

BIO-DATA



Name Dr. Sudha

Father's name Late A. Raghavendra Shenoy

Address for correspondence : Professor,
Department of Postgraduate Studies and Research in Physics,
Kuvempu University,
Shankaraghatta-577451
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Educational Qualification:

Course	Year	University	Subject	Marks obtained	Grade
S.S.L.C.,	1983	K.S.E.E.B	General	74%	First Class
P.U.C	1985	P.U. Board	Physics Chemistry Mathematics Biology	74%	First Class
B.Sc.,	1988	University of Mysore	Physics Chemistry Mathematics	77.3%	First Class 6th Rank
M.Sc.,	1990	University of Mysore	Physics	72.5%	First Class 4th Rank
Ph.D.,	1999	University of Mysore	Theoretical Physics		

Title of the thesis: *Some Algebraic Aspects of Relativity and Polarization Optics:*

Research Guide: Prof. A.V. Gopala Rao,
Formerly Professor,
Department of Physics, University of Mysore,
Manasagangothri, Mysore 570006, INDIA

CSIR Senior Research Fellowship and Associateship: 1998—2001 (3 years)

LIST OF PUBLICATIONS

1. Lorentz canonical forms of two-qubit states

Sudha, A.R. Usha Devi, B. N. Karthik, H. S. Karthik, Akshata Shenoy H, K.S. Mallesh and A.V. Gopala Rao, *Canadian Journal of Physics*, 00: 1-11 (2025)

2. Lorentz invariants of pure three-qubit states

A. R. Usha Devi, Sudha, H. Akshata Shenoy, H. S. Karthik, B. N. Karthik, *Quantum Information Processing* **23**:264 (2024)

3. Fidelity of Bell state measurements using ibm 7-qubit open access quantum processor **ibmq_nairobi**

B. P. Govindaraja, H. Talath, B. G. Divyamani, Akshata H Shenoy, A. R. Usha Devi and Sudha, *Asian Journal of Science and Technology* **15**(1), 12856-12860 (2024)

4. Entanglement and Volume Monogamy Features of Permutation Symmetric N-Qubit Pure States with N-Distinct Spinors: GHZ and WW States:

Sudha, A. R. Usha Devi Akshata Shenoy Hejamadi, H. S. Karthik, Talath Humera, B P Govindaraja, A. K. Rajagopal, *Journal of Quantum Information Science*, 14, 29-51 (2024)

5. Canonical steering ellipsoids of pure symmetric multiqubit states with two distinct spinors and volume monogamy of steering

B. G. Divyamani, I. Reena, Prasanta K. Panigrahi, A. R. Usha Devi, and Sudha, *Physical Review A*, **107**, 042207 (2023)

6. Quantum Correlations in Symmetric Multiqubit Systems

A. R. Usha Devi, Sudha, I. Reena, H. S. Karthik and A. K. Rajagopal, *Journal of Indian Institute of Science*, **103**, 419–447 (2023)

7. Geometric picture for SLOCC classification of pure permutation symmetric three-qubit states

K. Anjali, I. Reena, Sudha, B. G. Divyamani, H. S. Karthik, K. S. Mallesh, A. R. Usha Devi, *Quantum Information Processing* **21**: 326 (2022)

8. Local sum uncertainty relations for angular momentum operators of bipartite permutation symmetric systems

I. Reena, H S Karthik, J Prabhu Tej, Sudha, A R Usha Devi and A K Rajagopal, *Chinese Physics B* **31**, 060301 (2022)

9. Margenau–Hill operator valued measures and joint measurability

Seeta Vasudevrao, H. S. Karthik, I. Reena, Sudha A. R. Usha Devi, *International Journal of Quantum Information*, **20** (7) 2250023 (2022)

10. Canonical Structure of A and B maps

Sudha, B. N. Karthik, A.R.Usha Devi and A.K. Rajagopal, *Quanta*, **10** (1), 34-41, 2021

11. Characterizing nonlocality of pure symmetric three-qubit states

K. Anjali, Akshata Shenoy Hejamadi, H. S. Karthik, S. Sahu, Sudha and A. R. Usha Devi, *Quantum Information Processing*, **20**, Issue 5, 1-22 (2021)

12. Sum Uncertainty Relations: Uncertainty Regions for Qubits and Qutrits

Seeta Vasudevrao, I. Reena, A. R. Usha Devi, Sudha and A. K. Rajagopal, *International Journal of Theoretical Physics*, **60**, 1523–1538 (2021)

13. Heat exchange and fluctuation in Gaussian thermal states in the quantum realm

A.R. Usha Devi, Sudha, A.K.Rajagopal and A.M. Jayannavar, *Journal of Statistical Mechanics: Theory and Experiment*, 023209 (1—18), (2021)

14. Canonical forms of two-qubit states under local operations

Sudha, H. S. Karthik, Rajarshi Pal, K.S.Akhilesh, Sibasish Ghosh, A.R. Usha Devi and K.S. Malleth, *Physical Review A*, **102**, 052419(1)- 052419(12) (2020)

15. Monogamous nature of Dicke-class of states with two distinct Majorana spinors

Sudha, K.S.Akhilesh, B.G.Divyamani, A.R. Usha Devi and K.S. Malleth, *Quantum Information Processing*, **19**, 35(1)—35(19) (2020)

16. Phase sensitive amplification of an optical field using Microwaves

Asha K, Adwaith K.V, Pradosh K.Nayak, Sudha, Barry C. Sanders, Fabien Bretenaker, Andal Narayanan *Optics Express*, **27**, No.22/28, 32111—32121 (2019)

17. Spin squeezing in Dicke-class of states with non-orthogonal Spinors

K.S.Akhilesh, K.S.Malleth, Sudha and Praveen G. Hegde, *Chinese Physics B*, **28**, Issue No. 6, 060302(1)—060302(6) (2019)

18. Spin Squeezing in symmetric multiqubit states with two non-orthogonal spinors

K.S.Akhilesh, B.G.Divyamani, Sudha, A.R. Usha Devi and K.S. Malleth, *Quantum Information Processing*, **18**, 144(1)—144(15) (2019)

19. One parameter Family of Werner-Popescu states: Bipartite Separability using Conditional Quantum Relative Tsallis Entropy

Anantha S. Nayak, Sudha, A. R. Usha Devi and A. K. Rajagopal, *Journal of Quantum Information Science*, **8**, 12--23 (2018)

20. N-term pairwise-correlation inequalities, steering, and joint measurability

H.S. Karthik, A.R. Usha Devi, J. Prabhu Tej, A. K. Rajagopal, Sudha and A. Narayanan, *Physical Review A*, **95**, 052105 (2017)

21. Comparative analysis of entanglement measures based on monogamy inequality

- P.J. Geetha, **Sudha** and K.S. Mallesh, *Chinese Physics B* **26**(5), 050301 (2017)
- 22. Biseparability of noisy pseudopure, W and GHZ states using conditional quantum relative Tsallis entropy**
Anantha S. Nayak, **Sudha**, A. R. Usha Devi and A. K. Rajagopal, *Quantum Information Processing*, **16**, 51(1—12)(2017)
- 23. Physics Training and Talent Search Programme—Meeting Report**
R. Rangarajan, G. Rajasekaran, S.V.M. Satyanarayana, M. Sivakumar and **Sudha**, *Current Science*, **111**, No. 3, 10-11 (2016)
- 24. Bipartite separability of symmetric N-qubit noisy states using conditional quantum relative Tsallis entropy**
Anantha S. Nayak, **Sudha**, A. K. Rajagopal and A.R. Usha Devi, *Physica A*, **443**, 286 (2016)
- 25. Local Unitary Invariant Spin-Squeezing in Multiqubit States**
Divyamani B.G, **Sudha** and A.R. Usha Devi, *International Journal of Theoretical Physics*, **55**(5) 2324--2334 (2016)
- 26. Monogamous nature of symmetric N-qubit states of the W class: Concurrence and negativity tangle**
P.J. Geetha, K. O. Yashodamma, and **Sudha**, *Chinese Physics B*. **24** (11), 110302 (2015)
- 27. Quantum which-way information and fringe visibility when the detector is entangled with an ancilla**
J. Prabhu Tej, H.S. Karthik, A.R. Usha Devi, **Sudha** and A.K. Rajagopal, *Physical Review A*, **89**, 062116 (2014)
- 28. What Does Monogamy in Higher Powers of a Correlation Measure Mean?**
P.J. Geetha, **Sudha** and A.R.Usha Devi *Journal of Modern Physics*, **5**, 1294 (2014)
- 29. Effectiveness of depolarizing noise in causing sudden death of entanglement**
K. O. Yashodamma, P.J. Geetha and **Sudha**, *Quantum Information Processing*, **13**, 2551 (2014)
- 30. Purification and redistribution of entanglement via single local filtering**
K. O. Yashodamma, P.J. Geetha and **Sudha**, *International Journal of Quantum Information*, **1**, 145004 (2014)
- 31. From the quantum relative Tsallis entropy to its conditional form: Separability criterion beyond local and global spectra**
A. K. Rajagopal, **Sudha**, Anantha S. Nayak and A. R. Usha Devi, *Physical Review A*, **89**, 012331 (2014)

- 32. Equivalence of classicality and separability based on P phase–space representation of symmetric multiqubit states**
A.R. Usha Devi, A. K. Rajagopal, **Sudha**, H. S. Karthik and J. Prabhu Tej, *Quantum Information Processing*, **12**, 3717-3723 (2013)
- 33. Thermal Entanglement in a Two-qubit Ising chain subjected to Dzyaloshinsky-Moriya Interaction**
B.G. Divyamani and **Sudha**, *Chinese Physics Letters* **30**, 120301 (2013)
- 34. Macrorealism from entropic Leggett-Garg inequalities**
A.R. Usha Devi, H. S. Karthik, **Sudha** and A. K. Rajagopal, *Physical Review A* **87**, 052103 (2013)
- 35. Is composite noise necessary for sudden death of entanglement?**
K. O. Yashodamma and **Sudha**, *Results in Physics* **3**, 41-45 (2013)
- 36. Magnetically induced pairwise thermal entanglement in qubit chains with Ising interaction**
A. G. Divyamani and **Sudha**, *Kuvempu University Science Journal*, **3**, 46 (2012)
- 37. Quantum discord and classical correlation can tighten the uncertainty principle in the presence of quantum memory**
Arun K. Pati, Mark M. Wilde, A. R. Usha Devi, A. K. Rajagopal and **Sudha**, *Physical Review A* **86**, 042105 (2012)
- 38. Majorana representation of symmetric multiqubit states** (Review article)
A. R. Usha Devi, **Sudha** and A. K. Rajagopal, *Quantum Information Processing*, **11**, 685-(2012)
- 39. Interplay of Quantum Stochastic and Dynamical Maps to Discern Markovian and Non-Markovian Transitions**
A.R. Usha Devi, A.K. Rajagopal, **Sudha Shenoy**, **R.W. Rendell**, *Journal of Quantum Information Science*, **2**, 47-54 (2012)
- 40. Monogamy of quantum correlations in three-qubit pure states**
Sudha, A. R. Usha Devi and A. K. Rajagopal, *Physical Review A*, **85**, 012103 (2012)
- 41. Spin squeezing and quantum correlations**
A. R. Usha Devi, **Sudha**, *Asian Journal of Physics*, **20**(2 &3) 131-142 (2011)
- 42. Quantumness of correlations and entanglement**
A. R. Usha Devi, A. K. Rajagopal and **Sudha**, *International Journal of Quantum Information*, **9**, Nos. 7 & 8, 1757-1771 ((2011)

- 43. Open-system quantum dynamics with correlated initial states, not completely positive maps, and non-Markovianity**
A.R. Usha Devi, A.K.Rajagopal and **Sudha**, *Physical Review A* **83**, 022109 (2011)
- 44. Loss of exchange symmetry in multiqubit states under Ising chain evolution**
Sudha, Divyamani B.G and A.R. Usha Devi, *Chinese Physics Letters*. **28**(2), 020305 (2011)
- 45. Entropic characterization of separability in Gaussian states**
Sudha, A.R. Usha Devi and A.K.Rajagopal, *Physical Review A* **81**, 024303 (2010)
- 46. Positive-operator-valued-measure view of the ensemble approach to Polarization optics**
Sudha, A.V.Gopala Rao, A.R. Usha Devi and A.K.Rajagopal, *Journal of Optical Society of America A*, **25**, No. 4, 874--890 (2008)
- 47. Local Invariants and Pairwise Entanglement in Symmetric Multiqubit Systems**
A.R. Usha Devi, M.S. Uma, R. Prabhu and **Sudha**, *International Journal of Modern Physics B*, **20**, No. 11—13, 1917—1933 (2006)
- 48. Non-Local Properties of a symmetric two qubit system**
A.R. Usha Devi, M.S. Uma, R. Prabhu and **Sudha**, *Journal of Optics B: Quantum and Semiclassical Optics*, **7**, S740—S744 (2005)
- 49. Polarization Elements—A Group Theoretical Study**
Sudha and Gopala Rao A.V., *Journal of Optical Society of America A*, **18**(12), 3130 (2001)
- 50. On the algebraic characterization of a Mueller matrix in Polarization Optics. II. Necessary and Sufficient conditions for Jones-derived Mueller matrices**
Gopala Rao A.V., Mallesh K.S. and **Sudha**, *Journal of Modern Optics*, **45**(5) 989 (1998)
- 51. On the algebraic characterization of a Mueller matrix in Polarization Optics. I. Identifying a Mueller Matrix from its N-matrix**
Gopala Rao A.V., Mallesh K.S. and **Sudha**, *Journal of Modern Optics*, **45**(5), 955 (1998)

Books/Book Chapters/Articles in edited books			
Year	Name of the Book	Name of the chapter/Article	Publishers
2021	In pursuit of excellence: A tribute to Prof. G. Ramachandran	Majorana representation of permutation symmetric pure multiqubit states	Sriranga Digital Software Technologies Private Limited Srirangapatna
2019	New Insights into Physical Science Vol. 13, 39—53	Monogamy Inequality in Terms of Higher Powers of a Correlation Measure: An Analysis	Book Publisher International, Hooghly, W.B
2014	Study Material on Mathematical methods in Physics (Written in Self Instructional Mode) for M.Sc., students of Directorate of Distance Education, Kuvempu University		Directorate of Distance Education, Kuvempu University
2005	Study Material on Quantum Mechanics: for M.Sc., students of Directorate of Distance Education, Kuvempu University	1. Linear vector spaces 2. Angular momentum	Directorate of Distance Education, Kuvempu University

Research Projects:

Title of the research project	Principal Investigator/Co-investigator	Duration	Funding Agency	Fund sanctioned (in lakhs)
Enhanced Precision and Noise Suppression using Permutation-Symmetric Multiqubit States for applications in Quantum Metrology and Sensing	Principal Investigator	December 2024	Q-Pragathi Project of Quantum Research Park (QuRP), funded by Karnataka Innovation and Technology Society (KITS), K.Tech, Government of Karnataka	7.5
Role of uncertainty relations and measurement incompatibility in quantum information processing tasks	Co-Investigator	April 2021 to March 2024	Department of Science & Technology (DST), Govt. of India; Interdisciplinary Cyber Physical Systems (ICPS) and discipline QeST (Quantum Enabled Science and Technology)	7 0.95
Quaternionic representation of the 4-dimensional rotation group SO(4)	Principal Investigator	01/05/2007 to 30/09/2008	Kuvempu University	0.38

**AWARDS /FELLOWSHIP/ MEMBERSHIP IN ACADEMIC BODIES/ SOCIETIES
AND EDITORSHIP OF REPUTED JOURNALS :**

Name of the Body/Society	Name of Award/Fellowship/Nature of Membership/Editorship
D.C.Pavate Memorial Foundation, Karnatak University, Dharwad in association with Sydney Sussex College, Cambridge, U.K	D.C. Pavate Visiting Fellowship to do Post-Doctoral Research at Department of Applied Mathematics and Theoretical Physics (DAMTP), University of Cambridge, Cambridge, U.K. for four months from 01/09/2010 to 31/12/2010.

CONFERENCES/SEMINARS/WORKSHOPS/SYMPOSIA/TRAINING PROGRAMMES

Year	Conference/Seminars/Workshops Symposia/Trainings attended	Title of paper presented/ Delivered Lecture/ Chaired Sessions
2025	One Day Conference of Pavate Fellows (2000-2018) organized by Dr. D.C. Pavate Memorial Foundation, Karnatak University, Dharwad on 4 th January 2025	Paper Presentation: Majorana geometric representation of pure symmetric multiqubit states—Recent Advances
2024	Webinar on Quantum Science and Technology organized by Karnakata Science and Technology (KSTA), Bangalore on 23 rd August /2024	Paper Presentation: Quantum Milestones: A Historical Perspective on Quantum Mechanics and Computing
2024	Monthly Lecture Series (online) organized by Karnataka State Higher Education, Bangalore on 26 th June 2024	A historical perspective on Quantum mechanics and computing
2021	Refresher Course (Online) for Physics Teachers conducted by Academic Staff College, Bangalore (15 th to 27 th March, 2021) (Two Lectures)	Resource Person Statistical Mechanics in a nutshell
2020	Online conference QTURN-2020 organized by Cambridge Quantum Computing, University of Bristol, Bristol, IQOQI Vienna, ETH, Zurich 23 ^d to 27 th November 2020	Paper Presentation: Canonical forms of two-qubit states under local operations
2019	Resource Generation Camp, Physics Olympiad Programme conducted at Homi Bhabha Centre for Science Education (TIFR), Mumbai from 09/02/2019 to 13/02/201	Resource Person
2019	PES Institute of Technology and Management (PESIT-M) Shimoga	Invited Talk Emergence of Quantum Mechanics- An overview
2018	One Day Conference of Pavate Fellows (2000-2018) organized by Dr. D.C. Pavate Memorial Foundation, Karnatak University, Dharwad on 17 th November 2018	Paper Presentation: Usefulness of Majorana representation of symmetric multiqubit states in discerning monogamy of entanglement, monogamy of correlations and spin squeezing”

2018	Resource Generation Camp, Physics Olympiad Programme conducted at Homi Bhabha Centre for Science Education (TIFR), Mumbai from 25/09/2018 to 27/09/2018	Resource Person
2016	Two-Day Meet on ' Teaching of Sciences in Higher Education ', Bangalore University, Bangalore from 27/05/2016 to 28/05/2016	Paper Presentation: Innovative methods of conducting experiments in Undergraduate and Postgraduate Laboratories: A New model introduced by the workshop PTTS-2015 Best Poster Award
2016	Two-Day ' National Workshop on Theoretical Physics ' held at Alva's College, Moodabidri (26 th , 27 th February 2016)	Participated
2015	Refresher Course in Experimental Physics organized by Indian Academy of Sciences, Bangalore from 14/04/2015 to 29/04/2015	Participated
2015	Indo-French Symposium on Women in Science organized by the French embassy, CEFIPRA and Indian Academy of Sciences, Bangalore at Indian Institute of Science from 03/02/2015 to 05/02/2015	Participated
2014	Discussion Meeting on Quantum Measurements-2014'(DMQM-2014) organized at the Indian Institute of Science, Bangalore from 23/10/2014 to 25/10/2014	Participated
2014	U.G.C sponsored National Seminar on Astrophysics and Quantum Mechanics at Milagres College, Udupi on 01/08/2014	Resource Person Fundamentals of Quantum Mechanics
2014	The First International School on Quantum Information Processing organized by Institute of Mathematical Sciences, Chennai from 19/01/2014 to 31/01/2014	Participated
2013	International Workshop on Quantum Information Processing and Applications (QIPA-2013) held at Harishchandra Research Institute (HRI), Allahabad from 2/12/2013 to 8/12/2013	Invited Talk Local Unitary Invariant Spin-Squeezing criteria for multiqubit states
2013	13th Asian Quantum Information Science Conference held at the Institute of Mathematical Sciences, Chennai from 25/08/2013 to 30/08/2013	Participated
2013	Refresher Course in Statistical Physics by the Indian Academy of Sciences in collaboration with Nehru Arts and Science College, Kanhangad, Kerala from 08/05/2013 to 21/05/2013	Participated
2013	International Conference on Quantum Information and Quantum Computation (ICQIQ-2013) held at Indian Institute of Science during 6 th –11 th January 2013	Invited Talk Macrorealism from entropic Leggett-Garg inequalities

2012	Workshop on Theoretical Physics Lectures organized by IASc., Bangalore, INSA, Delhi, NASI, Allahabad in collaboration with University of Mysore, Mysore from 8/11/2012 to 10/11/2012	Participated
2012	International Workshop on Quantum Information (IWQI-2012) held at Harishchandra Research Institute (HRI), Allahabad during 20 th –26 th February 2012	Invited Talk Monogamy of Quantum Correlations
2011	International School and Conference on Quantum Information held at Institute of Physics, Bhubaneswar from 19 th –22 nd December 2011	Paper Presentation Open system quantum dynamics and signatures of non-Markovianity
2011	Inter-University Subject Based Conference jointly organized by Vision Group of Science & Technology and the Dept. of Physics and Electronics, Karnatak University, Dharwad on 29 th , 30 th June 2011	Participated
2011	Two-Day Workshop on preparation of Self Instructional Material (SIM) organized by the Directorate of Distance Education, Kuvempu University in collaboration with DEC, IGNOU, New Delhi from 23/04/2011 to 24/04/2011	Participated
2011	International School and Conference on Quantum Information Processing and Applications (QIPA-2011) held at Harishchandra Research Institute, Allahabad during 14 th —20 th February 2011	Paper Presentation Pairwise entanglement in thermal states of Quantum Ising Chains
2009	Refresher Course in Theoretical Physics conducted by the Indian Academy of Sciences in collaboration with Bishop Moore College, Mavelikara, Kerala from 7/12/2009 to 19/12/2009	Participated
2009	UGC sponsored Two-Day Training Programme on Computer Concepts, Operating System & Internet conducted by Instrumentation Maintenance Centre, Kuvempu University from 3/12/2009 to 4/12/2009	Participated
2007	Two-Day Workshop on preparation of Self Instructional Material (SIM) organized by the Directorate of Distance Education, Kuvempu University in collaboration with DEC, IGNOU, New Delhi from 17/12/2007 to 18/12/2007	Participated
2005	UGC sponsored State Level Seminar on Einsteinian Physics-A Retrospect organized by JSS College for Women, Mysore on 16 th , 17 th November 2005	Participated
2005	Two-Day Workshop on Frontier Areas of Physics organized by Dept. of Post-Graduate Studies in Physics, Kuvempu University on 7 th , 8 th November 2005	Participated

2004	SERC School on Quantum Information and Quantum Optics conducted at Physical Research Laboratory, Ahmedabad from 01/02/2004 to 14/02/2004	Participated
2000	SERC School on “Special Functions and Functions of Matrix Argument” conducted by the Centre for Mathematical Sciences, Trivandrum from 29/05/2000 to 30/06/2000	Participated Adjudged as the third Best Participant of the Course
1995	SERC School on Coherence and Correlations in Modern Optics and Quantum Physics organized by the Institute of Mathematical Sciences, Madras from 23/01/1995 to 10/02/1995	Participated
1994	Inter-University Graduate School on “Large Scale Structure in the Universe” held at the Department of Studies in Physics, University of Mysore, Mysore from 21/11/1994 to 10/12/1994	Participated
1993	The Winter School on “Manifolds and Physics” held at the Department of Physics, Bharatidasan University, Tiruchirapalli from 21/12/1992 to 09/01/1993	Participated

R5ESEARCH GUIDANCE:

Course	Completed	Ongoing
Ph.D	6	3
M.Phil	3	-

EXPERIENCE IN ADMINISTRATIVE POSITIONS

Sl No.	Details
1	Deputy Director, Prasaranga, Kuvempu University from November 2020 to October 2023
2	Co-Ordinator, Career Counselling Cell, Kuvempu University from January 2012 to September 2016
3	Deputy Director, PMEB, Kuvempu University January 2012 to September 2016
4	Co-ordinator, Women’s Study Centre (UGC), Kuvempu University from April 2016 to March 2017
5	Co-ordinator, Women’s Resource Centre, Kuvempu University from June 2015 to March 2016
6	Faculty Advisor, Working Women’s Hostel, Jnanasahyadri Campus, Kuvempu University from November 2006 to September 2010

ANY OTHER RELEVANT INFORMATION :	
Sl. No.	Details
1	Editor of ' Shanthinatha Desai:Sahitya-Vyaktitva ', a collection of articles on Prof. Shanthinatha Desai, a well-known literary personality and the first Vice-Chancellor of Kuvempu University. The book is published by Prasaranga, Kuvempu University during 2022.
2	Chief Editor of Kuvempu University Science Journal (Volume 8 and 9, 2021; ISSN No. 2277-9523) published by Prasaranga, Kuvempu University
3	A review article in kannada, on the book entitled ' BRIEF ANSWERS TO THE BIG QUESTIONS ' by Professor Stephen Hawking , (John Murray Publishes, London) is published in the Kannada Magazine 'Samajamukhi' , February 2019
4	A Kannada article on the life and achievements of Professor Stephen Hawking , as an obituary to the illustrious scientist who passed away on 14 th March 2018, is published in the Kannada Magazine 'Samajamukhi' , April 2018
5	Worked as the Local Co-Ordinator for an All India Level 15 day workshop ' Physics Training and Talent Search(PTTS-2015) conducted at Kuvempu University from 17/12/2015 to 30/12/2015 for Final year B.Sc., (Physics) students from colleges across India. The Workshop was funded by Scientific Institutions such as HRI, Allahabad, IMSc., Chennai, TIFR-TCIS, Hyderabad, Science Education Panel, Indian Academy of Sciences, Saha Institute of Nuclear Physics, Kolkata. 47 students from different parts of the country participated in the Workshop.
6	A Kannada article on Ludwig Boltzmann, a pioneer scientist has been published in the Science Journal, Vijnana Karnataka (Volume Nos. 38—40, Page No. 103—114, (2012)) published by Prasaranga, University of Mysore
7	A Kannada article on the life and achievements of a great teacher, Prof. K.N. Srinivasa Rao, formerly Professor of Theoretical Physics , University of Mysore (Translation of an English article written by Prof. K.S.Mallesha Professor, Department of Physics, University of Mysore) appeared in the science journal ' Vijnana Karnataka ' (Volume Nos. 38—40, Page No. 97—102, (2012)) published by Prasaranga, University of Mysore
8	An article ' Science needs Women... ' is published in the Commemorative volume (celebrating silver jubilee of the University) ' Visualisation of Women in Media, Literature and Science ' published jointly by Prasaranga and Women's Resource Center, Kuvempu University during 2012.

Working as referee for the journals

- (1) Quantum Information Processing (International)
- (2) Annals of Physics (International)
- (3) Pramana (National)

Cultural Interests:
Has been involved in Translation of articles, Short stories by the likes of Guy De Mopasa, Somerset Maugham, Franz Kafka etc., some of which are published in leading Kannada Magazines and Newspapers ('SUDHA', 'KASTURI', 'KANNADA PRABHA', 'HOSATU')
An article titled ' Dr. Shantinath Desai- A Staunch Votary of Modernism ' is published in the first issue of e-journal 'ideas & ideologies' (ISSN No. 2320-7744; Vol. 1, Issue 1. March 2013) published by the Women's Resource Center, Kuvempu University.

