National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Curriculum Vitae

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

1. Name: Dr. V. SHANTHI
2. Designation: ASSISTANT PROFESSOR
3. Office Address: DEPARTMENT OF MATHEMATICS
   NIT, TRICHY-15
4. Telephone (Direct) (Optional): 0431-2503673
   Telephone : Extn (Optional):
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5. Email (Primary):vshanthi@nitt.edu Email (Secondary) :matshavembu@yahoo.co.in
6. Field(s) of Specialization: DIFFERENTIAL EQUATIONS AND NUMERICAL ANALYSIS

7. Employment Profile

Job Title	Employer	From	To
LECTURER	SASTRA	30-5-2005	30-11-2005
Post Doctoral Fellow-NBHM	NBHM, Bharahtidasan University	1-12-2005	30-5- 2007
Assistant Professor	NIT, TRICHY	SINCE 31-5-2007	

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	Title of thesis 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	To
First year course coordinator for B.Tech	Mathematics Department For MA101 & MA102	2014 and 2015	
Class committee member	Civil, CSE,ECE,ICE, MECH, Prod	For I, II and III semesters	
Stock verification member	Chemical	2014	2016

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
BOARD MEMBER for syllabus committee	Dept. of Mathematics, Government Arts college for women, Pudukkottai	2015	
EXTERNAL MEMBER for phd	Dept. of Mathematics, Bharathidasan University	2013	
Committee member for phd syllabus	Dept. of Maths. SRM university, Chennai	2016	
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 Organization	From (Month/Year)	To (Month/Year)
2002-2005	SRF	CSIR	June 2002	June 2005
2005-2007	PDF	NBHM	December 2005	May 2007

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

non smooth data				

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of 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 5th – 7th 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 23rd 2016.**
7. **Delivered lecture on national conference on Recent trends and applications in mathematics and physics on 13th 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 (International/ National/ Local)	Date (s)	Role	Venue
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 mathematics researchers	13th march 2013	Dhanalaxhmi srinivasan college of Arts and Science, Perambalur
Application of mathematics	2014 and 2015	MKCET, Karur

19. Membership of Learned Societies

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

20. Academic Foreign Visits: Nil

Country	Duration of Visit	Programme

21. Publications

(A) Refereed Research Journals:

S. No	Authors	Title	Name of the journal	Volume	Page	year
1	M. Chandru, T. Prabha and V. Shanthi	A parameter robust higher order numerical method for singularly perturbed two parameter problems with non-smooth data	Journal of Computational and Applied Mathematics	10.1016/j.cam.2016.06.009		2016
2	M. Chandru, V. Shanthi.	A Schwarz Method for Fourth Order Singularly	Journal of Applied	Accepted for		2016

		Perturbed Reaction-Diffusion Problem with Discontinuous Source Term	Mathematics & Informatics	publication		
3	P. M. Basha, and V.Shanthi	A numerical method for singularly perturbed second order coupled system of convection-diffusion Robin type boundary value problems with discontinuous source term	International Journal of Applied and Computational Mathematics (Springer)	1	381–397	2015
4	P.M.Basha, and V.Shanthi	A uniformly convergent scheme for a system of two coupled singularly perturbed reaction-diffusion Robin type boundary value problems with discontinuous source term	American Journal of Numerical Analysis	3	39-48	2015
5	M. Chandru, V. Shanthi	, Fitted Mesh Method for Singularly Perturbed Robin Type Boundary Value Problem with Discontinuous Source Term	International Journal of Applied and Computational Mathematics – Springer	1	491-501	2015
6	M. Chandru, T. Prabha, V. Shanthi	A Hybrid Difference Scheme for A Second Order Singularly Perturbed Reaction-Diffusion Problem with Non-Smooth Data	International Journal of Applied and Computational Mathematics – Springer	1	87-100	2015
7	P. M. Basha, and V. Shanthi	A parameter-uniform numerical method for a coupled system of two singularly perturbed linear reaction-diffusion equations with discontinuous source term subject to mixed type boundary conditions	Mathematical Sciences International Research Journal	3	862-866	2014
8	M. Chandru, V. Shanthi	A Boundary Value Technique for Singularly Perturbed Boundary Value Problem of Reaction-Diffusion with Non-Smooth Data	Journal of Engineering Science & Technology, ICMTEA conference special issue		32-45	2014
7	R. Mythili Priyadharshini, N. Ramanujam and V. Shanthi	Approximation of derivative in a system of singularly perturbed convection diffusion equations	International Journal of Applied Numerical	30	369 – 383	2009

			Mathematics			
8	V. Shanthi and N. Ramanujam	, Asymptotic hybrid difference scheme for singularly perturbed third and fourth order ordinary differential equations with discontinuous source term	Neural, Parallel and Scientific Computation	16	327-336	2008
9	A. Tamilselvan, N. Ramanujam and V. Shanthi	A numerical method for singularly perturbed weakly coupled system of two second order ordinary differential equations with discontinuous source term	International Journal of Computational and Applied Mathematics	202	203-216	2007
10	V.Shanthi, N. Ramanujam and S. Natesan	Fitted mesh method for singularly perturbed reaction-convection-diffusion problems with boundary and interior layers	International Journal of Applied Mathematics & Computing	22	49-65	2006
11	V. Shanthi, N. Ramanujam	Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a discontinuous source term. Problems	Int. J. Comput. Math.	85(7)	1147-1159	2008
12	V.Shanthi, N. Ramanujam	Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equations with a weak interior layer	Applied Mathematics and Computation	172(1)	252-266	2006
13	V.Shanthi, N. Ramanujam	A Boundary value technique for solving boundary value problems for singularly perturbed fourth order ordinary differential equaitons	International Journal of Computers and Mathematics with applications	46	1673-1688	2004
14	V.Shanthi, N. Ramanujam	Computational methods for reaction-diffusion problems of fourth order ordinary differential equaitons with a small parameter at the highest derivative	Applied Mathematics and Computation	147	97-113	2004
15	V.Shanthi, N. Ramanujam	Asymptotic numerical methods for singularly perturbed fourth order ordinary differential equaitons of Reaction-Diffusion type	International Journal of Computers and Mathematics with applications	46	463-478	2003

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

(B) Conferences/Workshops/Symposia Proceedings

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

(C) Books & Monographs

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