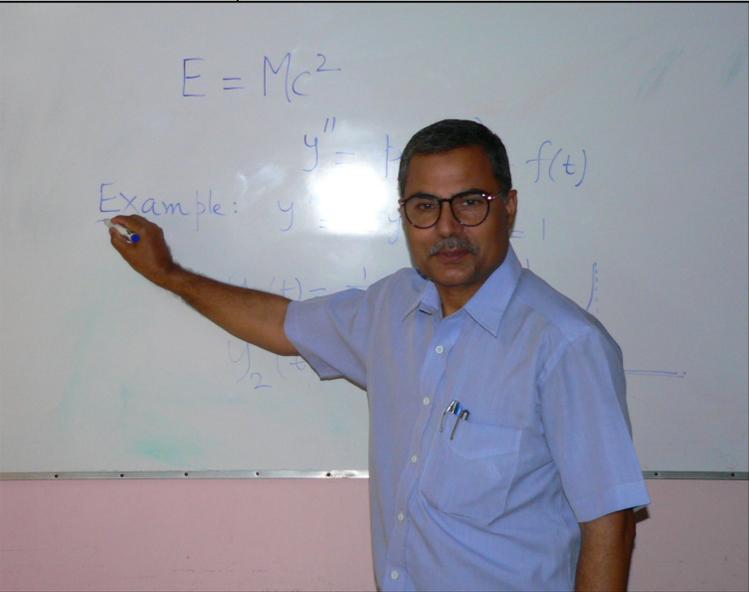


*An equation means nothing to me unless it expresses a thought of God*  
- Srinivasa Ramanujan

	<p>The past is our pride; the present is our challenge, and the future is ours to build. The wheel of Mathematics, through Logic and Modelling, drives our Dynamically Vibrant Nation to prosperity and global competitiveness</p>
	 <u>Mission</u> <p>Mathematical thinking is our national heritage</p> <p>Our mission is to harness this powerful legacy towards the realization of developed India</p>
<p>VADREVU SREE HARI RAO, Professor of Mathematics, Andhra Pradesh, India</p>	
<p><b>Professor Dr. V. Sree Hari Rao</b> <b>Fellow of National Academy of Sciences, Fellow of Forum D'Analystes</b> <b>Department of Mathematics</b> <b>Jawaharlal Nehru Technological University</b> <b>HYDERABAD - 500 072, (A.P), INDIA.</b> Phone: (O) +91 40 23158661, Extn.4310 (R) +91 40 24037710 (Mobile) +91 9346675550 Fax: +91 40 23057935 <u>E-Mails:</u> <a href="mailto:vshrao@gmail.com">vshrao@gmail.com</a>, <a href="mailto:vshrao@yahoo.com">vshrao@yahoo.com</a></p>	

## Education:

	INSTITUTION	DEGREE	DATE (FROM - TO)
	Indian Institute of Technology, Kanpur, India	Ph.D	June 1972 - Sep 1976
	Andhra University, Visakhapatnam, India	M.Sc	June 1970 - July 1972
	Andhra University, Visakhapatnam, India	B.Sc	June 1967 - July 1970
	Board of Higher Secondary Education, Govt. of Andhra Pradesh, Hyderabad, India	Higher Secondary Certificate	June 1960 – April 1967

## Indian Assignments:

	<b>Professor of Mathematics</b> <b>Jawaharlal Nehru Technological University,</b> <b>Hyderabad, India</b>	<b>Oct 7, 1987– till date</b>
	<b>Reader in Mathematics</b> <b>Osmania University,</b> <b>Hyderabad, India</b>	<b>Jan, 1983 - Oct 6, 1987</b>
	<b>Lecturer in Mathematics</b> <b>Osmania University,</b> <b>Hyderabad, India</b>	<b>Aug 9, 1977 – Jan, 1983</b>
	<b>Lecturer in Mathematics</b> <b>University of Allahabad</b> <b>Allahabad, India</b>	<b>Sep, 1976 – July, 1977</b>
	<b>Research Assistant in Mathematics</b> <b>Indian Institute of Technology</b> <b>Kanpur, India</b>	<b>Jan, 1974 – Sept, 1976</b>

<b>International Assignments:</b>		
	<b>Visiting Research Assistant Professor, Dept. of Mathematics, University of Alberta, Edmonton, Canada.</b>	<b>1980 – 1982</b>
	<b>Visiting Professor of Mathematics, University of Texas at Arlington, Arlington, Texas, USA</b>	<b>1981</b>
	<b>Visiting Assistant Professor, Dept. of Mathematics, Iowa State University, Ames, Iowa, U.S.A.</b>	<b>1982 – 1983</b>
	<b>Visiting Professor of Mathematics, University of Texas at Arlington, Arlington, Texas, USA</b>	<b>1982</b>
	<b>Visiting Research Associate, Dept. of Mathematics, University of Alberta, Edmonton, Canada.</b>	<b>1984</b>
	<b>Visiting Research Associate, Dept. of Mathematics, University of Alberta, Edmonton, Canada.</b>	<b>1985</b>
	<b>Visiting Research Associate, Dept. of Mathematics, University of Alberta, Edmonton, Canada.</b>	<b>1986</b>
	<b>Visiting Research Associate, Dept. of Mathematics, University of Alberta, Edmonton, Canada.</b>	<b>1988</b>
	<b>Visiting Research Associate, Dept. of Mathematics, University of Alberta, Edmonton, Canada.</b>	<b>1992</b>

	<b>Visiting Research Fellow, School of Information Science &amp; Technology, Flinders University of South Australia, Adelaide, Australia.</b>	<b>1993</b>
	<b>Visiting Professor of Research, Dept. of Mathematics, University of Alberta, Edmonton, Canada.</b>	<b>1994</b>
	<b>Visiting Professor, Research, Department of Mathematics, York University, Toronto, Canada.</b>	<b>2000</b>

## **Selected Research Accomplishments:**

- ❖ **Stability studies for continuous and discrete non-linear dynamical systems**
- ❖ **Mathematical models in biological systems such as; population ecology, epidemiology, neural-cognitive systems, behavioral systems**
- ❖ **Mathematical models for the growth of microbial organisms in cultured environment such as; chemostat and lakes**
- ❖ **Mathematical models in physical systems such as; nuclear atomic models, structurally unstable systems, uncertain dynamical systems, non-linear oscillations**
- ❖ **Mathematical models in actuarial systems such as; insurance dynamics, financial derivatives**
- ❖ **Empirical modeling, knowledge extraction from data**

## Ph. D – Supervision:

1.	1986	K. Narsimha Reddy <b>Boundary Value Problems for Nonlinear Differential Systems</b>	Osmania University, Hyderabad, India
2.	1990	K. Jaya Lakshmi <b>Mathematical Models in Population Ecology</b>	Osmania University, Hyderabad, India
3.	1998	Bh. R. M. Phaneendra, <b>Global Dynamics of Bidirectional Associative Memory Neural Networks</b>	J.N.T. University, Hyderabad, India
4.	2001	P. Raja Sekhara Rao, <b>Stability and Control Mechanisms for the Growth of Microorganisms in a Cultured Environment</b>	J.N.T. University, Hyderabad, India
5.	2004	J.V.R. Murty <b>Data Warehousing and Mining Algorithms for Problems of Health Care Insurance</b>	J.N.T. University, Hyderabad, India
6.	2005	K. Venkataratnam <b>Dynamic Optimization using Neural Networks</b>	J.N.T. University, Hyderabad, India
7.		R. Nagaraj <b>A New Concept of Learning in Bidirectional Associative Memory Neural Networks</b>	J.N.T. University, Hyderabad, India
8.		M. Naresh Kumar <b>Knowledge Extraction and Fusion and Real World Applications</b>	Osmania University, Hyderabad, India
9.		G. Raja Gopala Chary <b>Stability of Discrete Dynamical Systems</b>	Osmania University, Hyderabad, India
10.		K.V. Narsimham <b>Fast Numerical Convergence Techniques and Applications</b>	Osmania University, Hyderabad, India

## **Current Activities:**

- ❖ **Contributing for the advancement of basic knowledge in pure and applied mathematics**
- ❖ **Applying mathematics to other disciplines.**
- ❖ **Preparing students for a variety of career opportunities in mathematics.**
- ❖ **Providing the knowledge of mathematics essential to adequate preparation for careers in other disciplines.**
- ❖ **Meeting the needs of students seeking to learn some of the principles of mathematical reasoning as part of a liberal education for living in a technologically vibrant knowledge society.**
- ❖ **Providing support to the mathematics community at large by editing, reviewing, and refereeing for agencies and professional journals, by membership on national panels and committees, by organization of conferences, workshops and symposia, and by other activities that advance the discipline.**
- ❖ **Interacting with industries, institutions, central, state and local agencies, and the community on matters involving technical mathematics and professional training.**
- ❖ **Developing more interdisciplinary courses for graduate and undergraduate students.**
- ❖ **Providing instruction that responds to the current needs of society.**
- ❖ **Developing laboratory courses for mathematics students.**
- ❖ **Interacting and lending expertise in building sophisticated and efficient algorithms and consultancy services to Defence R&D Divisions on mission areas.**
- ❖ **Participating in the development of the Jawaharlal Nehru Technological University academic community by being a member on Departmental, College and University committees.**

## **Professional Honours:**

- ❖ **Fellow of National Academy of Sciences, India.**
- ❖ **Fellow of Forum D' Analystes.**
- ❖ **Profile included in the Dictionary of International Bibliography, International Bibliographical Centre, Cambridge, UK**
- ❖ **Marquis Who's Who In USA.**
- ❖ **Marquis Who's Who In the World.**  
(The selection was based on the reference value. The individuals are listed either because of their position, or because of their noteworthy achievements, or of lasting value to humankind - according to a press Release)

## **Academic, Administrative and Scientific Positions and Committees (India and Abroad):**

- ❖ Member of ACADEMIC SENATE of Osmania University since 1990.
- ❖ Member, ACADEMIC and EXECUTIVE Council, Centre for Applicable Mathematics - B.M. Birla Science Centre, Hyderabad since 1994.
- ❖ Head, Department of Mathematics, J.N.T.U. College of Engineering, Hyderabad, from Jan 1990 to Jan 1992.
- ❖ Member, Board of Studies in Mathematics, J.N.T. University, Hyderabad.
- ❖ Member, College Standing Council for academic and administrative matters of J.N.T.U. College of Engineering, Hyderabad, since 1987.
- ❖ Member of Ragging Prevention Committee, J.N.T.U. College of Engineering, Hyderabad.
- ❖ Member of Committees for the Management of Events such as University Convocations, Student Festivals and other functions of the J.N.T. University.
- ❖ Member of Committee on the Prevention of Malpractices in Examinations, J.N.T.U. College of Engineering, Hyderabad.

- ❖ Convenor, Facts Finding Committee for grant of affiliation of self financing Institutions of Science and Technology affiliated to JNTU.
- ❖ Examiner for several courses B.Tech, M.Tech, M.Phil, Ph.D., of J.N.T. University and also several other Indian Universities.
- ❖ Member, Advisory Committee, Centre for Mathematical Biology and Ecology, Department of Mathematics, Jadavpur University, Calcutta, India.
- ❖ External Member, Experts Committee on Research and Recognition, Dr. B. R. Ambedkar Marthwada University, Aurangabad, India.
- ❖ External Member, Experts Committee on Research and Recognition, Swamy Ramananda Teerth Marathwada University, Nanded, India.
- ❖ External Member, Boards of Studies and Research in Mathematics, Andhra University, Visakhaptnam.
- ❖ External Member, Boards of Studies and Research in Mathematics, Shivaji University, Gwalior.
- ❖ External Reviewer and Member of Promotion Committees for Professors, Associate and Assistant Professors in Mathematics, Computer Sciences and Engineering of several Universities and Institutions in India, Germany, USA and Canada.

### **Memberships in Professional Organizations:**

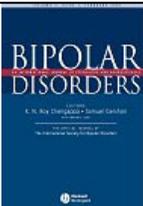
1.	Life Member, Indian Mathematical Society, <b>India</b> .
2.	Life Member, National Academy of Sciences, <b>India</b>
3.	Life Member, Allahabad Mathematical Society, <b>India</b>
4.	Distinguished Member, Marathwada Mathematical Society, <b>India</b>
5.	Senior Member, I.E.E.E., <b>USA</b>
6.	Member, American Mathematical Society, <b>USA</b>

## Editorships of Professional International Journals:

1.		<p><b>Founder</b> and continuing <b>Editor-in-Chief</b> <i>Differential Equations and Dynamical Systems</i>, Research Square Publications, since 1993.</p>
2.		<p><b>Editor-in-Chief</b> of Research Monographs/ Books in SMIC (Systems, Models, Informatics and Control) Series, Universities Press, an associate of Orient Longman Publishers.</p>
3.		<p><b>Member, Editorial Board</b> <i>International Journal of Neural Systems</i>, World Scientific Publishing Corporation Singapore.</p>
4.		<p><b>International Advisory Editor</b>, <i>Engineering Simulation</i>, Gordon and Beach Science Publications, U.K.</p>
5.		<p><b>Member, Editorial Board</b>, <i>Journal Non-linear Analysis: Real world Applications</i>, Elsevier Science, USA.</p>
6.		<p><b>Member, Editorial Board</b>, <i>Journal Chaos, Solitons and Fractals</i>, The Interdisciplinary journal of Nonlinear Science, Nano and Quantum Technology, Elsevier Science, Oxford, U.K.</p>
7.		<p><b>Regional Editor</b> <i>International Journal of Electronic Modeling</i>, Russia.</p>
8.		<p><b>Member, Editorial Board</b> <i>Journal Nonlinear Dynamics and System Theory</i>, Academic Periodic Press., U.K.</p>

9.		<b>Member, Editorial Board</b> <i>Bulletin of the Marathwada Mathematical Society</i>
10.		<b>Member, Editorial Board</b> <i>Research Monograph Series on "Stability and Control"</i> , Taylor and Francis, USA.
11.		<b>Reviewer,</b> <i>Mathematical Reviews</i> , American Mathematical Society, University of Michigan, Ann Arbor, USA.
12.		<b>Reviewer,</b> <i>IEEE Transactions on Neural Networks</i> , USA.
13.		<b>Reviewer,</b> <i>IEEE Transactions on System, Man, and Cybernetics</i> , USA.
14.		<b>Reviewer,</b> <i>Zentralblatt für Mathematik</i> , Germany.

## Edited Special Issues of International Journals:

1.		<b>Editor,</b> <i>New Millennium Special Issues on Neural Networks and Neuro Computing –Theory, Models and Applications: Parts-I, II, III, and IV.</i> <i>Differential Equations &amp; Dynamical Systems</i> , Research Square Publications.
2.		<b>Guest Editor</b> <i>Special issue on Bipolar Disorders</i> <i>(in press)</i>

3.		<b>Guest Editor</b> <i>Special issue on Complex Neural Networks</i> <i>International Journal of Neural Systems</i> <i>(in press)</i>
----	---	---

### Edited Conference Proceedings:

1.		<b>Editors:</b> <u>V. Sree Hari Rao</u> and L. H. Erbe. <i>Proceedings of the International Conference on “Differential Equations - Theory, Methods and Applications”</i> , Feb. 20-23, 1995,
2.		<b>Member, Editorial Board</b> <i>Proceedings of International Conference on “Nonlinear Systems: Modeling, Simulation and Applications”</i> , Dec. 26-29, 2000,

### Conferences Organized:

1.	1995	International Conference on Differential Equations - Theory, Methods & Applications, February 20-23, 1995.
2.	1995	International Conference on New Directions in Applied Mathematics, Sponsored by B.M. Birla Science Centre, Hyderabad, University of Hyderabad and COMCON Board, University of California, Los Angeles, USA, December 19-22, 1995.
3.	1997	International Advisor and Organizing Committee Member of the Conference on Dynamical Systems being Organized by Indian Institute of Science, Bangalore, India, January 7-11, 1997.
4.	2000	International Advisory and Organising Committee Member of the Conference on Nonlinear Systems: Modeling, Simulation and Applications, Dec. 26 - 29, 2000, Science College, Nanded, India.

## Selected Keynote Addresses:

- ❖ International Workshop on Difference and Differential Inequalities, **Middle East Technical University, Ankara and Tubitak- Marmara Research Centre, Istanbul, Turkey**, July, 1996.
- ❖ National Conference on Mathematical Modeling of Biological, Ecological and Environmental Systems, **Jadavpur University, Calcutta, India**, March 26-28, 1999
- ❖ International Conference on Nonlinear Systems: Modeling, Simulation and Applications, **N. E. S. Science College, Nanded, India**, Dec. 26-29, 2000
- ❖ Principles of Mathematical Modeling, at the International Workshop on Current Trends in Mathematical Modeling of Real World Problems at **B.M. Birla Science Centre, Hyderabad, India** on February 4, 2003
- ❖ A distinguished invited speaker for an Endowment Lecture: Fifth Phanidhar Datta Memorial Lecture on “ The art of Mathematical Modelling “ on 18<sup>th</sup> September 2003 at **Gauhati University, Guwahati, Assam, India**.
- ❖ A keynote address titled “ Drug scheduling of Cancer Chemotherapy – An Optimal Control Approach” delivered at the National Conference on Nonlinear Analysis and Applications during March 24-25, 2004 at **Dr. Baba Saheb Ambedkar Marathwada University, Aurangabad, India**.

## Selected Presentations:

Period	Presentations
1980 – 1981	Talk at the Canadian Mathematical Society, Winter Meeting, <b>University of British Columbia, Canada</b> , December, 1980.
1981 – 1982	Invited Talk at the Conference on Qualitative Theory of Differential Equations at the <b>University of California, Davis, USA</b> , January, 1981.
	Talk at the 87th Annual meeting of the <b>American Mathematical Society, Sanfrancisco, USA</b> , January, 1981.
	Talk at the International Conference on Population Biology, <b>Claremont, California, USA</b> , January, 1981.

		Talk at Equadiff-5, Conference at <b>Bratislava, Czechoslovakia</b> , August, 1981.
		Invited Colloquim Lecture, <b>University of Victoria, Victoria, Canada</b> , April, 1981.
		Talk at the International Conference on Population Biology, <b>University of Alberta, Edmonton, Canada</b> , June, 1982.
1982 1983	–	Instructional Conference on Competition Models in Ecology, <b>Utah State University, Logan, USA</b> , July, 1982.
		Talk at Equadiff '82, <b>Wurzburg, Germany</b> , 1982.
		Talk at the Eleventh Mid West Conference in Differential Equations, <b>University of Nebraska, Lincoln, USA</b> , October, 1982.
		Talk at the International Conference on Differential Equations, <b>University of Alabama, Birmingham, USA</b> , 1983.
		Invited Colloquim Lecture at <b>Iowa State University, Ames, USA</b> , March 1983.
1983 1984	–	Talk at the International Conference on Qualitative Theory of Differential Equations, <b>University of Alberta, Edmonton, Canada</b> , June, 1984.
1984 1985	–	Talk at the fourth Pacific Coast Resource Modeling Conference, <b>California Polytechnic State University, San Luis Obispo, U.S.A</b> , June, 1985.
1985 1986	–	Talk at the International Conference on Differential Equations, Oscillations, Bifurcation and Chaos, 1986, <b>University of Toronto, Canada</b> , July 1986.
1986 1987	–	Invited Lecture at the First Biennial Conference on Ramanujan's Centenary Celebrations, <b>Allahabad Mathematical Society, India</b> , November, 1987.
1987 1988	–	Chaired a Research paper reading session and delivered an Invited Lecture at the Geoffrey J. Butler memorial Conference, <b>University of Alberta, Edmonton, Canada</b> , June, 1988.

1988 1989	– Invited Talk at the National Symposium on Boundary Value Problems and Generalised Inverses, <b>Andhra University, Waltair, India</b> , August-September, 1988.
	Participated in the Short Term course on Artificial Intelligence and Rule Based Systems, Ministry of Human Resources Development, Govt. of India, <b>Dept. of Computer Science and Engineering, I.I.T. Kharagpur, India</b> , December, 1988.
1991 1992	– Invited Lecture Series of 3 Lectures on delay differential equations and their applications to biological systems, <b>University of Hyderabad, India</b> , December, 1991.
	Invited Seminar Lecture on Second order nonlinear oscillations, <b>Harish Chandra Research Institute for Mathematical Sciences, Allahabad, India</b> , May, 1992
	Invited Lecture on stability of delay differential equations, Workshop on Ordinary differential equations, <b>University of Alberta, Edmonton, Canada</b> , June, 1992.
	Invited Talk at the Second Geoffrey J. Butler Memorial Conference on Differential equations and population biology, <b>University of Alberta, Edmonton, Canada</b> . June 1992. Also chaired a session.
1992-1993	Invited Colloquium Lecture at <b>National University of Singapore, Singapore</b> , July, 1993.
1993-1994	Invited Lecture in National Symposium on Nonlinear Analysis and Applications to Real World Problems, <b>NES Science College, Nanded, India</b> , December, 1994.
1994-1995	Invited Lecture Series of 5 Lectures on Differential Equations & Applications to Neurobiology at <b>Marathwada University, Aurangabad, India</b> , January, 1995.
	Invited Lecture Series of 5 Lectures on Stability of Differential Equations & applications to Neural Networks, <b>Pondicherry University, Pondicherry, India</b> , February, 1995.
	Participation in the Fourth Asian Test Symposium on VLSI., <b>Bangalore, India</b> , November, 1995.

1995-1996	<p>Participation in the IX<sup>th</sup> International Conference on VLSI Design : VLSI in Mobile Communications, <b>Bangalore, India</b>. January, 1996. Also chaired a session.</p> <p>Invited Lecture in the International Workshop on Difference and Differential Inequalities, <b>Middle East Technical University, Ankara and Tubitak- Marmara Research Centre, Istanbul, Turkey</b>, July, 1996.</p> <p>Participation in the International Conference on Nonlinear Differential Equations and Applications, A Golden Jubilee Event of <b>Tata Institute of Fundamental Research, Bangalore, India</b>, August, 1996</p>
1996-1997	<p>Participation in the Tenth International Conference on VLSI Design: VLSI in Multimedia Applications, <b>Hyderabad, India</b>, Jan. 4-7, 1997</p> <p>A series of five lectures on Neural Networks at <b>Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, India</b>.</p>
1997-1998	<p>Invited Lecture at Prof. B.B. Sen Birth Centenary Celebration National Seminar on Emerging Areas of Applicable Mathematics, <b>Jadavpur University, Calcutta, India</b>, March 28-29, 1998, Also chaired a session.</p>
1998-1999	<p>Invited Lecture at the National Conference on Mathematical Modeling of Biological, Ecological and Environmental Systems, <b>Jadavpur University, Calcutta, India</b>, March 26-28, 1999. Also chaired a session.</p>
1999-2000	<p>Invited Colloquium Lecture at <b>York University, Toronto, Canada</b>, June 23, 2000.</p>
2000-2001	<p>Invited Lecture at the International Conference on Nonlinear Systems: Modeling, Simulation and Applications, <b>N. E. S. Science College, Nanded, India</b>, Dec. 26-29, 2000. Also chaired a session.</p>
2002-2003	<p>Invited lecture on “ Principles of Mathematical Modeling “ at the International Workshop on Current Trends in Mathematical Modeling of Real World Problems at <b>B.M. Birla Science Centre, Hyderabad, India</b>, on February 4, 2003</p> <p>A distinguished invited speaker for an Endowment Lecture: Fifth Phanidhar Datta Memorial Lecture on “ The art of Mathematical Modelling “ on 18<sup>th</sup> September 2003 at <b>Gauhati University, Guwahati, Assam, India</b>.</p>

2003-2004	A keynote address titled “ Drug scheduling of Cancer Chemotherapy – An Optimal Control Approach” delivered at the National Conference on Nonlinear Analysis and Applications during March 24-25, 2004 at <b>Dr. Baba Saheb Ambedkar Marathwada University, Aurangabad, India.</b>
	Delivered 10 invited lectures on “Numerical Methods and Optimization Techniques” in Advanced Course in Bio informatics, jointly organized by <b>IICT, CDAC and JNTU</b> during 13 <sup>th</sup> September to 24 <sup>th</sup> September 2004.
2004-2005	Delivered several popular lectures on the importance of Mathematics in Technical Education at Various Engineering Colleges.

### Research Projects:

1.	1978 -1980	UGC Funded Research Project on <b>Mathematical Modelling in Biological Systems</b>
2.	1979 -1980	CSIR Funded Research Project on <b>Non-Linear Oscillations</b>
3.	1986 -1990	UGC Funded Research Project on <b>Mathematical Models in Population Ecology</b>
4.	2003	CSIR Funded Research Project on <b>Discrete Dynamical Systems</b>
5.	2005	Member of the DRDO working group on <b>Mathematical Modelling of Aerospace Systems</b>

### Extra Mural Activities:

1.	1986	Team Member of the Curriculum Development Board in Differential Equations, University Grants Commission, New Delhi, India.
2.	1994	Delivered lectures on Differential Equations for University Grants Commission, New Delhi, India for Television Network - Educational Media Research Centre.

## Books:

### Research Monographs:

1.	<b>V Sree Hari Rao</b> and P Rajasekhara Rao <i>Stability and Bio-control Mechanisms for Microbial Populations</i> Taylor & Francis Monograph Series on Stability & Control, (in press)
----	--

### Graduate Lecture Notes:

1.	<b>V Sree Hari Rao</b> <i>A first course in Artificial Neural Networks and Applications</i>
2.	<b>V Sree Hari Rao</b> <i>Art of Mathematical Modeling</i>
3.	<b>V Sree Hari Rao</b> <i>An elementary treatise in dynamic systems modeling and simulation</i>

### Chapters in Books :

1.	1981	<b>V Sree Hari Rao</b> <i>A representation formula for solutions of certain linear system of generalized differential equations</i> Diff. Eqns. Applns. Ecology, Epidemics, Populations problems, (S.Busenberg and K.L.Cooke, eds.) Academic Press, New York, 1981, 337-342, USA.
2.	2005	<b>V Sree Hari Rao</b> <i>Activational Dynamics for Bidirectional Associative Memory Neural Networks,</i> Universities Press, (in Press)

## Research Papers Published in International Journals:

### Computer Science, Informatics and Mathematical Modelling:

1.	1983	H.I. Freedman and <u>V. Sree Hari Rao</u> , <b>A model predator-prey system with mutual interference and time delay</b> in Population Biology Proceedings, Edmonton 1982, Springer-Verlag, Lecture Notes in Biomathematics #52, 1983, 317-319, <b>Germany</b> , (H.I.Freedman and C.Strobeck eds.).
2.	1983	H.I. Freedman and <u>V. Sree Hari Rao</u> , <b>The trade-off between mutual interference and time lags in predator prey systems</b> , Bull. Math. Biology, 45(1983), 991-1004, <b>USA</b> .
3.	1986	L.H. Erbe, H.I. Freedman and <u>V. Sree Hari Rao</u> , <b>Persistence of three species food chains with mutual interference and time lags</b> , in "Qualitative Properties of differential equations" (W. Allegretto and G.J. Butler, eds.), University of Alberta, Mathematics Department (1986), 133-138, <b>Canada</b> .
4.	1986	H.I. Freedman and <u>V. Sree Hari Rao</u> , <b>Stability criteria for a system involving two time delays</b> , SIAM. J. Applied Mathematics, 46 (1986), 552-560, <b>USA</b> .
5.	1986	L.H. Erbe, H.I. Freedman and <u>V. Sree Hari Rao</u> , <b>Three species food chain models with mutual interference and time delays</b> , Mathematical Biosciences, 80(1986), 57-80, <b>USA</b> .
6.	1989	H.I. Freedman, J. So and <u>V. Sree Hari Rao</u> , <b>Asymptotic behaviour of a time-dependent single-species model</b> , Analysis, 9(1989), 217-223, <b>Canada</b> .
7.	1992	H.I.Freedman, K.J.Lakshmi and <u>V. Sree Hari Rao</u> , <b>Stability, persistence and extinction in a predator-prey system with discrete and continuous time delays</b> , "Recent trends in ordinary differential equations", USSIAA 1(1992), 221-238. World Scientific Publ. Company, <b>Singapore</b> .
8.	1996	Bh.R.M. Phaneendra, V.Prameela and <u>V. Sree Hari Rao</u> , <b>Global dynamics of bi-directional associative memory networks with transmission delays</b> , Differential Equations & Dynamical Systems, 4 (1996), 453-471.

9.	1998	<u>V. Sree Hari Rao</u> and Bh.R.M.Phaneendra, <b>Stability of differential systems involving time-lags</b> , Advances in Mathematical Sciences and Applications, 2(1998), 949-964, <b>Japan</b> .
10.	1999	<u>V. Sree Hari Rao</u> and Bh.R.M. Phaneendra, <b>Global dynamics of bi-directional associative memory neural networks</b> involving transmission delays and dead zones, Neural Networks, 12(1999), 455-465, <b>USA</b>
11.	2000	<u>V. Sree Hari Rao</u> and Bh.R.M. Phaneendra, <b>Dynamics of bi-directional associative memory neural networks with processing delays</b> , Non-linear Dynamics and Systems Theory, 2(2000), 79-102, <b>U.K.</b>
12.	2000	<u>V. Sree Hari Rao</u> and M. Naresh Kumar, <b>Artificial neural network technology for controlling the spread of an epidemic</b> , Nonlinear Systems: Modeling, Simulations and Applications, (2000), 113-122, <b>U.K.</b>
13.	2000	<u>V. Sree Hari Rao</u> and P.R.S.Rao, <b>Global stability of Chemostat models involving time delays</b> , Differential Equations & Dynamical Systems, 8(2000), 1- 28.
14.	2001	<u>V. Sree Hari Rao</u> and P.R.S.Rao, <b>Global stability of Chemostat models involving time delays and zones of no activation</b> , Canadian Applied Mathematics Quarterly, 9(2001), 273-300, <b>Canada</b> .
15.	2001	<u>V. Sree Hari Rao</u> and P.R.S.Rao. <b>The mathematics of the Chemostat</b> , Bulletin of Marathwada Mathematical Society, 2(2001), 129-139,
16.	2002	<u>V. Sree Hari Rao</u> and M. Naresh Kumar, <b>A mathematical model for inverted pendulum</b> , Bulletin of Marathwada Mathematical Society, 3(2002), 148-153.
17.	2002	<u>V. Sree Hari Rao</u> and P.R.S.Rao, <b>Global dynamics of cellular neural networks involving time delays</b> , Differential Equations & Dynamical Systems, 10(2002), 3-31.
18.	2002	<u>V. Sree Hari Rao</u> and P.R.S.Rao, <b>Stability of dead zone bi-directional associative memory neural networks involving time delays</b> , International Journal of Neural Systems, 12(2002), 15-29, <b>Singapore</b> .
19.	2002	<u>V. Sree Hari Rao</u> , N.Yadaiah, L. Siva Kumar and B.L. Deekshatulu, <b>Neural network architecture for describing non-linear input-output relations</b> , Electronic Modeling, 24(2002), 48-61, <b>Russia</b> .

20.	2004	<u>V. Sree Hari Rao</u> and R. Nagaraj, <b>Exponential convergence analysis for bi-directional associative memory neural networks involving time delays</b> , Differential Equations & Dynamical Systems, 12(2004), 3-31.
21.	2004	<u>V. Sree Hari Rao</u> and N. Yadaiah, <b>Neural Network approach for the control of dynamical systems</b> , Electronic Modeling, 26, No. 5, (2004), 33-42, <b>Russia</b> .
22.	2004	<u>V. Sree Hari Rao</u> , <b>The art of mathematical modelling</b> , Bulletin of Gauhati Math. Association, 8(2004), 1-26.
23.	2004	<u>V. Sree Hari Rao</u> and P.R.S.Rao, <b>Global stability in Chemostat models involving time delays and wallgrowth</b> , Non-linear Analysis: Real World Applications, 5 (2004), 141-158, <b>USA</b> .
24.	2004	<u>V. Sree Hari Rao</u> and K. Venkataratnam, <b>Multi parameter dynamic optimisation algorithms and application to a Problem of bio informatics relating to the spread of an epidemic</b> , Electronic Modelling, 26(2004), No.4, 105-116, <b>Russia</b> .
25.	2004	<u>V. Sree Hari Rao</u> and J. V. R. Murthy, <b>Data Warehousing&amp;Mining an Indispensable Computational Tool for Real World Problems</b> , Bulletin of Marathwada Mathematical Society, 5 (2004), No.2, 38-52.
26.	2005	<u>V. Sree Hari Rao</u> and Bh.R.M.Phaneendra, <b>Composite bi-directional associative memory neural networks involving time delays</b> , Electronic Modeling, 27(2005), <b>Russia</b> ,
27.	2005	<u>V. Sree Hari Rao</u> and N.Yadaiah, <b>Parameter identification of dynamical systems</b> , Chaos, Solitons and Fractals, 23(2005), 1137-1151, <b>U.K</b> .
28.	2005	<u>V. Sree Hari Rao</u> , <b>Mathematical models of the microbial populations and issues concerning stability</b> , Chaos, Solitons and Fractals, 23(2005), 657-670, <b>U.K</b> .
29.	2005	<u>V. Sree Hari Rao</u> and N.Yadaiah, <b>Oscillations induced by time-lags in limited nutrient-consumer dynamic models</b> , Chaos, Solitons, and Fractals, 25(2005), 11-23, <b>U.K</b> .
30.	2005	<u>V. Sree Hari Rao</u> and P.R.S. Rao, <b>Global stability in ratio-dependent predator-prey systems</b> , Non-linear Analysis, Real World Applications, 6(2005), 245-262, <b>USA</b> .

31.	2005	<u>V. Sree Hari Rao, N.Yadaiah, L.Sivakumar and B.L.Deekshatulu</u> , <b>Neural network algorithm for identification of parameters of a dynamical systems involving time delays</b> , Applied Scientific Computing, U.K, To appear.
32.	2005	<u>V. Sree Hari Rao</u> , <b>On chaotic neural networks</b> , Submitted for publication.
33.	2005	<u>V. Sree Hari Rao</u> , <b>A new concept of learning in artificial neural systems</b> , Submitted for publication.
34.	2005	<u>V. Sree Hari Rao</u> , <b>Mathematical analysis of a problem of bio informatics relating to the spread of an epidemic</b> , Submitted for Publication.
35.	2005	<u>V. Sree Hari Rao, C.R. Rao and V.K. Yeragani</u> , <b>A new technique to evaluate fluctuations of mood: implications for evaluating course and treatment effects in bipolar/affective disorders</b> , Bipolar Disorders, U.K, To appear.
36.	2005	<u>V. Sree Hari Rao</u> , <b>Construction of a novel index tree for problems of data warehousing</b> , Submitted for publication.
37.	2005	<u>V. Sree Hari Rao</u> , Building a decision support system for the retention of customers in health care insurance industry, Submitted for publication
38.	2005	<u>V. Sree Hari Rao</u> , <b>Stability analysis of resource-consumer dynamic models</b> , Anziam Journal of Mathematics, Australia, To appear.
39.	2005	<u>V. Sree Hari Rao</u> , <b>Stability and bio-control mechanisms for the growth of micro organisms in a cultured environment</b> , Chaos, Solitons and Fractals (2006) Elsevier, U.K, To appear.
40.	2005	<u>V. Sree Hari Rao</u> , <b>Influence of time delays on some nutrient – consumer dynamic models and mechanisms that can regulate them</b> , Chaos, Solitons and Fractals Elsevier, U.K, To appear.
41.	2005	<u>V. Sree Hari Rao, P.R.S. Rao and K. Venkatratnam</u> , <b>Parameter Estimation Using Dynamic Optimization in Limited Nutrient-Consumer Hybrid Dynamical Systems</b> , Nonlinear Analysis, Real World Applications, Special Issue on Hybrid Systems,( 2005), To appear.

42.	2005	<u>V. Sree Hari Rao</u> , <b>Drug scheduling of Cancer Chemotherapy – an optimal control approach</b> , Submitted for publication.
-----	------	--

### **Nonlinear Dynamics & Systems Theory**

43.	1976	<u>V. Sree Hari Rao</u> and M.R.M. Rao, <b>Nonlinear mixed integral equations involving Lebesgue-Stieltjes integrals</b> , S.S.M.F. Bull. Mathematique, New Series, 20 (1976), 391 – 397, <b>Romania</b> .
44.	1977	<u>V. Sree Hari Rao</u> , <b>Stability of impulsively perturbed systems</b> , Bull. Australian Math.Soc. 16 (1977), 99-110, <b>Australia</b> .
45.	1978	<u>V. Sree Hari Rao</u> , <b>Asymptotically self invariant sets and stability of measure differential equations</b> , Nonlin, Anal. Theor. Meth. Applns. 2 (1978), 483-489, <b>USA</b> .
46.	1978	<u>V. Sree Hari Rao</u> , <b>Note on conditionally asymptotically invariant sets</b> , J.Math. Phy. Sci. 12 (1978), 469-471.
47.	1978	<u>V. Sree Hari Rao</u> , <b>On bounded ness of impulsively perturbed systems</b> , Bull. Australian Math. Soc. 18 (1978), 237-242, <b>Australia</b> .
48.	1978	<u>V. Sree Hari Rao</u> , <b>Note on asymptotic equivalence for measure differential equations</b> , Bull. Australian Math. Soc. 18(1978), 455-460, <b>Australia</b> .
49.	1978	<u>V. Sree Hari Rao</u> , <b>On a non-linear differential-integral equation for ecological problems</b> , Bull. Australian Math. Soc. 19(1978), 363-369, <b>Australia</b> .
50.	1979	<u>V. Sree Hari Rao</u> , <b>Integral in-equalities of Gronwall type for distributions</b> , J. Math. Anal. Applns. 72(1979), 545-550, <b>USA</b> .
51.	1980	<u>V. Sree Hari Rao</u> and M.R.M. Rao, <b>Uniform asymptotic stability of impulsively perturbed nonlinear differential equations</b> , Nonlin, Anal. Theor. Meth. Applns. 4 (1980), 599-606, <b>USA</b> .
52.	1980	<u>V. Sree Hari Rao</u> , <b>Topological methods for the study of non-linear mixed stochastic integral equations</b> , J. Math. Anal. Applns. 74 (1980), 311-317, <b>USA</b> .
53.	1980	<u>V. Sree Hari Rao</u> , <b>A class of new differential equations</b> , Indian J. Math. 22 (1980), 269-279, paper invited for Professor C.T.Rajagopal memorial volume.

54.	1981	<u>V. Sree Hari Rao</u> , <b>A representation formula for solutions of certain linear system of generalized differential equations</b> <i>Diff. Eqns. Applns. Ecology, Epidemics, Populations problems</i> , (S.Busenberg and K.L.Cooke, eds.) Academic Press, New York, 1981, 337-342, USA.
55.	1983	<u>V. Sree Hari Rao</u> , <b>On random solutions of Volterra - Fredholm integral equations</b> , <i>Pacific J. Math.</i> 108(1983), 397-405, USA.
56.	1983	L.H. Erbe and <u>V. Sree Hari Rao</u> , <b>Nonoscillation criteria for forced second order nonlinear equations</b> , <i>J. Math. Anal. Applns</i> , 97 (1983), 202-213, USA.
57.	1983	<u>V. Sree Hari Rao</u> , V. Lakshmikantham and A.S. Vatsala, <b>Existence of solutions for a system of second order nonlinear periodic boundary value problems</b> , <i>Applicable Analysis</i> , 17 (1983), 23-26, USA.
58.	1984	<u>V. Sree Hari Rao</u> and A.S. Vatsala, <b>Monotone method for a system of second order periodic boundary value problems</b> , <i>Applied Mathematics and Computation</i> , 15 (1984), 71-83, USA.
59.	1984	L.H. Erbe and <u>V. Sree Hari Rao</u> , <b>Periodic boundary value problems for a system of semi-linear parabolic partial differential equations</b> , <i>J. Math. Phy. Sci.</i> 18(1984), 425-440.
60.	1984	L.H. Erbe, K.V.V.S. Rao and <u>V. Sree Hari Rao</u> , <b>Non-oscillation and asymptotic properties for a class of forced second order non-linear equations</b> , <i>Math. Proc. Cambridge Phil. Soc.</i> 95(1984), 155-163, U.K.
61.	1984	J.J. Nieto and <u>V. Sree Hari Rao</u> , <b>Some properties of second order nonlinear differential equations and perturbations that preserve them</b> , <i>SIAM J. Math. Anal.</i> 15 (1984), 912-921, USA.
62.	1986	J.J. Nieto and <u>V. Sree Hari Rao</u> , <b>Periodic solutions of second order non-linear differential equations</b> , <i>Acta. Math. Hungarica</i> , 48(1986), 59-66, Hungary.
63.	1987	L.H. Erbe and <u>V. Sree Hari Rao</u> , <b>Nonoscillation results for third order non-linear differential equations</b> , <i>J. Math. Anal. Applns</i> , 125 (1987), 471-482, USA.
64.	1989	R.S. Dahiya and <u>V. Sree Hari Rao</u> , <b>Properties of solutions of third order linear differential equations</b> , <i>Periodica Mathematica Hungarica</i> , 20(1989), 171-184, Hungary.
65.	1990	L.H. Erbe and <u>V. Sree Hari Rao</u> , <b>On generalized Emden-Fowler and</b>

		<b>Thomas-Fermi differential equations</b> , Research Survey Paper, Bulletin of Allahabad Math. Soc. 5 (1990), 21-78.
66.	1991	J.J. Nieto and <u>V. Sree Hari Rao</u> , <b>Periodic solutions for scalar Lienard equations</b> , Acta. Math. Hungarica 57(1991), 15-27, <b>Hungary</b> .
67.	2002	<u>V. Sree Hari Rao</u> and G.Jaya Sudha, <b>Global behaviour of solutions of non-linear delay difference equations</b> , Journal of Difference Equations and Applications, 8(2002), 101-124, <b>USA</b> .
68.	2005	<u>V. Sree Hari Rao</u> , <b>Periodic boundary value problems for non-linear second order Differential Equations</b> (with Maha Lakshmi), Submitted for publication.
69.	2005	<u>V. Sree Hari Rao</u> , <b>Stability properties for nonlinear discrete dynamical systems</b> , Submitted for publication.
70.	2005	<u>V. Sree Hari Rao</u> , <b>Bifurcation analysis of a discrete dynamical system</b> , Submitted for publication.

**Reviews: Reviewed several research papers for the following International Journals**

1.	Bulletin of Allahabad Mathematical Society, <b>India</b>
2.	Bulletin of Calcutta Mathematical Society, <b>India</b>
3.	Bulletin of Gauhati Mathematical Society, <b>India</b>
4.	Bulletin of Marathwada Mathematical Society, <b>India</b>
5.	Bulletin of the Australian Mathematical Society, <b>Australia</b>
6.	Bulletin of the Canadian Mathematical Society, <b>Canada</b>
7.	Canadian Journal of Population Studies, <b>Canada</b>
8.	Chaos, Solitons & Fractals, The Interdisciplinary Journal for Nonlinear Science, Nano and Quantum Technology, Elsevier, Oxford, <b>UK</b>
9.	Differential Equations and Dynamical Systems, An International Journal for Theory, Methods and Computer Simulations, <b>India</b>
10.	Electronic Modeling, <b>Russia</b>
11.	Engineering Simulations, Gordon & Breach Science Publisher, <b>UK</b>
12.	Houston Journal of Mathematics, <b>USA</b>

13.	I.E.E.E Transactions on System, Man Cybernetics, <b>USA</b>
14.	I.E.E.E. Transactions on Data and Knowledge Engineering, <b>USA</b>
15.	I.E.E.E. Transactions on Neural Networks, <b>USA</b>
16.	Indian Journal of Mathematics, <b>India</b>
17.	International Journal of Control, <b>USA</b>
18.	International Journal on Neural Systems World Scientific, <b>Singapore</b>
19.	Jadavpur University, Journal, <b>India</b>
20.	Journal of Mathematical Analysis and Applications, Elsevier, <b>USA</b>
21.	Journal of Mathematical and Physical Sciences, I.I.T. Madras, <b>India</b>
22.	Journal of Natural and Physical Science, <b>India</b>
23.	Journal of Sound and Vibration, Academic Press, <b>USA</b>
24.	Mathematical Reviews, Ann Arbor, Michigan, <b>USA</b>
25.	Nonlinear Analysis, Real World Applications, Elsevier, <b>USA</b>
26.	Nonlinear Dynamics and Systems Theory, Academic Periodic Press, <b>Russia</b>
27.	Proceedings of National Academy of Sciences, <b>India</b> .
28.	The Mathematics Students Letters-A, American Physics Society, <b>USA</b>
29.	Zentralblat for Mathematik, Berlin, <b>Germany</b>

## **Civic Activities:**

**Founder and continuing TRUSTEE of Sri Vadrevu Seshagiri Rao Memorial Charitable Trust since 1996 and this Trust has been admitted by the IncomeTax Dept. for tax exemptions.**

**This Trust is maintaining several Charitable Health Dispensaries, Computer Education Centres, organizing several Health Camps and offering Scholarships to poor needy and deserving Students.**