



**KARPAGAM ACADEMY OF HIGHER EDUCATION**

*(Deemed to be University)*

*(Established Under Section 3 of UGC Act, 1956)*

Eachanari Post, Coimbatore-641021, Tamil Nadu, India.

**FACULTY OF ARTS, SCIENCE AND HUMANITIES  
DEPARTMENT OF PHYSICS**

Date: 24.8.2017

**Circular**

This is to inform you that, as a part of student support, Department of Physics is organizing a **Career Guidance** program for our I M.Sc and III B.Sc Physics students on 28.8.2017. Dr. R.T.Rajendra Kumar, Professor, Department of Nanoscience & Technology, Bharathiar University will be the resource person. Students are requested to attend the session without fail.

Venue: Thiruvalluvar Hall

Head of the Department  
Department of Physics  
Faculty of Arts, Science and Humanities  
Karpagam Academy of Higher Education  
Coimbatore – 641 021, Tamil Nadu, India.

## Invitation



### **KARPAGAM ACADEMY OF HIGHER EDUCATION**

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### **DEPARTMENT OF PHYSICS**

*Cordially invites you for the*  
**Career Guidance Programme**

**On**

**Job opportunities in Nanoscience & Technology**

**On 28<sup>th</sup> August 2017**

**Chief Guest**

**Dr. R.T.Rajendra Kumar**

**Professor**

**Department of Nanoscience & Technology**

**Bharathiar University, Coimbatore**

**VENUE: Thiruvalluvar Hall**

**TIME: 10.30 –12.30 PM**

**ALL ARE INVITED**

**Dr.V. Senthil Kumar**

**Associate Professor & Head**

**Department of Physics**

## Biodata

### Resume

#### Name of the Faculty

Designation: Professor  
Department of Nanoscience and Technology

Telephone: 0422-2428425

Mobile: +91-9789757888

e-mail: rtrkumar@buc.edu.in

Website: <http://amd1-bu.org/>



#### Current Area of Research

1. 2D materials
2. Bio-chemical Sensors
3. Water remediation

<b>SCOPUS ID:</b>	6507429167	<b>Researcher ID:</b>	A-9709-2015	<b>Google Scholar ID:</b>	Ep-pJa8AAAAJ	<b>VIDWAN ID:</b>	52003
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#### Education

Ph.D. (2003) - Physics, Bharathiar University, India

M.Sc. (1998)- Physics, P.S.G. College of Arts and Science, Coimbatore, India

#### Professional Experience (In Chronological Order after Ph. D. onwards)

**Designation:** Professor, Department of Nanoscience and Technology, Bharathiar University, India, (2015 onwards)

- **Professor**, Department of Nanoscience and Technology, Bharathiar University, India - (Feb.2015 onwards)
- **Associate Professor**, Department of Nanoscience and Technology, Bharathiar University, - (Jan.2013-Jan.2015)
- **Associate Professor**, Department of Physics, Bharathiar University - (Feb.2012 - Jan.2013)
- **Reader**, Department of Physics, Bharathiar University, Bharathiar University - (Feb.2009 - Feb.2012)
- **Postdoctoral Researcher**, Department of Micro and Nanotechnology, Technical University of Denmark (Jan.2007 - Jul.2008)
- **Postdoctoral Researcher**, School of Physical Sciences, Dublin City University, Dublin, Ireland (May 2005 - Dec.2006)
- **Postdoctoral Researcher**, Atomic Physics Division, Stockholm University, Sweden (Apr.2003 - Mar.2005)

#### Additional Responsibilities (In Bharathiar University)

**Joint Director**, DRDO-BU-CLS, Bharathiar University - (Feb.2014 onwards)

#### Awards/Fellowship

- RSC Sustainable Energy & Fuels poster prize at International Conference on Nano for Energy and Water (NEW 2017)
- **Fellow of Academy of Sciences**, 2016

- DAE- BRNS **Young Scientist Research Award**, 2012
- **“Best Faculty Award”** presented by Nehru Group of Institutions, 2012
- 2<sup>nd</sup> Prize, Poster, International Conference on Nanomaterials 2012, Kottayam, India
- Poster Award in the 55<sup>th</sup> DAE Solid State Physics Symposium, ‘Morphology dependent Photocatalytic degradation of ZnO nanoparticles’, 26 to 30 Dec 2010
- **Best Paper Award** in National Conference on Recent Advances in Magnetic Materials and Applications (MAGMA 2010) Jan 2010
- **“International Visiting award”**, Dublin City University (2010)
- **‘Outstanding Young Person Award’**, Junior Chamber International India, Erode Texcity, 2008
- Nominated for **“President of Ireland Young Researcher Award”** by Dublin City University, 2006

### Foreign Countries Visited:

- Germany
- Italy
- Israel
- China
- Singapore

### Sponsored Projects

#### Completed

- Fabrication of ZnO nanorods/polymer hetero-junction for solar cell application, DST – NanoMission (2011-2014) Rs. 29,87,400.
- Investigation of interfacial charge transfer aspects of hybrid polymer/ZnO nanorod arrays as an initial step towards judging their potential for nano-light emitting devices (NANOLED), DST – Indo-Ireland Bilateral Project (2011-2013) Rs. 3,07,000.
- Influence of Swift Heavy Ion Irradiation on the structural and Magnetic Properties of Galfenol ( $\text{Fe}_{1-x}\text{Ga}_x$ ) Thin Films, UGC – IUAC (2012-2015) Rs. 6,03,000.
- Wetting control and electro-wetting properties of superhydrophobic Si nanostructures, DAE-BRNS Young Scientist Research Award (2012-2015) Rs. 14,35,000.
- Synthesis and characterization of reduced graphene oxide for gas sensing applications, DST – SERB Fast Track (2012-2015) Rs. 28,00,000.
- Development of carbon nanostructure based nano-biosensors, DRDO Project, (2014-2017) Rs. 25,00,000/-

#### Ongoing

- Metal Organic functionalised 2D MoS<sub>2</sub>, WS<sub>2</sub> based electronic nose towards selective detection of disease related Volatile Organic Compounds, DST – SERB (2018-2021), Rs. 39,00,000/-
- Synthesis and characterization of Zinc ferrite / Titanosilicate nanocomposites for the removal of Cs and Sr, UGC – DAE-CSR (2017-2020), Rs. 1,35,000/-
- Swift Heavy Ion Irradiation effects on the texture, microstructural Piezoelectric properties of reactive sputtered Aluminum Nitride thin films, UGC-IUAC (2018-2021), Rs. 6,07,000/-



## Research Guidance

Ph.D. : Completed – 8; Ongoing - 6;  
M. Phil. : Completed -17; Ongoing – 0  
M. Sc. : 26 PG Diploma – 45

## Research Publications

### Journals:

International:95 National: 1 Reports: 9

### Conference Papers(Presented):

International :15 National: 5

**Books** : Nil

**Book Chapters** :4

## Citation

Total Number of Citations : 2232 (as on 03/2020); h-index – 27

## Five Significant/Recent Publications

Highly sensitive amperometric detection of glutamate by glutamic oxidase immobilized Pt Nanoparticle decorated multiwalled carbon nanotubes (MWCNTs)/Polypyrrole composite, Debasis Maity, R.T. Rajendra Kumar, Biosensors and Bioelectronics, **130** 307–314(2019)

Polyaniline Anchored MWCNTs on Fabric for High Performance Wearable Ammonia Sensor, Debasis Maity and R.T. Rajendra Kumar, ACS Sensors, **3 (9)**, 1822–1830(2018)

Polyvinyl alcohol wrapped multiwall carbon nanotube (MWCNTs) network on fabrics for wearable room temperature ethanol sensor, D Maity, K Rajavel, R.T. Rajendra Kumar, Sensors and Actuators B: Chemical **261**, 297-306(2018)

Multiwalled Carbon Nanotube Oxygen Sensor: Enhanced oxygen sensitivity at room temperature and Mechanism of Sensing, K. Rajavel, M. Lalitha, J.K. Radhakrishnan, L. Senthilkumar, R.T. Rajendrakumar, ACS Applied Materials and Interfaces, **7 (43)**, 23857–23865(2015)

Effective Shell Wall Thickness of Vertically Aligned ZnO-ZnS Core-Shell Nanorod Arrays on Visible Photocatalytic and Photo Sensing Properties, K. S. Ranjith, R. B. Castillo, Mika Sillanpaa, **R.T. Rajendra Kumar**, Applied Catalysis B: Environmental, **237**, 128-139(2018)



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## FACULTY OF ARTS, SCIENCE AND HUMANITIES DEPARTMENT OF PHYSICS

### Guidance for Career Counselling

Description of Career Counseling	Job opportunities in Nanoscience & Technology
Academic year	2017-2018
Semester	I & V
Scheduled Hours / Semester	2 hours
Number of Students Enrolled	95
Name of the agencies involved	Karpagam Academy of Higher Education, Coimbatore
Name of the Resource persons	Dr. R.T.Rajendra Kumar, Professor, Department of Nanoscience & Technology, Bharathiar University, Coimbatore
Venue	Thiruvalluvar Hall



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## **FACULTY OF ARTS, SCIENCE AND HUMANITIES DEPARTMENT OF PHYSICS**

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### **Report**

**28.08.2017**

Department of Physics organized a career guidance program on “Job opportunities in Nanoscience & Technology” on 28.8.2017. Dr. R.T.Rajendra Kumar, Professor, Department of Nanoscience & Technology, Bharathiar University, Coimbatore was the Resource person. Resource person was introduced by the Head of the Department. Guidance was given to students about job opportunities and Nano research across all the other science fields, such as chemistry, biology, physics, materials science, and engineering. The session came to an end with a vote of thanks by Mr. Abdul Wajeeth. S (III B. Sc Phy).



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## FACULTY OF ARTS, SCIENCE AND HUMANITIES DEPARTMENT OF PHYSICS

### Career Counselling

S.NO	Register No.	STUDENT NAME
1	17PHP001	S. Abinaya
2	17PHP003	S .Anugrah
3	17PHP004	Arjun .S. Appu
4	17PHP005	p. Arulayyan
5	17PHP007	M. Bhavatharani
6	17PHP008	M.O. Chanda
7	17PHP009	Chitra .K.Nair
8	17PHP010	M. GokulPrabu
9	17PHP012	P. Harshapriya
10	17PHP013	K. Inbarajan
11	17PHP014	P. Jananee
12	17PHP015	S.N. Janaranjani
13	17PHP016	C. Kalaiyarasi
14	17PHP019	R. Ligonja
15	17PHP020	V. Lingesh Kumar
16	17PHP021	P. Loganayagan
17	17PHP022	R. Manikandan
18	17PHP023	R. Manoj
19	17PHP024	M. Muthu Kumar
20	17PHP025	S. Naveenprathap
21	17PHP026	P.K. Nived
22	17PHP028	R. Ponni
23	17PHP030	S. Priyadarsini
24	17PHP031	R. Rahul Raj
25	17PHP032	D. Ranjith
26	17PHP034	E. Revathi
27	17PHP035	R. Sangeetha
28	17PHP036	S. Saranya
29	17PHP041	C. Sowndarya
30	17PHP042	K. Sreena
31	17PHP043	L. Subash
32	17PHP044	V. Sudhakar
33	17PHP045	S. Ulaganayagi
34	17PHP047	S. Vetriselvan
35	17PHP048	M. Vignesh
36	15PHU001	Abdul Wajeeth. S
37	15PHU002	Ahila. K
38	15PHU003	Akila. S
39	15PHU004	Angel Jenitha. D



40	15PHU005	Anupriya. R
41	15PHU006	Arunthathi. K
42	15PHU007	Aswin Samuel. P
43	15PHU008	Aswin. M
44	15PHU009	Gomathi. K
45	15PHU010	Gomathi. P
46	15PHU011	Gowtham. M. P
47	15PHU012	Harivignesh. T
48	15PHU013	Jayasri. S
49	15PHU014	Jegadeesan. S
50	15PHU015	Kamalapoorani. V
51	15PHU016	Manikandan. N
52	15PHU017	Manonmani. S
53	15PHU018	Muthukumar. S
54	15PHU019	Navaneeth. M
55	15PHU020	Naveen Raja. R
56	15PHU021	Nithya. S
57	15PHU022	Priyanka. K
58	15PHU023	Saranya. P
59	15PHU024	Saravana Kumar. M
60	15PHU025	Siva Kumar. N
61	15PHU026	Siva Priya. S
62	15PHU027	Sivaranjani. G
63	15PHU028	Subash. C
64	15PHU029	Suthaa. S
65	15PHU030	Thenmozhi. D
66	15PHU031	Vinitha. S
67	15PHU032	Yaswanth Kumar. M
68	15PHU033	Arul Kumar R
69	15PHU034	Bharath Kumar V
70	15PHU035	Chandirasekar N
71	15PHU036	Chandralekha N R
72	15PHU037	Deepika M
73	15PHU038	Dineshkumar. M
74	15PHU039	Gopinath
75	15PHU040	Jaiprakash. V
76	15PHU041	Jeevabharathi. K
77	15PHU042	Jenefa. P
78	15PHU043	Madankumar. B
79	15PHU044	Maidili. T
80	15PHU045	Manikkavasagam .V
81	15PHU046	Mugil S K
82	15PHU047	Nandhini .R
83	15PHU048	Narmadha. P
84	15PHU049	NowfalRiyas. N
85	15PHU050	Padmapriya .R
86	15PHU051	Poovarasana .S
87	15PHU052	Ranjithkumar K
88	15PHU053	Saravanapriyan S
89	15PHU054	Sankar. V
90	15PHU055	Shanmathi .K
91	15PHU056	Sri Varshini .S
92	15PHU057	Sripavathy V Varrier
93	15PHU058	Tamilarasana .S
94	15PHU059	UmapathiPandiyan .A
95	15PHU060	Yahini. R

**Certificate**



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FACULTY OF ARTS, SCIENCE AND HUMANITIES

## **CERTIFICATE**

This is to certify that Mr. /Ms ...M. Bhavatharani....of ...II M.Sc Physics... has participated in the **Career Guidance Programme on “Job opportunities in Nanoscience & Technology”** conducted on 28<sup>th</sup> August 2017, organized by the Department of Physics, FASH, Karpagam Academy of Higher Education, Coimbatore.

  
Programme co-ordinator

  
HoD