

CURRICULUM VITAE

1. Name : Vilappakkam Krishnamurthy Srinivasan
2. Date of Birth : 5 September , 1939 (9-5-1939)
3. Place of Birth: Madras (Chennai), TamilNadu, India.
4. Citizenship Status : Naturalized U.S. Citizen.
5. Phone:770-938-2346 , e-mail:vilappakkam@yahoo.com
6. Current U. S. Address:1830 Rue de Montreal, Tucker,Georgia 30084,U. S. A.
7. EDUCATIONAL BACKGROUND : M. A (Mathematics , 1959) ,
M.Sc (Mathematics,1960) and Ph.D. (Mathematics, 1967) all from the University
of Madras , TamilNadu , India.
8. (i) PH.D. Thesis Topic : Functional Analysis and Its Applications : A Study of
Function Spaces and Function Algebras (Submitted to University of Madras , for
the subsequently awarded Ph.D. degree in August 1967)
(ii) Thesis Supervisor : (late) Professor C.T. Rajagopal.
(iii) Thesis referees: (a) Professor Dr. W. Zelazko , Polish Institute of
Mathematics, Sniadeckish, Warszawa , Poland. (b) Professor Dr. S. Rolewicz ,
Polish Institute of Mathematics, Sniadeckish , Warszawa , Poland.
Note : University of Madras sent the Ph.d. Thesis to be evaluated by the Polish
Mathematicians listed above. My Thesis is infact listed in the bibliography as
well as in the body of the book by S. Rolewicz , " Metric Linear Spaces , PWN
Series, Tom 56 , Polish Scientific Publishers (1973) and in (1986) " .
9. Research Topics of Investigation : (i) Topological Vector Spaces and
Topological Algebras with special emphasis on Banach and p-normed algebras.
(ii) Non-Archimedean Analysis and Non-Archimedean Functional Analysis. (iii)
General Measure Theory. (iv) Classical Summability Theory. (v) Real and
Complex Analysis.
10. Positions held previously by the applicant:
 - (a) (1960-1966) Research Scholar in the Ramanujan Institute of Mathematics ,
University of Madras, Madras (Chennai), India.
 - (b) (1966-1969 March) Research Associate (Lecturer), Department of
Mathematics, Panjab University, Chandigarh, India.
 - (c) (1969 April-1971 Jan) Reader (Associate Professor) , Department of
Mathematics, Panjab University, Chandigarh, India.
 - (d) (1971 Jan-1977 Aug) Assistant Professor , Department of Mathematics,
University of Texas at El Paso, El Paso, Texas 79968-0514, USA.
 - (e) (1977 Sep-1984 Aug) Associate Professor, Department of Mathematics,
University of Texas at El Paso, El Paso, Texas 79968-0514,USA.
 - (f) (1984 Sep-2007 May) Professor, Department of Mathematics, University of
Texas at El Paso, El Paso, Texas 79968-0514, USA.
 - (g) In May 2007, I was made Professor Emeritus in the Department of
Mathematical Sciences in the University of Texas at El Paso. I also retired and
moved to Atlanta on July 22, 2007, for treatment in Emory University, after
suffering a heart attack in El Paso on 6, December 2006. I subsequently received
a heart transplant through surgery on 24th April, 2008 in Emory University.
11. TEACHING EXPERIENCE: Nearly 40 years of Teaching Experience. This includes

four years of teaching post graduate courses in Panjab University , Chandigarh, India and 36 years in the University of Texas at El Paso.

Category I (Graduate Teaching) Measure Theory (1966,67,68,69), Complex Analysis (1967,1977,1981,1985,1993,1997,2000,2001), Topology (1968), Real Variables I and II (1971,1972,1978,1979,1984,1991),Operational Calculus (1980 Spring), Summability theory (1983 Spring), Optimization Theory (1984 Fall), Finite Fields (1989 Fall), Differential Geometry of Curves (1999), Analytical Geometry in R^2 with emphasis on Conic Sections (2001 Summer), Algebraic Coding Theory (1982).

Category II (Undergraduate Courses) Traditional Precalculus and Calculus Courses; Differential equations, Engineering Mathematics Courses (3335 and 4336 courses at UTEP), Business Mathematics Courses (2300, 2301 at Utep), Discrete Mathematics, Abstract Algebra , Matrix Algebra (3323), Principles of Mathematical analysis (3341), Number Theory , Probability Theory (3330).

12. LIST OF PUBLISHED PAPERS IN REFEREED JOURNALS

1. (with M. S. Rangachari) Matrix transformations in Non-Archimedean Valued Fields, *The Indagationes Mathematicae* , 26 , (1964) 422-429.
2. On Certain Summation Processes in the p-adic Fields, *The Indagationes Mathematicae*, 27 , (1965) 320-325.
3. Remarks on Fixed Point Theorems , *The Proceedings of the National Institute of Sciences of India, Part A* , 31 (1965) 115-118.
4. The Ideal Structure of the Algebra of all Integral Functions , *The Proceedings of the National Institute of Sciences of India , Part A*, 31 (1965) 368-374.
5. On the Ideal Structure of the Algebra of all Entire Functions over Non-Archimedean Valued Fields , *Archiv der Mathematik* , Vol XXIV , (1973) 505-512.
6. A Note on Harmonic Functions and Harmonic Conjugates , *The International Journal of Mathematical Education in Science and Technology* , Vol.8, (1977) 322-328.
7. (with Budh Ram) A Note on Raabe's Test on Infinite Series , *Int.J.Math.Educ.Sci.Tech.*, Vol.9, (1978) 361-363.
8. A Note on Laguerre Polynomials , *Int.J.Math.Educ.Sci.Tech.*, Vol.10, (1979) 211-212.
9. On Some Gelfand-Mazur Like Theorems in Banach Algebras, *The Bulletin of the Australian Mathematical Society* , Vol.29 , (1979) 211-215.
10. (with Hu Shaing) A Theorem on Banach Algebras and Its Applications , *Bull.Austra.Math.Soc.*,Vol.20 , (1979) 247-252.
11. An Equivalent Condition for the Continuity of a Function, *The Texas Journal of Science* , Vol.XXII , No.2 , (1980).
12. Remarks on a Conditionally Convergent Series , *Int.J.Math.Educ.Sci.Tech.*, Vol.11, (1980) 293-295.
13. A Problem in the Theory of Maxima and Minima , *Int.J.Math.Educ.Sci.Tech.*, Vol.11 , (1980)295-298.
14. (with Hu Shaing) On Some Gelfand-Mazur Like Theorems in p-normed Algebras, *Bull.Austra.math.Soc.* , (1980) 211-221.

15. On the Evaluation of a Double Integral , Int.J.Math.Educ.Sci.Tech., Vol.12, No.4 ,(1981) 492-493.
16. An Application of the Perpendicular Distance Formula , Int.J.Math.Educ.Sci.Tech.,Vol.12 (1981) 493-495.
17. On Some Gelfand-Mazur like Theorems in Banach Algebras, On Some Gelfand-Mazur Like Theorems in p-normed Algebras: Corrigenda , Bull.Austra.Math.Soc. , (1981) 479-480.
18. (with Hu Shaing) A Characterization of Principal Ideal Domains , Int.J.Math.Educ.Sci.Tech., Vol.12 ,(1981) 629-632.
19. The Ring of Complex Polynomials Versus the Ring of Entire Functions, Int.J.Math.Educ.Sci.Tech., Vol.13 ,(1982) 21-24.
20. (with Cam-Van-Tran) On The Approximation of a Theorem of Walsh in the p-adic Fields, The Journal of Approximation Theory , Vol.35 , (1982) 191-193.
21. How to initiate your students into Permutation Groups or Permutation Groups without tears, Int.J.Math.Educ.Sci.Tech., Vol.14, (1983) 403-408.
22. A Geometric Application of Complex Numbers, Int.J.Math.Educ.Sci.Tech., Vol.14,(1983) 521-524.
23. Matrix Transformations Involving Prime Numbers, Honan Journal of Mathematics , Vol.7, (1985) 129-133.
24. An Inequality and its Applications , Int.J.Math.Educ.Sci.Tech., Vol.17, (1986) 391-392.
25. (with T.C.Przymusinski) Reflexive Sigma Algebras , International Journal of Mathematics and Mathematical Sciences , Vol.9, No.4 , (1986) 811-816.
26. (with P. Antosik) A New Proof of a Theorem of Toeplitz in Summability Theory , International Journal of Mathematics and mathematical Sciences, Vol.10 , (1987) 199-202.
27. On Some Open Problems in p-adic Analysis, Proceedings of the Ramanujan Centennial Conference held in Annamalainagar, India , The Journal of the Ramanujan Mathematical Society , (1988) 159-160.
28. (with M. S. Rangachari) Summability Methods in Valued Fields , The Journal of the Ramanujan Mathematical Society , Vol.5 (1990) 143-165.
29. Steinhaus Theorem in p-adic Fields , Publicationes Mathematicae Debrecen , Tomus 39 , (1991) 191-193.
30. Gelfand-Mazur Like Theorems in Topological Algebras , The Journal of the Ramanujan Mathematical Society , 8 Mos.1 &2 , (1993) 7-16.
31. Two Theorems in Measure Spaces , The Journal of Analysis , Forum D'Analyses , 2,(1994) 123-125.
32. Topological Linear Spaces of Entire Dirichlet Series , The Journal of Analysis , Forum D'Analyses, Vol.3 , (1995) 131-152.
33. Topological Algebras of Entire Dirichlet series , The Journal of Analysis , Forum D'Analyses , Vol.4 , (1996) 53-66.
34. Open Problems in Analysis , Int.J.Math.Educ.Sci.Tech., Vol.28, No.1, (1997) 117-121.
35. Three Perspectives on the Limit of a Function , Int.J.Math.Educ.Sci.Tech.,

Vol.28, No.2, (1997) 185-196.

36. Skew Lines in R^3 , Int.J.Math.Educ.Sci.Tech., Vol.30 , No.5 , (1999) 739-746.
37. A Famous Problem Revisited , Int.J.Math.Educ.Sci.Tech., Vol.30, No.6 (1999) 934-937.
38. Summability Generated Problems in Analysis , The Journal of Analysis, Forum D'Analystes, Vol.17 , (1999) 49-55.
39. By Doctrines Fashioned to the Varying Hour or The Calculus of Horrors , Int.J.Math.Educ.Sci.Tech., Vol.33 , No.1 , (2002) 85-90.
40. Circles and Their Common Tangents , Int.J.Math.Educ.Sci.Tech. , Vol.33, No.4 , (2002) 627-636.
41. Director Circles of Conic Sections , Int.J.Math.Educ.Sci.Tech., Vol. 33 , No.5, (2002) 791-800.
42. Geese are Swans and Swans are Geese or Selecting Unripe Fruits Instead of Ripe Fruits, Int.J.Math.Educ.Sci.Tech., Vol.33 , No. 6 , (2002) , 941-949.
43. Promoting Number Theory in High Schools, Int.J.Math.Educ.Sci.Tech., (Accepted for Publication)
44. Applications of Theorem of Pythagoras in R^3 , Int.J.Math.Educ.Sci.Tech., (Accepted for Publication)

12 CITATIONS OF THE PUBLISHED WORK

- a. Proceedings of a Conference on Local Fields , Springer-Verlag , 1971 . The article by A.F. Monna , " Topological Vector Spaces over Valued Fields " mentions my papers (1) and (2) given in the list (11) .
- b. A. F. Monna: Analyse de Non-Archimedienne , Ergebnisse der Mathematik und ihrer Grenzgebiete , Band 56, Springer-Verlag , 1970.
- c. G. Bachman , E. Beckenstein and L. Naricci : Functional Analysis and Valuation Theory , Marcel Dekker , 1971.
- d. S. Rolewicz : Metric Linear Spaces , PWN Series , Tom 56, Polish Scientific Publishers (1973) and (1986). This contains reference to my Ph.D. Thesis.
- e. A. C. M. van Rooij : Non-Archimedean Functional Analysis , Marcel Dekker , 1978. This book contains reference to my paper (5) given in the list (11) .
- f. Joachim Heinze : " On a Theorem of V. K. Srinivasan " , Bull. Austra. Math. Soc., Vol.22 (1980) 153-154 , contains reference to my paper (9) listed in (11) .
- g. K. Zeller and W. Beckmann : Theorie der Limitierungsverfahren , Ergebnisse der Mathematik und ihrer Grenzgebiete , Band 15 , Springer-Verlag , 1970 . This contains reference to my papers (1) and (2) listed in (11) .
- h. Anastasios Mallios : Topological Algebras , Some selected Topics , North Holland Mathematical Studies , Vol.124 , (1986). Paper (9) of list (11) is cited.
- i. Theodore W. Palmer : Banach Algebras and General Theory of *-Algebras , Encyclopedia of Mathematics and its Applications , Cambridge University Press , 1994. The book lists my papers (9) and (17) listed in (11) .
- j. P. N. Natarajan : In his University of Madras Ph.D. Thesis (1981) as well as in his fifty published papers , he has given numerous references to my publications on Summability in Non-Archimedean Fields. The papers

(1), (2), (4), (5), (28) and (29) have been cited.

- k. C. Ganesha Moorthy and S. Vimala: In their paper " On a Problem of V. K. Srinivasan on Lebesgue-Stieltjes Measurable Sets " they used my paper (31) extensively.
- l. A. Escassut : This author cites my papers (1) , (2) in his recent papers.
- m. Johann Boos: Classical and Modern Methods in Summability , Oxford Monographs in Mathematics, 2002. Citation of my paper (23) listed in (11) occurs in page 256.
- n. S. J. Bhatt, D. J. Karia, S. H. Kulkarni, M. E. Shimpi : A note on the Gelfand-Mazur Theorem, Proceedings of the American Mathematical Society, Vol.126, No.10, Oct. 1998, pages 2999-3005. Paper 9 is mentioned specifically in the body of the paper as well as in the bibliography.
- o. Andrei Khreninov and Alaksandr Radyana : P-adic interpolation of a continuous function by linear combinations of shifts of p-adic valuations, Journal of Approximation Theory, Vol 120, Jan. 2003, pages 124-135. This paper gives reference to the paper 20.
- p. Paper 35 on " Three Perspectives on the Limit of a Function " received a very good review.

13 (a) THESIS DIRECTED (All M. S. Thesis)

- 1. Andrew Logan : Studies in Non-Archimedean Analysis , Spring 1975 , M. S. Thesis , University of Texas at El Paso.
- 2. Hu Shaing : On Some Gelfand-Mazur Like Theorems on Topological Algebras , M. S. Thesis, University of Texas at El Paso, 1979.
- 3. Cam Van Tran : Studies in Analysis over p-Adic Fields , M.S. Thesis , University of Texas at El Paso, 1981.
- 4. Sanjay Chandarana : Two Proofs of a Theorem in Summability , M. S. Thesis , University of Texas at El Paso, 1982.
- 5. Li Yizeng : Approaches to Integration Theory on Measure Spaces, M. S. Thesis , University of Texas at El Paso, 1986.
- 6. Qingshan Qian : Survey of Foundations of p-Adic Analysis , M. S. Thesis , University of Texas at El Paso, 1989.
- 7. Thomas Taylor: Geometric Excursions using Mathematica and Other Software, M. S. Thesis, University of Texas at El Paso, 2003.

13 (b) THESIS EXAMINER

- 1. I was an external thesis examiner (referee) for the Ph.D. thesis of Mr. V. Srinivasan on " A Study of the Nörlund Method of Summability in Non-Archimedean Fields" that was submitted for the Ph.D. degree to the University of Madras , in 2002. He got his Ph.D. degree subsequently.

14 GRANTS OBTAINED

- 1. In 1996 spring UTEP awarded a \$ 10000 grant under Technology Teaching Improvement Program to develop the Engineering Mathematics Courses 3335 and 3446 (currently 4336) at UTEP. The project involved using computer software Mathematica in the teaching of the above courses for five years. Currently Mathematica based activities are used in Math 3335 , 4336 and

Calculus 2313. The summer graduate course 5370 taught in summer 1999 on Differential Geometry of Curves as well as the summer 2001 course on Coordinate Geometry of Conic Sections 5311 effectively used Mathematica based instruction.

15 COMMITTEES SERVED

1. I was a committee member of the Advisory Committee of the Mathematics Department from 1980 onwards. For a few years between 1992 to 1995, I did not serve in the Advisory Committee. However, since 1995 onwards till 2004, I worked as a committee member of the above Advisory Committee.
2. I worked both as a committee member and as chairman of the faculty recruitment committee in 1983-84, 1988 to 1996.
3. I was a chairman of the Department of Mathematics, University of Texas at El Paso, from 1986 June to 1986 December.
4. I was the chairman of the Undergraduate Curriculum Committee of the Mathematics Department in 1984-85.
5. In 1987-88, I served as the Graduate Advisor of the Mathematics Department at UTEP.
6. Since 1993, I was a member of the Undergraduate Curriculum Committee.
7. Between 1973-76 and again between 1991-94, I was a member of the Undergraduate Scholarship Committee of the University.
8. Between 1980-84, I was a member of the Faculty Development Committee of the University.
9. Between 1997-99, I was a member of the University Student Grievance Committee.
10. Since 1996, I was a member of the Putnam Exam Committee with Les Foged as the chairman.

16 SERVICES TO THE COMMUNITY

1. On Numerous Occasions (during the years between 1972 to 85), I served as a judge in the El Paso School District Science Fair .
2. I served as one of the judges in the IQ competition for the El Paso schools IQ competitions.
3. For two years during 1990 -92, I served as a judge for the Arts and Theatre Department (Fine Arts) of the University.

17 MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

1. I was a member of the Indian mathematical Society.
2. I used to be a member of the American Mathematical Society and the Mathematical Association of America. When the subscription fees became exhorbitant, I discontinued it.

18 LIST OF REFEREES

1. K. M. Rangaswamy, Professor, Department of mathematics, University of Colorado at Colorado Springs, Colorado 80933-7150.

2. **Joe Guthrie ,Professor, Department of Mathematics , University of Texas at El Paso, El Paso , Texas 79968-0514.**
3. **Helmut Knaust,Associate Professor, Department of Mathematics, University of Texas at El Paso, El Paso, Texas 79968-0514.**
4. **P. Moschopolous , Professor , Department of Mathematics , University of Texas at El Paso , El Paso , Texas 79968-0514.**
5. **Leslie Foged, Associate Professor, Department of Mathematics, University of Texas at El Paso, El Paso, Texas 79968-0514.**
6. **Granville Sewell , Professor , Department of Mathematics, University of Texas at El Paso, El Paso, Texas 79968-0514.**