

## Dr. Abdul Rasheed T Mohammed

Assistant Professor  
 Department of Physics, College of Medicine  
 Mobile: : +966 508096375 • Office: +966 3 333 1057  
 Email: [athameralssery@ud.edu.sa](mailto:athameralssery@ud.edu.sa)  
 P. O. Box 2114 Dammam, 31451, Saudi Arabia



### PERSONAL DATA

<b>Full Name:</b>	Abdul Rasheed <small>First</small>	Mohammed <small>Father</small>	Buharikkutty <small>Grandfather</small>	Thamarassery <small>Family Name</small>						
	تامار اسري <small>اسم العائلة</small>	بهاريكوتي <small>اسم الجذ</small>	محمد <small>اسم الاب</small>	عبد الرشيد <small>الاسم الاول</small>						
<b>Nationality:</b>	Indian									
<b>Date of Birth:</b>	1	5	/	0	2	/	1	9	5	8
	<small>D</small>	<small>D</small>		<small>M</small>	<small>M</small>		<small>Y</small>	<small>Y</small>	<small>Y</small>	<small>Y</small>
<b>Place of Birth:</b>	Ernakulam, Kerala state, India									
<b>Marital Status:</b>	Married									
<b>UD Employee ID:</b>	400363		<b>Date of Joining:</b>	24 – 4 – 2002						
<b>Department:</b>	Physics									
<b>Official UD email:</b>	<a href="mailto:athameralssery@ud.edu.sa">athameralssery@ud.edu.sa</a>		<b>Other email:</b>	<a href="mailto:rasheedt@gmail.com">rasheedt@gmail.com</a>						
<b>Office Tel. No.</b>	31057									
<b>Mobile No.</b>	0508096375									
<b>Home Tel. No.</b>	03 8354830									

### Language Proficiency:

Language:	Read	Write	Speak
<b>Arabic</b>	*		
<b>English</b>	*	*	*
<b>Malayalam</b>	*	*	*
<b>Hindi</b>	*	*	*

### ACADEMIC QUALIFICATIONS: (beginning with the most recent)

Date	Academic Degree	Specialty	Institute	Country
1988	PhD	Laser Spectroscopy	Cochin University	India
1981	M Sc	Spectroscopy	Cochin University	India

### PhD, Master or Fellowship research title: (Academic honors or distinctions)

PhD:	Laser and NIR Spectroscopy of CH vibrational overtones
Master:	Physics with Specialization in spectroscopy
Fellowship:	

## PROFESSIONAL RECORD: (beginning with the most recent)

### University Appointments

from	to	Academic Posts	Specialty/Department	Institute & Country
2002	2013	Assistant Professor	Physics	University of Dammam
1992	2002	Reader	Physics	Cochin University, India
1988	1992	Lecturer	Physics	MG Government College, Mahe, India

### Hospital Appointments: NIL

from	to	Hospital Title	Institution
<b>Specialty:</b>			
<b>Subspecialty:</b>			
<b>Areas of Expertise:</b>			
<b>Saudi Commission for Health Specialties registration No.</b>			<b>Valid until:</b>

### Clinical Responsibilities: NIL

1.	
2.	
3.	

## RESEARCH ACHIEVEMENTS (beginning with the most recent) Your name should be bold & use rows as necessary

### Published Refereed Scientific Research Papers: (use Vancouver Style, "author-number system")

1.	Zachariah T.P., Honey J., Mary K., <b>Rasheed T.M.A.</b> Study of Heat Diffusion in Polyaniline by Open Photoacoustic Cell Technique. Int. J Polym Mater. 2008; 57 (9): 852-859.
2.	Zachariah T.P., Jyotsna R., Nair K.P.R., <b>Rasheed T.M.A.</b> Thermal Diffusivity of Plasma-Polymerized Polyaniline Films by Transverse Probe Beam Deflection Method. Int J Polym. Mater. 2008; 57 (6): 607 – 614.
3.	Raveendranath K., Jyotsna R., Jayalekshmi S., Rasheed T.M.A., Nair K.P.R. Thermal diffusivity measurement on LiMn2O4 and its de-lithiated form ( $\lambda$ -MnO <sub>2</sub> ) using photoacoustic technique. Mater.Sci. Engg-B. 2006; 131: 210 - 215.
4.	Kuriakose S., Vijayan K.K., Shaji S., Shibu E.K., Nair K.P.R., <b>Rasheed T.M.A.</b> CH overtone spectrum of nitromethane: a C3V coupled oscillator analysis using local mode parameter. Spectrochimica Acta Part A. 2004; 60 (10): 2283 - 2286.
5.	Shaji S., Shibu E.K., Nair K.P.R., <b>Rasheed T.M.A.</b> NIR vibrational overtone spectra of toluidines—evidence for steric and electronic effects in o-toluidine. Spectrochimica Acta Part A. 2004; 60: 2275 - 2281.
6.	Shaji S., Shibu E.K., <b>Rasheed T.M.A.</b> , Nair K.P.R. NIR vibrational overtone spectra of N-methylaniline, N,N-dimethylaniline and N,N-diethylaniline—a conformational structural analysis using local mode model. Spectrochimica Acta Part A. 2004; 60: 351 - 355.
7.	Jyotsna R., Lakshmi S., Nair K.P.R., <b>Rasheed T.M.A.</b> A simple theoretical extension to the analysis of photothermal deflection signal for low thermal diffusivity evaluation. J. Quant. Spectr. Rad. Transfer. 2004; 83: 193 - 202.

8.	Alex M., Jyotsna R., Madhusoodanan K.N., Nair K.P.R., <b>Rasheed T.M.A.</b> Thermal diffusivity measurements of semiconducting amorphous GexSe100-x thin films by photothermal deflection technique. Appl. Surface Science. 2004; 227(1-4): 410 - 415.
9.	Saji A., Jyotsna R., Ampili S., <b>Rasheed T.M.A.</b> , Nair K.P.R., Tamio E., Elizabeth M. Effect of Te doping and electron irradiation on thermal diffusivity of Bi2Se3 thin films by photo thermal technique. J Phys D Appl.Phys. 2003; 36: 994 - 1000.
10.	Jyotsna R., Jayaraj M.K., Vanaja K.A., Nair K.P.R., <b>Rasheed T.M.A.</b> Photoacoustic investigations on thermal diffusivity of CuGa1-xFexO2. Semicond. Sci. Technol. 2003; 18: 693 - 696.
11.	Vijayan K.K., Kurakose S., Nair K.P.R., <b>Rasheed T.M.A.</b> Overtone spectrum of formamide in the near infrared region- evidence for the inhibition of lone pair trans effect. Asian J Spectroscopy. 2002; 6: 43 - 46.
12.	Sunny K., Vijayan K.K., Nair K.P.R., <b>Rasheed T.M.A.</b> Overtone spectra of allyl chloride and allyl alcohol in the near infrared region. Asian J Phys. 2002; 11(1): 70-74.
13.	Vijayan K.K., Sunny K., Nair K.P.R., <b>Rasheed T.M.A.</b> Vibrational overtone spectrum of 2-furaldehyde in the NIR region. Asian J Phys. 2002; 11 (1): 66 - 69.
14.	Sunny K., Vijayan K.K., Nair K.P.R., <b>Rasheed T.M.A.</b> Overtone spectrum of cinnamaldehyde in the NIR region- evidence for indirect lone pair trans effect. Asian J. Spectroscopy. 2001; 5: 185-189.
15.	Vijayan K.K., Sunny K., Nair K.P.R., <b>Rasheed T.M.A.</b> Overtone spectra of benzaldehyde and salicylaldehyde: Evidence for the inhibition of indirect and direct lone pair trans effects. Asian J Spectroscopy. 2001; 1: 17 - 23.
16.	Ramesh Babu T., <b>Rasheed T.M.A.</b> More Accurate line shape function for the TEMq00 mode of a passive FP optical resonator. Asian J. Phys. 2000; 9 (4): 875 - 877.
17.	<b>Rasheed T.M.A.</b> , Shaji S. CH overtone spectrum of methyl cyanide: a C3v coupled oscillator analysis. Asian J. Phys. 1999; 8(2): 199 - 204.
18.	Nagavally H., Madhusoodanan K., <b>Rasheed T.M.A.</b> Effect of He+ and H+ ion irradiation probed by NIR photothermal deflection Spectroscopy. Appl. Phys. 1999; 68: 475 - 478.
19.	Minimol A, Mini S, Malini K A, Samkumar M.C, Joseph M.J, Tenson J, Sakthikumar D , S. Jayalekshmi S, <b>Rasheed T M A</b> , and Anantharaman M R, Preparation and characterization of plasma-polymerized aniline thin films, Ind. J. Pure. Appl. Phys. 1996; 34: 966-971.
20.	<b>Rasheed T.M.A.</b> CH overtone spectrum of biphenyl- evidence for the cumulative effect of conjugated resonance structures. Spectrochim. Acta A. 1996; 52: 1493.
21.	Shamsuddeen S.P., <b>Rasheed T.M.A.</b> , Jayaraj M.K. CH overtone spectroscopy of acrylonitrile and polyacrylonitrile. Ind. J. Pure. Appl. Phys. 1996; 34: 534.
22.	<b>Rasheed T.M.A.</b> , Moosad K.P.B., Nampoori V.P.N. Sathianandan K CH local mode overtone excitations in benzyl chloride-a conformational study. Pramana-J. Phys. 1994; 42: 245.
23.	Moosad K.P.B., <b>Rasheed T.M.A.</b> , Nampoori V.P.N. Sathianandan K. Optical Phase conjugation in dyes embedded in polymer films. Opt. Engg. 1990; 29: 47 - 51.
24.	Moosad K.P.B., <b>Rasheed T.M.A.</b> , Nampoori V.P.N. Sathianandan K. Low power optical conjugation in dyes embedded in polyvinyl alcohol films. Appl. Opt. 1990; 29: 449-53.
25.	Moosad K.P.B., <b>Rasheed T.M.A.</b> , Nampoori V.P.N. Sathianandan K. Investigations on thin film saturable absorbers suitable for optical phase conjugation. J. Opt. 1998; 17: 24 - 27.
26.	Subhash N., Satheeshkumar M.K., <b>Rasheed T.M.A.</b> , Sathianandan K. A multi-pass long path cell for absorption measurements. J. Opt. 1987; 16: 51-54.
27.	<b>Rasheed T.M.A.</b> , Moosad K.P.B., Nampoori V.P.N. Sathianandan K. Overtone Spectra of Styrene and Polystyrene in the visible and near infrared regions. Pramana-J. Phys. 1989; 33: 391 - 95.
28.	<b>Rasheed T.M.A.</b> , Moosad K.P.B., Nampoori V.P.N. Sathianandan K. CH local mode excitation and Fermi Resonance in trichloroethylene. Spectrochimica. Acta. 1987; 43A: 1183 - 1187.
29.	<b>Rasheed T.M.A.</b> , Nampoori V.P.N., Sathianandan K. Near Infrared Spectrum of 2-butanone- a local mode analysis. Spectrochim. Acta. 1987; 43A: 925-927.

30.	Rasheed T.M.A., Moosad K.P.B., Nampoori V.P.N. Sathaiyanandan K. CH overtones in acetophenone and benzaldehyde-aryl and methyl local modes. J Phys. Chem. 1987; 91: 4228.
31.	Rasheed T.M.A., Nampoori V.P.N., Sathaiyanandan K. Overtone Spectra of 1,2 dichloro and dibromo ethanes in the NIR region. Chem. Phys.1986; 108: 349 - 354.

**Refereed Scientific Research Papers Accepted for Publication:** NIL

	Name of Author/s	Research Title	Journal	Acceptance date
1.				
2.				
3.				
4.				
5.				

**Scientific Research Papers Presented to Refereed Specialized Scientific Conferences:**

(use Vancouver system)

1.	Shaji S., Shibu M.E., Rasheed T.M.A., Nair K.P.R. High resolution tunable diode laser spectrum of OH group second overtone in ethanol: International conference on Tunable Diode laser. Spectroscopy TDLs. 2003; Connecticut USA; 17-20 July 2003, Poster D13.
2.	
3.	

**Scientific Publications (Books, Translations, Chapter in Books, etc.)** NIL

(use Vancouver system and include only refereed books)

1.	
2.	
3.	
4.	

**Completed Research Projects:**

	Name of Investigator/s	Research Title	Report Date	Funding source & Amount
1.	Abdul Rasheed, Rajappan Nair	NIR DIODE laser spectroscopy of organic compounds	2005	INR 1500,000
2.	Abdul Rasheed, Thomas P Zachariah	Thermal properties of polymers using laser techniques	2009	INR 500, 000
3.				
4.				

**Current Research:**

	Name of Investigator/s	Research Title
1.	Abdul Rasheed	NIR spectroscopy of biologically important molecules Work being carried out in Cochin University, India.

## Scientific Reports: NIL

	Name of Authors	Research Title	Submitted to
1.			
2.			
3.			
4.			

## Contribution to Scientific Journals as a Reviewer or as a Member in the Editorial Board: NIL

	Type of contribution	Journal	Institution	Country	from	to
1.						
2.						

## Research Areas of Interest

1.	Thermal properties of materials
2.	Laser spectroscopy
3.	Quantum Optics
4.	Physics in Biology and Medicine

## Patents: NIL

1.	
2.	

## **CONTRIBUTION TO SCIENTIFIC CONFERENCES & SYMPOSIA:** *(beginning with the most recent)*

	Title	Place and date of the conference	Extent of contribution (attendant, speaker, or organizer)
1.	4 <sup>th</sup> Quantum Electronics symposium	Cochin, India Dec 23, 1986-Jan 1, 1987	Attendant, organizer
2.	National Laser symposium NLS – 2000	New Delhi, December 13-15, 2000	Attendant
3.	National Seminar on Current Trends in Material science	Kottayam, Kerala, 23-24, march 2001	Attendant
4.			

## **MEMBERSHIP OF SCIENTIFIC AND PROFESSIONAL SOCIETIES AND ORGANIZATIONS:**

### International: NIL

	Type	Society / council	Address	Date
1.				
2.				

### National: NIL

	Type	Society / council	Address	Date
1.				
2.				

## Awards and Honors:

	Awards and Honors:	International / National organization	Date
1.	Best Poster award	National – IV th Quantum electronics symposium , Department of Atomic energy, India, held at Cochin, India	Dec-23,1986- Jan1, 1987
2.			

**TEACHING ACTIVITIES:** *Delivering Lecture/Workshops & other Teaching Methods*

## Undergraduate:

	Course/Rotation Title	No./Code	Extent of contribution (no of lectures/tutorials. or labs, clinics)
1.	BSc	200	4 credit (3 lect + 1 lab)
2.	Pre medical Physics	104	2 lectures + 1 lab

**Brief description of undergraduate courses taught:** *(Course Title – Code: description)*

1.	Mechanics, Properties of matter, Electricity and magnetism, Optics, Thermodynamics, Modern physics
2.	Physics for Medicine, AMS and Dentistry (old scheme) Physics for health path for Prep year (new scheme)

## Postgraduate:

	Course/Rotation Title	No./Code	Extent of contribution (no of lectures/tutorials. Or labs, clinics)
1.	Mathematical Physics		60 lecture course
2.	Quantum Electronics		60 lecture course
3.	Atomic and Molecular Physics		60 lecture course

**Brief description of postgraduate courses taught:** *(Course Title – Code: description)*

1.	Atomic and molecular Physics core paper for M Sc Physics students, Quantum Electronics I and II special papers for M Sc Physics
2.	Mathematical physics- core paper for M Sc physics students
3.	Modern Optics core paper for M Tech students, Laser applications core paper for M Tech students

## Course Coordination:

	Course Title & Code	Coordination	Co-coordination	Undergrad.	Postgrad.	From	to
1.	Quantum Electronics	*			*	1996	2002
2.							
3.							
4.							

## Guest/Invited Lectures for Undergraduate Students: NIL

	Course Title & Code	Subject	College & University	Date
1.				
2.				
3.				
4.				

## Guest/Invited Lectures for Postgraduate Students:NIL

	Activity/Course Title & Code	Subject	College & University or program	Date
1.				
2.				
3.				

## Student Academic Supervision and Mentoring:NIL

	Level	Number of students	from	to
1.				
2.				
3.				

## Supervision of Undergraduate Student Research: NIL

	From - to	Level & course	Title	No. of students
1.				
2.				

## Supervision of Master and/or PhD Thesis:

	Degree Type	Title	Institution	Date
1	PhD	Photothermal and photoacoustic investigations on certain Polymers and Semiconductors	Cochin University of Science &Technology, India.	2004
2	PhD	Tunable Diode Laser Spectroscopy, Near Infrared Overtone and Laser Induced Fluorescence Studies of Some Organic Compounds	Cochin University of Science &Technology, India.	2004
3	PhD	NIR spectroscopic and laser induced fluorescence studies of some organic molecules-	Cochin University of Science &Technology, India.	2004
4	PhD	NIR spectroscopic and laser induced fluorescence studies of some organic molecules-	Cochin University of Science &Technology, India.	2004

## Ongoing Research Supervision: NIL

	Degree Type	Title	Institution	Date
1.				
2.				
3.				

## Participation in Examinations (as an External/internal examiner)

	External/internal	College & University or program	Specialty	Date
1.	M Sc	Cochin University of science &Technology	Physics	1992-2002
2.	M Tech	Cochin University of science &Technology	Optoelectronics and Laser Technology	1992-2002
3.	M Phil	Cochin University of science &Technology	Physics	1992-2002

## ADMINISTRATIVE RESPONSIBILITIES, COMMITTEE MEMBERSHIP & COMMUNITY SERVICE:

(beginning with the most recent)

### Administrative Responsibilities:NIL

	from	to	Position	Organization
1.				
2.				
3.				

### Committee Membership:NIL

	from	to	Committee	Organization
1.				
2.				
3.				

### Scientific Consultations:NIL

	from	to	Institute	Full-time or Part-time
1.				
2.				
3.				

### Volunteer Work:NIL

	from	to	Type of Volunteer	Organization
1.				
2.				
3.				

### Personal Key Competencies and Skills: (computer, Information technology, technical, etc.)

1.	Microsoft Word, Excel
2.	Power Point