

RESUME



A) GENERAL INFORMATION

1. Name : Dr. S. SEKAR
2. Address : Associate Professor,
Department of Mathematics,
Government Arts and Science College,
Thittamalai – 638 458.
3. Designation : ASSOCIATE PROFESSOR
4. Department : MATHEMATICS
5. Date of Birth : 09-07-1977
6. Area of Specialisation : Numerical Analysis of Ordinary Differential Equations
7. Date of Appointment : **From 01-12-2008 to 24-02-2011** (Aided College Service through Regular appointment, A.V.C. College (Autonomous), Mannampandal – 609 305, Mayiladuthurai)
28-02-2011 (Government Service through TRB 2010, Presently working in Government Arts and Science College, Thittamalai – 638 458.)

B) ACADEMIC QUALIFICATIONS

S.No.	Exam Passed	Board/University	Subjects	Year	Division/ Grade/ Merit etc.
1.	S.S.L.C.	Board of Secondary Education	Tamil, English, Maths, Science, Social Science	April 1993	First Class
2.	H.S.C	Board of Higher Secondary Education	Tamil, English, Physics, Chemistry, Computer Science, Mathematics	March 1995	First Class
3.	U.G.	Bharathiar University	Mathematics	November 1998	Second Class
4.	P.G.	Bharathiar University	Mathematics	May 2001	First Class
5.	M .Phil	Bharathiar University	Mathematics	March 2003	Commended
	Ph.D.	Bharathidasan University	Mathematics	March 2007	Commended

C) RESEARCH EXPERIENCE & TRAINING

S.No.	Research Stage	Title of Work/Thesis	University where the work was carried out
1.	M. Phil or Equivalent	NON LINEAR VARIATIONAL INEQUALITY AND ITS COMPLEMENTARITY PROBLEMS IN BANACH	Bharathiar University, Coimbatore

		SPACES	
2.	Ph.D.	A STUDY ON DIFFERENT TYPES OF SINGULAR SYSTEMS USING RK-BUTCHER ALGORITHM	Bharathidasan University, Tiruchirappalli
3.	Publication	List given	List given

Research Guidance

Name of the degree	Total no. of Students	Degree Awarded	Guiding at present
M.Phil., Mathematics (Full time)	04	04	--
M.Phil., Mathematics (Part time)	05	04	01
Ph.D., Mathematics (Full time)	--	--	--
Ph.D., Mathematics (Part time)	20	11	09

Students Successfully Completed in the Ph.D. Programme – 11 Part time Ph.D. Students

Name of the Scholar	Title of the thesis	Submitted	Awarded	Name of the University	Month & Year
A.MANONMANI	ANALYSIS OF TIME INVARIANT AND TIME VARYING SINGULAR SYSTEMS USING SINGLE-TERM HAAR WAVELET SERIES	February 2013	14 th March 2014	Mother Teresa Women's University, Kodaikanal	March 2014
S.SENTHILKUMAR	A STUDY ON DIFFERENT TYPES OF FUZZY DIFFERENTIAL EQUATIONS USING SINGLE TERM HAAR WAVELET SERIES	September 2014	20 th July 2015	Bharathidasan University, Tiruchirappalli	July 2015
C.JAISANKAR	NUMERICAL INVESTIGATIONS ON DIFFERENT TYPES OF INTEGRO-DIFFERENTIAL EQUATIONS USING SINGLE TERM HAAR WAVELET SERIES	September 2014	11 th January 2016	Bharathidasan University, Tiruchirappalli	January 2016
P. JAYAKUMAR	INVESTIGATIONS ON GENERALIZED p^* -CLOSED SET IN	February 2015	29 th July 2016	Periyar University, Salem	July 2016

	TOPOLOGICAL SPACES				
M.VIJAYARAKAVAN	NUMERICAL ANALYSIS ON VARIOUS KINDS OF SINGULAR AND DELAY SYSTEMS USING LEAPFROG METHOD	March 2016	27th September 2016	Periyar University, Salem	September 2016
K. PRABHAVATHI	A STUDY ON DIFFERENT TYPES OF FUZZY DIFFERENTIAL EQUATIONS USING LEAPFROG METHOD	March 2016	27th September 2016	Periyar University, Salem	September 2016
K. MARIAPPA	INVESTIGATIONS ON REGULAR GENERALIZED b-CLOSED SET IN TOPOLOGICAL SPACES	April 2015	30th September 2016	Periyar University, Salem	September 2016
A. KAVITHA	NUMERICAL STRATEGIES FOR THE SYSTEM OF IVPs USING ADOMIAN DECOMPOSITION METHOD	February 2016	26th October 2016	Periyar University, Salem	October 2016
M. NALINI	NUMERICAL INVESTIGATIONS ON SOME KINDS OF SYSTEM OF NONLINEAR DIFFERENTIAL EQUATIONS USING ADOMIAN DECOMPOSITION METHOD	April 2016	02nd December 2016	Periyar University, Salem	December 2016
B. VENKATACHALAM ALIAS RAVIKUMAR	A STUDY ON DIFFERENT TYPES OF SINGULAR SYSTEMS USING HE'S VARIATIONAL ITERATION METHOD	December 2016	03rd August 2017	Periyar University, Salem	August 2017
A. SAKTHIVEL	NUMERICAL STRATEGIES FOR THE SYSTEM OF FUZZY DIFFERENTIAL EQUATIONS USING HE'S VARIATIONAL ITERATION METHOD	August 2017	12th July 2019	Periyar University, Salem	July 2019

D) PARTICIPATION IN IN-SERVICE PROGRAMMES ATTENDED

S.No.	Name of the Seminar Conference / Symposia Workshop etc.	Name of the Sponsoring Agency	Place and Date	Period
1.	IT Finishing School Programme – 2011	TAHDCO, Chennai	Bharathiar University, Coimbatore – 641 046 From 20-10-2011 to 23-10-2011	4 days

E) TEACHING EXPERIENCE

S.No.	Course Taught	Name of the University/College/Institution	Duration
1.	U.G. (B.Sc., B.C.A.)	1. A.V.C. College (Autonomous), Mannampandal – 609 305, Mayiladuthurai. 2. Government Arts College (Autonomous), Salem – 636 007 3. Government Arts and Science College, Thittamalai – 638 458 4. Chikkanna Government Arts College, Tirupur – 641 602	01-12-2008 to 24-02-2011 as an Assistant Professor 28-02-2011 to 31-08-2017 as an Assistant Professor 01-09-2017 to 30-09-2018 as an Assistant Professor & Head 01-10-2018 to Till date as an Assistant Professor
2.	P.G. (M. Sc)	1. A.V.C. College (Autonomous), Mannampandal – 609 305, Mayiladuthurai. 2. Government Arts College (Autonomous), Salem – 636 007 3. Government Arts and Science College, Thittamalai – 638 458 4. Chikkanna Government Arts College, Tirupur – 641 602	01-12-2008 to 24-02-2011 as an Assistant Professor 28-02-2011 to 31-08-2017 as an Assistant Professor 01-09-2017 to 30-09-2018 as an Assistant Professor & Head 01-10-2018 to Till date as an Assistant Professor
3.	M. Phil	1. A.V.C. College (Autonomous), Mannampandal – 609 305, Mayiladuthurai. 2. Government Arts College (Autonomous), Salem – 636 007 3. Government Arts and Science College, Thittamalai – 638 458 4. Chikkanna Government Arts College, Tirupur – 641 602	01-12-2008 to 24-02-2011 as an Assistant Professor 28-02-2011 to 31-08-2017 as an Assistant Professor 01-09-2017 to 30-09-2018 as an Assistant Professor & Head 01-10-2018 to Till date as an Assistant Professor
4.	Ph.D.	1. A.V.C. College (Autonomous), Mannampandal – 609 305, Mayiladuthurai. 2. Government Arts College (Autonomous), Salem – 636 007 3. Government Arts and Science College, Thittamalai – 638 458 4. Chikkanna Government Arts College, Tirupur – 641 602	01-12-2008 to 24-02-2011 as an Assistant Professor 28-02-2011 to 31-08-2017 as an Assistant Professor 01-09-2017 to 30-09-2018 as an Assistant Professor & Head 01-10-2018 to Till date as an Assistant Professor

Total Teaching Experience

- a) Under Graduate (Pass) : 12 years 3 months
 b) Under Graduate (Hons) : --
 c) Post Graduate (Pass) : 12 years 3 months

Details regarding refresher courses/orientation attended, participation in summer schools, workshops, Seminars, symposia etc., including upon university course / M.Phil, Ph.D.,

S.No.	Course	Place	Period
1	Orientation	UGC-Academic Staff College, University of Madras, Chennai	04-05-2011 to 02-06-2011
2	Refresher	UGC-Academic Staff College, Bharathiar University, Coimbatore	11-09-2013 to 01-10-2013
3	Refresher	UGC-Human Resource Development Centre, Bharathiar University, Coimbatore	05-07-2017 to 25-07-2017

F) INNOVATIONS CONTRIBUTION IN TEACHING

- a) Design of Curriculum : For B.Sc., & M.Sc., Mathematics
Govt. Arts College (Autonomous), Salem - 7.
- b) Teaching Methods : Using AV / Black Board, Interactive, Lectures, Demonstration, Quiz, group discussion and Power Point Methods are followed.
- c) Laboratory experiments : C lab for B.Sc., Mathematics and C++ lab for M.Sc., Mathematics
- d) Evaluation Method : Script Evaluation, Conducting Seminars, Conducting Test, Asking Questions, and Assignments.
- e) Preparation of resource material : Collecting relevant content from various sources including books, using internet, library, reading materials, journals, Laboratory Manuals etc.
- f) Remedial Teaching / Students Counselling (academic) : Special Classes were conducted
- g) Any other : Acting as Tutor, Special coaching classes were conducted to prepare the students for competitive examinations.
- h) Position held/Leadership role played : Associate NCC Officer
in Organisation linked 01-10-2012 to 31-08-2017 in GAC, Salem-7.
with extension work and NSS /NCC /
any other similar activity.

LIST OF PUBLICATIONS

International Journals:

(1) K. Murugesan, **S. Sekar**, V. Murugesan and J. Y. Park, "NUMERICAL SOLUTION OF AN INDUSTRIAL ROBOT ARM CONTROL PROBLEM USING THE RK-BUTCHER ALGORITHM", **International Journal of Computer Applications in Technology (IJCAT)**, Vol.19, No. 2, 2004, pp. 132-138. (ISSN 0952-8091 print / ISSN 1741-5047 online)
DOI: 10.1504/IJCAT.2004.003639

(2) J. Y. Park, David J. Evans, K. Murugesan, **S. Sekar** and V. Murugesan, "OPTIMAL CONTROL OF SINGULAR SYSTEMS USING THE RK-BUTCHER ALGORITHM", **International Journal of Computer Mathematics (IJCM)**, Vol. 81, No.4, 2004. pp 239-249. (ISSN 0020-7160 print / ISSN 1029-0265 online)
DOI: 10.1080/00207160310001650080

(3) **S. Sekar**, V. Murugesan and K. Murugesan, "NUMERICAL STRATEGIES FOR THE SYSTEM OF SECOND ORDER IVP'S USING THE RK-BUTCHER ALGORITHMS", **International Journal of Computer Science & Applications (IJCSA)**, Vol. I, No. II, 2004, pp. 96-117. (ISSN 0972-9038)

(4) J. Y. Park, K. Murugesan, David J. Evans, **S. Sekar** and V. Murugesan, "OBSERVER DESIGN OF SINGULAR SYSTEMS (TRANSISTOR CIRCUITS) USING THE RK-BUTCHER ALGORITHMS", **International Journal of Computer Mathematics (IJCM)**, Vol. 82, No.1, 2005. pp 111-123. (ISSN 0020-7160 print / ISSN 1029-0265 online)
DOI: 10.1080/00207160412331291026

(5) J. Y. Park, David J. Evans, K. Murugesan and **S. Sekar**, "OPTIMAL CONTROL OF TIME-VARYING SINGULAR SYSTEMS USING THE RK-BUTCHER ALGORITHM", **International Journal of Computer Mathematics (IJCM)**, Vol. 82, No. 5, 2005, pp. 617-627. (ISSN 0020-7160 print / ISSN 1029-0265 online)
DOI: 10.1080/00207160512331331147

(6) K. Murugesan, **S. Sekar**, V. Murugesan and David J. Evans, "NUMERICAL STRATEGIES FOR THE SYSTEM OF FIRST-ORDER IVPS USING THE RK-BUTCHER ALGORITHM", **International Journal of Computer Mathematics (IJCM)**, Vol. 82, No. 11, 2005, pp. 1379-1387. (ISSN 0020-7160 print / ISSN 1029-0265 online)
DOI: 10.1080/00207160410001688637

(7) David J. Evans, K. Murugesan, **S. Sekar** and Hyun-Min Kim, "NON-LINEAR SINGULAR SYSTEMS USING RK-BUTCHER ALGORITHMS", **International Journal of Computer Mathematics (IJCM)**, Vol. 83, No. 1, 2006, pp. 131-142. (ISSN 0020-7160 print / ISSN 1029-0265 online)
DOI: 10.1080/00207160500069888

(8) **S. Sekar**, "ANALYSIS OF LINEAR AND NONLINEAR STIFF PROBLEMS USING THE RK-BUTCHER ALGORITHM", **Mathematical Problems in Engineering (MPE)**, Vol. 2006, pp. 1-15. (ISSN 1024-123X print / e-ISSN 1563-5147 online)
DOI: 10.1155/MPE/2006/39246

(9) S. Nandhakumar, V. Selladurai and **S. Sekar**, "NUMERICAL INVESTIGATION OF AN INDUSTRIAL ROBOT ARM CONTROL PROBLEM USING HAAR WAVELET SERIES",

American Journal of Engineering and Applied Sciences (AJEAS), Vol. 2, No. 4, 2009, pp. 584-589. (ISSN 1941-7020)

(10) **S. Sekar** and A. Manonmani, "A STUDY ON TIME-VARYING SINGULAR NONLINEAR SYSTEMS VIA SINGLE-TERM HAAR WAVELET SERIES", **International Review of Pure and Applied Mathematics (IRPAM)**, Vol. 5, No. 2, 2009, pp. 371-377. (ISSN 0973-1350)

(11) **S. Sekar**, G. Balaji, R. Kumar, A. Manonmani and S. Nandhakumar, "A STUDY ON SECOND ORDER MECHANICAL VIBRATORY SYSTEMS USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Logic Based Intelligent Systems (IJLBIS)**, Vol. 3, No. 2, 2009, pp. 197-202. (ISSN 0975-4776)

(12) **S. Sekar** and G. Balaji, "A STUDY ON RLC SMOOTHING CIRCUIT USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Physical Sciences**, Vol. 22, No. 2M, 2010, pp. 381-386. (ISSN 0970-9150)

(13) **S. Sekar** and K. Jaganathan, "ANALYSIS OF THE SINGULAR AND STIFF DELAY SYSTEMS USING SINGLE-TERM HAAR WAVELET SERIES", **International Review of Pure and Applied Mathematics (IRPAM)**, Vol. 6, No. 1, 2010, pp. 135-142. (ISSN 0973-1350)

(14) **S. Sekar** and M. Vijayarakavan, "ANALYSIS OF THE NON-LINEAR SINGULAR SYSTEMS FROM FLUID DYNAMICS USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Computer, Mathematical Sciences and Applications (IJCMSA)**, Vol. 4, Nos. 1-2, 2010, pp. 15-29. (ISSN 0973-6786)

(15) **S. Sekar** and K. Jaganathan, "NUMERICAL INVESTIGATION OF TIME-VARYING TRANSISTOR CIRCUIT USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Computer, Mathematical Sciences and Applications (IJCMSA)**, Vol. 4, Nos. 1-2, 2010, pp. 99-104. (ISSN 0973-6786)

(16) **S. Sekar** and M. Duraisamy, "A STUDY ON CNN BASED HOLE-FILLER TEMPLATE DESIGN USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Logic Based Intelligent Systems (IJLBIS)**, Vol. 4, Nos. 1, 2010, pp. 17-26. (ISSN 0975-4776)

(17) S. Nandhakumar, V. Selladurai, V. Muthukumaran and **S. Sekar**, "HAAR WAVELET APPROACH TO TIME VARYING MODEL ROBOT ARM CONTROL PROBLEM", **International Journal of Academic Research**, Vol. 2, Nos. 4, 2010, pp. 66-74. (ISSN 2075-4124 (print) / ISSN 2075-7107 (online))

(18) **S. Sekar** and M. Duraisamy, "SIMULATION OF CELLULAR NEURAL NETWORKS USING SINGLE-TERM HAAR WAVELET SERIES", **International Review of Pure and Applied Mathematics (IRPAM)**, Vol. 6, No. 2, 2010, pp. 319-326. (ISSN 0973-1350)

(19) **S. Sekar** and K. Prabakaran, "NUMERICAL SOLUTION OF NONLINEAR PROBLEMS IN THE CALCULUS OF VARIATIONS USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Mathematics and Computing Applications (IJMCA)**, Vol. 2, Nos. 1, 2010, pp. 25-33. (ISSN 0976-6790)

(20) **S. Sekar** and K. Jaganathan, "SINGLE-TERM HAAR WAVELET SERIES APPROACH TO STIFF SYSTEMS OF HIGHER DIMENSION", **International Journal of Physical Sciences**, Vol. 22, No. 3M, 2010, pp. 719-724. (ISSN 0970-9150)

(21) **S. Sekar** and G. Balaji, "ANALYSIS OF THE DIFFERENTIAL EQUATIONS ON THE SPHERE USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Computer, Mathematical Sciences and Applications (IJCMSA)**, Vol. 4, Nos. 3-4, 2010, pp. 387-393. (ISSN 0973-6786)

- (22) **S. Sekar** and E. Paramanathan, "A STUDY ON PERIODIC AND OSCILLATORY PROBLEMS USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Current Research (IJCR)**, Vol. 2, Issue 1, 2011, pp. 097-105. (ISSN 0975-833X)
- (23) **S. Sekar** and R. Kumar, "NUMERICAL INVESTIGATION OF NONLINEAR VOLTERRA-HAMMERSTEIN INTEGRAL EQUATIONS VIA SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Current Research (IJCR)**, Vol. 3, Issue 2, 2011, pp. 099-103. (ISSN 0975-833X)
- (24) **S. Sekar** and M. Vijayarakavan, "SIMULATION OF FED-BATCH FERMENTATION PROCESS USING SINGLE-TERM HAAR WAVELET SERIES", **Elixir Discrete Mathematics online Journal (EDM)**, Vol. 35, 2011, pp. 2969-2973. (ISSN 2229-712X)
- (25) **S. Sekar** and M. Duraisamy, "TIME-MULTIPLEXING SCHEME FOR CELLULAR NEURAL NETWORKS BASED IMAGE PROCESSING VIA SINGLE-TERM HAAR WAVELET SERIES", **International Journal of computer Science and Information Technology**, Vol. 2, No. 1, 2011, pp. 25-36. (ISSN 0970-9150)
- (26) **S. Sekar**, K. Prabakaran and E. Paramanathan, "SINGLE TERM HAAR WAVELET SERIES APPROACH TO LINEAR STIFF SYSTEMS", **Advances in Theoretical and Applied Mathematics (ATAM)**, Vol. 6, No. 2, 2011, pp. 161-170. (ISSN 0973-4554)
- (27) **S. Sekar** and K. Prabakaran, "NUMERICAL SOLUTION OF HIGHER ORDER LINEAR SINGULAR SYSTEM USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Mathematical Sciences and Applications (IJMSA)**, Vol. 1, No. 2, 2011, pp. 737-746. (ISSN 2230-9888 online)
- (28) **S. Sekar**, E. Paramanathan and A. Manonmani, "NUMERICAL INVESTIGATION OF THE LORENZ'S EQUATION USING SINGLE-TERM HAAR WAVELET SERIES", **International Journal of Current Research (IJCR)**, Vol. 3, Issue 9, 2011, pp. 131-134. (ISSN 0975-833X)
- (29) **S. Sekar**, A. Manonmani and E. Paramanathan, "NUMERICAL STRATEGY OF THE HARMONIC OSCILLATORS USING SINGLE-TERM HAAR WAVELET SERIES", **Elixir Applied Mathematics online Journal (EAM)**, Vol. 38, 2011, pp. 4228-4231. (ISSN 2229-712X)
- (30) **S. Sekar**, R. Muthukrishnan and S. Subbulakshmi, "NUMERICAL SOLUTION OF AN OPTIMAL CONTROL OF LINEAR SINGULAR SYSTEMS VIA RUNGE-KUTTA METHODS BASED ON VARIOUS MEANS", **Elixir Applied Mathematics online Journal (EAM)**, Vol. 40, 2011, pp. 5391-5395. (ISSN 2229-712X)
- (31) **S. Sekar**, R. Muthukrishnan and S. Subbulakshmi, "NUMERICAL INVESTIGATION OF THE HEAT FLOW PROBLEM USING RAYLEIGH RITZ, STWS AND RUNGE-KUTTA METHODS BASED ON VARIOUS MEANS", **International Journal of Current Research (IJCR)**, Vol. 3, Issue 12, 2011, pp. 142-148. (ISSN 0975-833X)
- (32) **S. Sekar** and P. Jayakumar, "On Supra I-open Sets and Supra I-continuous functions", **International Journal of Scientific & Engineering Research (IJSER)**, Vol. 3, Issue 5, May-2012, pp. 1-3. (ISSN 2229-5518)
- (33) **S. Sekar** and K. Mariappa, "sg-Interior and sg-Closure in Topological spaces", **International Journal of Scientific & Engineering Research (IJSER)**, Vol. 3, Issue 6, June-2012, pp. 1-5. (ISSN 2229-5518)

- (34) G. Balaji, S. Vengataasalam and **S. Sekar**, "Numerical investigation of second order singular system using single-term Haar wavelet series method", **Journal of Applied Sciences Research (JASR)**, Vol. 8, Issue 7, 2012, pp. 3323-3328. (ISSN 1819-544X)
- (35) G. Balaji, E. Paramanathan and **S. Sekar**, "Numerical Solution of Two Point Neumann Boundary Value Problems using Single-Term Haar Wavelet Series Method", **European Journal of Scientific Research (EJSR)**, Vol. 83, Issue 2, 2012, pp. 200-205. (ISSN 1450-216X)
- (36) **S. Sekar** and P. Jayakumar, "Quasi αm – Open and Quasi αm – Closed Functions", **American Journal of Computational and Applied Mathematics (AJCAM)**, Vol. 2, Issue 5, 2012, pp. 225-227. (ISSN 2165-8935 (print) / ISSN 2165-8943 (online))
- (37) K. Mariappa and **S. Sekar**, "On Regular Generalized b-Closed Set", **International Journal of Mathematical Analysis (IJMA)**, Vol. 7, No. 13, 2013, pp. 613-624. (ISSN 1312-8876 (print) / ISSN 1314-7579 (online))
doi: <http://dx.doi.org/10.12988/ijma.2013.13059>
- (38) E. Paramanathan and **S. Sekar**, "An Application of STHW Technique in Solving Non-linear Integro-Differential Equations", **Journal of Applied Sciences Research (JASR)**, Vol. 8, Issue 9, 2012, pp. 4815-4820. (ISSN 1819-544X)
- (39) G. Balaji, S. Vengataasalam and **S. Sekar**, "Application of single-term Haar wavelet series to second order linear system with singular - A", **Archives Des Sciences (ADS)**, Vol. 66, Issue 2, Feb 2013, pp. 65-74. (ISSN 1661-464X)
- (40) C. Jaisankar, S. Senthilkumar and **S. Sekar**, "Numerical Solution for Fredholm Integro Differential Equations of the second Kind via Single-Term Haar Wavelet Series Method", **European Journal of Scientific Research (EJSR)**, Vol. 96, Issue 1, February, 2013, pp. 38-42. (ISSN 1450-216X)
- (41) S. Senthilkumar, C. Jaisankar and **S. Sekar**, "Comparison of Single Term Haar Wavelet Series Technique and Euler method to Solve One Dimensional Fuzzy Differential Inclusions", **Journal of Applied Sciences Research (JASR)**, Vol. 9, Issue 9, 2013, pp. 73-79. (ISSN 1819-544X)
- (42) P. Jayakumar, K. Mariappa and **S. Sekar**, "On Generalized gp^* -Closed Set in Topological Spaces", **International Journal of Mathematical Analysis (IJMA)**, Vol. 7, Issue 33, 2013, pp. 1635-1645. (ISSN 1312-8876 (print) / ISSN 1314-7579 (online))
doi: <http://dx.doi.org/10.12988/ijma.2013.3356>
- (43) K. Mariappa and **S. Sekar**, "On regular generalized b-Closed Map in Topological Spaces", **International Journal of Mathematical Archive (IJMA)**, Vol. 4, Issue 8, 2013, pp. 111-116. (ISSN (print) / ISSN 2229-5046 (online))
- (44) **S. Sekar** and E. Paramanathan, "A Study on Linear and Nonlinear Stiff Problems Using Single-Term Haar Wavelet Series Technique", **International Journal of Mathematical Analysis (IJMA)**, Vol. 7, Issue 53, 2013, pp. 2625-2636. (ISSN 1312-8876 (print) / ISSN 1314-7579 (online))
doi: <http://dx.doi.org/10.12988/ijma.2013.38194>
- (45) **S. Sekar** and S. Senthilkumar, "Single Term Haar Wavelet Series for Fuzzy Differential Equations", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 4, Issue 9, 2013, pp. 181-188. (ISSN 2231-5373)

(46) **S. Sekar** and S. Senthilkumar, "Numerical Solution of N^{th} -Order Fuzzy Differential Equations by STHWS Method", **International Journal of Scientific & Engineering Research (IJSER)**, Vol. 4, Issue 11, November-2013, pp. 1639-1644. (ISSN 2229-5518)

(47) **S. Sekar** and S. Senthilkumar "Numerical Solution for Hybrid Fuzzy Systems by Single Term Haar Wavelet Series Technique", **International Journal of Mathematical Archive (IJMA)**, Vol. 4, Issue 11, 2013, pp. 23-29. (ISSN (print) / ISSN 2229-5046 (online))

(48) **S. Sekar** and C. Jaisankar, "Numerical Solution for the Integro-Differential Equations using Single Term Haar Wavelet Series Technique", **International Journal of Mathematical Archive (IJMA)**, Vol. 4, Issue 11, 2013, pp. 97-103. (ISSN (print) / ISSN 2229-5046 (online))

(49) **S. Sekar** and S. Senthilkumar, "A Study on Second-Order Fuzzy Differential Equations using STHWS Method", **International Journal of Scientific & Engineering Research (IJSER)**, Vol. 5, Issue 1, January-2014, pp. 2111-2114. (ISSN 2229-5518)

(50) **S. Sekar** and P. Jayakumar, "On Generalized gp^* -Closed Map in Topological Spaces", **Applied Mathematical Sciences (AMS)**, Vol. 8, Issue 9, 2014, pp. 415-422. (ISSN 1312-885X (print) / ISSN 1314-7552 (online))
doi: <http://dx.doi.org/10.12988/ams.2014.311639>

(51) **S. Sekar** and C. Jaisankar, "Numerical Analysis of the Fuzzy Integro-Differential Equations using Single-Term Haar Wavelet Series", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 5, Issue 2, 2014, pp. 168-175. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V5P512>

(52) S. Mohan and **S. Sekar**, "Linear Programming Problem with Homogeneous Constraints", **Indian Journal of Applied Research (IJMAR)**, Vol. 4, Issue 3, Mar 2014, pp. 298-307. (ISSN 2249-555X)

(53) **S. Sekar** and C. Jaisankar, "Numerical Investigation of Fredholm Integro-Differential Equations by STHWS Method", **International Journal of Scientific & Engineering Research (IJSER)**, Vol. 5, Issue 3, March-2014, pp. 288-292. (ISSN 2229-5518)

(54) S. Mohan and **S. Sekar**, "A new Technique for Solving A Linear Programming Problem with Homogeneous constraints in Fuzzy Environment", **International Journal of Scientific & Engineering Research (IJSER)**, Vol. 5, Issue 3, March-2014, pp. 306-309. (ISSN 2229-5518)

(55) **S. Sekar** and C. Jaisankar, "On Single Term Haar Wavelet Series Method For Volterra Integro-Differential Equations", **International Journal of Mathematical Archive (IJMA)**, Vol. 5, Issue 3, 2014, pp. 52-58. (ISSN (print) / ISSN 2229-5046 (online))

(56) **S. Sekar** and C. Jaisankar, "Numerical Strategies for the Nonlinear Integro-Differential Equations Using Single-Term Haar Wavelet Series", **Applied Mathematical Sciences (AMS)**, Vol. 8, Issue 51, 2014, pp. 2547-2554. (ISSN 1312-885X (print) / ISSN 1314-7552 (online))
doi: <http://dx.doi.org/10.12988/ams.2014.43167>

(57) **S. Sekar** and M. Nalini, "Numerical Analysis of Different Second Order Systems Using Adomian Decomposition Method", **Applied Mathematical Sciences (AMS)**, Vol. 8, Issue 77, 2014, pp. 3825-3832. (ISSN 1312-885X (print) / ISSN 1314-7552 (online))

doi: <http://dx.doi.org/10.12988/ams.2014.45348>

(58) **S. Sekar** and P. Jayakumar, "On gp^* -connectedness and gp^* -compactness in Topological spaces", **International Journal of Mathematical Archive (IJMA)**, Vol. 5, Issue 5, 2014, pp. 287-291. (ISSN (print) / ISSN 2229-5046 (online))

(59) **S. Sekar** and P. Jayakumar, "Almost contra gp^* -continuous functions in Topological spaces", **International Journal of Mathematical Archive (IJMA)**, Vol. 5, Issue 6, 2014, pp. 72-78. (ISSN (print) / ISSN 2229-5046 (online))

(60) **S. Sekar** and P. Jayakumar, "Contra gp^* - Continuous Functions", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 10, Issue 4 Ver. V, (Jul-Aug. 2014), pp. 55-60. (e-ISSN 2278-5728 / p-ISSN 2319-765X)

(61) S. Karunanithi, S. Chakravarthy and **S. Sekar**, "Comparison of Leapfrog and single term Haar wavelet series method to solve the second order linear system with singular-A", **Journal of Mathematical and Computational Sciences (JMCS)**, Vol. 4, No. 4, 2014, pp. 804-816. (ISSN 1927-5307)

(62) **S. Sekar** and K. Prabhavathi, "Numerical solution of first order linear fuzzy differential equations using Leapfrog method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 10, Issue 5 Ver. I, (Sep-Oct. 2014), pp. 07-12. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-10510712>

(63) **S. Sekar** and M. Vijayarakavan, "Numerical Investigation of first order linear Singular Systems using Leapfrog Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 12, Number 2, 2014, pp. 89-93. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V12P514>

(64) **S. Sekar** and A. Kavitha, "Numerical Investigation of the Time Invariant Optimal Control of Singular Systems Using Adomian Decomposition Method", **Applied Mathematical Sciences (AMS)**, Vol. 8, Issue 121, 2014, pp. 6011-6018. (ISSN 1312-885X (print) / ISSN 1314-7552 (online))
doi: <http://dx.doi.org/10.12988/ams.2014.48630>

(65) **S. Sekar** and P. Jayakumar, "On gp^* -Continuous Map in Topological Spaces", **Antarctica Journal of Mathematics (AJM)**, Vol. 11, No. 3, 2014, pp. 237-242. (ISSN 2278-084X)

(66) K. Mariappa and **S. Sekar**, "On Regular Generalized b-Continuous Map in Topological Space", **Kyungpook Mathematical Journal (KMJ)**, Vol. 54, 2014, pp. 477-483. (ISSN 1225-6951(print) / ISSN 0454-8124(online))
doi: <http://dx.doi.org/10.5666/KMJ.2014.54.3.477>

(67) S. Karunanithi, S. Chakravarthy and **S. Sekar**, "A Study on Second-Order Linear Singular Systems using Leapfrog Method", **International Journal of Scientific & Engineering Research (IJSER)**, Vol. 5, Issue 8, August-2014, pp. 747-750. (ISSN 2229-5518)

(68) **S. Sekar** and K. Mariappa, "Almost contra regular generalized b-continuous functions", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 97, No. 2, 2014, pp. 161-176. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v97i2.4>

(69) **S. Sekar** and K. Prabhavathi, "Numerical Solution of Second Order Fuzzy Differential Equations by Leapfrog Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 16, Number 2, 2014, pp. 74-78. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V16P512>

(70) **S. Sekar** and M. Vijayarakavan, "Numerical Solution of Stiff Delay and Singular Delay Systems using Leapfrog Method", **International Journal of Scientific & Engineering Research (IJSER)**, Vol. 5, Issue 12, December-2014, pp. 1250-1253. (ISSN 2229-5518)

(71) **S. Sekar** and K. Mariappa, "On rgb-interior and rgb-closure in Topological spaces", **International Journal of Mathematical Archive (IJMA)**, Vol. 5, Issue 12, 2014, pp. 47-52. (ISSN (print) / ISSN 2229-5046 (online))

(72) **S. Sekar** and M. Nalini, "Numerical Investigation of Higher Order Nonlinear Problem in the Calculus of Variations Using Adomian Decomposition Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 11, Issue 1 Ver. II, (Jan-Feb. 2015), pp. 74-77. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-11127477>

(73) **S. Sekar** and K. Prabhavathi, "Numerical Strategies for the n^{th} –order fuzzy differential equations by Leapfrog Method", **International Journal of Mathematical Archive (IJMA)**, Vol. 6, No. 1, 2014, pp. 162-168. (ISSN (print) / ISSN 2229-5046 (online))

(74) **S. Sekar** and K. Prabhavathi, "Numerical aspects of Fuzzy Differential Inclusions using Leapfrog Method", **Global Journal of Pure and Applied Mathematics (GJPAM)**, Vol. 11, No. 1, 2015, pp. 52-55. (ISSN 0973-1768 (online))

(75) **S. Sekar** and M. Nalini, "A Study on linear time-invariant Transistor Circuit using Adomian Decomposition Method", **Global Journal of Pure and Applied Mathematics (GJPAM)**, Vol. 11, No. 1, 2015, pp. 1-3. (ISSN 0973-1768 (online))

(76) **S. Sekar** and M. Vijayarakavan, "Observer design of Singular Systems (Robot Arm Model) using Leapfrog Method", **Global Journal of Pure and Applied Mathematics (GJPAM)**, Vol. 11, No. 1, 2015, pp. 68-71. (ISSN 0973-1768 (online))

(77) **S. Sekar** and A. Kavitha, "Analysis of the linear time-invariant Electronic Circuit using Adomian Decomposition Method", **Global Journal of Pure and Applied Mathematics (GJPAM)**, Vol. 11, No. 1, 2015, pp. 10-13. (ISSN 0973-1768 (online))

(78) G. Balaji, A. Shobana, S. Vengataasalam and **S. Sekar**, "Numerical Investigation of Single-Term Haar Wavelet Series to Second Order Linear System with Singular – A", **Global Journal of Pure and Applied Mathematics (GJPAM)**, Vol. 11, No. 1, 2015, pp. 56-61. (ISSN 0973-1768 (online))

(79) **S. Sekar** and K. Prabhavathi, "NUMERICAL INVESTIGATION OF THE HYBRID FUZZY DIFFERENTIAL EQUATIONS USING LEAPFROG METHOD", **International Journal of Pure**

and Applied Mathematics (IJPAM), Vol. 103, No. 3, 2015, pp. 385-394. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v103i3.1>

(80) **S. Sekar** and M. Vijayarakavan, "Numerical approach to the CNN Based Hole-Filler Template Design Using Leapfrog Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 11, Issue 2 Ver. V, (Jul-Aug. 2015), pp. 62-67. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-11456267>

(81) **S. Sekar** and M. Nalini, "Analysis of the Nonlinear Singular Systems using Adomian Decomposition Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 25, Number 1, September 2015, pp. 1-4. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V25P501>

(82) **S. Sekar** and A. Kavitha, "Numerical Solutions of the Harmonic Oscillators using Adomian Decomposition Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 24, Number 1, August 2015, pp. 64-66. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V24P508>

(83) **S. Sekar** and B. Venkatachalam alias Ravikumar, "Numerical Solution of linear first order Singular Systems Using He's Variational Iteration Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 11, Issue 5 Ver. I, (Sep. -Oct. 2015), pp. 32-36. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-11513236>

(84) **S. Sekar** and M. Nalini, "Observer design of time-varying Singular Systems (Transistor Circuits) using Adomian Decomposition Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 26, Number 1, October 2015, pp. 1-3. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V26P501>

(85) **S. Sekar** and M. Nalini, "Numerical Solution of the Linear and Nonlinear Stiff Problems Using Adomian Decomposition Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 11, Issue 5 Ver. IV, (Sep. -Oct. 2015), pp. 14-20. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-11541420>

(86) **S. Sekar** and A. Kavitha, "Numerical Study of the Optimal Control of time-varying Singular Systems via Adomian Decomposition Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 26, Number 1, October 2015, pp. 9-12. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V26P503>

(87) **S. Sekar** and M. Vijayarakavan, "Numerical treatment of Periodic and Oscillatory Problems Using Leapfrog Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 26, Number 1, October 2015, pp. 24-28. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V26P506>

(88) **S. Sekar** and A. Kavitha, "A Study on linear time-varying Electronic Circuit Using Adomian Decomposition Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 11, Issue 5 Ver. IV, (Sep. -Oct. 2015), pp. 72-76. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-11547276>

(89) **S. Sekar** and K. Prabhavathi, "Numerical treatment for the Nonlinear Fuzzy Differential Equations using Leapfrog Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 26, Number 1, October 2015, pp. 35-39. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V26P508>

(90) **S. Sekar** and A. Kavitha, "Numerical Strategies of the Lorenz's Nonlinear Problems Using Adomian Decomposition Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 11, Issue 5 Ver. 5, (Sep. -Oct. 2015), pp. 20-24. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-11552024>

(91) **S. Sekar** and A. Sakthivel, "Numerical Investigations of linear first order Fuzzy Differential Equations using He's Homotopy Perturbation Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 11, Issue 5 Ver. 5, (Sep. -Oct. 2015), pp. 33-38. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-11553338>

(92) S. Karunanithi, S. Chakravarthy and **S. Sekar**, "A Study on unsteady one-dimensional heat flow problem using single-term Walsh series and Leapfrog Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 27, Number 1, November 2015, pp. 25-30. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V27P505>

(93) S. Karunanithi, S. Chakravarthy and **S. Sekar**, "A Study on Differential Equations on the Sphere using Leapfrog Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 11, Issue 6 Ver. II, (Nov. - Dec. 2015), pp. 49-52. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-11624952>

(94) **S. Sekar** and M. Vijayarakavan, "NUMERICAL TREATMENT OF THE RLC SMOOTHING CIRCUIT USING LEAPFROG METHOD", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 106, No. 2, 2016, pp. 631-637. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v106i2.25>

(95) S. Karunanithi, S. Chakravarthy and **S. Sekar**, "A Study on Second Order Multivariable Linear Singular Systems Using Leapfrog Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 12, Issue 2 Ver. III, (Mar. - Apr. 2016), pp. 72-76. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-1202037276>

(96) **S. Sekar** and A. S. Thirumurugan, "NUMERICAL INVESTIGATION OF INTEGRO-DIFFERENTIAL EQUATIONS USING HE'S HOMOTOPY PERTURBATION METHOD", **International Journal of Advanced Science and Engineering Research (IJASER)**, Vol. 1, Issue 1, June 2016, pp. 1006-1011. (ISSN 2455-9288 (online))

(97) **S. Sekar** and A. Sakthivel, "NUMERICAL INVESTIGATION OF LINEAR SECOND ORDER FUZZY DIFFERENTIAL EQUATIONS USING HE'S HOMOTOPY PERTURBATION METHOD", **International Journal of Advanced Science and Engineering Research (IJASER)**, Vol. 1, Issue 1, June 2016, pp. 1112-1117. (ISSN 2455-9288 (online))

(98) **S. Sekar** and B. Venkatachalam alias Ravikumar, "NUMERICAL SOLUTION OF LINEAR SECOND ORDER SINGULAR SYSTEMS USING HE'S VARIATIONAL ITERATION

METHOD", **International Journal of Advanced Science and Engineering Research (IJASER)**, Vol. 1, Issue 1, June 2016, pp. 1118-1121. (ISSN 2455-9288 (online))

(99) **S. Sekar** and B. Venkatachalam alias Ravikumar, "NUMERICAL SOLUTION OF LINEAR SECOND ORDER LINEAR SYSTEMS WITH SINGULAR - A USING HE'S VARIATIONAL ITERATION METHOD", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 36, Number 2, August 2016, pp. 134-136. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V36P520>

(100) **S. Sekar** and B. Venkatachalam alias Ravikumar, "Numerical Solution of nonlinear Singular Systems Using He's Variational Iteration Method", **IOSR Journal of Mathematics (IOSR-JM)**, Vol. 12, Issue 5 Ver. III, (Sep. -Oct. 2016), pp. 09-12. (e-ISSN 2278-5728 / p-ISSN 2319-765X)
doi: <http://dx.doi.org/10.9790/5728-1205030912>

(101) **S. Sekar** and B. Venkatachalam alias Ravikumar, "Numerical Analysis of second order Multivariable Linear Systems using He's Variational Iteration Method", **International Journal of Mathematics Trends and Technology (IJMTT)**, Vol. 37, Number 1, September 2016, pp. 16-19. (ISSN 2231-5373)
doi: <http://dx.doi.org/10.14445/22315373/IJMTT-V37P503>

(102) **S. Sekar** and G. Kumar, "ON $g\alpha$ CLOSED SET IN TOPOLOGICAL SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 108, No. 4, 2016, pp. 791-800. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v108i4.5>

(103) **S. Sekar** and B. Venkatachalam alias Ravikumar, "Numerical Solution of Bilinear Singular Systems using He's Variational Iteration Method", **Nonlinear Analysis and Differential Equations (NADE)**, Vol. 4, Number 13, 2016, pp. 619-625. (ISSN 2367-4814 (print) / ISSN 1314-7587 (online))
doi: <http://dx.doi.org/10.12988/nade.2016.6867>

(104) **S. Sekar**, G. Ramesh and S. Mohan, "A Fuzzy Linear Fractional Programming Problem with Fuzzy Homogeneous Constraints in Triangular Fuzzy Numbers", **The Journal of Fuzzy Mathematics**, Vol. 24, No. 4, 2016, pp. 977-984. (ISSN 1066-8950/16)

(105) **S. Sekar** and B. Jothilakshmi, "ON SEMI GENERALIZED STAR b -CLOSED SET IN TOPOLOGICAL SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 111, No. 3, 2016, pp. 419-428. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v111i3.7>

(106) **S. Sekar** and G. Kumar, "ON $g\alpha$ - Connectedness and Compactness in Topological Spaces", **Mathematica Aeterna (MA) International Journal for Pure and Applied Mathematics**, Vol. 6, No. 6, 2016, pp. 843-851. (ISSN 1314-3344 (online))

(107) **S. Sekar** and B. Jothilakshmi, "Almost contra semi generalized star b - continuous functions in Topological Spaces", **Mathematica Aeterna (MA) International Journal for Pure and Applied Mathematics**, Vol. 6, No. 6, 2016, pp. 853-865. (ISSN 1314-3344 (online))

(108) **S. Sekar** and R. Brindha, "ON PRE GENERALIZED B -CLOSED SET IN TOPOLOGICAL SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 111, No. 4, 2016, pp. 577-586. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v111i4.4>

(109) **S. Sekar** and G. Kumar, "ON generalized α regular-interior and generalized α regular-closure in Topological Spaces", **Malaya Journal of Matematik (MJM)**, Vol. 5, No. 1, 2017, pp. 115-121. (ISSN 2319-3786 (online))

(110) **S. Sekar** and B. Jothilakshmi, "On semi generalized star b – Connectedness and semi generalized star b – Compactness in Topological Spaces", **Malaya Journal of Matematik (MJM)**, Vol. 5, No. 1, 2017, pp. 143-148. (ISSN 2319-3786 (online))

(111) **S. Sekar** and R. Brindha, "Almost Contra Pre Generalized b – Continuous Functions in Topological Spaces", **Malaya Journal of Matematik (MJM)**, Vol. 5, No. 2, 2017, pp. 194-201. (ISSN 2319-3786 (online))

(112) **S. Sekar** and B. Jothilakshmi, "ON SEMI GENERALIZED STAR b -CLOSED MAP IN TOPOLOGICAL SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 113, No. 1, 2017, pp. 93-102. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v113i1.9>

(113) **S. Sekar** and R. Brindha, "ON PRE GENERALIZED b -CLOSED MAP IN TOPOLOGICAL SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 113, No. 1, 2017, pp. 103-112. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v113i1.10>

(114) **S. Sekar** and R. Brindha, "Contra Pre Generalized b - Continuous functions in Topological Spaces", **Mathematica Aeterna (MA) International Journal for Pure and Applied Mathematics**, Vol. 7, No. 1, 2017, pp. 57-67. (ISSN 1314-3344 (online))

(115) **S. Sekar** and A. S. Thirumurugan, "Numerical Investigation of the Nonlinear Integro-Differential Equations using He's Homotopy Perturbation Method", **Malaya Journal of Matematik (MJM)**, Vol. 5, No. 2, 2017, pp. 389-394. (ISSN 2319-3786 (online))

(116) **S. Sekar** and S. Loganayagi, "On generalized b star – closed set in Topological Spaces", **Malaya Journal of Matematik (MJM)**, Vol. 5, No. 2, 2017, pp. 401-406. (ISSN 2319-3786 (online))

(117) **S. Sekar** and R. Brindha, "ON PRE GENERALIZED b – CONTINUOUS MAP IN TOPOLOGICAL SPACES", **International Electronic Journal of Pure and Applied Mathematics (IEJPAM)**, Vol. 11, No. 1, 2017, pp. 59-66. (ISSN 1314-0744 (online))
doi: <http://dx.doi.org/10.12732/iejpam.v11i1.6>

(118) **S. Sekar** and G. Kumar, "ON $g\alpha$ r-CONTINUOUS MAP IN TOPOLOGICAL SPACES", **International Electronic Journal of Pure and Applied Mathematics (IEJPAM)**, Vol. 11, No. 2, 2017, pp. 77-85. (ISSN 1314-0744 (online))
doi: <http://dx.doi.org/10.12732/iejpam.v11i2.1>

(119) **S. Sekar** and G. Kumar, "CONTRA GENERALIZED α REGULAR-CONTINUOUS FUNCTIONS IN TOPOLOGICAL SPACES", **Bulletin of Calcutta Mathematical Society (BCMS)**, Vol. 109, No. 2, 2017, pp. 131-142.

(120) **S. Sekar** and A. Sakthivel, "Numerical investigation of the hybrid fuzzy differential equations using He's homotopy perturbation method", **Malaya Journal of Matematik (MJM)**, Vol. 5, No. 2, 2017, pp. 475-482. (ISSN 2319-3786 (online))

(121) **S. Sekar** and G. Kumar, "ON $g\alpha$ -CLOSED MAP IN TOPOLOGICAL SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 114, No. 2, 2017, pp. 231-239. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v114i2.6>

(122) **S. Sekar** and B. Jothilakshmi, "ON SEMI GENERALIZED STAR b -CONTINUOUS MAP IN TOPOLOGICAL SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 114, No. 1, 2017, pp. 133-142. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v114i1.11>

(123) **S. Sekar** and S. Loganayagi, "On generalized b star – closed map in Topological Spaces", **Mathematica Aeterna (MA) International Journal for Pure and Applied Mathematics**, Vol. 7, No. 2, 2017, pp. 95-103. (ISSN 1314-3344 (online))

(124) **S. Sekar** and A. Sakthivel, "Numerical Investigation of the Fuzzy Differential Inclusions using HHPM", **Mathematica Aeterna (MA) International Journal for Pure and Applied Mathematics**, Vol. 7, No. 2, 2017, pp. 105-112. (ISSN 1314-3344 (online))

(125) **S. Sekar** and G. Kumar, "Almost contra generalized α regular-continuous functions in topological spaces", **Scientia Magna**, Vol. 12, No. 1, 2017, pp. 46-56. (ISSN 1556-6706 (print))

(126) **S. Sekar** and B. Jothilakshmi, "Contra semi generalized star b -continuous functions in topological spaces", **Scientia Magna**, Vol. 12, No. 1, 2017, pp. 57-65. (ISSN 1556-6706 (print))

(127) **S. Sekar** and A. S. Thirumurugan, "Numerical Investigation of the weakly singular Volterra integro-differential equations using He's Homotopy perturbation method", **Malaya Journal of Matematik (MJM)**, Vol. 6, No. 1, 2018, pp. 129-132. (ISSN 2319-3786 (online))
doi: <http://doi.org/10.26637/MJM0601/0016>

(128) **S. Sekar** and A. Sakthivel, "Numerical Investigation of the n -th order Fuzzy Differential Equations using He's Homotopy Perturbation Method", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 116, No. 4, 2017, pp. 899-911. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v116i4.8>

(129) **S. Sekar** and G. Mayelvaganan, "STABILITY OF FUNCTIONAL EQUATION IN NON-ARCHIMEDEAN ORTHOGONALITY SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 116, No. 3, 2017, pp. 559-569. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))
doi: <http://dx.doi.org/10.12732/ijpam.v116i3.1>

(130) **S. Sekar** and G. Mayelvaganan, "STABILITY OF AN ADDITIVE-QUARTIC FUNCTIONAL EQUATION IN ORTHOGONALITY SPACES", **International Journal of Pure and Applied Mathematics (IJPAM)**, Vol. 113, No. 3, 2017, pp. 471-482. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))

doi: <http://dx.doi.org/10.12732/ijpam.v113i3.9>

(131) **S. Sekar** and G. Mayelvaganan, "STABILITY OF FUNCTIONAL EQUATION IN NON-ARCHIMEDEAN SPACES", **International Electronic Journal of Pure and Applied Mathematics (IEJPAM)**, Vol. 12, No. 1, 2018, pp. 21-29. (ISSN 1311-8080 (print) / ISSN 1314-3395 (online))

doi: <http://dx.doi.org/10.12732/iejpam.v12i1.2>

(132) **S. Sekar** and G. Mayelvaganan, "GENERALIZED HYERS-ULAM-RASSIAS STABILITY OF A FUNCTIONAL EQUATION IN INTUITIONISTIC FUZZY NORMED SPACES", **International Journal of Current Advanced Research (IJCAR)**, Vol. 7, No. 1, 2018, pp. 109-114. (ISSN 2319-6505 (print) / ISSN 2319-6475 (online))

doi: <http://dx.doi.org/10.24327/IJCAR>

(133) **S. Sekar** and G. Mayelvaganan, "STABILITY OF A QUADRATIC FUNCTIONAL EQUATION IN IFNS", **International Journal of Mathematics And its Applications (IJMAA)**, Vol. 6, No. 1, 2018, pp. 47-53. (ISSN 2347-1557 (online))

(134) **S. Sekar** and R. Brindha, "On pgb – Connectedness and pgb – Compactness in topological spaces", **Scientia Magna**, Vol. 13, No. 1, 2018, pp. 12-18. (ISSN 1556-6706 (print))

(135) **S. Sekar** and S. Loganayagi, "On generalized b star – interior and generalized b star – closure in topological spaces", **Malaya Journal of Matematik (MJM)**, Vol. 7, No. 3, 2019, pp. 458-462. (ISSN 2319-3786 (online))

doi: <http://doi.org/10.26637/MJM0703/0015>

(136) **S. Sekar** and A. S. Thirumurugan, "Numerical Investigation of the fuzzy integro-differential equations by He's Homotopy perturbation method", **Malaya Journal of Matematik (MJM)**, Vol. 7, No. 3, 2019, pp. 468-471. (ISSN 2319-3786 (online))

doi: <http://doi.org/10.26637/MJM0703/0017>

(137) V. J. Nirmala and **S. Sekar**, " H_∞ feedback sampled-data control of T-S fuzzy systems via a novel integral inequality approach", **Malaya Journal of Matematik (MJM)**, Vol. 8, No. 2, 2020, pp. 608-615. (ISSN(P): 2319-3786, ISSN(O): 2321-5666)

doi: <http://doi.org/10.26637/MJM0802/0049>

(138) G. Mayelvaganan and **S. Sekar**, "A quadratic functional equation stability in 2-Banach spaces", **Malaya Journal of Matematik (MJM)**, Vol. 8, No. 4, 2020, pp. 2045-2049. (ISSN(P): 2319-3786, ISSN(O): 2321-5666)

doi: <http://doi.org/10.26637/MJM0804/0122>

(139) B. Jothilakshmi and **S. Sekar**, "Some investigation on continuous functions in almost contra semi-generalized star b in topological spaces", **Malaya Journal of Matematik (MJM)**, Vol. 9, No. 1, 2021, pp. 173-177. (ISSN(P): 2319-3786, ISSN(O): 2321-5666)

doi: <http://doi.org/10.26637/MJM0901/0029>

International Conferences:

- (1) **S. Sekar**, "ANALYSIS OF NON-LINEAR SINGULAR SYSTEMS VIA RUNGE-KUTTA METHODS AND THE RK-BUTCHER ALGORITHM", **International Conference on National Phenomena (ICNP-2004)**, January 5-10, 2004, Indian Institute of Science, Bangalore, India. (Poster Presentation)
- (2) **S. Sekar**, "A STUDY ON PERIODIC AND OSCILLATORY PROBLEMS USING RK-BUTCHER ALGORITHM", **International Conference on Mathematics & Computer Science (ICMCS-2007)**, March 01-03, 2007 at Loyola College, Chennai, India.
- (3) **S. Sekar** and K. Prabakaran, "NUMERICAL SOLUTION OF LINEAR AND NON-LINEAR SINGULAR SYSTEM USING SINGLE-TERM HAAR WAVELET SERIES", **COMMUNICATION IN COMPUTER AND INFORMATION SCIENCE, Control, Computation and Information Systems: First International Conference on Logic, Information, Control and Computation**, ICLICC 2011, Gandhigram, India, February 25-27, 2011, **Springer Verlag**, Vol. 140, 2011, pp. 204-212. (ISSN 1865-0929 print / ISSN 1865-0937 online)
- (4) **S. Sekar** and K. Prabakaran, "SINGLE TERM HAAR WAVELET SERIES METHOD FOR THE SOLUTION OF TIME VARYING SINGULAR SYSTEMS", **International Conference on Process Automation, Control and Computing (PACC)**, Coimbatore, India, July 20-22, 2011, **IEEE**, pp. 1-6. (Print ISBN 978-1-61284-765-8 / **INSPEC Accession Number**: 12180517 **Digital Object Identifier**: 10.1109 / PACC. 2011.5979032 **Date of Current Version**: 12 August 2011)

National Conferences:

- (5) **S. Sekar**, V.Muruges and K.Murugesan, "ANALYSIS OF THE FIRST ORDER IVPS USING THE RK-BUTCHER ALGORITHM", **National Conference on Recent Trends in Computational Mathematics**, March 18-19, 2004 at Gandhigram Rural Institute-Deemed University, Gandhigram – 624 302, Tamilnadu.
- (6) **S. Sekar**, V.Muruges and K.Murugesan, "SIMULATIONS FOR THE SYSTEM OF SECOND ORDER IVPS USING THE RK-BUTCHER ALGORITHM", **National Conference on Distributed computing and Database**, March 28-29, 2004 at Gobi Arts and Science College, Gobichettipalayam – 638 476, Tamilnadu.
- (7) **S. Sekar** and N. R. Karthikeyan, "Observer design of (singular systems) electronic circuits using RK-Butcher algorithm", **6th ISTE Students Annual Convention**, September 16, 2006 at Arulmigu Kalasalingam College of Engineering and Arulmigu Kalasalingam Polytechnic College, Krishnankoil-626 190, Tamil Nadu, India.
- (8) **S. Sekar**, A. Naggapan, G. Balaji and S. Nandhakumar, "A Study on singular delay and stiff delay systems using RK-Butcher algorithm", **National Conference on Differential Equations and Applications**, September 28-29, 2006 at Periyar University, Salem–636 011, Tamil Nadu, India.

Schools / Workshop Attend :

- (1) "GEOMETRIC ASPECTS OF ROBOTICS AND CONTROL – NONLINEAR OSCILLATIONS", Summer School 2004, from May 31st – June 5th , 2004 organized by the

Nonlinear Studies Group, Department of Mathematics, **Indian Institute of Science**, Bangalore - 560 012. India.

(2) One day workshop on “LECTURES ON MATHEMATICAL NEUROSCIENCE – AN INTRODUCTION”, from July 27th , 2005 organized by the **Nonlinear Studies Group**, Department of Mathematics, **Indian Institute of Science**, Bangalore - 560 012. India.

(3) “INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATION”, Winter School 2005, from December 19th – 23rd , 2005 organized by the **Nonlinear Studies Group**, Department of Mathematics, **Indian Institute of Science**, Bangalore - 560 012. India.

(4) National Level Workshop on “Wi-Fi Technology”, from July 31st, 2004 organized by the Department of Information Technology **V.M.K.V. Engineering College**, Periya Seeragapadi, Salem-636 308. India.

(5) Workshop on Optics and Photonics (WOOP-2005), from August 18th and August 19th, 2005 organized by Department of Physics, **National Institute of Technology**, Tiruchirappalli-620 015.India.

(6) “WORKSHOP ON QUALITY IMPROVEMENT PROGRAMME”, **ISTE Staff chapter 2006**, September 4-6, 2006 at **V.M.K.V. Engineering College**, Salem-636 308, India.

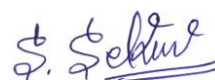
(7) “ MATHEMATICAL ASPECTS OF COMPUTER SCIENCE”, September 22-23, 2006 at Department of Information Technology, **K. S. Rangasamy College of Technology**, Tiruchengode-637 209, India.

(8) Two day’s Workshop on Computational Fluid Dynamics, from September 17-18, 2007 organized by Department of Mathematics, **National Institute of Technology**, Tiruchirappalli-620 015.India.

(9) Regional Seminar on Optimization Techniques in Engineering Fields, from December 7-8, 2007 organized by Department of Mathematics, **Sri Shakthi Institute of Engineering and Technology**, Coimbatore, Tamil Nadu, India.

Date: 12-06-2024

Place: THITTAMALAI



Signature
(Dr. S. SEKAR)