

# CURRICULUM VITAE

1. Name : **SUDHIR HANMANTRAO KULKARNI**
2. Nationality : Indian
3. Present official address with designation: Professor  
Indian Institute of Technology Palakkad, Ahalia Integrated Campus,  
Kohlipara P. O. Palakkad - 678557. Kerala. India.  
Phone: 91 - 04923 - 226370.  
email: shk@iitpkd.ac.in
4. Broad fields of research interest: Functional Analysis and Numerical Analysis.
5. Specific areas of involvement: Banach Algebras, especially algebras of functions and operators, Operator Theory, Generalized Inverses of Linear Operators and applications of all these functional analytic concepts to Numerical Analysis and Optimization Problems.
6. Residential address: Guest House  
Indian Institute of Technology Palakkad, Ahalia Integrated Campus,  
Kohlipara P. O. Palakkad - 678557. Kerala. India.
7. Date of birth: July 23, 1953.
8. Educational Qualifications:

| Degree | Subjects   | Year | Marks (%) | University/Institute |
|--------|--|------|-----------|----------------------|
| Ph.D.  | Mathematics  | 1980 |           | I. I. T. Bombay      |
| M.Sc.  | Mathematics  | 1976 | 73.36     | I. I. T. Bombay      |
| B.Sc.  | Mathematics(Principal)<br>Physics, Statistics (Subsidiary) | 1974 | 87.20     | Pune University      |

Title of the thesis: Some problems in real Banach algebras

Name of the Guide: Prof. B. V. Limaye

9. Experience:

| Organization                        | Designation            | From            | To               | Duration (Approx.)     |
|-------------------------------------|------------------------|-----------------|------------------|------------------------|
| I. I. T. Palakkad.                  | Professor(Re-employed) | July, 2019.     | Todate           | .                      |
| I. I. T. Madras.                    | Professor(Re-employed) | August, 2018.   | June 2019        | 11 months.             |
| I. I. T. Madras.                    | Professor              | May, 1995.      | July, 2018.      | 23 years and 2 months. |
| I. I. T. Madras.                    | Associate Professor    | February, 1993. | May, 1995.       | 2 years and 3 months.  |
| I. I. T. Madras.                    | Assistant Professor    | July, 1988.     | February, 1993.  | 4 years and 6 months.  |
| I. I. T. Madras.                    | Lecturer               | August, 1982.   | July, 1988.      | 6 years.               |
| Islamiah Inst. of. Tech. Bangalore. | Assistant Professor    | October, 1981.  | July, 1982.      | 1 year.                |
| I. I. Sc. Bangalore.                | Research Associate     | August, 1980.   | September, 1981. | 1 year.                |

10. Courses taught:

Preparatory Course I and II

B. Tech. : Mathematics I, Mathematics II, Mathematics III, Mathematics IV , Linear Algebra, Numerical Analysis, Complex Variables, Probability and Random Processes, Statistics, Linear Programming, Elements of Logic Numerical Analysis and Linear Algebra, Probability, Statistics and Stochastic Processes

Taught a course Calculus: Functions of Several Variables at I. I. T. Palakkad in July to November, 2016.

M. Sc. : Real Analysis, Real Analysis and Elements of Topology  
Advanced Calculus, Complex Analysis  
Functional Analysis, Topology  
Operator Theory, Advanced Analysis  
Nonlinear Functional Analysis

Approximation Theory, Linear Algebra,  
Algebraic Structures, Applied Algebra, Numerical Linear Algebra.

A video course "Real Analysis" prepared under NPTEL project has been uploaded recently and has been receiving a very good response. The first introductory lecture on the course has received more than 280000 views on Youtube. It can be viewed at :

<http://nptel.iitm.ac.in/courses/111106053/>

M. Tech.: Partial Differential Equations, Mathematics for Electrical Engineers,  
Numerical Linear Algebra.

Ph. D. :Applied Functional Analysis, Advanced Mathematical Analysis.

11. Any other information:

- Member, Board of Governors, I.I.T. Madras from January 2016 to December 2017.
- Head of the Department from December 2011 to December 2014.
- Professor in HAG since July 2015.
- Chairman of several committees including class committees, doctoral committees.
- Course coordinator of big first year B. Tech. courses many times.
- Awardee under the National Science Talent Search Scheme. Year of selection 1971.
- Awardee under the German Academic Exchange Service(DAAD) Fellowship. Year 1994. Visited Tuebingen University as a DAAD Fellow.
- Publications : One book (published by marcel Dekker Inc. New York, 1992.) Title: REAL FUNCTION ALGEBRAS  
Authors: S. H. Kulkarni and B. V. Limaye)  
80 Research papers, 4 review articles and several popular articles.  
List of publications with links to reviews can be viewed at:  
<http://www.ams.org/mathscinet/search/publications.html?pg1=IID&s1=194609>
- Publications in last five years: 13 Research papers and one survey article.
- A research paper "Solution of a tridiagonal operator equation" published in Linear Algebra and Applications, Volume 414(2006)

was included in Science Direct Top 25 Hottest Articles.

- Reviewer, Mathematical Reviews.
- Referee for several journals.
- Associate Editor , Journal of Mathematical and Physical Sciences for three years.
- Editor, (jointly with M.N.N. Namboodiri) Proceedings of the International Workshop on Linear Algebra, Numerical Functional Analysis and Wavelet Analysis held at Cochin University of Science and Technology, Kochi, India, August 6-15, 2001. Allied Publishers, 2003.
- Guest editor(jointly with Sushama Agrawal and T.S.S.R.K. Rao) The Journal of Analysis, Volume 12(2004).  
This volume contains Proceedings of the Eleventh Ramanujan Symposium on Recent trends in Operator Theory and Banach Algebras held at Ramanujan Institute of Advanced Study in Mathematics Chennai, India, March 3-5, 2004.
- Guest editor(jointly with Rekha Kulkarni, Filomina D. d'Almeida and A. K. Pani) The Journal of Analysis, Volume 14(2006).  
This volume contains Proceedings of the International Conference on Topics in Functional and Numerical Analysis(TOFNA-05) held at the Indian Institute of Technology Bombay, Mumbai, India, December 7-9, 2005.
- Guest editor, The Journal of Analysis, Volume 16(2008).  
This volume contains Proceedings of the International Conference on Functional Analysis and its Applications (FAA 2007) held at Scott Christian College, Nagercoil, India, November 28 - December 1, 2007.
- Guided 9 Ph. D. students. At present guiding 2(one submitted thesis).
- One of these Ph. D. students, Sushama Agrawal, happens to be visually handicapped and, in fact, the first visually handicapped student in India to obtain Ph. D. in Mathematics. At present, she is the Director of the Ramanujan Institute of Advanced Studies in Mathematics, Chennai.
- Supervised 22 M. Sc. dissertations.
- Sponsored projects: 1. Title:Studies in Numerical Harmonic Analysis

Role: Co-Investigator

Sponsoring Organization:NBHM, DAE

Amount :7.06 lakhs

Completed in 2008.

2. Title :Study of Bargmann transform and sampling theory

Role: Co-Investigator

Sponsoring Organisation :NBHM, DAE

Amount :8.09 lakhs

Completed in 2013.

- Host faculty(jointly with Prof. R. Radha), GIAN course on A Fresh look at Harmonic Analysis, 2018.
- Coordinator(jointly with Prof. R. Usha), AICTE sponsored QIP Short-Term Course on Numerical Linear Algebra, 2018.
- Coordinator(jointly with Prof. R. Usha), ISTE Short-Term Training Programme on Numerical Linear Algebra, 2004.
- Local coordinator for the Mathematics Training and Talent Search (MT&TS) Programme 1997, 1998, 1999.
- Organizing Secretary, One-Day Symposium on Mathematical Methods and Applications, I.I.T. Madras, 1995.
- Given invited talks at several conferences and workshops.