### Dr. R. ASOKAN

Professor, Head & Chairperson, Department of Mathematics, School of Mathematics, Madurai Kamaraj University,

Madurai – 625 02, Tamil Nadu, India.

Email: asokan.maths@mkuniversity.org (off) rasoka mku@yahoo.co.in (personal)

Phone: 350 (Off); (Mobile) 9791967592, 9003585301

MKU web page link of the faculty

Scopus link if available Vidwan link if available



### 1. Personal Details

Date of Birth & Age : 07.05.1969 & 53 Gender & Marital Status : Male & Married

Community : SC Nationality : Indian

Place of Birth : Arkadu, Villupuram (Dt.)

### 2. Educational Qualifications

#### 2.1. Academic

Degree/	Name of the	University/	Year of	Percentage/	Main
Examination	Exam	Institute	Passing	Grade	Subject
Under	BSc/BA/BCom	University of	1990	70	Mathematics
Graduate	etc. Degree	Madras	1990	/0	iviamematics
Teacher	BEd / MEd	University of	1995	67	Mathematics
Education	BEQ / MEQ	Madras	1993	07	iviamematics
Post Graduate	MSc/MA/MCom	University of	1992	07	Mathematics
Post Graduate	etc. Degree	Madras	1992	87	iviamematics

### 2.2. Research

Degree	Name of the University	Title of the Thesis	Date of Submission	Date of Award
Ph.D	Madurai Kamaraj University	Backlund Transformations and Similarity Reductions of Partial Differential Equations	13.12.2007	27.11.2008
M.Phil	University of Madras	Besov Spaces and Sobolev Spaces on a Nilpotent Lie Group	June 1993	June 1993

### 3. Post-Doctoral/ Research Associate / Industrial Experience: Nil

### 4. Professional Experience

No	Name of the University /	Position Held	From (Date)	To (Date)
	Institution			
1	Madurai Kamaraj University	Chief Superintendent	25.03.2011	15.06.2017
2	Madurai Kamaraj University	Special camp officer	11.05.2012	31.05.2012

# 5. Teaching

No	Year	Semester	Course Code	Course Title	Hours per Week
1	2022-23	I	MAT2113C	Topology	6 hrs
2	2022-23	III	MAT2134C	Classical Mechanics	6 hrs

### 6. Design/Development of New Curricula and Courses

No	Description	Organization for which it was Developed	Level(PG/UG)
1	Ordinary Differential Equations	Madurai Kamaraj University	PG
2	Partial Differential Equations	Madurai Kamaraj University	PG
3	Classical Mechanics	Madurai Kamaraj University	PG

# 7. Creation of ICT Mediated Teaching-Learning Pedagogy

7.1. SWAYAM / MOOCs: NIL

7.2. E-Contents: NIL

7.3. Development of otherICT Mediated Teaching-Learning Pedagogy: NIL

### 8. Research Specialization / Field of Research

- Differential Equations
- ➤ General Topology
- > Mathematical Modelling

### 9. Research Publications

Туре	International	National
Papers Published in UGC-CARE Listed Journals	35	2
Papers in Refereed Journals (Not mentioned above)	26	-
Books Published	-	-
Books Edited	-	-
Contributions to Book Chapters	-	-
Editor of Conference/Seminar Proceedings	-	-
Papers Published in Conference/Seminar Proceedings	2	2
Papers Presented in Conferences/Seminars	7	16
Conference/Seminar/Workshop Attended	1	21
Deposits in CCDC, PDB, etc.	-	

### **10. Citation Metrics**

Cumulative Impact Factor (Recent Annual JCR)	97.89
Total Citations (Scopus/Web of Science)	94
h-Index (Scopus/Web of Science)	6
g-Index (Scopus/Web of Science)	-
i10 Index (Scopus/Web of Science)	5

# 11. Details of Patents: Nil

# 12. Research Guidance/Supervision

Degree / Programme	Completed	Submitted	Ongoing
Ph.D (Full-time)	05	02	03
Ph.D (Part-time)	20	03	05
M.Phil Research Project (Full-time)	70	-	-
M.Phil Research Project (Part-time)	25	-	-
M.Sc Projects/Dissertation	80	-	05
M.Sc Internships/Summer or Winter Projects	-	-	-

# 13. Funded Research Projects 13.1. Ongoing: RUSA-MKU

13.2 Completed: 01

# 14. Reviewer in Journals

Name of the Journal	Publisher	No of Papers Reviewed
International Journal of Mathematical Research	International Research Publication house	10
Communication in Mathematics and Applications	RGN Publications	5

### 15. Research Collaborations

Name of the Collaborator	Institute	Collaboration Details
Dr. M. Pichaimani	University of Madras	Paper works
Dr. S. Padmasekaran	Periyar University	Paper works
Dr. O. Nethaji	Manonmaniam Sundaranar University	Paper works
Dr. I. Rajasekaran	Manonmaniam Sundaranar University	Paper works

16. Countries Visited: Nil

17. Honours / Awards / Recognitions: nil

# 18. Conferences / Seminars / Workshops Organized

Level	Conference Title	Date(s)	Place	Role	Funding
				Played	
National	Theoretical Advances in Differential Equations and Applications ( TADEA 2013)	23.08.2013	School of Mathematics	Organizing Secretary	DST

# 19. Invited Lectures / Resource Person

No	Institute / Organizer	Name of the Conference / Seminar / Workshop	International / National / State / Institute Level	Date(s)
1	Madurai Kamaraj University	National Conference on Nonlinear Analysis and Mathematical Modelling	National	March 29- 30, 2011
2	University of Madras	International Seminar on Dynamical Systems	International	August 20 <sup>th</sup> , 2011
3	Madurai Kamaraj University	National Seminar on Applications of Modern Topology	National	January 24th, 2012
4	Sri Padmavati Mahila Visvavidyalayam	National Seminar on Recent Advances in Mathematics and its Applications at Department of Applied Mathematics	National	March 2- 3, 2012

5	Madurai Kamaraj University	National Conference on Applied Stochastic Methods  National		March 23- 24, 2012
6	Bharathiar University	National Conference on Advances in Applied Mathematics	National	March 27th, 2012
7	Periyar University	National Conference on Advances in Differential Equations and Applications	National	March 29- 30, 2012
8	Coimbatore Institute of Technology	International Conference on Mathematical Modelling and Applied Soft Computing	International	July 11- 13, 2012
9	Mannar Thirumalai Naicker College	International Conference on Advances in Stochastic Modelling	International	January 08- 10, 2013
10	SASTRA University	National Conference on Advances in Partial Differential Equations	National	December 13- 14, 2013
11	Saiva Bhanu Kshatriya College	National Seminar on Current Trends in Mathematics	National	February 07th- 8 <sup>th</sup> 2014
12	Madurai Kamaraj University	International Conference on Mathematical Sciences	International	August 21-23, 2014
13	Bharathiar University	National Conference on Advances in Applied Mathematics	National	February 12- 13, 2015

# 20. Professional Development Programs / Faculty Development Programs Organized

Name of the Program	Role	Place	Date(s)	Funds in Rs &Sponsor
Modern Trends in Advanced Mathematics	Coordinator	Madurai Kamaraj University	Feb 01- 21, 2013	UGC- Academic Staff College
Advances in Algebra and Analysis	Coordinator	Madurai Kamaraj University	Nov 07- 27, 2013	UGC- Academic Staff College
Emerging Trends in Modern Mathematics	Coordinator	Madurai Kamaraj University	Nov 10- 23, 2021	UGC-HRDC
Recent Developments in Mathematics and Statistics	Coordinator	Madurai Kamaraj University	Aug 10-23, 2022	UGC-HRDC

# 21. Professional Development Programs / Faculty Development Programs Attended:

Name of the Program	Place	Date(s)	Sponsor
Orientation in Mathematics	Madurai Kamaraj University	18.07.2001 to 14.08.2001	UGC- ASC
Refresher Course in Mathematics	Madurai Kamaraj University	24.07.2002 to 13.08.2002	UGC
Refresher Course in Mathematics	Madurai Kamaraj University	20.02.2008 to 11.03.2008	UGC
Refresher Course in Mathematics	Madurai Kamaraj University	24.07.2008 to 13.08.2008	UGC

# 22. Administrative Experiences

Role Played	Responsibilities	Period (from to)
Madurai Kamaraj University	SC/ST standing Committee	2002-2013
Madurai Kamaraj University	CBCS Academic Committee	2007-2009
School of Mathematics	Head & Chairperson	01.07.2022 to Till date

# 23. Membership in Academic Bodies

Name of the University / Institute / College	Type of Membership	Duration / Period
Madurai Kamaraj University	Student Advisor for II Year M.Sc - Mathematics	2012 to till date
NAAC	Convener	2012
Parvathy's Arts and Science College	Inspection Commission	05.05.2012
Amman College of Arts and Science	Inspection Commission	05.05.2012
PKN Arts and Science College	Inspection Commission	08.05.2012
Madurai Kamaraj University Evening College	Inspection Commission	28.05.2012
Theni Kammavar Sangam College of Arts and Science	Inspection Commission	29.05.2012
Krishnaswamy college of Arts & Science	Inspection Commission	10.07.2014

Auxilium Arts and Science College for Women	Inspection Commission	08.07.2022
MKU affiliated College	University Nominee for UG, P.G & M. Phil Board of Studies	2012-2014
MKU affiliated College	University Nominee for UG, P.G & M. Phil Board of Studies	2013-2015
MKU affiliated College	University Nominee for UG, P.G & M. Phil Board of Studies	2014- 2016
VHNSN College	BOS	2014-2017
MKU affiliated College	University Nominee for UG, P.G & M. Phil Board of Studies	2015 -2017
MKU affiliated College	University Nominee for UG, P.G & M. Phil Board of Studies	2016-2018
MKU affiliated College	University Nominee for UG, P.G & M. Phil Board of Studies	2017-2019
Thiagarajar College	BOS	2019-2020
Anna University	BOS	2020-2022
Gandhigram Rural Institute	DC	23.08.2018
Alagappa University	DC	23.03.2022
MKU affiliated College	DC	20.09.2022
Alagappa University	DC	20.10.2022
MKU affiliated College	DC	26.10.2022
Bharathiar University	External Examiner	30.04.2018
Jamal Mohamed College	External Examiner	28.06.2018
Jamal Mohamed College	External Examiner	07.08.2019
Periyar University	External Examiner	13.09.2019
Manonmaniam Sundaranar University	External Examiner	28.05.2019
Govt. Arts College	External Examiner	06.01.2020
UDC College	External Examiner	21.03.2022
Kamaraj College	External Examiner	27.10.2022
Anna University	External Examiner	28.10.2022

Annamlai University	External Examiner	16.08.2023
Kamaraj College, Thoothukudi.	External Examiner	31.08.2023
MS University	External Examiner	01.09.2023
GRI, Gandhigram.	DC	22.09.2023

### 24. Membership in Recognised Professional Bodies: Nil

### 25. Languages Known

Languages	Read	Write	Speak
Tamil	Yes	Yes	Yes
English	Yes	Yes	Yes

### 26. Competence in Computer Applications

- a) Latex
- b) Mathematica
- c) Matlab

### 27. Involvement in Extension Activities other than Academic Works

To guide the village students to study the higher studies and job offers.

### 28. Any Other Relevant Information

Serving as Academic Course Coordinator in the Department of Mathematics, Directorate of Distance Education, Madurai Kamaraj University, Madurai – 625 021 from 20.10.2022 to till date.

#### **Details of Publications**

- 1. Books Published
- 2. Books Edited
- 3. Contribution to Book Chapters
- 4. Editor of Conference/Seminar Proceedings
- 5. Research Publications
- 5.1. UGC-CARE Listed Journals
  - Direct similarity analysis of generalized Burgers equations and perturbation solutions of Euler-Painlevé transcendent, Mayil Vaganan. B and R. Asokan, *Studies in Applied Mathematics*, 2003, 111(4), 435-451.

Impact Factor: 2.343; Citations: 14;

DOI: https://doi.org/10.1111/1467-9590.t01-1-00041.

2. Nonclassical symmetries and direct similarity analysis of a nonlocal gaseous ignition model, R. Asokan and M. Pitchaimani, *International Journal of Pure and Applied Mathematics*, 2007, 41(5), 735-746.

Impact Factor: 0.142; Citations: -; DOI:.

3. A Backlund transformation for  $u_y + \alpha u_{xx} + \beta u_{xxx} = f(x, y, u, u_x)$ , R. Asokan, International Electronic Journal of Pure and Applied Mathematics, 2010, 1(2), 177-194.

Impact Factor: 0.91; Citations: -; DOI:.

4. Capacity Maximized Precoder, R. Asokan and G.Pandeeswari, *Global Journal of Engineering and Applied Sciences*, 2011, 1(3), 47-49.

Impact Factor: 0.58; Citations: -; DOI:.

5. Nonclassical Symmetries of a Generalized Burgers equations by the Compatibility condition, R. Asokan, *International Journal of Mathematics Research*, 2012, 4(20), 179-186.

Impact Factor: 0.58; Citations: -; DOI:.

6. Autobacklund transformations, Lax pairs and Painleve properties of K-dV equation with variable coefficient, R. Asokan, *Journal of Informatics and Mathematical Sciences*, 2012, 4(1), 111-116.

Impact Factor: 0.37; Citations: -;

DOI: https://doi.org/10.26713/jims.v4i1.72.

 Existence and Estimation of Negative Critical Allometry Model Parameter, R. Asokan and M. Pitchaimani, *International Journal of Emerging Science and Engineering*, 2013, 1(11), 78-86.

Impact Factor: 3.802; Citations: -; DOI:.

- 8. Generalized Euler-Painleve Transcendent of the generalized Burgers Equations, R. Asokan, *International Journal of Applied Mathematics and Mechanics*, 2014, 3(1), 33-41. Impact Factor: 7.429; Citations: -; DOI:.
- 9. Auto-Backlund transformations and Exact solutions for general fifth order KdV equations, R. Asokan, *International Journal of Applied Mathematics and Mechanics*, 2014, 3(1), 57-64. Impact Factor: 7.429; Citations: -; DOI:.
- Symmetry Classifications and Reductions of (2+1)-Dimensional Potential Burger's Equation,
   R. Asokan, S. Padmasekaran and R. BalaPriya, *International Journal of Mathematics and its Application*, 2015, 3(3-B), 63-70.
   Impact Factor: 0.564; Citations: 1; DOI:.
- 11. Lie group analysis of two-dimential variable coefficient Potential Burger's Equation, R. Asokan and R. BalaPriya, *International Journal of Current Research in Science and Technology*, 2015, 1 (5), 21-29.

Impact Factor: -; Citations: -; DOI:.

12. Similarity Reductions of (2+1) – dimensional Equal Width Wave Equation, R. Asokan and G. Bharathi, *International Journal of Mathematics And its Application*, 2016, 4(3), 01-13.

Impact Factor: -; Citations: -; DOI:.

13. Analytical Solution of The Non-Linear Initial Value Problem in One-Stage ThermoPhilic Bio-Remediation Process For The Treatment of Cheese Whey, R. Asokan and S. Pavithra, *asian journal of current engineering and maths*, 2016, 5(4), 44-51.

Impact Factor: -; Citations: 2;

DOI: 10.15520/AJCEM.2016.VOL5.ISS4.57.PP44-51.

 Approximate Analytical Expressions For The Concentrations of Acetate And Methane In The Microbial Electrochemical Cell, S Pavithra, L Rajendran and R Ashokan, *Natural Science*, 2016, 8, 196-210.

Impact Factor: 2.34; Citations: -;

DOI: 10.4236/ns.2016.84023.

15. Modelling of Non Linear Enzyme Reaction Process Using Variational Iteration Method, R Ashokan, MS Ibrahim, S Pavithra and R Saravanakumar, *International Journal of Computer Engineering Research*, 2016, 6(8), 36-45.

Impact Factor: 6.41; Citation: 1; DOI: Special Issue.

Symmetry Classifications and Reductions of (2+1)-Dimensional Korteweg-de-vries Equation,
 T. Siva Subramania Raja and R. Asokan, *International Journal of Mathematics and its Application*, 2016, 2(1), 21-30.

Impact Factor: -; Citations: -; DOI:.

17. The differential transform method for (n + 1)-dimensional equal width wave equation with damping term, K. Sathya and R Asokan, *International Journal of Mathematics and its Application*, 2016, 4(3), 1-6.

Impact Factor: -; Citations: -; DOI:.

18. Approximate analytical solution of non linear equation in Biological membrane using single parameter HPM, M. Syed Ibrahim, T. Iswarya, R. Ashokan and L. Rajendran, *International Journal Of Mathematical Archive*, 2017, 8 (6).

Impact Factor: 1.503; Citations: -; DOI:.

19. Analytical solutions of nonlinear equation in immobilized enzyme in A Spherical Porous Matrix: New Homotopy Perturbation Approach, MS Ibrahim, R Saravanakumar and R Asokan, *International Journal of Computer Engineering Research*, 2017, 07(07), 58-65.

Impact Factor: 4.029; Citations: -; DOI:.

20. The tanh - coth method for soliton and exact solutions of the Sawada - Kotera equation, R Asokan and D. Vinodh, *International Journal of Pure and Applied Mathematics*, 2017, 117(13), 19-27.

Impact Factor: 0.50; Citation: 6; DOI: Special Issue.

21. "Soliton and Exact Solutions for the KdV–BBM Type Equations by tanh–coth and Transformed Rational Function Methods.R. Asokan and D. Vinodh, *International Journal of Applied and Computational Mathematics*, 2018, 4(4), 1-20.

Impact Factor: 1.77; Citation: 8;

DOI: https://doi.org/10.1007/s40819-018-0533-7.

22. A variety of generalized classes of (U,N,I), ), O. Nethaji, R. Asokan and I. Rajasekaran, *South Asian Journal of Mathematics*, 2018, 8 (2), 85-91.

Impact Factor: 0.625; Citation: 8; DOI:

23. On nano generalized \*-closed sets in an ideal nanotopological space, O. Nethaji, R. Asokan and I. Rajasekaran, *Asia Mathematika*, 2018, 2(3), 50-58.

Impact Factor: 0.362; Citation: 8; DOI:

24. An analytical solution of (2+1) – dimensional Equal Width wave equation with diffusivity by HPM, ADM and DTM, R. Asokan and K. Alaguraja, *International Journal of Mathematics Trends and Technology*, 2018, 56(1), 40-49.

Impact Factor: 0.764; Citation: -;

DOI: 10.14445/22315373/IJMTT-V56P506.

25. Identification of HPM and ADM for the (n+1) – dimensional Equal Width Wave Equation with Diffusion and Damping term, R. Asokan, E. Nakkeeran and T. Shanmuga Priya, *International Journal of Mathematics Trends and Technology*, 2018, 56(6), 380-391.

Impact Factor: 0.764; Citation: -;

DOI: 10.14445/22315373/IJMTT-V56P551.

 Lie Classical Method for (2+1)-dimensional Rosenau Equation. R. Asokan, S. Padmasekaran and E. Nakkeeran, *International Journal of Mathematics and its Application*, 2018, 6(2-A), 345-350.

Impact Factor: 0.764; Citation: -; DOI:.

27. Lie Symmetries of (2+1)-dimensional Modified Equal Width Wave Equation, S Padmasekaran, R Asokan and K Kannagidevi, *International Journal of Mathematics Trends and Technology*, 2018, 5(56), 372-379.

Impact Factor: 0.764; Citation: -;

DOI: 10.14445/22315373/IJMTT-V56P550.

28. On nano generalized p#-closed sets in nanotopological space, O. Nethaji and R. Asokan, *Journal of Applied Science and Computations*, 2019, 6(1), 131-143.

Impact Factor: 5.8; Citation: -;

DOI: 16.10089.JASC.2018.V6I1.453459.1500429.

29. New generalized closed sets in ideal nanotopological spaces, R Asokan, O Nethaji and I Rajasekaran, Bulletin of International Mathematical Virtual Institute, 2019, 9(3), 535-542.

Impact Factor: 0.589; Citation: 1;

DOI: 10.7251/BIMVI1903535A.

30. New generalized classes of ideal nanotoplogical spaces, O Nethaji, R Asokan and I Rajasekaran, Bulletin of International Mathematical Virtual Institute, 2019, 9(3), 543-552.

Impact Factor: 0.589; Citation: 10;

DOI 10.7251/BIMVI1903543N.

31. Nano generalized closed sets depending on ideal, I. Rajasekaran, O. Nethaji, R. Asokan and R. Premkumar, Asia Mathmatika, 2019, 3(3), 14.

Impact Factor: 0.362; Citation: -; DOI:.

32. Novel concept of ideal nanotopological spaces, O Nethaji, R Asokan and I Rajasekaran, Asia Mathmatika, 2019, 3(3), 5-15.

Impact Factor: 0.362; Citation: -; DOI:.

33. Kink and Solitary wave solutions for (3+1) dimensional Kadomtsev – Petvishvili equation, D. Vinodh and R. Asokan, *Palestine Journal of Mathematics*, 2019, 8(1), 490 – 494.

Impact Factor: 0.27; Citation: -; DOI: Special Issue.

34. Multi-soliton, Rogue Wave and Periodic Wave Solutions of Generalized (2+1) Dimensional Boussinesq Equation, D. Vinodh and R. Asokan, International Journal of Applied and Computational Mathematics, 2020, 6(1), 1-16.

Impact Factor: 1.77; Citation: 13;

DOI: https://doi.org/10.1007/s40819-020-0768-y.

35. Decompositions of Phig continuity via Ideal, Nano Topological spaces, Advances in *Mathematics: Scientific Journal*, 2020, 9(5), 2817 – 2825.

Impact Factor: -; Citation: -; DOI:.

36. Several types of B# - closed sets in Ideal Nanotopological Spaces, R Asokan, O Nethaji and I Rajasekaran, *Journal of New Theory*, 2020, 32, 51-57.

Impact Factor: 3.638; Citation: 1; DOI:.

37. On  $(1,2)^*$  -  $\check{g}$  - normal and  $(1,2)^*$  -  $\check{g}$  - regular spaces, A. Ponmalar , R. Asokan and O. Nethaji, *Malaya Journal of Matematik*, 2020, 8(4), 2108-2112.

Impact Factor: 4.529; Citation: -;

DOI: 10.26637/MJM0804/0133.

38. A note on generalized multi soft sets in soft topological spaces, R. Asokan and M. Vijay, *Suraj Punj Journal For Multidisciplinary Research*, 2021, 11(1), 73-85.

Impact Factor: 6.1; Citation: -;

DOI: 16.10089.SPJMR.2020.V10I10.16.3337.

39. A note on applications of supra semi open sets in topology, R. Asokan and V. Ramya, *Suraj Punj Journal For Multidisciplinary Research*, 2021, 11(1), 86-95.

Impact Factor: 6.1; Citation: -;

DOI: 16.10089.SPJMR.2020.V10I10.16.3338.

40. Performance of single hop and multi hop relaying protocols in cognitive radio networks over Weibull fading channel, G Pandeeswari, M Suganthi, R Asokan, *Journal of Ambient and Humanized Computing*, 2021, 12(3), 3921-3927.

Impact Factor: 3.719; Citation: 4;

DOI: https://doi.org/10.1007/s12652-020-01739-z.

41. On  $(1,2)^*$  -  $\S$ - Homeomorphisms, A. Ponmalar, R. Asokan and O. Nethaji, *International Journal of Mathematics and its Application*, 2021, 9(3), 119-123.

Impact Factor: 2.387; Citation: -; DOI:.

42. On (1,2)\* - § - Closed and Open Functions, R. Asokan, O. Nethaji and A. Ponmalar, *Turkish Journal of Computer and Mathematics Education*, 2021, 12(14), 5420–5425.

Impact Factor: 0.218; Citation: 1; DOI:.

43. On  $(1,2)^*$  -  $\check{g}_{\alpha}$ - Closed sets, A. Ponmalar, R. Asokan and O. Nethaji, *Communications in Mathematics and Applications*, 2022, 13(1), 307–314.

Impact Factor: -; Citation: -;

DOI: https://doi.org/10.26713/cma.v13i1.1649.

44. Operations On Soft Topological Spaces, V. Ramya and R. Asokan, *Gradiva Review Journal*, 2021, 7 (12), 230 –248.

Impact Factor: 6.1; Citation: -;

DOI: 10.37897.GRJ.2021.V7I11.21.457.

45. A Note on sg\* Continuous Mappings in Soft Topological Spaces, V. Ramya and R. Asokan, *Compliance Engineering Journal*, 2021, 12(12), 112 – 120.

Impact Factor: 6.2; Citation: -;

DOI: 16.10089.CEJ.2021.V12I12.285311.3841.

- 46. S(α, δ)Semi Continuous Mappings and Soft α Generalized Semi Closed Sets in Soft Topological Spaces, M. Vijay and R. Asokan, ANVESAK, 2021, 51 (1 (XII)), 317 324.
  Impact Factor: -; Citation: -; DOI:
- 47. A Note on Soft Mappings in Soft Topological Spaces, M. Vijay and R. Asokan, SHODHSAMHITA, 2021, VIII (8), 99 – 108, Impact Factor: -; Citation: -; DOI:.
- 48. A Note on Some Stronger Form of Pre Open Sets, M. Vijay and R. Asokan, *Advances and Applications in Mathematical Sciences*, 2022, 12(7), 3773 3784.

  Impact Factor: 0.22; Citation: -; DOI: .
- 49. On (1,2)\* ğ<sub>α</sub> Closed and It's Properties, A. Ponmalar, R. Asokan and O. Nethaji, *Indian Journal of Natural Sciences*, 2022, 13(71), 40291 40295.
   Impact Factor: 1.988; Citation: -; DOI:.
- 50. New separation axioms in ζ-nano topological spaces, KS Jenavee, R Asokan, O Nethaji, *Turkish Journal of Computer and Mathematics Education*, 2022, 13(3), 133 139.

Impact Factor: 0.218; Citation: -; DOI:

- 51. Periodic, Rational and Exact Solitary wave solutions for (2+1) and (3+1) Dimensional MEW equations by Tanh-Coth Method, K. Azhagu Raja and R. Asokan, *Indian Journal of Natural Sciences*, 2022, 13 (73), 0976 0997.

  Impact Factor: 1.988; Citation: -; DOI:.
- 52. Weak Kinds of an Ideal Open in the Micro Topology, South East Asian J. of Mathematics and Mathematical Sciences, Vol. 19, Proceedings (2022), pp. 55-64 (With K.S. Jenavee and O. Nethaji).
- 53. A New method for **Phi\_n** Using Grills in Nano Topological Space, Journal of Emerging Technologies and Innovative Research, 9 (9), 2022, 169-173 ( with With K.S. Jenavee and O. Nethaji).
- 54. **Zeeta-** Open Sets in Nano Topological Space, Indian Journal of Natural Sciences, 13(74), 2022, 49015-49019- 49299 (With K.S. Jenavee and O. Nethaji).
- 55. Connected and Compact Sets in **Zeeta-** Nano Topological Space, Indian Journal of Natural Sciences, 13(74), 2022, 49295-49299 (With K.S. Jenavee and O. Nethaji).
- 56. Functions and it's implications on **Zeeta-** Nano Topological Space, Annals of Communications in Mathematics, 5(3), 2022, 145-152 (With K.S. Jenavee and O. Nethaji).
- 57. Some perfect sets in Ideal Nano Topological Spaces, Annals of Communications in Mathematics, 5(2), 2022, 80-87 (With N. Sekar and I. Rajasekaran).
- 58. Properties of Strongly Pre-Open in Ideal Nano Topological Spaces, Annals of Communications in Mathematics, 5(2), 2022, 74-79 (With N. Sekar and I. Rajasekaran).
- 59. On S<sub>p\*</sub>-Open sets Ideal Nano Topological Spaces, Asia Mathematika, 6(2), 2022, 39-47 (With N. Sekar and I. Rajasekaran).
- 60. On  $\delta$ -open sets ideal nano topological spaces, Ratio Mathematica, Vol(45), 2023, 185-193 (With N. Sekar and I. Rajasekaran)
- 61. On  $I_{\xi}$  open sets in Ideal Topological Space, Indian Journal of Natural Sciences, Vol.14(77), 2023, 55289-55293. (With T. Sankili).

- 62. Weakly (1,2)\* ğ Closed sets and its Continuities, *Indian Journal of Natural Sciences*, O. Nethaji and A. Ponmalar, 14(78), 2023, 57059 57065
- 63. Nearly Iξ open sets in Ideal Topological Space, *Journal Of Xidian University*,
  T. Sankili and R. Asokan, Vol.17(9), 2023, 155-159.
  Impact Factor: 5.4; Citation: -; DOI:. 10.37896/jxu17.9/013.

# 5.2. Other Refereed Journals

### 5.3. Papers Published in Conference Proceedings

- 1. R. Asokan and B. Mayil Vaganan, (2004), Symbolic computation of similarity solutions of the nonlinear Madelung fluid equations with external potential, K. Thangavel, *National conference on Computational Mathematics*, Chennai, March 18-19, 68-73.
- R. Asokan, (2012), Direct similarity analysis of a nonlocal gaseous ignition model,
   G. Ganesan, National conference on Mathematics and computer Sciences, Mumbai, July 7, 69-72.
- 3. R. Asokan, (2012), Similarity Reductions of Generalized Burgers Equations, K. S. Ramaswami, *Inter National Conference on Mathematical Modelling and Soft Computing*, Coimbatore, July 11-13, 88-99.
- R. Asokan and D. Vinodh, (2018), Kink and solitary waves for the (3+1) dimensional Kadomtsev - Petviashvili equation, T. Asir and T. Tamizh chelvam, Proceedings of the International Conference on Algebra and Discrete Mathematics, Madurai, January 08-10, 462-465.

#### **5.4.** Papers Presented in Conferences / Seminars

5.4.1. International: Nil

5.4.2. International held within India

- R. Asokan, Integral Representation: Laplace Method, International Seminar on Dynamical Systems, The Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai, 20<sup>th</sup> August 2011.
- R. Asokan, Similarity Reductions of Generalised Burgers Equations, International Conference on Mathematical Modelling and Applied Soft Computing, Department of Mathematics, Coimbatore Institute of Technology, Coimbatore, July 11-13, 2012.

- R. Asokan, Numerical Solutions of Stochastic Differential Equations, International Conference on Advances in Stochastic Modelling, Mannar Thirumalai Naicker College, Madurai, January 08-10, 2013.
- 4. R. Asokan, Similarity solutions of a nonlocal gaseous ignition model, International Conference on Applied Mathematical Models, PSG College of Technology, Coimbatore, January 03-05, 2014.
- R. Asokan, On a class of Nonlinear Parabolic Control Systems, International National Conference on Mathematical Sciences, School of Mathematics, Madurai Kamaraj University, Madurai, August 21-23, 2014.
- R. Asokan, Discussion on Lie Classical and Non Classical methods, International Conference on Recent Advances in Pure and Applied Mathematics at Arul anandar college, Madurai, held on Feb 14, 2019.
- 7. R. Asokan, International Conference on Recent Trends in Mathematical Science and Application to other Branches, Selvamm Arts & Science College, Namakkal, 29th Apr 2022.

### 5.4.3. National

- R. Asokan, Direct Similarity analysis of the generalized Burgers Equations, National Conference on Nonlinear Analysis and Mathematical Modelling, Madurai Kamaraj University, Madurai, March 29-30, 2011.
- R. Asokan, Direct Similarity Analysis ... with External Potential, National Seminar on Recent Advances in Mathematics and its Applications, Sri Padmavati Mahila Visvavidyalayam, Tirupati, March 2-3, 2012.
- R. Asokan, Impulsive Stabilization of stochastic Delay Differential Equations, National Conference on Applied Stochastic Methods, Madurai Kamaraj University, Madurai, March 23-24, 2012.
- R. Asokan, Existence solutions of Nonlinear Impulsive Integrodifferential Equations with Nonlocal Conditions, National Conference on Advances in Applied Mathematics, Bharathiar University, Coimbatore, March 27th, 2012.

- R. Asokan, Nonclassical Symmetries of a Nonlocal Gaseous Ignition Model by the Compatibility Condition, National Conference on Advances in Differential Equations and Applications, Periyar University, Salem, March 29-30, 2012.
- R. Asokan, Direct Similarity Analysis of a Nonlocal Gaseous Ignition Model, National Conference on Mathematical of Computational Sciences, Adikavi Nannaya University, Rajahmundry, July 06-07, 2012.
- R. Asokan, Perturbation Method: Regular Perturbation, National Seminar in Advances in Differential Equations, The Ramanujan Institute for Advanced Study in Mathematics, University of Madras, September 07-08, 2012.
- 8. R. Asokan, Similarity Methods and Applications, National Conference on Advances in Partial Differential Equations, SASTRA University, Kumbakonam, December 13-14 2013.
- 9. R. Asokan, Symmetries of  $u_t + u^n u_x + \alpha u + \gamma x u^n + 1 = u_{xx}$  National Conference on Mathematical Techniques and its Applications, SRM University, Chennai, January  $06^{th} 07^{th}$  2014.
- R. Asokan, Transformations of Partial Differential Equations, National Seminar on Current Trends in Mathematics, Saiva Bhanu Kshatriya College, Aruppukottai, Feb 07<sup>th</sup> - 8<sup>th</sup> 2014.
- 11. R. Asokan, Painleve Analysis and Backlund Transformations of the (2+1)-Dimensional Variable Coefficient Burgers Equations, National Conference on Advances in Applied Mathematics, Bharathiar University, Coimbatore, February 12-13, 2015.
- 12. R. Asokan, History of Backlund Transformations, National Seminar on Recent Trends in Applied Mathematics, Mannar Thirumalai Naicker College, Madurai, August 14<sup>th</sup>, 2015.
- 13. R. Asokan, Non-Linear Differential Equations-Discussion, National Conference on Present Scenario in Graph Theory, Mannar Thirumalai Naicker College, Madurai, December 16<sup>th</sup>, 2016.
- 14. R. Asokan, Exact solutions of (1+1) and (2+1) dimensional mKdV-BBM equations by tanh-coth method, National Conference on Advances in Differential Equations and Applications, Periyar University, Salem, March 23-24, 2017.

15. R. Asokan, Lie Symmetric groups – Descussions, National Conference on Mathematical Modeling in Bio Resource Management, Thiagarajar College, Madurai, April 06-07, 2017.

#### 5.4.4. State

R. Asokan, Symmetry Classifications and Reductions of (2+1) – dimensional Potential Burgers
Equation, XVIII Ramanujan Symposium on Recent Trends in Dynamical Systems and
Mathematical Modelling, The Ramanujan Institute for Advanced Study in Mathematics,
University of Madras, September 25-27, 2013.

### 5.5. Any Other Publications Not Mentioned Above

#### 6. Conferences / Seminars / Workshops / Webinars Attended

- 1. R. Asokan, National Seminar on Recent Trends in Pure and Applied Mathematics at Kandaswami Kandar College, Velur, held on March 24, 2000.
- R. Asokan, Seminar on APPLICATION OF MATHEMATICS AND STATISTICS at School of Mathematics, Madurai Kamaraj Univesity, held on March 16, 2000.
- 3. R. Asokan, Seminar on Current Trends in Biostatistics at the School of Mathematics, Madurai Kamaraj University, Madurai, held on Oct 1, 2003.
- 4. R. Asokan, Seminar on NONLINEAR WAVES AND DIFFUSION at the School of Mathematics, Madurai Kamaraj University, Madurai, held on Nov 12, 2003.
- 5. R. Asokan, Seminar on Recent Trends in Graph Theory at the School of Mathematics, Madurai Kamaraj University, Madurai, held on March5, 2004.
- 6. R. Asokan, National Seminar on Symbolic Computation of similarity solutions of the nonlinear madelung fluid equations with external potential at Gandhigram, Tamilnadu, held on 2004.
- 7. R. Asokan, Symposium on Recent Advances in Stochastic Modelling at the School of Mathematics, Madurai Kamaraj University, Madurai, held on Dec 14 13, 2006.
- 8. R. Asokan, National Level Symposium on Curriculum development at P.G Level in Mathematics at the School of Mathematics, Madurai Kamaraj University, Madurai, held on Mar 1 2, 2007.

- R. Asokan, National Conference on Recent Trends in Fuzzy Mathematics at the NGM College, Pollachi, held on Mar 9-10, 2007.
- R. Asokan, International Seminar on Dunamicl Systems at Gandhigram, Tamilnadu, held on February 16<sup>th</sup>, 2008.
- 11. R. Asokan, One day Seminar on Mathematical Analysis in Honour of Prof. V. Karuakaran at Madurai Kamaraj University, Madurai, held on February 25, 2010.
- 12. R. Asokan, One day Seminar on Applications of Modern Topology at the School of Mathematics, Madurai Kamaraj University, Madurai, held on January 24, 2012.
- 13. R. Asokan, National Conference on Applied Maathematics at Bharathiar University, Coimnatore, held on February 12- 13, 2015.
- 14. R. Asokan, Workshop on Advanced Computer Methods for Statisticians at the School of Mathematics, Madurai Kamaraj University, Madurai, held on Feb 14, 2003.
- 15. R. Asokan, LATEX a Mathematical Document preparation System at the School of Mathematics, Madurai Kamaraj University, Madurai, held on March 24, 2003.
- 16. R. Asokan, Workshop on Mathematical Methods for Management Sciences at the School of Mathematics, Madurai Kamaraj University, Madurai, held on Dec 3, 2004.
- 17. R. Asokan, A two-day Seminar on Creation of Top-Class Institutional Facilities in Universities and Colleges at Dr. Mu. Va. Arangu, Madurai Kamaraj University, Madurai, held on September 28<sup>th</sup> and 29<sup>th</sup> 2012.
- 18. R. Asokan, One day Workshop on Financial Mathematics at the School of Mathematics, Madurai Kamaraj University, Madurai, held on March 27, 2013.
- 19. R. Asokan, One day Workshop on Data Analysis at the School of Mathematics, Madurai Kamaraj University, Madurai held on August 30, 2013.
- R. Asokan, Workshop on Quality Enhancement in Mathematics at the School of Mathematics, Madurai Kamaraj University, Madurai, held on September 2, 2016.

- 21. R. Asokan, Internal Quality Assurance Cell Workshop on Intellectual Property Rights and Innovation Management in Knowledge Era conducted by Internal Quality Assurance Cell, Madurai Kamaraj University, Madurai, held on April 10, 2017.
- 22. R. Asokan, One day State Level Workshop on Global Tanking of Universities: Present Scenario conducted by Internal Quality Assurance Cell, Madurai Kamaraj Unicersity, Madurai, held on March 2019.

### 7. Details of Deposits in CCDC, PDB, etc.

No	Name of Deposit	Reference No.	Date of Deposition