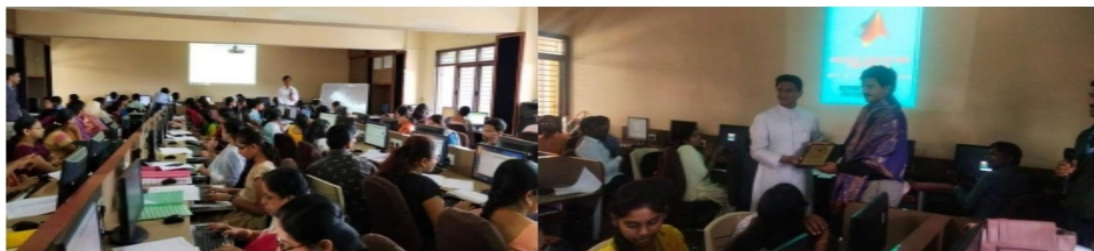
1. **Dr. K. Srinivasa Rao** acted as a Resource Person and delivered invited lecture on **MATLAB and Its Programming in Mathematics** Association Meeting held on 09-08-2019 and 10-08-2019, at the department of Mathematics, PC PTMGR Govt. Arts & Science College, Puthur, Sirkali, Tamilnadu.
2. **Dr P.Nagarajan**, Acted as Resource person in the workshop on **MATLAB and its programming**, Organized ;by Department of Mathematics, P.S. P.T M.G.R Government Arts and Science College, Sirkalai (Puthur)-609108. August 10-11,2019. Title of Talk: Plotting 2-D and Solution to ODE using MATLAB.



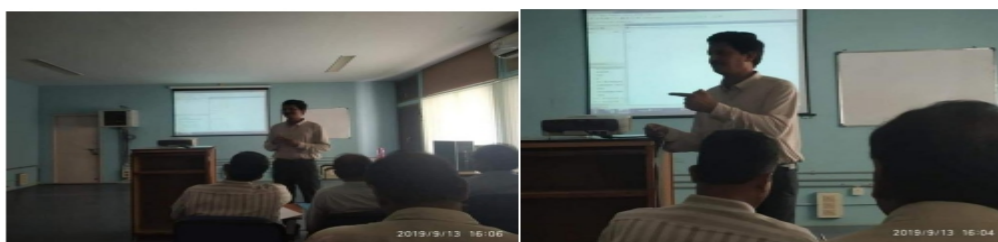
3. **Dr. K. Srinivasa Rao** delivered an Invited Talk in the **International Conference on Mathematical Engineering Applications for Sustainable Development -2019** at University of Malaya, Kuala Lumpur, Malaysia, on August 16-18, 2019.



4. **Dr. K. Srinivasa Rao** acted as a Resource Person in **National Workshop on Numerical Computations Using MATLAB**, organized by the Department of Mathematics, Little Flower Degree College, Uppal, Hyderabad, during 6-7 September, 2019



5. **Dr. K. Srinivasa Rao** delivered Lecture on 13-09-2019 as Resource Person in the **Refresher Course in Mathematics** organized at UGC-Human Resource Development Centre (HRDC), Sri Venkateswara University, Tirupati during the period from 09-09-2019 to 21-09-2019.



6. **Dr. K. Srinivasa Rao** delivered Lecture on 17-09-2019 as Resource Person in the **Refresher Course in Mathematics** organized at UGC-Human Resource Development Centre (HRDC), Sri Venkateswara University, Tirupati during the period from 09-09-2019 to 21-09-2019.



7. **Dr. K. Srinivasa Rao** acted as a Resource Person in **National Workshop on MATLAB in Applied Sciences**, organized by the Department of Mathematics & Department of Computer Science, MVN JS & RVR College of Arts & Science, Malikipuram, East Godavari District, A.P on 19th September, 2019.



8. **Dr. K. Srinivasa Rao** delivered an Invited Talk in the **National Seminar on Recent Trends in Mathematics**, Organized by the department of Mathematics (U.G & P.G), Sri Y.N.College, Narasapur, West Godavari District, A.P on 21st September, 2019.



9. **Dr. K. Srinivasa Rao** delivered an Endowment Lecture at XXVIII Congress of Andhra Pradesh and Telangana States Mathematical Sciences & **National Conference on Recent Trends in Pure and Applied Mathematics**, organized by the Department of Mathematics, Rashtriya Sanskrit Vidyapeetha, Tirupati during 6-8 December, 2019.

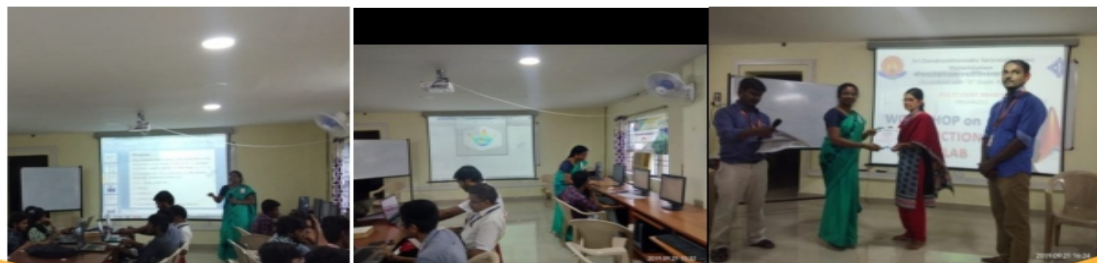


10. **Dr. K. Srinivasa Rao** acted as a Resource Person in **National Workshop on MATLAB in Applied Sciences**, organized by the Department of Mathematics, Government Arts and Science College, Hosur, Tamilnadu, during 17-18 December, 2019.

11. **Dr. K. Srinivasa Rao** acted as a Resource Person in A **Two Day National Workshop on MATLAB, Megastat, & Solver**, organized by the Department of Mathematics and Statistics, Avanthi Degree & P.G College, Hyderabad, during 27-28 December, 2019.

12. **Dr N Saradha**, Acted as chair person for paper presentation in **National Conference on Advances in Science, Humanities and Technology** at Savitha School of Engineering, Chennai held on 11-12 th July 2019.

13. **Dr R.Malathi**, Asst. Prof. of Mathematics, acted as a **Resource Persons** in the one day **“Workshop on Introduction of Matlab”**, organized by the Department of Electrical and Electronics Engineering, SCSVMV, Kanchipuram on 21.09.2019.



14. **Dr D Vijayalakshmi**, Acted as Resource Person in **‘National level Workshop on Open Source Software in Math ’** organized by the Department of Mathematics, **Soka Ikeda College of Art and Science for Women**, Sethu Bhaskara Nagar, Madhanangkuppam, Chennai - 600009 On 13-09-2019.

15. **Dr J Sengamalaselvi**, Acted as Resource Person in '**National level Workshop on Open Source Software in Math**' organized by the Department of Mathematics, **Soka Ikeda College of Art and Science for Women**, Sethu Bhaskara Nagar, Madhanangkuppam, Chennai - 600009 On 13-09-2019.

16. **Dr K Bharathi**, Acted as Resource Person in '**Natniol level Workshop on Open Sorce Software in Math**' organized by the Department of Mathematics, **Soka Ikeda College of Art and Science for Women**, Sethu Bhaskara Nagar, Madhanangkuppam, Chennai - 600009 on 13-09-2019.



17. **Dr P.Nagarajan**, Acted as Resource person in the Invited lecture on the title "**Application of Mathematics**" PG and Research Department of mathematics, Government art college, Chidambaram. September 30,2019



18. **Dr.D.Vijayalakshmi**, Asst. Prof. of Mathematics Acted as resource person in the '**National Workshop on Solving LPP using Solver**', organized by the Department of Mathematics, SCSVMV, during September 3-4, 2019.

19. **Dr.A.Dhanalakshmi**, Asst. Prof. of Mathematics Acted as resource person in the '**National Workshop on Solving LPP using Solver**', organized by the Department of Mathematics, SCSVMV, during September 3-4, 2019.

20. **Dr.A.Gayathri**, Asst. Prof. of Mathematics Acted as resource person in the '**National Workshop on Solving LPP using Solver**', organized by the Department of Mathematics, SCSVMV, during September 3-4, 2019.

21. **Mr.K.Saravanan**, Teaching Assistant of Mathematics Acted as resource person in the '**National Workshop on Solving LPP using Solver**', organized by the Department of Mathematics, SCSVMV, during September 3-4, 2019.

JOURNAL PUBLICATIONS

1. **K.Srinivasa Rao**, ‘**Some Selected Topological Indices of Nano-structures of Type King's graph and first order hierarchy honeycomb**’, Madhya Bharti Journal of Science, 2019, vol.61(2), page:01-05
2. **Vijayalakshmi. D**, Divya. K, **Similarity/Dissimilarity Study of Protein Using DA matrix of undirected graph**. A journal of Composition Theory, Volume XII Issue IX September 2019, ISSN:0731-6755, 280-285.
3. **E.Geetha**, R.Nirmala, “**The Dufour effect of Cu – Water nanofluid flow on free convective heat and mass transfer of an infinite isothermal vertical plate in the presence of radiation and chemical reaction**”, A journal of Composition theory, September 2019, ISSN 0731-6755 Vol. XII issue IX pp:124 – 135.
4. **Mageswari.R**, N.Meenakshi, **Identifying similar / dissimilar protein structures from contact map of proteins through cosine similarity**, A journal of Composition theory, September 2019, XII(IX), 56 – 61.
5. **J.Sengamalaselvi**, T.Indhumathi “**Fuzzy parametrized fuzzy soft set theory and its applications**” A journal of Composition Theory, (XII) ,Issue IX(If-5.7),Sep-2019 (UGC Journal)
6. **T.N.Kavitha** , ‘**An Analysis of Variance of the Sanitation Performance of the Universal data**’ in A journal of Composition Theory,(UGC, A PEER REVIEWED/REFERRED MULTIDISCIPLINARYJOURNAL),Impact Factor : 5.7 Volume XII Issue IX September 2019, ISSN:0731-6755, 268-273.
7. **S.Ramya**, **T.N.Kavitha** , ‘**An Equivalent Near Idempotent Semigroup. A journal of Composition Theory**’,(UGC, A PEER REVIEWED/REFERRED MULTIDISCIPLINARYJOURNAL), Impact Factor : 5.7 Volume XII Issue IX September 2019, ISSN:0731-6755, 76 -83.
8. **Kalyanaraman .R¹** and **Nagarajan P²**, "**Bulk arrival fixed batch service queue with unreliable server, Bernoulli vacation and with delay time**" Recent Trends in Pure and Applied Mathematics, AIP Conference proceedings 2177, 020034-1 to 020034-12(2019), 04 December, 2019. Published by AIP Publishing 978-0-7354-1924-7 .
9. **Gayathri.A**, Venugopal.T & Venkatramanan.K, “**Redlich-Kister Coefficients on the Analysis of Physico-Chemical Characteristics of Functional Polymers**”, Science direct, Materials Today: Proceedings, 17 (2019), 2083-2087.

PAPER PRESENTATIONS BY THE FACULTY OF MATHEMATICS

1. **Dr. E.Geetha**, Presented a paper “The Dufour effect of Cu – Water nanofluid flow on free convective heat and mass transfer of an infinite isothermal vertical plate in the presence of radiation and chemical reaction“ in the **International conference on Relevance of Mathematics in Real Life Scenario** on 9th September 2019, organized by Vidyasagar Women’s College at Chengalpattu.
2. **Dr P Balaji**, “Analysis of Marked graphs with strongly independent and weakly independent places using sign incidence matrix and their conversion into Digraph”, presented in **National Conference on Advances in Science** , Humanities and Technology organised by Department of Science and Humanities, Saveetha School of Engineering , SIMATS, Chennai, on 11.07.2019 & 12.07.2019.
3. **Dr T.N.Kavitha**, “An Analysis of Variance of the Sanitation Performance of the Universal data,presented in **International conference on Relevance of Mathematics in Real life Scenario**, organised by Department of Mathematics Vidhyasagar Women’s College, Chengalpattu on 09.09.2019 at Chengalpattu.
4. **Dr T.N.Kavitha**, An Equivalent Near Idempotent Semigroup,presented in **International conference on Relevance of Mathematics in Real life Scenario**, organised by Department of Mathematics Vidhyasagar Women’s College, Chengalpattu on 09.09.2019 at Chengalpattu
5. **Dr T.N.Kavitha**, A statistical Comparison of the Hygiene Behaviour for 152 Countries using R, presented in **National Conference on Advances in Science** , Humanities and Technology organised by Department of Science and Humanities, Saveetha School of Engineering , SIMATS, Chennai, on 11.07.2019 & 12.07.2019.
6. **Dr T.N.Kavitha**, Bootstrap Hypothesis Test for Test the effect of memory Test training (Using our traditional methods) using R, presented in **National Conference on Recent Trends in Pure and applied Mathematics** organized by APTSAM, S. V. University, Thiruppathi on 6.12.2019 to 8.12.2019.
7. **Dr Vijayalakshmi.D**, Path Kernel of Protein Graphs and Similarity of Proteins presented in **National Conference on Advances in Science** , Humanities and Technology organised by Department of Science and Humanities, Saveetha School of Engineering , SIMATS, Chennai, on 11.07.2019 & 12.07.2019.
8. **Dr Vijayalakshmi.D**, Similarity/Dissimilarity Study of Protein Using DA matrix of undirected graph presented in **International conference on Relevance of Mathematics in Real life Scenario**, organised by Department of Mathematics Vidhya sagar Women’s College, Chengalpattu on 09.09.2019 at Chengalpattu.

9. **Dr Mageswari.R,** ” Identifying similar / dissimilar protein structures from contact map of proteins through cosine similarity” presented in the **International Conference on Relevance of Mathematics in Real Life Scenario(RMRS)**, 9th September 2019, organized by the Departments of Mathematics and Physics with CA, Vidhya Sagar Women’s College, Chengalpattu.

10. **Dr.J.Sengamalaselvi**, Presented a paper entitled “Fuzzy Parametrized Fuzzy soft set theory and its applications”, in **International Conference on Relevance of Mathematics in Real Life Scenario**, Vidhya’s Sagar Women’s College Chengalpattu on 13th September 2019.

11. **Dr V K Radhakrishnan**, “Distribution of Bunch of Bananas with the stem through Monte- Carlo Simulation Technique”, presented in **National Conference on Advances in Science** , Humanities and Technology organised by Department of Science and Humanities, Saveetha School of Engineering , SIMATS, Chennai, on 11.07.2019 & 12.07.2019.

12. **Dr Vijayalakshmi. D**, Distance Adjacency Matrix with Shortest Path and Protein Similarity/Dissimilarity, presented **XXVIII Congress Of APTSMS & National Conference On Recent Trends In Pure And Applied Mathematics** 6 - 8 December , 2019 Organized by Department of Mathematics, Rashtriya Sanskrit Vidya Peetha Tirupati - Andhra Pradesh.

AWARDS RECEIVED BY THE FACULTY OF MATHEMATICS

1. **Dr N Saradha**, Asst.prof of Mathematics has received **Global Teacher Award 2019**. AKS worldwide PVT.LTD , New Delhi on 15th September 2019.



2. **Dr. R Malathi**, Asst.prof of Mathematics has received **Global Teacher Award 2019** from AKS worldwide PVT.LTD on 15.09.2019, New Delhi.



3. **Dr.J.Sengamalaselvi** , Asst.prof of Mathematics has received “**Best Teacher award**” on the event of Teacher’s day Celebrations , SCSVMV on 05.09.2019 for the academic year 2017-18.

4. **Dr. R Malathi**, Asst.prof of Mathematics has received **Best Teacher Award** on the event of Teacher's day Celebrations SCSVMV on 05.09.2019, for the academic year 2018-19.



5. **Dr.J.Sengamalaselvi** , Asst.prof of Mathematics has received “**Best Teacher award (2019-2020)**” on the event of Teacher's day Celebrations , ESN Research group and publications ,Chennai on 28.09.2019.



6. **Dr.A.Gayathri**, Asst.prof of Mathematics has received “**International Best Thesis Indo-Thai Academic Award**”(2019).

7. **Dr.A.Gayathri**, Asst. prof of Mathematics has received “**International Woman Researcher Award**”, VDGOD Professional Association (2019).

DETAILS OF Ph.D VIVA COMPLETED DURING JULY 2019- DEC 2019

1. **A.Kanchana** (Mathematics) RM16MA021 completed viva in the topic “Framing, Designing and Minimizing the circuit using Boolean Function in different ways”, under the guidance of **Prof.Dr.K.SrinivasaRao** on 08.07.2019 .

2. **G.Vijayalakshmi** (RM16MA31) (Mathematics) completed viva in the topic “Numerical Study of MHD Boundary Layer Flow and Heat and Mass Transfer Problems – A Keller Box Approach”, under the guidance of **Prof. Dr.L.AnandBabu**, on 30.07.2019.

ONLINE COURSE COMPLETED BY THE FACULTY OF MATHEMATICS

Dr R Malathi has completed NPTEL-AICTE, Faculty Development Programme (Funded by the Ministry of HRD, Govt. of India) in the topic Higher Engineering Mathematics with 76% (July-Oct, 2019) 12 weeks.

PLACEMENT ACTIVITY- SELECTED STUDENT LIST

The following students were selected in Infosys Limited and joined duty at 17th Nov 2020.

G.Devadharshini



B.Hanprasath



D Nirmal Kumar



M Monisha



S Vidyamala



The following students were selected in CTS

M Anusuya



D Divakar



SUMMARY OF ACADEMIC ACHIEVEMENTS DURING JULY- DECEMBER 2019

Number of Publications	No.of seminars/workshops etc.,organized by the department	No.of paper presented in national/international conferences	No.of seminars/workshops etc., attended	No.of outreach activities	Awards received
9	2	12	32	21	7

Any criticism, opinions and encouragement will be highly appreciated by the editors of the Newsletter