



DEPARTMENT OF MATHEMATICS

SRI CHANDRASEKHARENDRASARASWATHI VISWA MAHAVIDYALAYA (SCSVMV)

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

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GANITHA VAARTHA

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ABOUT THE DEPARTMENT

The Department of Mathematics, established in 1994, aims to impart state of the art knowledge, practical advancements in achieving excellence in both academic and research perspectives. The department fosters excellence in B.Sc., M.Sc., and research programs (M.Phil. and Ph.D) and acts as a supporting department to all courses B.Sc.(CS), B.C.A. The department has qualified and goal-oriented 25 faculty members who are actively involved in diverse areas such as Algebra, Graph Theory, Queuing Theory and Interdisciplinary research also. The department is strengthened by a faculty team of 25 members among which 17 are doctorates. So far 24 Ph.D degrees have been awarded and more than four scholars are pursuing research under the department. The focus on research results in the research papers published in the last five years.

GREETINGS FROM THE DEPARTMENT CHAIR

It is a great pleasure to extend my heartfelt greetings to the readers of the Fourth edition of Ganitha Vaartha, department news letter. I sincerely hope that you will enjoy reading about the accomplishments of our faculty. The Newsletter is published twice in a year. This issue contains the activities about our department from July to December, 2018. I am very happy to share that two of our staff members have defended their thesis during this period. The department is regularly organizing workshops, seminars, quality enrichment programs, research colloquiums etc., to be familiar in the latest trends in Mathematics and career guidance programs and skill development courses are introduced for our students to face the competitive world. In the history of our department first time we got sponsorship form CSIR to organize ICPAM II. The department has organized Annual Conference on History and Development of Mathematics, International Seminar on Astronomical Mathematics, 2nd International Conference on Pure and Applied Mathematics and International Workshop on Graph Theory and Its Applications in this period. Also, our students are encouraged to actively participate in various competitions organized by other departments and to present papers in conferences and seminars.



Dr. K. Srinivasa Rao

FACULTY TEAM

Sl.No.	Name	Designation	Area of Specialization
1.	Prof.Dr.T.Venugopal	Professor	Functional Analysis
2.	Prof.Dr.K.SrinivasaRao	Professor & Head	Algebra
3.	Dr.N.Saradha	Assistant Professor	Graph Theory
4.	Dr. R.Malathi	Assistant Professor	Multi Valued Logic
5.	Dr. D.Vijayalakshmi	Assistant Professor	Graph Theory
6.	Dr. E.Geetha	Assistant Professor	Fluid Dynamics
7.	Dr. R.Mageswari	Assistant Professor	Graph Theory
8.	Dr. P.Nagarajan	Assistant Professor	Queuing Theory
9.	Dr. P.Balaji	Assistant Professor	Petri Nets
10.	Dr. S.Vijayabarathi	Assistant Professor	Algebra
11.	Dr.K.Pramila	Assistant Professor	Fuzzy Set Theory
12.	Dr.J.SengamalaSelvi	Assistant Professor	Applied Mathematics using ICT
13.	Dr.V.K.Radhakrishnan	Assistant Professor	Operations Research
14.	Dr. A.Dhanalakshmi	Assistant Professor	Graph Theory
15.	Dr.K.Bharathi	Assistant Professor	Operations Research
16.	Dr.T.N.Kavitha	Assistant Professor	Algebra
17.	Dr. A.Gayathri	Assistant Professor	Mathematical Physics
18.	Mrs.B. Amudha	Teaching Assistant	Real Analysis
19.	Mr. K.Saravanan	Teaching Assistant	Graph Theory
20.	Ms. R. Kalaiarasi	Teaching Assistant	Graph Theory
21.	Mrs .A. Shakila	Teaching Assistant	Graph Theory
22.	Mrs.G.Subasri	Teaching Assistant	Operations Research
23.	Mrs.P.Revathi	Teaching Assistant	Algebra
24.	Mr.A.Balamurugan	Teaching Assistant	Graph Theory
25.	Mrs.M.S.Tamilselvi	Teaching Assistant	Graph Theory

PROGRAMS ORGANIZED BY THE DEPARTMENT

ANNUAL CONFERENCE ON HISTORY AND DEVELOPMENT OF MATHEMATICS – 2018

The Department of Mathematics and Sanskrit Academy, Madras has jointly organized Annual conference on History and development of Mathematics – 2018 during 27.11.2018 to 29.11.2018. The first day of CHDM-2018 was started with inaugural function which comprised of invocation & Tamizh thai vazhthu, lighting of kuthuvilakku and welcome address by Prof.Dr.Sita Sundar Ram, Secretary, Samskrita Academy, Madras. It was followed by the presidential address of Prof. Dr. V.S. Vishnu Potty, Vice Chancellor, SCSVMV. VIP's on the dais Prof.Dr.K.Srinivasan, president, Samskrita Academy, Madras, Dr.S.G.Dani, Indian Society for History of Mathematics and Prof.Dr. Srinivasu, Registrar, SCSVMV have felicitated for the success of the conference. The inaugural function ended with the vote of thanks given by Prof.Dr.K.Srinivasa Rao, Head, Department of Mathematics, SCSVMV. The presentation session started after this inaugural, the delegates presented their work in two parallel sessions. The second day program comprised of presentations of the delegates.

The last day of CHDM-2018 was started with the valedictory function. Prof.Dr.K.Srinivasan, President, Samskrita Academy, Madras welcomed the gathering. Prof.Dr.S.Balaji, Dean, Faculty of Science, SCSVMV and Prof.Dr. T. Venugopal, COE, SCSVMV and Mr. Ragavan, the Managing Trustee, Sankar mutt, Kanchipuram accompanied and made the function a grand success. It was followed by the valedictory address of the Chief Guest Dr. M.S. Sriram, President, KVSRRF, Finally the program came to an end with the vote of thanks by Prof.Dr.Sita Sundar Ram, Secretary, Samskrita Academy, Madras.

Organizing secretaries Dr. P. Nagarajan, Assistant Professor of Mathematics and Dr. T.N. Kavitha, Assistant Professor of Mathematics have put their full effort to make the programme a flourishing one.

INTERNATIONAL SEMINAR ON ASTRONOMICAL MATHEMATICS



The Department of Mathematics organized “International Seminar on Astronomical Mathematics” on 30th November, 2018. Prof.Dr.Johannes Thomann, Department of Islamic Studies, University of Zurich, Switzerland delivered the key note address on “Pre-Modern Use of Trigonometry in Astronomy”. Faculty and students from other departments of our university, UG and PG students of our department were participated in the seminar. Dr.A.Gayathri, organizing secretary made all arrangements.

2nd INTERNATIONAL CONFERENCE ON PURE AND APPLIED MATHEMATICS

The Department of Mathematics organised 2nd International Conference on Pure and Applied Mathematics (ICPAM-II, 2018) on 17th and 19th December 2018. 147 participants registered for the event. 2nd ICPAM – December,2018 began with the welcome address by Prof. Dr. K. Srinivasa Rao and a briefing by Dr.R.Mageswari on the objectives of the conference. The presidential address was delivered by the Vice Chancellor Dr.V.S. Vishnu



Potty, which was followed by the Inaugural address by Dr. G. Srinivasu, the Registrar of the University. Sri.S.Raghavan, Managing Trustee, Kanchi Komakotti Petam Charitable Trust, Prof Dr. T. Venugopal (COE) and Prof.Dr.S.Balaji (Dean, Science) felicitated the gathering. The inaugural session ended with the vote of thanks by Dr. K.Pramila

On 17.12.2018, the first day of the conference, the academic session consisted of inspiring lectures by

Prof. Prof.Dhandapani Kannan, University of Georgia, USA

Prof. Prof.Dr.Obata Nobuaki, Tohoku University, Japan.

Prof. Dr. Dr.Paola Tardelli, University of L'Aquila, Italy.

Prof..Dr.R.D.Nobel, Vrije Universiteit, Amsterdam, Netherlands

On 18.12.2018, the second day of the conference, the academic session consisted of lectures by

Prof.Dr.Aghalaya S.Vatsala, University of Louisiana, Louisiana, USA

Prof.Dr.S.Sreenadh, Sri Venkateswara University, Tirupathi, India

Prof.Dr.N.Anbazhagan, Alagappa University, Karaikudi, India

Prof.Dr.Etsuo Segawa, Tohoku University, Japan

Prof.Dr.Kailash Patidar, University of Western Cape, Republic of South Africa

On 19.12.2018, the third day of the conference, the academic session consisted of lectures by

Prof.Dr.Lakatos Laszlo, Eotvos Lorand University, Hungary.

Prof.Dr.Arindama Singh, IIT, Chennai, India

Prof.Dr.S.Udayabaskaran, VelTech, Chennai, India.

Sri.G.Ramachandran, Chief Administrative Officer, SCSVMV delivered the valedictory address and distributed certificates to the participants. Dr. K. Pramila presented the Conference report and Dr. R. Mageswari proposed the vote of thanks.

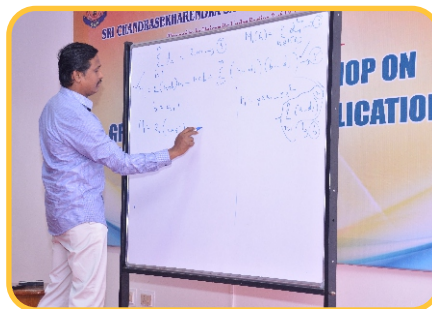


INTERNATIONAL WORKSHOP ON GRAPH THEORY AND ITS APPLICATIONS

The department of mathematics organized International conference on Graph Theory and Its Applications on 20-21, December 2018. The fourth issue of department Newsletter “Ganith Vaartha” was released by our honorable Registrar Prof.G.Srinivasu in the inaugural function and he delivered a Presidential address. Prof.V.Swaminathan, Saraswathi Narayanan College, Madurai, started the workshop under the topic Resolvability in Graphs. The second session was the lecture on Restrictions on Complement of Dominating Sets delivered by Prof.Y.B.Venkatakrishnan, Sastra Deemed to be University, Thanjavur.



Prof.R.Sundareswaran, SSN College of Engineering, Chennai delivered a lecture on the topic Embedding of Fuzzy Graphs on Topological Surfaces. The last session in the first day was by Prof.Suresh Elumalai, University of Haifa, Israel on the topic Extremal Graphs on Certain Vertex Based Topological Indices for c-Cyclic Graphs.



The second day program was started by Prof.Selvaraj Balachandran, University of Free State South Africa under the topic On The Extremal Zagreb Indices of Some Classes of Graphs followed by Prof.Suresh Elumalai, University of Haifa, Israel on the topic Extremal Graphs on Certain Vertex Based Topological Indices for c-Cyclic Graphs and he explained about the new software Graph Tea. Again, Prof.Selvaraj Balachandran, University of Free State, South Africa continued the session on the topic On The Extremal Zagreb Indices of Some Classes of Graphs. 65 students and Staff members from various Institutions were benefited. Dr.A.Saradha and Dr.S.Vijayabharathi organizing secretaries of the workshop made all necessary arrangements and make it as a grand success.

OUTREACH PROGRAMMES

1. Dr.K.Srinivasa Rao has delivered an invited talk in the International Conference on Advances in Pure & Applied Mathematics-2018 on the topic “Wiener-Type Topological Indices” at School of Mathematics, Madurai Kamaraj University, Madurai during 06-08 September,2018.
2. Dr.K.Srinivasa Rao acted as Resource Person in the Workshop on MATLAB, organized by the Department of Civil Engineering & Structural Engineering, SCSVMV during 29-30 August, 2018.

- Dr. J. Sengamalaselvi, Asst. Prof. of Mathematics acted as a Chair person in the National workshop on open source Mathematics software and its applications organized by the Department of Mathematics, St. Peter's Institute of Higher Education and Research, Chennai on 09.11.2018. Students were provided with the Handbook on Geogebra to get clear idea about Geogebra. Mathematics students and faculty of other colleges were participated in this workshop.



- Dr. T.N. Kavitha, Asst. Prof. of Mathematics acted as a Chair person in the National workshop on open source Mathematics software and its applications organized by the Department of Mathematics, St. Peter's Institute of Higher Education and Research, Chennai on 09.11.2018. Students were provided with the Handbook on 'R' Software for better understanding in 'R'. Mathematics students and faculty of other colleges were participated and benefited.



- Dr. A. Dhanalakshmi, Asst. Prof. of Mathematics acted as a Chair person in the National workshop on open source Mathematics software and its applications organized by the Department of Mathematics, St. Peter's Institute of Higher Education and Research, Chennai on 09.11.2018. Students were provided with the Handbook on MegaStat to get clear idea about MEGASTAT. Mathematics students and Faculty of other colleges were participated in this workshop.



- Dr. V.K. Radhakrishnan, acted as a Chair Person in the International Conference on Mathematical Computer Engineering 2018, organized by Department of Mathematics, VIT Chennai Campus, Chennai during November 23 and 24, 2018.

FACULTY ACHIEVEMENTS

- Dr. R. Malathi has received Best Teacher Award on 22/12/2018 from Glacier Journal Research foundation, B-1001, Suryoday Tower, Sathadhar X Road, Nr. H.P. Petrol Pump, Sola Road, Ahmedabad-380061

DEPARTMENT ACTIVITIES

1. Second doctoral committee meeting has been conducted for Mrs.S.Indira Priyadharshini, Research scholar on 03/08/2018.
2. Mr. V.K. Radhakrishnan, Assistant Professor of Mathematics, defended his thesis titled “Development of Optimal Network Model for Tourism and Queueing Management in Temples with Case Studies on Kanchipuram” successfully on September 5, 2018.
3. Dr.P.Nagarajan attended a NSS training programme on PFMS and EAT Module Registration on 11th and 12th September 2018 at Anna University, Guindy Campus, Chennai.
4. Third doctoral committee meeting has been conducted for Mrs.A.Kanchana, Research scholar on 28/09/2018.
5. Mr.P.Balaji, Assistant Professor of Mathematics, defended his thesis titled “Analysis of Petri net Marked Graphs and their relationship to Directed Graphs” successfully on September 24, 2018 at Sathayabama University, Chennai.
6. Third doctoral committee meeting has been conducted for Mrs.S.Indira Priyadharshini, Research scholar on 28/09/2018.
7. Second doctoral committee meeting has been conducted for Mrs. D.Tabita, Research scholar on 26/10/2018.
8. Second doctoral committee meeting has been conducted for Mr.A.Rajendiran, Research scholar on 26/12/2018.

JOURNAL PUBLICATIONS

1. Dr.A.Gayathri, A comparative study of experimental and theoretical refractive index of binary liquid mixtures using mathematical methods, IOP Conf. Series: Materials Science and Engineering, 2018 PP: 112-116 ISSN:1757-899X
2. Dr.A.Gayathri, A study on Thermodynamic, Acoustic and Elastic properties of aqueous solutions of Hydroxyethyl Cellulose, IOP Conf. Series: Materials Science and Engineering, 2018 PP: 38-44 ISSN:1757-899X
3. Dr.J.Sengamala Selvi, Visual Graph of Higher Secondary Mathematics Education using the open source Software, International Journal of Engineering Sciences and Technology, , 2018, PP: 406-411 ISSN:2277- 9655.
4. Dr. R.Malathi, A.R.Shoba, Condition for Complete Graph- Using Fuzzy Graphs, Journal of Environmental Science, Computer Science and Engineering & Technology, 2018, PP:315-320 ISSN: 2278-179X.
5. Dr. R.Malathi, Condition for Double Line Graph – Using Fuzzy Graph, International Journal Of Advanced Research In Science, Engineering And Technology, 2018 PP: 7153-7157 ISSN:2350-0328.
6. Dr.A.Gayathri, A Comparative Study of Experimental and Theoretical Ultrasonic Velocity of Binary Liquid Mixtures Using Mathematical Methods, International Journal of Engineering & Technology, 2018 PP:602-604 ISSN:2227-524X.

STUDENT ACTIVITIES

1. M.Gowsalya, M.Phil Scholar, presented a paper “The M/GK/1 queue with unreliable server with compulsory server vacation and two stages of service” in the 2nd International Conference on Pure and Applied Mathematics organized by the department of Mathematics, SCSVMV from 17/12/2018-19/12/2019.
2. V.Harini Devi, M.Sc II Year, presented a paper “The M/GK/1 queue with unreliable server with compulsory vacation ” in the 2nd International Conference on Pure and Applied Mathematics organized by the department of Mathematics, SCSVMV from 17/12/2018-19/12/2019.
3. N.Meenakshi, M.Phil Scholar, presented a paper “Analyzing Similarity/Dissimilarity of proteins structures through Tanimoto Index” in the 2nd International Conference on Pure and Applied Mathematics organized by the department of Mathematics, SCSVMV from 17/12/2018-19/12/2019.
4. S.M.Bhagya Lakshmi, M.Sc II Year, presented a paper “Some selected topological indices of nanostructures type King's Graph and First order Hierarchy Honeycomb. ” in the 2nd International Conference on Pure and Applied Mathematics organized by the department of Mathematics, SCSVMV from 17/12/2018-19/12/2019.
5. Fazilath Banu, M.Phil Scholar, presented a paper “Distribution of a Bunch of Bananas with the Stem to Customers from a Wholesale Market through Simulation Technique” in the 2nd International Conference on

Pure and Applied Mathematics organized by the department of Mathematics, SCSVMV from 17/12/2018-19/12/2019.

6. Indumathi.T M.Phil Scholar, presented a paper “Role of Open source Mathematics software Geogebra in the field of Multiple Integrals” in the 2nd International Conference on Pure and Applied Mathematics organized by the department of Mathematics, SCSVMV from 17/12/2018-19/12/2019.
7. Indumathi.T M.Phil Scholar, presented a paper “Solving Transportation problem using open solver-Mx Excel” in the 2nd International Conference on Pure and Applied Mathematics organized by the department of Mathematics, SCSVMV from 17/12/2018-19/12/2019.

PLACEMENT ACTIVITIES

1. S.Kiruthika and M.Madhan – III B. Sc., Mathematics have been selected by Infosys on 27/11/2018 through off campus at Bharath Institute Higher Education and Research, Chennai.
2. M.Madhan – III B. Sc., Mathematics has been selected by Integrated enterprises (India) Pvt.ltd. through on campus recruitment on 08/11/2018.

CONFERENCE PROCEEDINGS (FULL PAPER) PUBLICATIONS

1. K.Srinivasa Rao, S.M.Bhagya Lakshmi, R.Nandhini S.Dhakshna Moorthy, Some selected topological indices of nanostructures type King's Graph and First order Hierarchy Honeycomb, 2nd International Conference on Pure and Applied Mathematics,2018, PP:130-140, ISBN: 978-93-87088-30-6.
2. R.Malathi,M. Anupriya, T.Venugopal, Finding Eigen Values for Complete Graph, 2nd International Conference on Pure and Applied Mathematics,2018, PP:249, ISBN: 978-93-87088-30-6.
3. R.Malathi,M. Jeyapreethi, T.Venugopal, Three Valued Logic as an inputs and Binary as outputs, 2nd International Conference on Pure and Applied Mathematics,2018, PP:250, ISBN: 978-93-87088-30-6.
4. P.Nagarajan, M.Gowsalya, The M/GK/1 queue with unreliable server with compulsory server vacation and two stages of service, 2nd International Conference on Pure and Applied Mathematics,2018, PP:258, ISBN: 978-93-87088-30-6.
5. P.Nagarajan, V.Harini Devi, The M/GK/1 queue with unreliable server and with compulsory vacation, 2nd International Conference on Pure and Applied Mathematics,2018, PP:260, ISBN: 978-93-87088-30-6.
6. B.Amudha,V.Mugilarasi,K.Srinivasa Rao, A.Dhanalakshmi, Hosoya Polynomial and Wiener Index of King's Graph type Nanostructure, 2nd International Conference on Pure and Applied Mathematics,2018, PP:141-153, ISBN: 978-93-87088-30-6.
7. T.N.Kavitha, A comparison with orthodox semigroups and near idempotent semigroups, 2nd International Conference on Pure and Applied Mathematics,2018, PP:182-188, ISBN: 978-93-87088-30-6.
8. D.Vijayalakshmi, Secondary structure elements of Protein and Path Kernel, 2nd International Conference on Pure and Applied Mathematics,2018, PP:189, ISBN: 978-93-87088-30-6.
9. P.Balaji, R.Pavithra,S.Kirubavathy Analysis of a Ordinary Marked Graph using sign incidence matrix and its conversion into digraph, 2nd International Conference on Pure and Applied Mathematics,2018, PP:130-140, ISBN: 978-93-87088-30-6.

BOOK PUBLICATIONS

1. R. Malathi T. Venugopal Design of Knowledge Discovery & Decision Support System Using Jaina Logic published by LAMBERT Academic Publishing, Europe ISBN:978-3-330-04819-5.

SUMMARY OF ACADEMIC ACHIEVEMENTS DURING JANUARY-JUNE 2018

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
6	4	42	39	6	1

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