

# COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

## FACULTY DATABASE

### INFORMATION DATA SHEET FOR FACULTY MEMBERS

(Filled forms please send to registrar@cusat.ac.in)

(INSERT ADDITIONAL ROW(S) WHERE EVER NECESSARY)

<b>Name:</b>	<b>Dr.K.Rajeev Kumar</b>
<b>Department :</b>	<b>Instrumentation</b>
<b>Contact Details</b> <b>Address for communication</b>	<b>Associate Professor &amp; Head, Department of Instrumentation, Cochin University of science &amp; Technology, Cochin 682022.</b>
<b>Email</b>	<a href="mailto:rajeev@cusat.ac.in">rajeev@cusat.ac.in</a> , <a href="mailto:rajeev01in@gmail.com">rajeev01in@gmail.com</a>
<b>Phone</b>	<b>04842575008</b>
<b>Intercom</b>	<b>2359</b>
<b>1. Academic Background</b>	
Qualifications:	Ph. D (Physics)
Qualifying Post Graduate Degree:	MSc (Physics)
Ph. D with NET	NA
Ph. D without NET	Yes.
Post Graduate Degree(s)	MSc (Physics)
Under Graduate Degree(s):	BSc (Physics)
Any other PG degree/ Diploma relevant to the subject:	No
<b>2. Research Performance</b>	

2.1 Published / accepted papers in Journals / Conferences: 40

Sources consulted for SNIP, SJR, IF and H-index : JCR 2013, <http://www.scimagojr.com>, <http://www.impactfactorsearch.com>, Google scholar, as applicable.

[Cited by : Google Scholar, SNIP : Source Normalized Impact per paper, SJR : Scimago Journal & Country Rank, IF: Impact factor, H-Index: Hirsch Index]

1. Journal papers sited by Google scholar.

2.1. Web based publication: 2

2.2.	Externally Funded Research / Consultancy Projects through University / Institution (Both completed and Ongoing Projects):				
	Sl No.	Title	Funding Agency	Amount & Duration	Principal investigator/ Co-investigator
	1.	“Preparation of High-K Dielectric coatings using plasma enhanced atomic layer deposition and their characterization”	KSCSTE	10.89 lakhs,3years	Principal investigator
	2	“Investigations on the interface trap densities in pseudobinary oxide nano layer-silicon systems prepared by Atomic Layer Deposition for MOSFET applications”.	AICTE	6.8 lakhs,2years	Principal investigator

3	“Design and fabrication of a Micro wave plasma ALD..... high-k dielectrics deposited by the same.”	DST	17.8 lakhs, 3years	Principal investigator
4	”Preparation of high-k polymer thin films loaded with ceramic nano particles ...flexible thin film transistors.”	UGC	7.28 lakhs, 3years	Principal investigator
5	“Investigations on the preparation of multi layers of ... atomic layer deposition and their characterization”	KSCSTE	11.9 lakhs, 3 years	Principal investigator
6.	Up conversion phosphors for solar cell applications	DST	25 lakhs, 3 years	Co-investigator
7.	Development of stable and low cost thin film solar cells using automated spray technique”	MNRE	<b>225 lakhs</b> , 3 years	Co-investigator
8.	Development of a Photopyroelectric calorimeter	UGC	3.4 lakhs, 2 years	Co-investigator
9.	Development of Oxide phosphor thin films for Electroluminiscentdevices”	DST	15.5, 3 years	Co-investigator
10.	Pulsed laser assisted epitaxial growth of p-type oxide semiconductors for transparent electronics	DAE	10.88 lakhs, 3 yaers	Co-investigator
11.	“Development of gas sensors based on semiconducting chalcogenide glasses”	KSCSTE	8.25 lakhs, 3 years	Co-investigator

	12.	Nanophosphors and quantum well structures grown by PLD.	DST	85 lakhs, 3 years	Co-investigator
	13	Improvement of optical transmission characteristics of Tokamak optical windows	BRFST	6.28 lakhs, 2 years	Co-investigator
	14	Growth and characterization of nanostructured materials and its applications	DST	<b>330 lakhs,</b> 3 years	Co-investigator
	15	Vertically aligned nanostructured metal oxides and nanotextured substrates for organic solar cells	DST	36 lakhs, 3 years	Co-investigator

2.3	Research Guidance :				
2.3 (a)	Ph D – Degree Awarded				
SI No.	Title	Name of co-guides (if any)	Name of student	University	Year
1.	“Preparation and characterization of high-k Aluminum Oxide thin films by Atomic Layer Deposition for gate oxide applications”	N.A	Ms.Anu Philip	Cochin Uni. Of Sci.& Technology	2012

Current guidance:

1. Subin Thomas (Writing Thesis)
2. Savitha.N
3. Lidiya. T.V

4. Hasna.K (Writing Thesis)

5. Rehana Raj

6. Melbin Baby

7. Abhayajith

2.3 (b)	Ph D – Thesis submitted				
SI No.	Title	Name of co-guides (if any)	Name of student	University	Year
1.	nil	NA	NA	NA	NA

2.4	Awards / Medals / Fellowships Academic Recognitions:	
Award	Particulars	
<b>1. Selected as visiting scientist to Technical University of Delft, The Netherlands April 2001</b>	<b>The work involved the simulation studies on the performance of amorphous silicon solar cells.</b>	
<b>2. Reviewer of Research Proposals, for DST</b>		
<b>3. Reviewer- 'Journal of Scientific and Industrial Research', CSIR, India</b>		
<b>4. Adjudicator of Ph.D Theses.</b>		

3	Assessment of Domain Knowledge
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<b>3.1</b>	<b>Experience</b> Additional Teaching / Industrial Experience after obtaining minimum eligibility criteria for the particular post (Only Full-time teaching assignments and/ Industrial Experience not below the rank of Lecturer in UGC/AICTE approved institutions/ Assistant Manager / Officer in a public / multi-national Company, after obtaining the minimum educational qualifications for this post)				
	SI No.	Institution	Post held	Period (from ... to..)	No. of years
University PhD level	1.	'Harvin Scientific Optics Pvt.Ltd', Hyderabad	Scientist & Head Optical Coating Section	December 1989 – December 1993	4
	2.	'Hind High Vacuum Company Pvt.Ltd' Banglore.	Quality Control Manager	January 1994- August 1997	3 years 8 months
	3.	'Indovision' Vacuum Company, Bangalore	Chief Scientist	September 1997 – April 1999	1 year 7 months

<b>3.2</b>	<b>Additional Research Experience after Ph. D</b>			
	Institution	Post Held	Period	No. of years
Post-Doctoral Research	NA	NA	NA	NA

<b>3.3</b>	<b>Academic / Administrative Experience (give particulars):</b>			
3.03 (a)	<b>Administrative experience:</b>			
SI No	Post Held	Period	No. of years	
1	Head, Department of Instrumentation, Cochin Uni. Of Sci.& Tech.	1 <sup>st</sup> July 2014 onwards	1	
2	Head of the quality control section as Quality control Manager, Hind High Vacuum Company Pvt. Ltd, Bangalore.	January 1994- August 1997	3 years 8 months	

3	Head of Optical Coating Section, 'Harvin Scientific Optics Pvt.Ltd', Hyderabad.	December 1989 – December 1993	4 years
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3.03 (b) Academic experience (Member, Board of studies, Academic council / Faculty etc.)

Sl No	Positions held	Period	No. of years
1	<b>Chairman, Board of Studies, Department of Instrumentation, Cochin University of Science &amp; Technology</b>	2015 April onwards	3 months
2	<b>Member, Academic Council, Cochin University of Science &amp; Technology</b>	2015 April onwards	3 months
3	<b>Chairman, Board of Question paper setters for BSc Instrumentation exams, Calicut University.</b>	For the last few years	4-5 years

Member of Academic Council concurrent with position held as Chairman of Board of Studies.

3.04 Participation in Training Programs/Workshop/Summer Winter-Schools, (organized by Govt. agencies/ UGC/AICTE, ICTP or similar International Organisations) :

Duration of Course	Short Title	Agency	Period
21 days	Refresher course, Dept. of Physics, CUSAT	UGC	22-11-2004 to 14-12-2004
21 days	Orientation course, Academic Staff College, Pondicherry University	UGC	5-8-2008 to 25-8-2008
21 days	Refresher course, Academic Staff College, Uni. Of Kerala	UGC	3-10-2009 to 24-10-2009
10 days	Computer hardware assembly & Maintenance, USIC, Calicut University.	WRIC (Western Region Instrumentation Centre)	December 2002

**Declaration**

I, ...Dr.K.Rajeev Kumar..... have read the notification and all other related instructions. All information and data furnished above are true to the best of my knowledge and belief.

Place: Cochin - 22

Date: 17/07/2015

**Signature**