

### Profile of Dr. K.Jayakumar



- (i) Designation : Professor
- (ii) Qualification : M.A., Ph.D., Dip-in-Ger
- (iii) Experience : 28 years – Teaching, 35 years - Research
- (iv) Specialization : Semiconductor Nanostructures, Bio Nanocomposites, Nano piezoelectric sensors
- (v) Email id : kjkumar\_gri@rediffmail.com

(vi) Research Guidance:

Degree	Awarded	Guiding
Ph.D	3	4

(vii) Publications

Sl. No.	Category	Total	For the period 2010-2016
1.	Chapters in Books	3	-
2.	No. of papers in Edited Volume / Proceedings	54	18
3.	No. of Publications in International and National Journal	73	47

### Select Publications

Sl. No	Title of the Article	Name of the Journal	I/N	ISBN/ISSN	Vol.	Pages	Date, Month and Year
1	Effect of Geometry on the pressure induced donor binding energy in semiconductor nanostructures	International Journal of computational materials science and engineering	I		4	15500 181-1813	2015
2	A DSP based real-time 3D FFt system for analysis for dynamic parameter	IEEE	I	978-1-4799-3914-5	14	1489-1492	2014
3	The Possibility of semiconductor – metal transition in a spherical quantum DoT	Journal of mathematical Chemistry	I		51	1815-1821	2013

4	Coulomb Interaction of double acceptor in a semi magnetic quantum DoT	Superlattices and microstructures	I		52	732-737	2012
5	Possibility of semiconductor metal transition in a quantum wire	Journal of Computational and Theoretical Nano Science	I		8	1-4	2011

(viii) Sponsored Projects

Major Projects handled so far		Major Projects handled during 2010-2015	
Nos.	Financial Outlay	Nos.	Financial Outlay
4	Rs.33.25 lakhs	3	Rs.26.37 lakhs

(ix) Details of Projects (2010-16)

S. No.	Title of the Project	Funding Agency	Duration	Total Amount in lakhs
1.	Investigation on the Electronic and Impurity States in Semimagnetic Nanostructured Systems	UGC, India	2007-2010	Rs.6.88
2.	Development of Vibration Accelerometer using Piezoelectric Nanomaterials	ISRO, IIT-(B,Cen), India		
3.	Study on the Coulomb Interaction of Double Acceptors in Magnetic Semi-conductor Nanostructured Systems	UGC, India	2013-2016	Rs.10.96
4.	Synthesis and Characterization of Nano Piezoelectric Material for Vibration Sensor Applications	ISRO, India	2014-17	Rs.15.41 + First Phase

(x) Seminars/Conferences/Workshops attended (2010-16) : 13

(xi) Awards and Honours (2010-16)

- Fellow of Academy of Sciences (Chennai) – Awarded
- Editorial Board Member
  1. Scientific World Journal
  2. International Journal of Metals
- Patent – Filed  
Histogram Based Vibration Signature Analysis for the Detection of Ball Bearing Defects. (Govt. Of India)

Docket No : 9591  
CBR No. : 5833  
Ref.No. : E-2/936/2015-CHE  
Appl.No. : 1533/CHE/2015

(xii) Invited talks in National / International Conference (2010-16) : 11

(xiii) Additional responsibilities (2010-16):

- Member – Various committees in GRI.