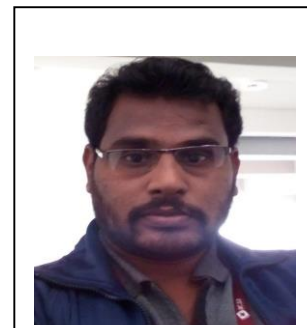


NEHRU MEMORIAL COLLEGE (AUTONOMOUS)

PUTHANAMPATTI-621007

STAFF PROFILE

NAME OF THE STAFF : KABILAN RAJAGOPAL
DESIGNATION : ASSOCIATE PROFESSOR
DEPARTMENT : PHYSICS



1. **CONTACT**

Address : WARDEN, HIGHLAND HOSTEL, NEHRU MEMORIAL COLLEGE (AUTONOMOUS), PUTHANAMPATTI-621 007.
Contact Phone (Office) : 04327-234613
Contact Phone (Mobile) : 9486193892
Contact e-mail(s) : rkabilan@nmc.ac.in

2. **ACADEMIC QUALIFICATIONS**

Degree/qualification	Subject	Institution/University	Year of pass	Marks/Class
M.Phil	Physics	Bharathidasan University Trichirappalli.	May 2008	First class with distinction (80.08/OGPA)
M.Sc	Physics	Annamalai University Chidambaram	May 2004	First class (7.29/OGPA)
B.Sc	Physics	Bharathidasan University Trichirappalli.	April 2002	First class (74.5%)

3. **Eligibility Qualification:** Qualified the Tamilnadu State Eligibility Test (SET) for Lectureship in **Physical Sciences**.

4. **TEACHING EXPERIENCE**

S. No.	Institution	Duration	No. of Years	
			UG	PG
01.	Nehru Memorial College (Autonomous), Puthanampatti.	From 22.06.2005 –	16	16

5. **RESEARCH EXPERIENCE:**

Area of specialization: THEORITICAL PHYSICS, NONLINEAR DYNAMICS, NANO SCIENCE

Fellowship:

Category of research	Department	Institute	Period
SRF-INSA Summer Research Fellow(Teacher)	Dept. of Physics	Institute of Mathematical Sciences, Department of Atomic Energy, Govt of India, Chennai.	60 Days 02.05.2012 to 02.07.2012

- Paper Presented at National Conference On “Recent trends in advanced energy materials” (NCRTEM-2010) on 10&11 March, 2010 Conducted by school of Physics, Alagappa University, Karaikudi.
- Paper Presented at National Conference On “Nano Materials- Preparation, Characterization and Devices” on 14, March 2008 Organized by PG Department of Physics Bishop Heber College (Autonomous), Trichy.

Current Research:

Nonlinear Dynamics

- Investigating the dynamics of physically interesting nonlinear systems.
- Identifying new integrable models and their generalization of nonlinear systems in the context of nonlinear optics and Bose-Einstein condensates.
- Studying the integrability nature of nonlinear dynamical systems.
- Constructing soliton solutions of the integrable nonlinear systems and exploring their fascinating collision dynamics.
- Analyzing the possibilities for the existence of other relevant nonlinear coherent structures and exploring their dynamics.

Research Guidance:

Program of Study		Completed	Ongoing
	M. Phil.	04	-----
Project	PG	26	02

6. **PARTICIPATION (In Numbers)**

Events	International	National	State
Seminars	-----	05	01
Workshops	01	04	02

7. **PROFESSIONAL DEVELOPMENT (In Numbers)**

Orientation Programme(s)	Refresher Course(s)	Faculty Development Programme(s)
02	04	10

8. **SERVED AS A RESOURCE PERSON (INVITED TALKS / GUEST LECTURES)**

- Gave a special lecture on "Physics around us" at Annai Arts and Science College, Kumbakonam.
- Delivered series of special lecture and training programme for 'CSIR-NET/GATE EXAM' for M.Sc and M.Phil physics students of Alagappa University, Karaikudi.

9. **DETAILS OF MEMBERSHIP**

Academic Bodies	<ul style="list-style-type: none"> • Member in UG Board of studies in Physics, Nehru Memorial College, Puthanampatti. • Member in PG Board of studies in Physics, Nehru Memorial College, Puthanampatti. • Member in Academic council, Nehru Memorial College, Puthanampatti.
ISSE	<ul style="list-style-type: none"> • Member (LM05985) in Indian Society of Systems for Science and Engineering.

10. **M.Phil Project details :**

M. Phil. (Completed)			
S. No.	Name	Title of thesis	Year of award
01.	Mrs.R.AMUDHA	LOGIC GATES FROM DYNAMICAL EVOLUTION : A CASE STUDY OF LOGISTIC MAP	DECEMBER ,2020
02.	Mrs.A.DEEPALAKSHMI	IMPLEMENTATION OF FUNDAMENTAL LOGIC GATES USING LOGISTIC MAP	DECEMBER ,2020

03.	Mrs.S.JAYANTHI	BIFURCATION,CHAOS AND CONTROLLING OF CHAOS IN FORCED DUFFING OSCILLATOR	DECEMBER ,2020
04.	Mr.V.BALAKRISHNAN	OTT-GREBOGI-YORKE(OGY) METHOD FOR CONTROLLING OF CHAOS : APPLICATION TO LOGISTIC MAP AND CHAOS	DECEMBER ,2020

11. DETAILS OF PARTICIPATION

(Conference(s) / Seminar(s) / Workshop(s) / Symposium(s))

S. No.	Name of the event(s)	Sponsored by	Conducted by	Place	Duration / Date
Seminar(s)					
01.	National conference on Large scale multi-disciplinary systems of National significance-Trends and Challenges (LAMSYS-2018)	ISRO	SHAR, ISRO, Sriharikotta.	SATHYABAMA university,Chechen	Two day/20,21.04.2018
02.	Embedded systems and its applications the Faculty Development Programme on Higher Education	TNGST	Post Graduate and Research Department of Physics Nehru Memorial College (Autonomous), Puthanampatti	Post Graduate and Research Department of Physics Nehru Memorial College (Autonomous), Puthanampatti	One day/01.03.2012
03.	“Recent trends in advanced energy materials” (NCRTEM-2010) on 10&11 March, 2010 Conducted by.	DST	school of Physics, Alagappa University, Karaikudi	school of Physics, Alagappa University, Karaikudi	Two day/10,11.03.2010
04.	SPECIAL LECTURE SERIES ON THEORETICAL PHYSICS	UGC	Department of Physics, Jamal Mohamed College (Autonomous) Tiruchirappalli	Department of Physics, Jamal Mohamed College (Autonomous) Tiruchirappalli	Two day/10-12.02.2010
05.	“Sensitization of Social Exclusion and Inclusive Policy” organized by centre for study of social exclusion and inclusive policy,	UGC	Bharathidasan University,Tiruchirappalli.	Bharathidasan University,Tiruchirappalli	One day/18.11.2008
06.	“Nano Materials-Preparation, Characterization and Devices”	UGC.	Bishop Heber College (Autonomous), Trichy.	Bishop Heber College (Autonomous), Trichy.	One day/14.03.2008
Workshop(s)					
01.	“Need Based Value Added Research Proposal writing” from 25th to 26th September 2014 at	ICMR	Nehru Memorial College (Autonomous) Puthanampatti.	Nehru Memorial College (Autonomous) Puthanampatti.	TWO DAY/ 25,26.09.2014
02.	e-content development	NMC	Nehru Memorial College (Autonomous) Puthanampatti	Nehru Memorial College (Autonomous) Puthanampattifr	FOUR DAY/ 23.10.2013 to 26.10.2013

				om 23.10.2013 to 26.10.2013	
03.	National mission on Education through Information and Communication Technology (NME-ICT)	MHRD	National Institute of Technology, Tiruchirappalli	National Institute of Technology, Tiruchirappalli	TWODAY/11, 12.02.2013
04.	“Computational Methods on Nonlinear Dynamics”,	DST	CNLD, Bharathidasan University Tiruchirappalli.	CNLD, Bharathidasan University Tiruchirappalli.	TWO DAY/15,16.09.2010
05.	“Nonlinear physics: Theory, Experiments and Applications”	DST	Department of Physics Nehru Memorial College (Autonomous), Puthanampatti	PUTHANAMP ATTI	TWO DAY/29,30.03.2010
06.	“Mathematical computations with MATLAB”	Nehru Memorial College (Autonomous), Puthanampatti.	Department of mathematics, Nehru Memorial College (Autonomous)	PUTHANAMP ATTI	ONE DAY/19.09.2008

12. DETAILS OF PROFESSIONAL DEVELOPMENT

(Orientation / Refresher Course / FDP / Short Term Course / Online Course)

S. No.	Name of the events	Sponsored by	Conducted by	Place	Duration/ Date
Orientation Programme					
01.	Refresher course in Statistical Mechanics	Indian Academy of sciences, Bangalore.	Department of Physics Tripura University	Tripura University, Agartala, Tripura	16 days 2nd May 2017 to 17th May 2017
02.	“Fundamental Problems of Quantum Physics”	TIFR	TIFR, BANGALORE	TIFR, ICTS campus, Bangalore	21 DAYS 21.11.2016 TO 09.12.2016
03.	Refresher course in Experimental Physics	Indian Academy of sciences, Bangalore.	Department of Physics Goa University	Goa University, Goa	16 Days 10th May 2016 to 25th May 2016
04.	Refresher course in Quantum Mechanics and Nuclear Physics	Indian Academy of sciences, Bangalore.	Department of Physics, Dayanand Science College, Latur.	Dayanand Science College, Latur, Maharashtra	16 days 15th April 2016 to 30th April 2016
05.	Refresher course in Quantum Mechanics	Indian Academy of sciences, Bangalore.	Department of Physics, St. Berchmans College, Changanacherry, Kottayam,	St. Berchmans College, Changanacherry, Kottayam, Kerala	15 days 1st May 2013 to 14th May 2013
06.	DST-SERC School on NONLINEAR DYNAMICS	DST-SERC	CNLD, school of physics, BDU	CNLD, BDU, Tiruchi	21 DAYS 04.01.2011-26.0.2011

Position hold/held:

- Acting as **Warden in Highland hostel**, Nehru Memorial College from June 2009 to till date.
- Acting as in charge for conducting National Graduate Physics Examination (NGPE) for B.Sc Physics Students from 2016 to till date.
- Acted as **NSS Programme officier** from August 2007 to August 2011 at Nehru Memorial College (Autonomous),Puthanampatti.
- Appointed as **Contingent Leader** of “**NSS adventure Course held at Jawahar Institute of Mountaineering and Winter Sports, Sanasar, Patnitop, Jammu and Kashmir** conducted by **Ministry of Youth affairs and Soprts,Govt of India** from 08.06. 2010 to 17.06.2010.
- Acted as Co-ordinator for **Passport Campaign** during 2008.
- Acted as **Deputy Warden in MGC hostel**, Nehru Memorial College for three years from July 2006 to May 2009.
- **Officer Incharge** for **NCC** for the deputation period of 3 months.
- Acting as **Member, Micro Quality Assurance Cell (MQAC)** for the Physics department from 2010 to till date.
- Acting as **Member of Annual Quality Assurance Report (AQAR)** from 2013 to till date.
- Acted as **Assistant Creterion Leader for NAAC Criteria II (Teaching, Learning and Evaluation)** for NAAC Phase-I.
- Acting as **Assistant Creterion Leader** for NAAC Criteria IV (Learning, Resource and Infrastructure) for NAAC Phase-II.
- **Member, Anti-Raging Committee** from 2009 to till date.
- **Member, Discipline Committee** from 2006 to till date.
- **Editorial Member for ‘Rose’ Megazine**, Nehru Memorial College, Puthanampatti.
- **Member**, Autonomous Examination Committee.
- **Member**, Graduation Day, Sports Day and Annual Day committees, Nehru Memorial College, Puthanampatti.

Appreciation:

- Appointed as contingent leader of “**NSS adventure Programme held at JIM,Patnitop,Jammu and Kashmir** conducted by **Ministry of Youth affairs and Soprts,Govt of India** during 2010.
- Appreciated **Best NSS Programme Officer** by the Bharathidasan University NSS unit cell for conducting Mega Tree plantation programme during during 2011.
- Awarded **INSA (Indian National Science Academy) Summer Research Fellowship – 2012** by IASc, Bangalore; INSA, New Delhi and NASI, Allahabad.

Details of Innovations/Contribution in Teaching:

A. Designing of Curriculum:

- Regular Board of Studies Member in the Department of Physics.
- Framed syllabus for different Courses of Physics Programmes (B.Sc., M.Sc., & M.Phil).

B. Preparation of Resource Materials:

- Prepared laboratory Manual for Physics Practical for B.Sc Physics students.
- Preparing and providing handout materials to students.
- Providing web address for recent information.
- Providing the handouts of slides to slow learners.
- Prepared E-content and short videos on “Semiconductor Physics”.

C. Academic Counseling and guidelines:

- Acted as Co-ordinator for conducting National Graduate Physics Examination (NGPE) for B.Sc Physics Students.
- Organized Industrial visit to SHAR (ISRO) for UG & PG students of Physics.
- Encouraged and guided to participate training programme on “Physics Training and Talent Search (PTTS)” for M.Sc Physics Students. One of our student among 30 students of all over India selected to participate PTTS from 22.05.2017 to 05.06.2017 under my guidance.
- Encouraged and guided to participate Summer Training Programme in Physics (STPIP-2017), The Academy of Sciences, Chennai. Two of our students selected and participated during May 2017.
- Acting as tutor and mentor for guiding the students to know the value of ethics and morals, and making them to understand the real world situation.
- Offer guidelines to students to apply competitive examinations and to apply scholarships, fellowships and Jobs.

D. Extension activities:

- a. Organized and successfully conducted **10 days Special Camps at Omandur Areas** during 2006-07.
- b. Organized and successfully conducted **10 days Special Camps at Omandur Areas** during 2007-08.
- c. As one of the NSS Regular activities, Arranged and organized **Passport Campaign** for Staff and Students during 2008 with the coordination of Regional Passport Office, Trichy. About **250 stakeholders** benefited by this campaign.
- d. Organized and successfully conducted **10 days Special Camps at Manalodai, Pachamalai Hill tribal Areas** during 2008-09.
- e. Organized and successfully conducted **Large Blood Donation Camp** at Nehru Memorial College during 2008-2009.
- f. Organized **Eye Camp** for our College Students and Staff at Nehru Memorial College during 2008-2009.
- g. Organized and **Planted 1000 tree sapling** (within one hour) at Omandur, Puthanampatti, Ethumalai, and Kottathur villages at **Guinness Record Tree Plantation Programme** during 2008-2009.

- h. Organized and successfully conducted **7 days Special Camps at Manalodai, Pachamalai hill tribal areas** during 2009-10.
- i. Organized and successfully conducted **7 days Special Camps at Manalodai, Pachamalai hill areas** during 2010-11.

