## **Curriculum Vitae**

Brief Profile: 1-2 paragraphs (not exceeding 500 words)

1. Name

Job Title

LECTURER

- 2. Designation:
- 3. Office Address:
- 4. Telephone (Direct) (Optional):
  Telephone : Extn (Optional):
  Mobile (Optional):
- 5. Email (Primary):vshanthi@nitt.edu
- 6. Field(s) of Specialization:
- 7. Employment Profile

Dr. V. SHANTHI ASSISTANT PROFESSOR DEPARTMENT OF MATHEMATICS NIT, TRICHY-15 0431-2503673

Email (Secondary) :matshavembu@yahoo.co.in

From

30-5-2005

91-9487440341

DIFFERENTIAL EQUATIONS AND NUMERICAL ANALYSIS

То

30-11-2005

Post Doctoral Fellow-NBHM	NBHM, Bharahtidasan University	1-12-2005	30-5- 2007
Assistant Professor	NIT, TRICHY	SINCE 31-5- 2007	

Employer

SASTRA

#### 8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
M.SC	BHARATHIDASAN UNIVERSITY	1999	FIRST CLASS	APPLIED MATHEMATICS
PH.D	-DO-	2005	COMMENDED	<u>Title of thesis</u> Numerical Methods for



		singularly
		perturbed
		boundary value
		problems for
		fourth order
		ordinary
		differential
		equations with not
		all data
		necessarily
		smooth

#### 9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	То
First year course	Mathematics Department For MA101	2014 and	
coordinator for	& MA102	2015	
B.Tech			
Class committee	Civil, CSE,ECE,ICE, MECH, Prod	For I, II and	
member		III semesters	
Stock verification	Chemical	2014	2016
member			

#### 10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	То
BOARD MEMBER	Dept. of Mathematics,	2015	
for syllabus	Government Arts college for		
committee	women, Pudukkottai		
EXTERNAL	Dept. of Mathematics,	2013	
MEMBER for phd	Bharathidasan University		
Committee member	Dept. of Maths. SRM university,	2016	
for phd syllabus	Chennai		
Question paper setter	various colleges and universities	2007	

#### 11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization

#### 12. Fellowships

Year of Award	Name of the Fellowship	Awarding	From	То
		Organization	(Month/Year)	(Month/Year)
2002-2005	SRF	CSIR	June 2002	June 2005
2005-2007	PDF	NBHM	December	May 2007
			2005	

- 13. Details of Academic Work
  - (i) Curriculum Development
  - (ii) Courses taught at Postgraduate and Undergraduate levels
    - MA101, MA102, MA206, MA203
  - (iii)Projects guided at Postgraduate level
    - 3 M.Phil projects and 4 M.Sc projects are co guided by me in the period of my PDF at Bharathidasan university, Trichy.
  - (iv)Other contribution(s)
- 14. Details of Major R&D Projects

Title of Project	Eunding Aganay	Dura	ation	Status
The of Project	Funding Agency	From	То	Ongoing/ Completed
NUMERICAL	NBHM	2010	2013	Completed
METHODS FOR				
SINGULARLY				
PERTURBED				
PROBLEMS				
WITH NON				
SMOOTH DATA				
Numerical	DST-SERB	2013	2016	Completed
methods for				
singularly				
perturbed two				
parameter				
problems				
Singularly	DST-SERB	2017	2020	ongoing
perturbed				
parabolic				
reaction-				
diffusion-				
convection type				
differential				
equation with				

non smooth data		

15. Number of PhDs guided

Name of the PhD	Title of PhD	Role(Supervisor/ Co-	Year of
Scholar	Thesis	Supervisor)	Award
MR. M.CHANDRU		Supervisor	Thesis
			submitted
MR. P.M.BASHA		Supervisor	Submitted
			thesis
MRS. T.PRABHA		Supervisor	Doing
Ms. Aarthika		Supervisor	Doing

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

- 1. Atttended Heber international conference on applications of mathematics and Statistics 5<sup>th</sup> 7<sup>th</sup> January 2012, Bishop Heber College, Trichy.
- 2. Attended International conference on History and Development of Mathematical Sciences & Symposium on nonlinear analysis, November 21-24, 2012, Department of Mathematics, Maharshi Dayanand University, Rohtak, Haryana.Participated National Conferece on Frontiers in Applied Sciences & Computer Technology, December 6-7, 2012, NIT, Trichy
- 3. Participated in National Conference on Frontiers in Analysis and Differential Equations, December 191-20, 2012, Bharathidasan university, Trichy
- 4. Participated in three day short course on FEM organized by Department of Civil Engineering, NIT, Trichy during 21-23 March 2013.
- 5. Participated in the Faculty training programme on Teaching Learning Methodologies organized by the Teaching learning centre, IIT-Chennai during August 20-22, 2012
- 6. Participated in the project review meeting at IISC Trivandram on September 23<sup>rd</sup> 2016.
- 7. Delivered lecture on national conference on Recent trends and applications in mathematics and physics on 13<sup>th</sup> March 2014 at Perambalur sridhanalakshmi srinivasan arts college for women.
- 8. Delivered lecture on Oxford Engineering College Trichy at September 2015.

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event	Date (s)	Role	Venue
	(International/			
	National/ Local)			
NCRTAAM2013	NATIONAL	2	CONVENOR	NIT
				TRICHY
NCAAM2014	NATIONAL	2	-DO-	NIT-T
IWCAAM2016	INTERNATIONAL	5	-DO-	NIT-T

#### 18. Invited Talks delivered

Topic	Date	Inviting Organization
Application of DE		Oxford college of engineering,
		Trichy
Introduction to	13 <sup>th</sup> march 2013	Dhanalaxhmi srinivasan college
mathematics researchers		of Arts and Science, Perambalur
Application of	2014 and 2015	MKCET, Karur
mathematics		

### 19. Membership of Learned Societies

Type of Membership (Ordinary	Organization	Membership No. with
Member/ Honorary Member / Life		date
Member )		
		IMS no. S-12-39
Life Member	IMS, ISTE	

### 20. Academic Foreign Visits: Nil

Country	Duration of Visit	Programme

#### 21. Publications

#### (A) <u>Refereed Research Journals</u>:

S.	Authors	Title	Name of the	Volume	Page	year
No			journal			
1	M. Chandru, T.	A parameter robust higher	Journal of	10.1016/j		2016
	Prabha and V.	order numerical method for	Computational	.cam.201		
	Shanthi	singularly perturbed two	and Applied	6.06.009		
		parameter problems with non-	Mathematics			
		smooth data				
2	M. Chandru,	A Schwarz Method for	Journal of	Accepted		2016
	V. Shanthi.	Fourth Order Singularly	Applied	for		

		Perturbed Reaction-	Mathematics &	publicati		
		Diffusion Problem with	Informatics	on		
		Discontinuous Source				
		Term				
3	P. M. Basha, and	A numerical method for	International	1	381-	2015
	V.Shanthi	singularly perturbed second	Journal of		397	
		order coupled system of	Applied and			
		convection-diffusion Robin	Computational			
		type boundary value problems	Mathematics			
		with discontinuous source term	(Springer)			
4	P.M.Basha, and	A uniformly convergent	American	3	39-48	2015
	V.Shanthi	scheme for a system of two	Journal of			
		coupled singularly perturbed	Numerical			
		reaction-diffusion Robin type	Analysis			
		boundary value problems with				
		discontinuous source term				
5	M. Chandru, V.	, Fitted Mesh Method for	International	1	491-	2015
	Shanthi	Singularly Perturbed Robin	Journal of		501	
		Type Boundary Value Problem	Applied and			
		with Discontinuous Source	Computational			
		lerm	Mathematics –			
6			Springer	1	07	2015
6	M. Chandru, T.	A Hybrid Difference Scheme	International	1	8/-	2015
	Prabha, V.	for A Second Order Singularly	Journal of		100	
	Shanthi	Perturbed Reaction-Diffusion	Applied and			
		Problem with Non-Smooth	Computational			
		Data	Mathematics –			
7	D M Dasha and	A peremeter uniform	Springer Mothematical	2	867	2014
/	V Shanthi	A parameter-uniform	Sciences	5	866 866	2014
	v. Shahun	coupled system of two	International		800	
		singularly perturbed linear	Research Journal			
		reaction-diffusion equations	Kesearen Journai			
		with discontinuous source term				
		subject to mixed type boundary				
		conditions				
8	M. Chandru, V.	A Boundary Value Technique	Journal of		32-45	2014
	Shanthi	for Singularly Perturbed	Engineering			
		Boundary Value Problem of	Science &			
		Reaction-Diffusion with Non-	Technology,			
		Smooth Data	ICMTEA			
			conference			
			special issue			
7	R. Mythili			30	369 –	2009
	Priyadharshini,	Approximation of derivative	International		383	
	N. Ramanujam	in a system of singularly	Journal of			
	and V. Shanthi	perturbed convection	Applied			
		diffusion equations	Numerical	1		

		Mathematics			
V. Shanthi and	, Asymptotic hybrid difference	Neural, Parallel	16	327-336	2008
I. Ramanujam	scheme for singularly	and Scientific			
Ū.	perturbed third and fourth	Computation			
	order ordinary differential	-			
	equations with discontinuous				
	source term				
А.	A numerical method for	International	202	203-	2007
amilselvan, N.	singularly perturbed weakly	Journal of		216	
amanujam and	coupled system of two second	Computational			
7. Shanthi	order ordinary differential	and Applied			
	equations with discontinuous	Mathematics			
	source term				
.Shanthi, N.	Fitted mesh method for	International	22	49-65	2006
amanujam and	singularly perturbed reaction-	Journal of			
. Natesan	convection-diffusion problems	Applied			
	with boundary and interior	Mathematics &			
	layers	Computing			
. Shanthi, N.	Asymptotic numerical methods	Int. J. Comput.	85(7)	1147-	2008
amanuiam	for singularly perturbed fourth	Math	00(1)	1159	2000
lannanajann	order ordinary differential	1,1,1,1,1,1		1107	
	equations with a discontinuous				
	source term. Problems				
.Shanthi, N.	Asymptotic numerical methods	Applied	172(1)	252-	2006
lamanuiam	for singularly perturbed fourth	Mathematics	(.)	266	
	order ordinary differential	and		-00	
	equations with a weak interior	Computation			
	layer	computation			
.Shanthi, N.	A Boundary value technique	International	46	1673-	2004
amanujam	for solving boundary value	Journal of		1688	
5	problems for singularly	Computers and			
	perturbed fourth order ordinary	Mathematics			
	differential equaitons	with			
	1	applications			
Shanthi N	Computational methods for	Applied	147	97-113	2004
amanuiam	reaction-diffusion problems	Mathematics		<i>)</i> / 115	2001
amanajam	of fourth order ordinary	and			
	differential equaitons with a	Computation			
	small parameter at the	Computation			
	highest derivative				
Shanthi N	Asymptotic numerical	International	46	463-	2003
amanuiam	methods for singularly	Journal of		478	_000
Juili	perturbed fourth order	Computers			
	ordinary differential	and			
	equaitons of Reaction-	Mathematics			
	Diffusion type	with			
	V. Shanthi and . Ramanujam A. amilselvan, N. amanujam and . Shanthi . Shanthi, N. amanujam and . Natesan . Shanthi, N. amanujam . Shanthi, N. amanujam . Shanthi, N. amanujam . Shanthi, N. amanujam	V. Shanthi and . Ramanujam, Asymptotic hybrid difference scheme for singularly perturbed third and fourth order ordinary differential equations with discontinuous source termA.A numerical method for singularly perturbed weakly coupled system of two second order ordinary differential equations with discontinuous source termShanthiFitted mesh method for singularly perturbed reaction- convection-diffusion problems with boundary and interior layers.Shanthi, N. amanujam and . NatesanAsymptotic numerical methods for singularly perturbed reaction- convection-diffusion problems with boundary and interior layers.Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. Problems.Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a weak interior layer.Shanthi, N. amanujamA Boundary value technique for solving boundary value problems for singularly perturbed fourth order ordinary differential equaitons.Shanthi, N. amanujamComputational methods for reaction-diffusion problems of fourth order ordinary differential equaitons with a small parameter at the highest derivative.Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equaitons with a 	V. Shanthi and . RamanujamAsymptotic hybrid difference scheme for singularly perturbed third and fourth order ordinary differential equations with discontinuous source termNeural, Parallel and Scientific ComputationA.A numerical method for amanujam and . ShanthiInternational Journal of coupled system of two second order ordinary differential equations with discontinuous source termInternational Journal of Computational and Applied Mathematics.Shanthi, N.Fitted mesh method for singularly perturbed reaction- convection-diffusion problems with boundary and interior layersInternational Journal of Applied Mathematics & Computing.Shanthi, N.Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. ProblemsApplied Mathematics and Computing.Shanthi, N.Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a weak interior layerApplied Mathematics and Computation.Shanthi, N.A Boundary value technique for solving boundary value problems for singularly perturbed fourth order ordinary differential equaitons of fourth order ordinary differential equaitons with a applicationsInternational Journal of Computers and Mathematics and Computers and Computation.Shanthi, N.A Boundary value technique for solving boundary value problems for singularly perturbed fourth order ordinary differential equaitons with a asmall parameter at the highest derivativeInternational Journal of Computers and Computers <td>V. Shanthi and . RamanujamAsymptotic hybrid difference scheme for singularly perturbed third and fourth order ordinary differential equations with discontinuous source termMathematicsA. amilselvan, N. amanujam and . ShanthiA numerical method for singularly perturbed weakly coupled system of two second order ordinary differential equations with discontinuous source termInternational Journal of Computational and Applied Mathematics202Shanthi, N. amanujam and . Shanthi, N. amanujamFitted mesh method for singularly perturbed reaction- convection-diffusion problems with boundary and interior layersInternational Journal of Applied Mathematics &amp; Computing. Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. ProblemsApplied Mathematics and Computing. Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a weak interior layerApplied Mathematics and Computation.Shanthi, N. amanujamA Boundary value technique for solving boundary value problems for singularly perturbed fourth order ordinary differential equations with a weak interior layerInternational Journal of Computation.Shanthi, N. amanujamComputational methods for small parameter at the highest derivativeInternational Journal of Computation.Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equaitons with a small param</br></td> <td>V. Shanthi and . RamanujamAsymptotic hybrid difference scheme for singularly perturbed third and fourth order ordinary differential equations with discontinuous source termMathematicsA. amanujam and . Shanthi, N. amanujam and . Shanthi, N. Shanthi, N. Asymptotic numerical method for singularly perturbed reaction- order ordinary differential equations with discontinuous source termInternational Journal of Computational and Applied Mathematics202 203- 216Shanthi, N. amanujam and . Shanthi, N. Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. ProblemsInternational Journal of Journal of Journal of Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. ProblemsInt. J. Comput. Mathematics and Computation85(7)1147- 1159.Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. ProblemsApplied Mathematics and Computation172(1) 252- 266 and Computation.Shanthi, N. amanujamA Boundary value technique for singularly perturbed fourth order ordinary differential equaitons of fourth order ordinary differential equaitons with a small parameter at the highest derivative147 46 463- 478.Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equaitons with a small parameter at the highest derivative117 46 463-<b< td=""></b<></td>	V. Shanthi and . RamanujamAsymptotic hybrid difference scheme for singularly perturbed third and fourth 	V. Shanthi and . RamanujamAsymptotic hybrid difference scheme for singularly perturbed third and fourth order ordinary differential equations with discontinuous source termMathematicsA. amanujam and . Shanthi, N. amanujam and . Shanthi, N. Shanthi, N. Asymptotic numerical method for singularly perturbed reaction- order ordinary differential equations with discontinuous source termInternational Journal of Computational and Applied Mathematics202 203- 216Shanthi, N. amanujam and . Shanthi, N. Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. ProblemsInternational Journal of Journal of Journal of Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. ProblemsInt. J. Comput. Mathematics and Computation85(7)1147- 1159.Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. ProblemsApplied Mathematics and Computation172(1) 252- 266 and Computation.Shanthi, N. amanujamA Boundary value technique for singularly perturbed fourth order ordinary differential equaitons of fourth order ordinary differential equaitons with a small parameter at the highest derivative147 46 463- 478.Shanthi, N. amanujamAsymptotic numerical methods for singularly perturbed fourth order ordinary differential equaitons with a small parameter at the highest derivative117 46 463- <b< td=""></b<>

16	V.Shanthi, N.	Asymptotic numerical methods	Applied	133	559-	2002
	Ramanujam	for singularly perturbed fourth	Mathematics		579	
		order ordinary differential	and			
		equaitons of Convection-	Computation			
		Diffusion type				
17	V.Shanthi, N.	A Numerical metrhod for	Applied	129	269-	2002
	Ramanujam	solving singularly perturbed	Mathematics		294	
		fourth order ordinary	and			
		differential equations	Computation			
			-			

#### (B) <u>Conferences/Workshops/Symposia</u> Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year

### (C) Books & Monographs

Author(s)	Title of	Name of	Year of	ISSN/ISBN
	Book/Monograph	Publishers	Publication	Number
1.V.SHANTHI and	PROCEEDINGS	SHANGA	2013	9788192375236
K.MURUGESAN	OF	VERLAG		
	NCRTAAM2013			
2.V.SHANTHI and	PROCEEDINGS	BORNFRING	2014	
<b>R.PONNALAGUSAMY</b>	OF			
	NCAAM2014			
3.V.SHANTHI AND T.	PROCEEDINGS	SHANLAX	2016	9789385977213
N. JANAKIRAMAN	OF	PUBLICATIONS		
	IWCAAM2016			