# **FACULTY - PROFILE**

1. Name : Dr. B. SRIVIDYA

**2. Designation** : ASSOCIATE PROFESSOR

3. Department : PHYSICS4. Date of Joining : 06.06.2013

**5. E-mail** : vidyabalasubramani@gmail.com

**6. Phone No**. : 9791337313

7. Educational Qualification



Degree	Institute	Specialization	Name of the Degree	Year	Division
UG	Govt. Arts College for Women, Periyar University, Salem	Physics	B.Sc.	2004	I
PG	Nehru Memorial College, Puthanampatti, Bharathidasan University, Tiruchirapalli	Physics	M.Sc.	2006	I
M.Phil	Department of Physics, Periyar University, Salem	Physics	M.Phil.	2007	I
Ph.D	Department of Physics, Periyar University, Salem	Physics – Nonlinear dynamics	Ph. D.	2013	Highly Comme nded

# 8. Employment Record (from present to past)

	Period		
Organization	From	То	Designation
K.S.R. College of Engineering, Tiruchengode, Namakkal District	03.01.2022	Till Date	Associate Professor
K.S.R. College of Engineering, Tiruchengode, Namakkal District	06.06.2013	02.01.2022	Assistant Professor

# 9. Memberships of Professionals / Learned Bodies / Societies

S.No.	Name of the Professionals/Learned bodies/Societies	Membership No

# 10. Awards / Prizes

Name of the Award	Year	Awards / Prizes received from
Rank holder in the Master of Philosophy	2007	Periyar University, Salem.
Won First prize with a cash prize of Rs. 2000 in Science Exhibition for the demonstration of "Generation of Magnetic Soliton and its Application	2009	Periyar University, Salem
Project Fellow	02 March 2009 to 31 March 2011	University Grants Commission (UGC), India.
CSIR-SRF	01 April 2011 to 31 March 2013	Council for Scientific and Industrial Research (CSIR), India
Topper in the Solid State Physics NPTEL online certification examination of twelve week course	2017	Indian Institute of Technology (IIT), Kharagpur, India.

# 11. R & D Details

## a) Research Grants Received

Year	Project Title	Reference No	Total Amount Received	Sponsoring agencies	
-	-	-	-	-	

# b) PhD Registration Details

Year of Registration	Topic	Name of the Supervisor	Reference No	Name of the University
-	-	-	-	-

## 12. Conference Grants Received

Title of the Conference	Duration	Sponsoring agencies	Amount received
National Conferences on Advances in Materials Science and Nonlinear 07.01.2016 – 08.01.2016Systems	07 – 08 Jan 2016	K.S.R. College of Engineering, Namakkal	Rs. 30, 000/-

# 13. i) Publications in Journals

SI.No.	Name of the Author	Title of the Paper	Journal Name	Vol , No & pages	Year of Publication
1.	L. Kavitha, <b>B. Srividya</b> , N. Akila and D. Gopi	Shape changing solitary solutions of a nonlocally damped nonlinear Schrödinger equation using symbolic computation	Non. Sci. Lett. A	1 & 95-107,	2010
2.	L. Kavitha, <b>B. Srividya</b> and D. Gopi,	Effect of nonlinear inhomogeneity on the creation and annihilation of magnetic soliton	J. Magn. Magn. Materials	<b>322</b> & 1793– 1810	2010
3.	L. Kavitha, <b>B. Srividya</b> and D. Gopi,	Exact propagating dromion-like localized wave solutions of a generalized (2+1)-dimensional Davey Stewartson equations	Computers and Mathematics with Applications	<b>62</b> <b>&amp;</b> 4691- 4707	2011
4.	L. Kavitha, M. Saravanan, <b>B. Srividya</b> and D. Gopi,	Breather-like electromagnetic wave propagation in an antiferromagnetic medium with Dzyaloshinsky-Moriya interactions	Physical Review E	<b>84</b> & 066608	2011
5.	B. Srividya, L. Kavitha, R. Ravichandran and D. Gopi	Oscillating multidromion excitations in higher dimensional nonlinear lattice with intersite and external on-site potentials using symbolic computation	Chinese Physics B	<b>23</b> & 010307	2014
6.	L. Kavitha, B. Srividya, S. Dhamayanthi, V. Senthil Kumar and D.	Collision and propagation of electromagnetic solitons in an antiferromagnetic spin ladder medium	Applied Mathematics and Computation	<b>25</b> & 643 - 668	2015
7.		Existence of localized modes in a frustrated ferromagnetic spin chain with added biquadratic interaction	Choas, Solitons & Fractals	180 & 114518 (1 -14)	2024
8.		Soliton dynamics and intrinsic localized modes in a weak ferromagnetic spin chain with higher order anisotropy	Choas, Solitons & Fractals	CHAOS-D- 24- 03079R1 (Under review))	2024

9.	S. Suganya, <b>B. Srividya</b> and A.  Prabhu,	Soliton collision in 1D Heisenberg ferromagnetic spin chain with next-nearest neighbor coupling along with biquadratic and DM interactions	To be communicated to J. Magn. Mater.	 2024	
10.	S. Suganya, <b>B. Srividya,</b> A.  Prabhu and T. Kavitha,	Modulational instability analysis of discrete Heisenberg ferromagnetic spin chain with higher order interactions	To be communicated to Phys. Lett. A	 2024	

# ii) Papers Presented in International Conferences / Symposiums

SI.No	Name of the Author	Title of the Paper	Conference Name	Proceeding pages	Date &Year
1.	L. Kavitha, M. Saravanan, <b>B.</b> <b>Srividya</b> and D. Gopi,	Propagation of electromagnetic soliton governed by the coupled Maxwell and the Landau-Lifshitz equations	16 <sup>th</sup> International Conference on Mathematical Modelling and Analysis, University of Latvia, Sigulda, Latvia	-	25 – 28 May 2011
2.	S. Suganya, A. Prabhu and <b>B. Srividya</b>	Effect of next nearest neighbor in classical Heisenberg model with added biquadratic exchange and DM interactions	International Conference on Emerging Materials and Modeling (ICEMM – 2019), K.S.R. College of Arts and Science (Autonomous), Namakkal	-	07 – 09 January 2019
3.	S. Suganya, <b>B.</b> Srividya and A. Prabhu	Modulational instability in 1D Heisenberg ferromagnetic spin chain with next-nearest neighbor coupling along with biquadratic and DM interactions	International Virtual Conference on Materials Science and Technology (ICMAST 2022), Kandaswami Kandar's College, Kallakurichi in collaboration with Indian SpectroPhysics Association (ISPA)	-	15 – 16 March 2022.
4.	S. Suganya, <b>B. Srividya</b> and A. Prabhu	Discrete modulational instability analysis of frustrated ferromagnetic spin system along with biquadratic interactions	International Conference on Mathematical Modelling, Simulation and Nonlinear Dynamics – 2024 (ICMMSND- 2024), Bharathiyar University, Coimbatore		15 – 16 February 2024

# iii) Papers Presented in National Conferences / Symposiums

SI.No.	Name of the Author	Title of the Paper	Conference Name	Proceeding pages	Date & Year
1.	P. Sathishkumar and B. Srividya	Generation of Magnetic Soliton and its Application	Science Exhibition conducted by Periyar University Salem	-	26-27 October 2009
2.	B. Srividya and L.Kavitha	Modulational instability in multidimensional lattices, National Conference on Recent and Emerging Developments in Physics	Women's Christian College, Nagercoil,	-	07-09 January 2010
3.	L. Kavitha, <b>B.</b> Srividya and D. Gopi	Localized excitations in a hexagonal ferrites with higher order uniaxial anisotropy	Sixth National Conference on Nonlinear Systems and Dynamics, Bharathidasan University, Thiruchirapalli	-	27-30 January 2011
4.	B. Srividya, C. Lavanya, L. Kavitha, C. Acquarone and C.I. Ventura	Existence of intrinsic localized spin modes at nano-scale length in strontium substituted spiral-hexagonal ferrites	National Conference on Advanced Nanomaterials, Periyar University, Salem	-	06-07 February 2012
5.	B. Srividya, L. Kavitha, S. Dhamayanthi and A. Mohamadou	Existence of mobile and stair solitons of (3+1)-dimensional generalized Davey- Stewartson equations using Exp-function method	II <sup>nd</sup> National Conference on Advances in Differential Equations and Applications, Periyar University, Salem	-	29-30 March 2012
6.	B. Srividya and L. Kavitha	Localized excitations in strontium substituted hexagonal ferrites	12 <sup>th</sup> Tamil National Congress, Periyar University, Salem	-	23-25 August 2012
7.	B. Srividya	Switching localized modes in magnetic lattices	National Conference on Emerging Trends in Materials and Methods, K.S.R. College of Arts and	-	07 October 2015

	S. Suganya, <b>B.</b>	, Soliton dynamics in	Two Days National	-	21 – 22 March
	Srividya and A. Prabhu	weak ferromagnetic	Level Conference		2024
	-	spin system along	on Advanced		
		with higher order	Materials for		
		anisotropic	Strategic Application		
		interactions	and sustainable		
8.			Future (AMSAS-		
			2024), KPR Institute		
			of Engineering and		
			Technology,		
			Coimbatore		

## iv) Publication of Books

SI. No.	Publication	Date of Publication	Name of the Publisher
-	<u>-</u>	-	-

#### 14. National/International Conferences & Seminar/Workshops attended

- 1. National conference on Recent Advances in Vibrational Spectroscopy held at Periyar University, Salem during Jan 29-30, 2007.
- 2. National seminar on Recent Advances in Material Science held at Sri Saradha College for Women, Salem on Jan 10, 2008.
- 3. Semester long Advanced School in Condensed Matter and Statistical Physics held at IISC, Bangalore during 20 Jan 30 April, 2008.
- 4. International conference on Nonlinear Dynamical Systems and Turbulence held at IISC, Bangalore during July 17-22, 2008.
- 5. National conference on Advanced Materials and Characterization held at VIT University, Vellore during July 23-25, 2008.
- 6. National seminar on Current Trends and Latest Updates in Bioscience held at Periyar University, Salem on Nov 14, 2008.
- 7. Workshop on Recent Developments in Photonic Materials Research held at Periyar University, Salem on March 12, 2009.
- 8. National seminar on Nonlinear Electronics and Spintronics held at Bharathidasan University, Tiruchirapalli during March 20-21, 2009.
- 9. Workshop on Physics Experiments Through Computer Interfacing held at Periyar University, Salem during December 09-10, 2010.
- UGC Sponsored Workshop on Functional Materials held at Periyar University, Salem on March 14, 2012.
- 11. UGC Sponsored Seminar on Recent Trends in Superconductivity held at Periyar University, Salem on March 22, 2012.
- 12. Seminar on Writing Effective Research Paper(S) and Thesis held at K.S.R. College of Engineering, Namakkal on July 19, 2014.
- 13. Science Academies Lecture Workshop on Selected Topics in Pure and Applied Physics held at K.S.R. College of Technology, Namakkal during February 6 8, 2015.
- 14. National Level Workshop on Blooms Taxonomy and its Assessments held at K.S.R. College of Engineering, Namakkal on March 20, 2015.

- 15. International level workshop on Journal Paper Writing and Preparation of Winner Research Proposal held at K.S.R. College of Engineering, Namakkal during August 19-20, 2015.
- 16. National Conference on Fine-Tuning Presentation held at K.S.R. College of Engineering, Namakkal on August 24, 2015.
- 17. Two-Week ISTE STTP on Engineering Physics K.S.R. College of Technology, Namakkal conducted by IIT Bombay during December 08-18, 2015.
- National Seminar on Frontier areas of Materials Research (NSFMR–16) held at K.S.R. College of Arts and Science, Namakkal on September 28, 2016.
- 19. National Seminar on Advanced Materials Research (NSAMR 2018) held at K.S.R. College of Arts and Science, Namakkal on February 1, 2018.
- 20. Women Entrepreneurship Programme held at K.S.R. College of Engineering, Namakkal on March 03, 2018.
- 21. Atomic and Molecular Physics NPTEL online certification examination of twelve week course held on 28 April 2018 conducted by Indian Institute of Technology (IIT), Kharagpur, India.
- 22. AICTE ISTE approved Induction/Refresher Programme on Low Cost Automation for Agricultural Enhancement using MEMS held at K.S.R. College for Engineering and Technology, Namakkal during June 18 23, 2018.
- 23. AICTE ISTE approved Induction/Refresher Programme on Teaching and Research with Technology held Institute of Road and Transport Technology, Erode during June 25 July 01, 2018.
- 24. ICMR Sponsored Two Days National Level Seminar on Impact of Green Computing for Minimizing E-Waste on Human Health held at K.S.R. College of Engineering, Namakkal during July 03 04, 2018.
- 25. Seminar on How to write High Impact Journal Papers held at K.S.R. College of Engineering, Namakkal on August 10, 2018.
- 26. One Day Workshop on Outcome Based Education (OBE) held at K.S.R. College of Engineering, Namakkal on November 01, 2018.
- 27. Introduction to Non-linear Optics and its Application NPTEL online certification examination of twelve week course held on 28 October 2018 conducted by Indian Institute of Technology (IIT), Kharagpur, India and this course is approved as a FDP course by NPTEL-AICTE.
- 28. Semiconductor Optoelectronics NPTEL online certification examination of twelve week course held on 28 April 2019 conducted by Indian Institute of Technology (IIT), Kharagpur, India and this course is approved as a FDP course by NPTEL-AICTE.
- 29. Workshop on J Gate An Electronic Gateway for research held at K.S.R. College of Engineering, Namakkal on July 10, 2019.
- 30. Seminar on Woman Entrepreneurship & Empowerment Programme held at K.S.R. College of Engineering, Namakkal on August 08, 2019.
- 31. Online Course on Household Electrical Devices and Applications organized by AVS college of Arts and Science, Salem during April 20 21, 2020.
- 32. International Webinar on Nonlinear Waves in Physics: From Solitary Waves and Solitons to Rogue Waves organized by SRM Institute of Science and Technology, Chennai on May 13, 2020.

- 33. Online Webinar on Career Opportunities in Medicare Physics organized by Parvathy Arts and Science College, Dindugul on May 26, 2020.
- 34. Webinar on A Glimpse of MATLAB organized by KPR Institute of Engineering and Technology, Coimbatore on May 27, 2020.
- 35. Three Day Online Faculty Development Program on Physics of Materials Organized by Jain (Deemed university), Bangalore during May 28 30, 2020.
- 36. National Webinar on Operator Formalism of Quantum Mechanics organized by Annai College of Arts and Science, Kumbakonam on May 28, 2020.
- 37. One Day Online Workshop on Materials Science and Applications organized by Arulmigu Palaniandavar Arts and Science College(w), Palani on May 29, 2020.
- 38. National Level Online Physics Quiz organized by Arignar Anna Government Arts College, Attur on June 01, 2020.
- 39. Online Lectures in Solid State Physics-Series 1: 'Electrons in Solids' organized by Department of Theoretical Physics, University of Madras during June 01-04, 2020.
- 40. International Webinar on Quantum Materials and Nanoparticles for Advanced Applications organized by Kamaraj College, Thoothukudi on August 06, 2020.
- 41. Virtual Faculty Development Program on Virtual Labs organized by PALS in association with NITK, Bangalore during August 10 14, 2020.
- 42. Two Day International Web Symposium on Nonlinear Systems and its Application organized by SRM Institute of Science and Technology, Chennai during September 11 12, 2020.
- 43. Launch of KSREI Research Portal and Live Webinar on Online Publication Tracking and Creating Researcher Profile for Faculty Members of KSREI organized by K.S.R. Educational Institutions, Namakkal on September 28, 2020.
- 44. One Day Webinar on Nonlinear Dynamics: An Evolving Science organized by Kongu Engineering College, Perundurai, Erode, Tamil Nadu on November 02, 2020.
- 45. Two-Days National Webinar on Nanomaterials Current trends and Future Application organized by Saranathan College of Engineering Trichy during October 11 12, 2021.
- 46. International Webinar on Linking Science, Engineering and Technology to Create a Sustainable Environment organized by K.S.R. Institute for Engineering and Technology, Namakkal on February 11, 2022.
- 47. Webinar on Nano Strucured Matreials for Photoelectrochemical Transformations and Electrochemical Energy Storage Applications organized by Velammal Institute of Technology, Chennai on May 14, 2022.
- 48. Webinar on Accelerators/Incubation Opportunities for Students & Faculties Early Stage Entrepreneurs organized by K.S.R. College of Arts and Science for Women, Namakkal on July 05, 2022.
- 49. International Conference on Functional Material and Nanotechnology (ICFMN- 2K22) organized by Nehru Institute of Technology in collaboration with Indian Association for Crystal Growth, Coimbatore during July 20 21, 2022.
- 50. Webinar on Nanotechnology in Forestry research organized by Sri Ramakrishna Engineering College, Coimbatore on July 29, 2022.
- 51. Six Day Online International Faculty Development Program on Recent Trends in Applied Physics organized by Easwari Engineering College, Ramapuram Chennai during July 25 30, 2022.

- 52. International workshop on Thermoelectric Materials and application organized by SSN Research Centre, SSN Institutions, Chennai during August 24 25, 2022.
- 53. One day International Webinar on Advanced Functional Materials organized by Gonzaga College of Arts And Science For Women, Krishnagiri on September 28, 2022.
- 54. International Webinar on Chemical Science for Sustainability organized by Gonzaga College of Arts And Science For Women, Krishnagiri on October 19, 2022.
- 55. Five Days Faculty Development Programme (online) on Nanomaterials For Sustainable Future organized by GRM Institute of Technology, Vizianagaram during December 12 16, 2022.
- 56. Two Week National Level Virtual Workshop on Advanced Research Methodology organized by SRM Institute of Technology, Ramapuram Campus, Chennai during July 03 18, 2023.
- 57. Five-Days Short Term Training Programme on Scientific Writing & Publishing organized by Sarala Birla University, Ranchi Jharkhand during July 31 August 04, 2023.
- 58. Tamil Nadu State Government Sponsored Five Day Faculty Development Programme on Research Frontiers in Physics organized by Faculty Development Training Centre in association with Government College of Engineering, Srirangam, Trichy during September 11 15, 2023.
- 59. Training Session of One-Day Workshop on Women in Artificial Intelligence with one API powered by Intel Corporation, Chennai held at K.S.R. College of Engineering, Namakkal on October 13, 2023.
- 60. Participated in IGEN Green Day 2023 organized by The Institutions of Green Engineers on October 26, 2023.
- 61. Accreditation and Outcome Based Learning NPTEL online certification examination of eight week course held on 28 October 2023 conducted by Indian Institute of Technology (IIT), Kharagpur, India and this course is approved as a FDP course by NPTEL-AICTE.
- 62. Two Days International Workshop on Scientific Modelling and Engineering Applications using MATLAB held at K.S.R. College of Engineering, Namakkal during December 14 15, 2023.
- 63. International Seminar on Recent trends in Energy Technology held at Periyar University, Salem on February 22, 2024.
- 64. Mission LXD Transformation Journey held at K.S.R. College of Engineering, Namakkal on March 08, 2024.
- 65. 10<sup>th</sup> International Conference on Crystal Growth and its Technological Applications organized by SSN Educational Institutions, Chennai during March 18 -20, 2024.
- 66. National Seminar on Advanced Materials Research for Sustainability held at K.S.R. College of Arts and Science (Autonomous), Namakkal on March 21, 2024.
- 67. GEN AI The AI Road Show held at K.S.R. College of Engineering, Namakkal on March 26, 2024.
- 68. Five Days Faculty Development Programme on Recent Trends of Advanced Functional Materials organized by Velammal College of Engineering and Technology (Autoniomous), Madurai during March 25 April 01, 2024.
- 69. Completed HTML & CSS Crash Course authorized by Scrimba through Coursera on April 01, 2024.

- 70. Completed Non Linear SVM Classification using SCKIT learn project authorized by Coursera Project Network through Coursera on April 01, 2024.
- 71. Completed Quantum Mechanics course authorized by University of Colorado Boulder through Coursera on April 01, 2024.
- 72. Completed Hosting Static Website (HTML/CSS/Javascript) in AWS S<sub>3</sub> project authorized by Coursera Project Network through Coursera on April 01, 2024.
- 73. Completed Innovative Teaching with ChatGPT course authorized by Vanderbilt University through Coursera on April 04, 2024.
- 74. Completed Copywriting with ChatGPT: Crafting High-Quality Blog Content project authorized by Coursera Project Network through Coursera on April 05, 2024.
- 75. Completed Create a project Charter with Google Docs project authorized by Coursera Project Network through Coursera on April 05, 2024.
- 76. Completed Create a Lead Generation Messenger Chatbot using Chatfuel project authorized by Coursera Project Network through Coursera on April 05, 2024.
- 77. Completed Search Engine Optimization (SEO) with Squarespace project authorized by Coursera Project Network through Coursera on April 05, 2024.
- 78. Completed Google Ads for Beginnersproject authorized by Coursera Project Network through Coursera on April 05, 2024.
- 79. NEP 2020 Orientation and Sensitization Programme organized by UGC Malaviya Mission Training Centre (UGC-MMTTC), Bharathidasan University, Tiruchirappalli during April 08 17, 2024.

#### 15. Lecture Delivered

- 1. Delivered a lecture on Perspectives of Nonlinear Waves, Physics Association Spectra 2013, Paavendhar College of Arts and Science, Salem on September 29, 2013.
- 2. Delivered a lecture on Symbolic Computation and Simulation in Biological and Higher Dimensional Systems, M. Kumarasamy College of Engineering, Karur on February 19, 2021.

### 16. Conference/Seminar Organized

 Organized a National Conferences on Advances in Materials Science and Nonlinear Systems in the capacity of Organizing Secretary held at K.S.R. College of Engineering, Namakkal during January 07-08, 2016.

## 17. Patent:

S.No.	Author	Title of the invention	status
1.	M. Venkatesh, V. T. Jeleyaganga,	Nano Particle Based Air	IPR No. 397632-001
	N. Jayanthi, R. Suresh Kumar, <b>B. Srividya</b> , K. Vanasundari and R. Keerthiga -	Purifier -	

### 18. Reviewer In

1. Materials Today: Proceedings

2. International Journal of Computer Science and Mechatronics

B. 8-7

Name & Signature (Dr. B. SRIVIDYA)