

Dr. B. KANICKAIRAJ

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**Area of Specialization:**

Ultrasonic, Crystal Growth, Nano Science and Technology, Analog and Digital Electronics, Embedded System and AI

Personal:

Name: B. Kanickairaj
Date of Birth: 12 May 1968
Nationality: Indian
Sex: Male
Marital Status: Married

Academic Qualification:

Exam. Passed	Board / University	Subjects	Year	Division Grade / Merit
B.Sc.	Bharathidasan University	Physics	1988	First
M.Sc.	Bharathidasan University	Physics	1990	First
M.Phil.	Bharathidasan University	Physics	1992	I with Distinction
Ph.D.	Bharathidasan University	Physics	2017	Commended

Research Experience:

Research Experience	Title of Thesis	University where the research was carried out
M.Phil.	Microprocessor based Ultrasonic Interferometer	Bharathidasan University
Ph.D.	Synthesis and characterization of Nano Materials and Crystals using Automated Instruments	Bharathidasan University

Publication of Research Papers: Papers Published: 7

Research Guidance:

1. Ph.D. : ----
2. M.Phil. : Physics - 35 Candidates
3. M.Sc., : Physics - 70 Candidates

Contribution to educational innovation, designing of new courses, curriculum etc.

Specify your contribution to curriculum development relevant to respective subjects.

- : Up gradation of recent developments in the field
- : Member in the Board of studies.

Specify teaching methods any innovation followed by you:

- i) Chalk and talk.
- ii) Practical Exposure.
- iii) PPT using LCD.
- iv) Providing content on the Web.
- v) Teaching Memory Techniques for better Grasping.
- vi) Involvement of Soft Skill Techniques.
- vii) E- content (video) preparation for Practical and theory.

Specify laboratory experiments (Modified / new experiments adopted by you): 50

Evaluation methods adopted: i) Assignment

- ii) Seminar
- iii) Snap Test
- iv) Group Discussion, Quiz
- v) MCQ, online testing, practical

Preparation of resource material:

- i) Two books for Skill Based Elective including books reading
- ii) Preparation of video content material laboratory manuals etc.
- iii) Preparation of question bank

Remedial teaching methods:

- i) Special classes for slow learners adopted by you
- ii) Peer group learning

Whether students counseling: Yes. For UG, PG, M.Phil. and Ph.D. students (academic) is imparted as a mentor mentoring the UG & PG classes

Refresher Course / Orientation Courses attended:

Name of the Training Programme	Place	Duration Programme of Training
Orientation Course	Academic Staff College Bharathidasan University, Tiruchirappalli	16.08.2002 to 12.09.2002
Refresher Course In Physics	Academic Staff College Bharathidasan University, Tiruchirappalli	18.01.2006 to 07.02.2006

Refresher Course In Physics	Academic Staff College Bharathidasan University, Tiruchirappalli	01.02.2014 to 21.02.2014
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Member of Organizing Committee of the **International Conference on ultrasonics (ICNU - 2012)** organized by Department of Physics, St. Joseph's College, Tiruchirappalli, on 10th and 11th January 2013.

Member of Organizing Committee of the **National Conference on Advanced Materials 2015** organized by Department of Physics, St. Joseph's College, Tiruchirappalli, on 24th February 2015

Member of Organizing Committee of the **National Conference on Advanced Materials 2015** organized by Department of Physics, St. Joseph's College, Tiruchirappalli, on 6th February 2015

Member of Organizing Committee and Resource Person of the Workshop on **Advanced Physics Experiments for College Teachers** organized by Department of Physics, St. Joseph's College, Tiruchirappalli, on 18th December 2015

Member of Organizing Committee of the **National Conference on Advanced Materials 2016** organized by Department of Physics, St. Joseph's College, Tiruchirappalli, on 7th October 2016

Member of Organizing Committee of the **International Conference on Advanced Materials 2017** organized by Department of Physics, St. Joseph's College, Tiruchirappalli, on 14th and 15th December 2017

Organization of Conferences

International Web Conference on Advanced Materials, Department of Physics, St. Joseph's College (Autonomous), Trichy – 620002. 28-02-2019 and 01-03-2019

Teaching Experience:

Course Taught	Name of the University / College / Institution	Duration
B.Sc. and M.Sc.	St. Joseph's College (A), Tiruchirappalli – 620002.	1992 to 1999
B.Sc., M.Sc. and M.Phil.	St. Joseph's College (A), Tiruchirappalli- 620002.	2000 onwards

ADMINISTRATIVE EXPERIENCE

In St. Joseph's College (Autonomous), Trichy – 620002.

Coordinator JCICT

Coordinator, Department of Physics, Shift II

Nodal Officer for B. Voc. Programmes

Head, Department of Electronics

2018-2020

2020-

2020-

**Publications of Research Papers
International**

Microwave Synthesis Titanium Doped Zinc Oxide for Solar Cell Application					
International Journal of Scientific Research in Science and Technology (IJSRST)					
Volume No.	Volume 3 Issue 11 : Novembe	PP. : 135- 139	ISSNO. : 2395- 602X	Impact Factor	: 5.327
Year : 2017					
Growth and Characterization of Pure ADP under the influence of Ultrasound					
International Journal of Engineering and Technical Research					
Year : 2014 Impact Factor : 1.6					

Seminars (S) / Conferences (C) /Workshops (WS) attended

Title	Type	Organization Name	Place	Days
High Vacuum Technology in Scientific and Industrial applications	S	Indian Society of Scientific Glass Blowers Dept.	Trichy	5
INTERNATIONAL CONFERENCE ON LASERS AND THEIR APPLICATIONS INCOLA 2000	C	DEPARTMENT OF PHYSICS, ST. JOSEPH'S COLLEGE,	TRICHY -620002	4
NATIONAL SYMPOSIUM ON ACOUSTICS	C	DEPARTMENT OF PHYSICS, ST. JOSEPH'S COLLEGE,	TRICHY -620002	2
UGC SPONSORED NATIONAL SYMPOSIUM ON MOLECULAR PHYSICS	S	ANAMALAI UNIVERSITY	ANNAMALAI NAGAR CHITHAMBARAM	2
National Conference on Advanced Materials - 2016	C	Department of Physics, St. Joseph's College	Trichy - 620002	1
International Conference on Advanced Materials	I	Department of Physics, St. Joseph's College, Trichy	St. Joseph's College, Trichy - 620002	2
International Web Conference on Advanced Materials	I	Department of Physics, St. Joseph's College (Autonomous)	Trichy - 620002	2
Webinar on Patentability in Science and Technology	Z	SRM Institute of Science and Technology	Vadapalani, Chennai	1

Active Learning and Advanced Scientific Computing Methods	R	Loyola College	Chennai	5
International Webinar on Advanced Materials	I	Department of Physics, St. Joseph`s College	Trichy - 620002	2
International Conference on Advanced Materials (ICAM 2022)	I	Department of Physics, St. Joseph`s College (Autonomous)	Trichy - 620002	2
Webinar Series on Materials for Energy and Environment (WSMEE-22)- Event-1	S	Department of Physics, St. Joseph`s College	-St. Joseph`s college (Autonomous), Tiruchirappalli	1
INTERNATIONAL CONFERENCE ON CRYSTAL GROWTH AND SPECTROSCOPY (ICCGS-2022)	I	Dept Phy, SJC, SSN, IACG, ISPA	-St. Joseph`s college (Autonomous), Tiruchirappalli	1
Workshop on Synthesis and Characterization of Rare Earth Doped Glasses	W	Department of Physics, St. Joseph`s College (Autonomous)	-St. Joseph`s college (Autonomous), Tiruchirappalli	1
Advanced Materials- Webinar Series 2021_Event-2	S	Department of Physics, St. Joseph`s College (Autonomous)	Trichy-620002	1
Advanced Materials- Webinar Series 2021_Event-3	S	Department of Physics, St. Joseph`s College (Autonomous)	Trichy-620002	1
Webinar Series on Materials for Energy and Environment (WSMEE-22)- Event-2 Recent Trends in Water Splitting	S	Department of Physics, St. Joseph`s College (Autonomous)	St. Joseph`s college (Autonomous), Tiruchirappalli	1
Advanced Materials- Webinar Series 2021_Event-4	S	Department of Physics, St. Joseph`s College (Autonomous)	Trichy-620002	1
Webinar Series on Materials for Energy and Environment (WSMEE-22)- Event-3 Recent Trends in Advanced Polymer Materials	S	Department of Physics, St. Joseph`s College (Autonomous)	St. Joseph`s college (Autonomous), Tiruchirappalli	1
Webinar Series on Materials for Energy and Environment	I	Department of Physics, St. Joseph`s College	St. Joseph`s college (Autonomous), Tiruchirappalli	1

(WSMEE-22)- Event-4: Advancements in Graphene based 2D Materials		(Autonomous) & ISPA, Chennai		
International Conference on Current Research and Advancements in Materials Science and Spectroscopy (ICCAMS 2023)	I	Department of Physics, St. Joseph's College (Autonomous)	-St. Joseph's college (Autonomous), Tiruchirappalli	1
Intricacies of writing for research publications and projects	O	IQAC- ST. JOSEPH'S COLLEGE	TRICHY-02	1
Faculty Development Programme	O	IQAC- ST. JOSEPH'S COLLEGE	TRICHY-02	1
ANU awareness programme 2023 on ATOMS in the service of the Nation	O	IGCAR-THE ACADEMY OF SCIENCES AND DEPARTMENT OF PHYSICS, ST. JOSEPH/S COLLEGE, TRICHY-02	TRICHY-02	1
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS	I	Department of Physics, St. Joseph's college, Trichy	TIRUCHIRAPPALLI	2
Emerging Trends in Energy and Sustainability	Y	Department of Physics, St. Joseph's College (Autonomous)	Trichy - 620002.	1
Institutional Preparedness for Binary Accreditation Framework	S	St. Joseph's College (Autonomous)	Trichy - 620002.	1
International Conference on Advanced Materials	I	Department of Physics, St. Joseph's College (Autonomous)	Trichy - 620002.	2

Resource Person:

Type of Programme	Title	Beneficiaries
Workshop and Hands on Training	Arduino Instruments	II MSc Students
Hands on Training	Circuitry Simulation Software	Fab Club Students
Workshop	Workshop on Computational Physics Experiments	PG Students and Faculty
GUST LECTURE	Advanced Materials and Characterization	UG Students, AVS College of Arts & Science, Salem.

Electronics Coaching Class	NET / SET	Lecturers and PG students
Gust Lecture Series	Enhancing Practical Skill	UG Physics Students, Loyola College, Mettala
National Science Day Programme	Science and Technology for the people	PG Physics and UG Engineering Students
Faculty Improvement Programme	DBT sponsored Faculty Improvement Programme on Experimental Physics	Professors
Guest Lecture	Guest Lecture on Enhancing practical skills on physics.	UG Physics Students, Sakthi Kailash College, Salem
practical workshop	advanced physics experiments for college teachers	college teachers

Areas of consultancy

Organization Name	Consultation Type
St. Joseph`s College, Trichy 2	LED Display Fabrication and Maintenance
St. Joseph`s College, Trichy-620002	-LED display fabrication and installation
St. Joseph`s College, Trichy -620002	LED wall maintenance