



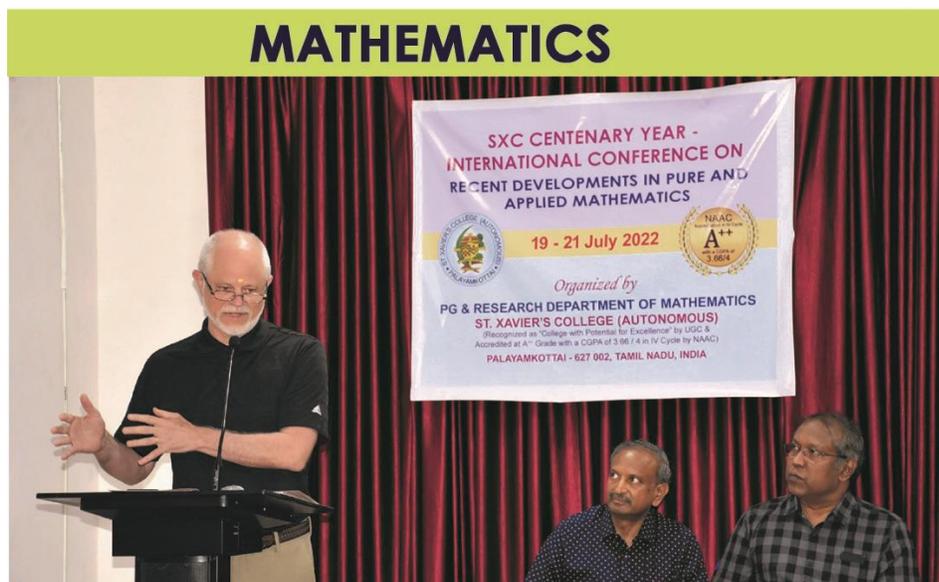
**ST. XAVIER'S COLLEGE (AUTONOMOUS)
PALAYAMKOTTAI - 627 002**
(Recognized as "College with Potential for Excellence" by UGC &
Accredited by NAAC at A++ Grade with a CGPA of 3.66 out of 4)



ANNUAL REPORT 2022-2023

DEPARTMENT OF MATHEMATICS (SHIFT – I)

The mathematics association was inaugurated on 24-08-2022. Mr. V. Siva Anandha Krishnan, Transmission Executive officer, All India Radio, delivered a talk on Career Guidance to the students. MathFest 23, was held on 8th February, 2023. A total of 150 delegates participated in the function. In Mathfest 23, five different events were conducted: Paper presentation, Model preparation, Rangoli, tricky Math and Quiz. K. R. College of Arts and Science, Kovilpatti, secured the first place and clinched the overall trophy. The state level PG quiz was conducted continuously for the past four decades in this academic year. It was conducted on 24th March 2023. With this the association activities came to an end.



DEPARTMENT OF MATHEMATICS (SHIFT – II)

ACTIVITY 1

SXC Centenary year – International conference on Recent Developments in Pure and Applied Mathematics was conducted from 19th to 21st July 2022. Dr. S. Arumugam delivered a lecture on “Sudoku Number of Graphs” and “Nullity of a Graph”, Dr. Glenn Hulbert on “The

Strong Target Pebbling Conjecture” and “Graph pebbling Thresholds”, Dr. R. Kala on “Graphs from Vector Spaces”, Dr. T. Tamizh Chelvam on “Domination in graphs from commutative rings”, Dr. V. P Ramesh on “A Note on Generalized Sophie Germain Primes and Legendre primes”, Dr. Joseph Varghese on “Decomposition through edge colouring” and Dr. T. Asir on “The Embedding Conjecture in Zero-divisor graph of a Ring”.

ACTIVITY 2

A talk on Application of Mathematics in Real life was conducted on 25.08.2022. On 25.08.2022 our department’s association inaugural function was held at Fr. LeBeau Auditorium from 4:30 pm to 6:30 p.m. The program started with a prayer song by II M.Sc Students. Followed by the prayer song, the dignitaries of the dais lighted the lamp. Prof. S. Sahayarajjoseph NirmalKumar welcomed the gathering. PG Joint Secretary – Ms. Shelshiya read out the past and present year's plan. The inaugural address was given by our principal Rev. Dr. S. Maria doss S.J, Deputy principal Dr. B. Xavier Innocent and HOD Dr A. Lourdsamy felicitated the gathering with their eminent words. Co-ordinator Dr. S. Sethu Ramalingam introduced our Office bearers and also the class representatives of current and previous years our Maths association. Chief Guest was introduced by J.P. Anto Iswarya Mithuna (IIM.sc). The Chief Guest Dr. N. Mohamed Rilwan, Assistant professor of Mathematics, Sadakathullahappa College gave a lecture on “Application of Mathematics in Real Life”.

ACTIVITY 3

Training programme on Reasoning and Aptitude skills:

On 18th and 19th October 2022, our association organized a training programme on Reasoning and Aptitude skills. The resource persons were Dr. S. Philo and Ms. D. Saranya, from St.Xavier’s college, Palayamkottai.

ACTIVITY 4

“A talk on opportunities after post graduation

On 27.01.2023, Mathematics association has organised a programme on opportunities after post graduation held in care centre. P.Vignesh Raja, Research Scholar NIT Karnataka, surethkal was the resource person. He was also our alumni.

ACTIVITY 5

On 08.02.2023, the Mathematics associations of both Shift I and Shift II together organized Mathfest 2023. More than 15 colleges participated in the program.

ACTIVITY 6

On 10.02.2023, Mathematics association has organized a training programme on Latex took place in CARE centre. The sessions were handled by Dr. S. Philo followed by Ms. D. Saranya.

TABLE.8.a. PAPERS PUBLISHED IN JOURNALS (2022-2023)

S. NO	Name of the Teacher	Name of the Department	Title of the Paper	Name of the Journal	Volume No/ Issue No/ Page No / Year	ISSN No. / e-ISSN No.	Cited in Web of Science / Scopus Indexed/UGC Approved / Not Found in UGC-CARE List	National / International	Impact Factor
1	Dr. S. Sethu Ramalingam	Mathematics	Upper Triangle Free Detour Number of a Graph	Discrete Mathematics, Algorithms and Applications	14/ 1-21550094/2022	0129-2021/0219-175X	Web of Science (ESCI) and UGC Approved	International	
2	Dr.S.Philo	Mathematics	Odd Harmonious Labeling of Complete Bipartite Graphs	Southeast Asian Bulletin of Mathematics	46/ 23-34/2022	0129-2021/0219-175X	Web of Science (ESCI) and UGC Approved	International	
3	Dr.S.Philo	Mathematics	New Results on Odd Harmonious Labeling of Graphs	TWMS J. App. And Eng. Math.	12/4/ 1301-1310/2022	2146-1147	Web of Science (ESCI) and Scopus	International	
4	S. Sahayarajjoseph Nirmalkumar	Mathematics	Best proximity points for generalized contraction mappings on topological	Advances and Applications in Mathematical Sciences	Volume 21/ Pages 6235-6250	ISSN-0974- 6803	Web of Science	National	

			spaces						
5	F. Patrick	Mathematics	Several results on sum divisor cordial labeling	Jordan Journal of Mathematics and Statistics	Vol. 15, No. 3B, pp. 643 – 660, (2022).	2227-5487	Web of Science Scopus	International	
6	F. Patrick	Mathematics	Some results on group S3 cordial remainder labeling	Palestine Journal of Mathematics	Vol. 11, No. 2, pp. 511- 520, (2022).	2219-5688	Scopus	International	
7	Dr. S. Arul Raj	Mathematics	A Comparative Study on Mamdani Fuzzy Model Implemented In Qtfuzzylite And Matlab For Student's Academic Performance Assesment	Research And Reflections On Education	Volume 20 No.3A, Year 2 022, Pages 169 – 173	ISSN 0974-648X(P)	UGC Approved		
8	Dr. A. Lourdusamy	Mathematics	Several results on sum divisor cordial labeling	Jordan Journal of Mathematics and Statistics	Vol. 15, No. 3B, pp. 643 – 660, (2022).	2227-5487	Web of Science Scopus	International	
9	Dr. A. Lourdusamy	Mathematics	Some results on group S3 cordial remainder labeling	Palestine Journal of Mathematics	Vol. 11, No. 2, pp. 511- 520, (2022).	2219-5688	Scopus	International	
10	Dr. A.	Mathematics	Monophonic	AKCE International	Vol. 19, No. 2,	2543-3474	Web of	International	

	Lourdusamy		pebbling number and t-pebbling number of some graphs	Journal of Graphs and Combinatorics	pp. 108- 111, (2022).		Science Scopus		
11	Dr. A. Lourdusamy	Mathematics	DETOUR PEBBLING ON CARTESIAN PRODUCT GRAPHS	South East Asian J. of Mathematics and Mathematical Sciences	Vol. 21, No. 3, pp. 359- 368, (2022)	2582-0850	Scopus	International	
12	Dr. A. Lourdusamy	Mathematics	Further results on Group S3 mean cordial Labeling	ScienciaActaXaveriana	Vol. 13, No 1, pp. 83-92, - 2022	0976-1152	-	International	-
13	Dr. A. Lourdusamy	Mathematics	Group S4 Difference Cordial Labeling	Indian Journal Of Science And Technology	Vol. 15, No. 32, pp. 1561– 1568, (2022)	0974-5645	Web of Science	International	-
14	Dr. A. Lourdusamy	Mathematics	Monophonic pebbling number of some algebraic graphs	ScienciaActaXaveriana	Vol. 13, No 1, pp.1-7, (2022)	0976-1152	-	International	-
15	Dr. A. Lourdusamy	Mathematics	Monophonic pebbling number of some standard graphs	South East Asian J. of Mathematics and Mathematical Sciences	Vol. 21, pp. 177–182,-2022	2582-0850	Scopus	International	-
16	Dr. A. Lourdusamy	Mathematics	Monophonic pebbling on	Research and Reflections on	Vol. 20, No. 3A, PP 153-	0974-648X	UGC	International	-

			zero divisor graphs	Education	157, (2022)				
17	Dr. A. Lourdasamy	Mathematics	ON TADES OF CERTAIN CLASSES OF GRAPHS	South East Asian J. of Mathematics and Mathematical Sciences	Vol. 21, pp. 249-260, -2022	2582-0850	Scopus	International	-
18	Dr. A. Lourdasamy	Mathematics	On Detour t-pebbling number	ScienzaActaXaveriana	Vol. 13, No. 1, pp. 17-23, -2022	0976-1152	-	International	-
19	Dr. A. Lourdasamy	Mathematics	Totally Magic Cordial Labeling On Zero Divisor Graphs	Advances And Applications In Mathematical Sciences	Vol 21, No. 12, pp. 6827-6842, (2022)	0974-6803	Web of Science	International	-
20	Dr. A. Lourdasamy	Mathematics	t-pebbling number and 2t-pebbling property for the deleted independent edges of some graphs	Advances and Applications in Mathematical Sciences	Vol. 21, No. 12, pp. 6651-6659, (2022)	0974-6803	Web of Science	International	-
21	Dr. A. Lourdasamy	Mathematics	Herscovici's Conjecture on Product of Some Complete Bipartite Graphs	Forum for Interdisciplinary Mathematics	Vol. 35, pp. 103-109,-2023	2364-6756	Scopus	International	-
22	Dr. S. Nithya	Mathematics	Extended annihilating-	Discussiones mathematicae - general	42 (2), 279–291.	1509-9415/2084-	Scopus Indexed	International	0.562

			ideal graph of a commutative ring	algebra applications (scopus indexed)		0373			
23	Dr. S. Nithya	Mathematics	Partition and local metric dimension of an extended annihilating-ideal graph	Palestine journal of mathematics (scopus indexed)	11, Special Issue III, 98-112.	2219-5688	Scopus Indexed	International	0.239
24	Dr. S. Nithya	Mathematics	Metric and upper dimension of extended annihilating-ideal graphs	Algebra colloquium	Accepted for publication (scie indexed)	1005-3867	Web of Science	International	0.333
25	Dr. S. Nithya	Mathematics	Eccentric topological indices based on edges of annihilating-ideal graphs	South east asian journal of mathematics and mathematical sciences	Accepted for publication (scopus indexed)	0972-7752/2582-850	Scopus Indexed	International	0.132
26	Dr. S. Nithya	Mathematics	Proceedings of the two days international conference on recent revolutions in mathematics, computer science and applications	Edge based eccentric topological indices of total annihilating-ideal graphs of $\mathbb{Z}p\alpha \times \mathbb{Z}q\beta$	--	978-81-9078-935-6	Not Found in UGC-CARE List	National	

27	Dr. S. Nithya	Mathematics	Proceedings of the SXC Centenary year – International conference on recent developments in pure and applied mathematics	Eccentric topological indices based on edges of total annihilating-ideal graphs	--	978-93-5680-006-9	Not Found in UGC-CARE List	National	
28	Fr.S.ArulRavi,SJ	Mathematics	Existence of Best Proximity Points for (Psi,Alpha, Beta)- weakly contractive mappings in generalized metric space	International Journal of Mathematics and its Applications	10(2)(2022) 9 - 13	2347-1557		International	
29	Dr.P. Julia Mary	Mathematics	Convergence of Modified Ishikawa Iterates for Nearly Asymptotically nonexpansive maps with new control conditions	South East Asian J. of Mathematics and Mathematical Sciences	Vol. 21, No. 3, pp. 13-28, (2022)	2582-0850	Scopus	International	0.119
30	Dr.P. Julia Mary	Mathematics	Comparison of Mann and Ishikawa	American Institute of Physics (AIP)	2516, 190012 1-6	0094-243X	Scopus	International	0.4

			Iterations for Zamfirescu Operators in Hyperbolic Spaces						
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TABLE.8.b. – PAPERS PUBLISHED IN CONFERENCE / SEMINAR PROCEEDINGS (2022-2023)

S. No	Name of Teacher	Department	Title of the Paper	Title of the Proceedings	National / International	(Place, Publisher, Year, Page No.)	ISSN / ISBN No.
1	Dr. A. Lourdasamy	Mathematics	Proceedings of the Centenary year - International Conference on Recent Developments in Pure and Applied Mathematics	St Xavier's College	International	ISBN-978-93-5680-006-9	

TABLE 9 - BOOKS / BOOK CHAPTERS PUBLISHED (2022-2023)

S. No	Name of Teacher	Department	Title of the Books / Proceedings	Place, Publisher, Year, Page No.	National / International	ISSN / ISBN No.
1	Dr. A. Lourdasamy	Mathematics	Proceedings of the Centenary year - International Conference on Recent Developments in Pure and Applied Mathematics	St Xavier's College	International	ISBN-978-93-5680-006-9