

**JAMAL MOHAMED COLLEGE (Autonomous)
Tiruchirappalli – 620020**

DEPARTMENT OF PHYSICS

I. General Information

1. Name : Dr. A. Ishaq Ahamed
2. Sex : Male
3. Designation : Associate Professor
4. Date of Birth : 20 – 09 – 1970
5. Address
Residential : 48 B, Tower Mosque Street,
Tennur, Trichy – 620 017.
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6. Academic Qualification

Sl No	Programme	Institution	Year of Passing
1	Ph. D Physics	Bharathidasan University	2016
2	M. Sc.	Jamal Mohamed College	1993
3.	B. Sc.	Jamal Mohamed College	1991
4.	H. Sc.	Campion Higher Sec. School	1988
5	A.I.S.L.C	Campion Higher Sec. School	1986

Qualifying Examinations Passed		
1	GRADUATE APTITUDE TEST IN ENGINEERING GATE	1993
2	Junior Research Fellowship / NET of UGC	1994

Other Degrees / Diploma / Certificate Programmes			
Sl No	Programme	Institution	Year of Passing
1	Unix, C, C++, OOPs	LINSOFT, Tiruchirappalli	2001
2	Physics through Computational Thinking	NPTEL / IISER Bhopal	2020
3	Python Programming Essentials	Coursera / Rice University, Houston	2022
4	Python Data Representations	Coursera / Rice University, Houston	2022

7. Areas of Specialization

Areas of Specialization		
1	Nonlinear Dynamics	Deterministic Chaos Nonlinear Electronics Memristive Dynamics Neuronal Dynamics
2	Computational Physics	Mathematical Modelling Circuits Simulation

Fellowship Received	
1	UGC-FDP Teacher Fellowship, vide no: SERO [F. ETFTN BD011/FIP XI - Plan dated Dec' 2008] for the period June 2009-May 2010.

Collaborators

1	Prof. M. Lakshmanan F. N. A. Sc., F.A. Sc., F.N.A., FTWAS	Professor of Eminence & DST-SERB National Science Chair, Department of Nonlinear Dynamics, School of Physics Bharathidasan University Tiruchirappalli, India
2	Prof. K. Thamilmaran	Head (Retd), Department of Nonlinear Dynamics, School of Physics Bharathidasan University Tiruchirappalli, India and presently Professor, Chennai Institute of Technology, Chennai, India
3	Prof. K. Murali	Department of Physics, Anna University, Chennai - 600 025, India
4	Dr. D. V. Senthilkumar	Associate Professor, Department of Physics, Indian Institute of Science Education and Research (IISER), Thiruvananthapuram, India.
5	Dr. Megavarna Ezhilarasu	Assistant Professor, Department of Physics Bishop Heber College, Tiruchirappalli, India
6	Dr. S. Sabarathinam	Postdoc Fellow, Laboratory of Complex Systems Modelling and Control, Faculty of Computer Science, Higher School of Economics, University of Moscow, Russia.
7	Dr. Bhagyaraj Thangavel	Assistant Professor, Department of Physics, Periyar Maniammai University, Thanjavur, India
8	Dr. S. Dinesh Vijay	Centre for Nonlinear Systems, Chennai Institute of Technology, Chennai, India

II. Teaching Experience

Appointment Details		
1	Date of Appointment (SF)	02-08-1994
2	Date of Appointment (Government Collegiate Service)	08-01-1996
3	M. Phil Guideship	24-07-2018
4	Ph. D Guideship	09-08-2021

Teaching Experience (as on 31 st May,2023)		
Programme	Years	Months
UG	28	9
PG	28	9
M. Phil	5	3
Ph D	1	6

Number of Research Scholars		
Programme	Completed	Pursuing
M. Phil	6	2
Ph. D	...	2

III.Membership in Professional Bodies

Sl. No.	Professional Organization	Status
1	Indian Society of System Engineers (ISSE)	National
2	Institute of Electrical and Electronic Engineers (IEEE)	International

IV.Seminars / Conferences / Workshop *

Participation in Seminars/Conferences/Workshops		
Sl. No.	Status	Up to Academic year 2016
1	State Level	9
2	National	5
3	International	1

Paper Presentation in Seminars/Conferences/Workshops		
Sl. No.	Status	Up to Academic year 2016
1	State Level	3
2	National	4
3	International	1

Resource Person in Seminars/Conferences/Workshops		
Sl. No.	Status	Up to Academic year 2016
1	State Level	1
2	National	1
3	International	---

Organization of Seminars/Conferences/Workshops		
Sl. No.	Status	Up to Academic year 2016
1	State Level	5
2	National	---
3	International	---

*For details refer Annexure

V. Publications *

Books/Chapters/Research Articles		
Sl. No.	Status	Up to Academic year 2016
1	Book Chapters	2
2	Research Articles (National Journals)	2
3	Research Articles (International Journals)	3

*For details refer Annexure

IV. Bibliometrics

Sl. No.	Metric	Value/Number
1	Citations	161
2	h index	5
3	i 10 index	4

*Referenced from Google Scholar (as on 5 September, 2023)

V.Awards received if any (furnish the details)

1. Certificate of Appreciation by the Internal Quality Assurance Cell, Jamal Mohamed College (Autonomous), Tiruchirappalli, for having acted as a resource person in the Faculty Development Programme held on 4th January, 2013.
2. Certificate of Appreciation by the Internal Quality Assurance Cell, Jamal Mohamed College (Autonomous), Tiruchirappalli, for contributing two chapters for a book on “Soft-Skills” during the year 2012- 2013.

VI.Membership in Academic Bodies

Sl. No.	Position	Institution
1	Member, Board of Studies	Jamal Mohamed College, Tiruchirappalli
2	Member, Board of Examinations	Madurai Kamaraj University, Madurai
3	Member, Board of Examinations	Nehru Memorial College, Puthunampatti

VII.Administrative Positions held in the College

Sl. No.	Position	Year/Duration
1	Core Member, IQAC	2017-2020
2	Deputy Coordinator, IQAC	2020-2023
3	Department Coordinator, DBT Star College Scheme	2021-2023
4	Additional Vice-Principal	2023 onwards

VIII.Membership in autonomous programme

Sl. No.	Position	Year/Duration
1	Member, Board of Studies in Physics	2004 till date
2	Member, Academic Audit Committee	2015 onwards
3	Member, Library Development Committee	

Annexure

Participation in Seminars / Conferences / Workshops

At the International Level

1. “*International Conference on Nonlinear Dynamics: Integrability and Chaos*” Organized by the Centre for Nonlinear Dynamics, Bharathidasan University Tiruchirappalli – 620 020 in 1998.

At the National Level

1. “*Workshop on High Performance Computing*” organized jointly by the Centre for Nonlinear Dynamics, Bharathidasan University, Tiruchirappalli and the Centre for Advanced Computing, Pune from 3-7 August,2007.
2. “*Workshop on High Performance Computing*” organized jointly by the Centre for Nonlinear Dynamics, Bharathidasan University, Tiruchirappalli and the Centre for Advanced Computing, Pune from 23-27 August,2010.
3. “*Workshop on Computational Methods for Nonlinear Dynamics* ” organised by the School of Physics, Bharathidasan University, Tiruchirappalli and Centre for Modeling, Simulation and Design, University of Hyderabad, Hyderabad from 22- 25, September, 2010.
4. “*DST –SERC School on Nonlinear Dynamics-(Specialisation Integrable Systems)*” organized jointly by the Centre for Nonlinear Dynamics, Bharathidasan University, Tiruchirappalli during January 04-26, 2011.
5. “*Seminar on Nano Science and Laser Materials Processing NLMP-2013*” organized by the Department of Physics, Jamal Mohamed College(Autonomous), Tiruchirappalli under the UGC Autonomous Grant on 9th March, 2013.

At the State Level

1. “*Course on Internet and Its Applications*” organized by Regional Engineering College, Tiruchirappalli (now NIT, Tiruchirappalli) from 15th to 16th May, 1999.
2. “*Workshop on Microprocessors and Microcontrollers*” sponsored by the UGC and organized by the Department of Computer Science, Urumu Dhanalakshmi College, Tiruchirappalli, from 15th May to 5th June 2000.

3. “*Workshop on LATEX*” conducted by the Department of Physics, St. Joseph’s College (Autonomous) Tiruchirappalli on 27th January, 2003.
4. “*Workshop on Nonlinear Dynamics and its Applications*” sponsored by the Indian Academy of Sciences, Bangalore and organized by the Department of Physics, A. Veeriyar Vandayar Memorial Shri Pushpam College (Autonomous) , Poondi, Thanjavur during 9-11 October, 2003.
5. “*Workshop on Quantum Physics Through MATLAB*” jointly organized by the Indian Association of Physics Teachers (IAPT) and the Department of Physics, Sri Ramakrishna Mission Vidyalaya College of Arts and Science (Autonomous), Coimbatore from 19th to 21st December 2005.
6. VI Academic Conference on “Crises in Higher Education-An Indian Perspective” organized by the Aided College Teachers Association (ACTA) at Jamal Mohamed College (Autonomous), Tiruchirappalli, on 6th April, 2013.
7. “*Workshop on Amateur Radio*” organized by the Department of Physics, Jamal Mohamed College (Autonomous), Tiruchirappalli in association with the Amateur Radio Association of Tiruchirappalli on 28th February, 2014.
8. “*Workshop on LATEX and SPSS*” organized by the Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli, from 26th September to 1st October, 2014.
9. “*Workshop on Amateur Radio*” organized by the Department of Physics, Jamal Mohamed College (Autonomous), Tiruchirappalli in association with the Amateur Radio Association of Tiruchirappalli, from 13th to 15th March 2015.

Presentation of Papers in Seminars / Conferences / Workshops

At the State Level

1. Presented a paper titled “Synchronisation of Chaotic Attractors of Nonautonomous Circuits” at the State Level UGC sponsored seminar on “Current Advances in Physics” organized by the Department of Physics, St. John’s College, Palayamkottai in 2006.

At the National Level

1. Participated in “*Second National Conference on Nonlinear System and Dynamics - NCNSD 2005*” conducted by Aligarh Muslim University, Aligarh from 24th to 26th February, 2005 and presented a paper on “Dynamic of a simple Chaotic Circuit”.
2. Presented a paper titled “Effect of Square wave Excitations on a Simple Chaotic Circuit” in the “*Third National Conference on Nonlinear System and Dynamics- NCNSD 2006*” conducted by Ramanujam Institute of Advanced Study in Mathematics, University of Madras, Chennai in 2006.

3. Presented a paper titled “Inductorless Canonical Chua's circuit” at the National Seminar on Spintronics and Electronics held at the School of Physics, Bharathidasan University, Tiruchirappalli – 620 020 during 18-19, March, 2009.
4. Presented a paper titled “Current controlled non-linearity based forced LCR circuit: Experimental Investigations and Pspice simulations” at the “*Sixth National Conference on Nonlinear System and Dynamics- NCNSD 2011*” organized by School of Physics, Bharathidasan University, Tiruchirappalli- 620024, January 26-30,2011.

At the International Level

1. Participated in STAYPHYS (International) conference on “*Perspectives in Non-linear Dynamics*” held at IIT Chennai / I M.Sc., Chennai during 12th to 15th July, 2004 and Presented a paper on “Heagy – Hammel Route to Strange Non chaotic Attractors – An Experimental Study”.
2. Presented a paper titled “Intermittent lag synchronization in a two coupled MLC”, Proceedings of International Conference on Recent Developments in Nonlinear Dynamics, School of Physics, Bharathidasan University, Tiruchirappalli-24, 13- 16, February 2008.
3. Presented a paper titled “Secure Communication using autonomous canonical Chua’s”, Proceedings of International Conference on Recent Developments in Nonlinear Dynamics, School of Physics, Bharathidasan University, Tiruchirappalli-24, 13-16, February 2008.

Organization of Seminars / Conferences / Workshops

At the State Level (as organizing secretary)

1. State Level Seminar on “*Applications of Ultrasonic to Organic and Biomolecular Compounds*” held at Department of Physics, Jamal Mohamed College, Trichy-20 during September 26th to 27th ,2005.
2. State Level Seminar on “*Recent Trends in Thin Film Techniques*” held at Department of Physics, Jamal Mohamed College, Trichy-20 during 28th September, 2005.
3. State Level Seminar on “*Advances in Electronics*” held at Department of Physics, Jamal Mohamed College, Trichy-20 during 20th March , 2006
4. One day seminar on “Online Access to Research Journals and Books” on 12th January, 2012.
5. UGC sponsored State level seminar on “Advanced Research in Physics – A Few Perspectives” (ARPP) on 28th February 2012.

Publications in Journals

1. “*Strong chaos in a Forced Series LCR Circuit with Negative Conductance*” in the International Journal of Bifurcation and Chaos, Vol 15, No 2 (2005) 637-651.
2. “*Observations of Chaotic Beats in a Memristive Chua's Circuit*” in the International Journal of Bifurcation and Chaos, Vol 21, No 3 (2011) 737-757.
3. “*Non-Smooth Bifurcations, Transient Hyperchaos and Hyperchaotic Beats in a Murali-Lakshmanan-Chua Circuit*” in the International Journal of Bifurcation and Chaos 23 (06), 1350098 (30 pages).
4. “*Discontinuity Induced Hopf and Neimark–Sacker Bifurcations in a Memristive Murali–Lakshmanan–Chua Circuit*” in the International Journal of Bifurcation and Chaos Vol. 27, No. 6 (2017) 1730021 (22 pages)
5. “*State feedback control and observer-based adaptive synchronization of chaos in a memristive Murali–Lakshmanan–Chua circuit*”, *Pramana – J. Phys.* (2020) 94:152
6. “*Sliding Bifurcations in the Memristive Murali–Lakshmanan–Chua Circuit and the Memristive Driven Chua Oscillator*” in the International Journal of Bifurcation and Chaos Vol. 30, No. 14 (2020) 2050214 (18 pages)
7. “*Distinct bursting oscillations in parametrically excited Liénard system*”, *Int. J. Electron. Commun. (AEÜ)* 156 (2022) 154397
8. Superextreme spiking oscillations and multistability in a memristor-based Hindmarsh–Rose neuron model, *Nonlinear Dynamics*, Published online, 16 September, 2022.

Publications in the Proceedings of Seminars / Conference

1. “*Dynamic of a simple Chaotic Circuit*” a paper presented in the in “*Second National Conference on Nonlinear System and Dynamics - NCNSD 2005* ” conducted by Aligarh Muslim University, Aligarh from 24th to 26th February, 2005
2. “*Effect of Square wave Excitations on a Simple Chaotic Circuit* ” a paper presented in the “ *Third National Conference on Nonlinear System and Dynamics- NCNSD 2006* ” conducted by Ramanujam Institute of Advanced Study in Mathematics, University of Madras, Chennai in 2006.
3. “*Intermittent lag synchronization in a two coupled MLC*”, a paper published in the Proceedings of International Conference on Recent Developments in Nonlinear Dynamics, School of Physics, Bharathidasan University, Tiruchirappalli-24,13-16, February 2008.