

National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D. (Physics)	Anna University	2001	Degree awarded	Physics
M.Sc (Physics)	Madras University	1995	FIRST	Physics
B.Sc (Physics)	Madras University	1993	FIRST	Physics
Higher Secondary course certificate (XII)	Board of higher secondary	1990	First	Mathematics, physics, chemistry, biology
Secondary school leaving certificate (SSLC)	Board of secondary education	1988	First	Tamil, English, mathematics, science, history and geography

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Co-ordinator M.Sc. (Laboratory)	Department of Physics, NITT	2007	2008
Co-ordinator M.Tech (NDT)	Department of Physics, NITT	2011	2014
Co-ordinator I year B.Tech (Physics) course -	National Institute of Technology, Tiruchirappalli	2016	2018
Faculty Initiator	Sophisticated Instrumentation Facility, NITT	2013	Till date

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
-	-	-	-
-	-	-	-
-	-	-	-

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
-	-	-

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

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12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
-	-	-	-	-
-	-	-	-	-

13. Details of Academic Work

(i) Curriculum Development:

1. One of the members in the curriculum design of B.Tech (Physics) course
2. One of the members in the curriculum design of M.Tech (NDT) course
3. Curriculum design of Ph.D. courses

(ii) Courses taught at Postgraduate and Undergraduate levels

Post graduate level:

1. PH605 RADIOGRAPHIC TESTING AND RADIATION SAFETY
2. PH604 ADVANCE NDE TECHNIQUES II
3. PH663 – ATOMIC AND MOLECULAR SPECTROSCOPY
4. PH659 – GENERAL PHYSICS LABORATORY
5. PH685 MICRO-ELECTRO-MECHANICAL SYSTEMS

Under graduate level

1. PH1R11-PHYSICS-I & LABORATORY
2. PHIR12-PHYSICS-II & LABORATORY

(iii) Projects guided at Postgraduate level

1. M.Tech (NDT):

S.No	Title	Students name and Register Number	Year of completion
1.	Correlation between ultrasonic parameters, microstructures with tensile properties of modified T91(PFBR) and investigations on the HP turbine blades using phased array, radiography and image enhancement techniques	P.Kumar Raja 213107005	May 2009
2.	The effect of radiography parameters on defect detectability using microfocal and conventional X-ray source	A.Ramu 213108012	May 2010
3.	Helical guided waves for pipe inspection by conventional and phased array ultrasonics	B. Narsimlu 213108015	May 2010
4.	Residual stress assessment using eddy current testing technique	Shukur. C.A 213109009	May 2011

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

5.	Fatigue properties of CFRP composite material with varied porosity: A study through NDE approach	Bojja Naresh 213109018	May 2011
6.	Non-contact lamb wave inspection and defect sizing of GFRP composite pipe	Maheswaran M 213110016	May 2012
7.	Visualization of lamb wave propagation in composite laminates using air-coupled ultrasonics	Vivek Madhavan 213111019	May 2013
8.	Evaluation and Optimization of electromagnetic stirring parameters for continuously cast high carbon billet quality using ultrasonic C-scan imaging	Sheethal S 213111018	May 2013
9.	Performance analysis and comparison of CR imaging plated with X-rays	Glisten Abraham 213110011	May 2013
10.	Non-Destructive testing of mechanical joints	Vineeth C 213112016	May 2014
11.	Adhesive bond quality evaluation for composite ‘T’ joints using ultrasonics	Tadpatrikar Tejas 213112012	May 2014
12.	Defect detection and enhancement in composite honeycomb sandwich structures for space application using infrared thermography	Anish Chandran 213113027	May 2015
13.	Inspection of friction stir welded aluminium plates using NDT techniques	Sabarish J 213113025	May 2015
14.	Vibration measurement of plate immersed in water using ultrasonic guided waves	Anand Balakrishnan 213114003	May 2016
15.	Thermal diffusivity mapping of defects and in-pane thermal diffusivity measurements by infrared thermography	Azad Chandra shekhar 213114007	May 2016
16.	Defect analysis in MIG welding of mild steel using ultrasonic NDE methods	Yamsani Ayyappa 213115014	May 2017
17.	Analysis of Defect formation in weldments at variable weld parameters using ultrasonic technique	Ravi Teja Lingam 213115027	May 2017
18.	Data fusion of multi-NDE techniques for enhanced detection of flaws in small diameter tubes	Ajay C 213116005	May 2018

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

19	Characterization of stress in metallic materials using eddy current non-destructive evaluation	Vikas Khubnani 213117015	May 2019
20	Level measurement using fundamental guided wave modes L [0,1], T [0,1] and F [1,1]	Raju C 213118017	December 2019
21	Savaging of new UT-indications occurring after pre UT qualification of INCONEL cladded joints in pressure vessels	Ashokkumar T 213118006	December 2019
22	Establishing advance ultrasonic Testing procedure in thick wall Induction pressure welded (ipw)	Samarjit nath mazumder 213119017	May 2021
23	Structural health diagnosis of a Locomotive using advanced sensing Methodologies	Sudhanshu pandey 213119021	May 2021

2. M.Sc (Physics)

S.No	Title	Students name and Register Number	Year of completion
1.	Design of a digital mixer with ADAT and firewire interfaces	K. Nimitha PHA0614	May 2008
2.	Investigations on the synthesis and properties of pure and doped BiFeO ₃ system	S. Kazhugasalamoorthy 213207007	May 2009
3.	Sol-gel synthesis and characterization of Ba(Zr,Ti)O ₃ ceramic powders	M. Muneeswaran 213208017	May 2010
4.	Investigations on the synthesis and properties of pure and La-modified Bi ₄ Ti ₃ O ₁₂ ceramics	M.G. Shankar 213208018	May 2010
5.	Deposition and characterization of PZT thick films derived from hybrid sol-gel method	J.Anu Priya 213209014	May 2011
6.	Investigations on the synthesis and properties of Bi _x La _{1-x} FeyMn _{1-y} O ₃ system	Keerthana S.P 213209021	May 2011
7.	Investigations on the synthesis and properties of pure and Dy-modified YMnO ₃ system	C. Mascovani 213210009	May 2012
8.	Synthesis and characterization of Bi _x La _{1-x} MnO ₃ ceramics	Gnana Sekaran M 213210015	May 2012

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

9	Synthesis and Characterization of pure and Dy-substituted Bi ₂ O ₃ ceramics	D. Dayanithi 213211024	May 2013
10	Synthesis of pure and Nd modified BiFeO ₃ powders by co-precipitation method	Mohammed Ghouse Munavary 213211026	May 2013
11	Investigation on the synthesis and characterization of pure and gadolinium modified Bismuth ferrite	R. Rathnaprabha 213212021	May 2014
12	Synthesis and characterization of lead free Na (Bi _{1-x} Pr _x)TiO ₃ ceramics	K. Shalini 213212010	May 2014
13	Synthesis and Characterization of Multiferroic (1-x) BiFeO ₃ -xBaTiO ₃ solid solutions	S. Supraja 213213026	May 2015
14	Synthesis and Characterization of pure K _{0.5} Bi _{0.5} TiO ₃ (KBT) and (1-x)K _{0.5} Bi _{0.5} TiO ₃ -BiFeO ₃ (BFO) multiferroic ceramics	Krishnasamy 213213013	May 2015
15	Growth and Characterization of Bi _{0.5} Ca _{0.5} FeO ₃ single crystals	G. Antilen Jacob 213214017	May 2016
16	Effect of lithium and antimony substitution on the structural, electrical and optical properties of lead free Na _{0.5} K _{0.5} NbO ₃ ceramics	Rashid A 213214022	May 2016
17	Synthesis and characterization of pure and Nickel doped Barium Titanate	Veena Balakrishnan 213215001	May 2017
18	Low temperature solution growth and characterization of Triglycine sulphate (TGS) single crystals	R J Jayapriya 213215021	May 2017
19	Synthesis and characterization of lead free piezoelectric NBT-BT-V ₂ O ₅ ceramics by solid state reaction route	Midhun V K 213216019	May 2018
20	Synthesis and characterization of PVDF-CoFe ₂ O ₄ nanocomposite films	Ansu Johnson 213216001	May 2018
21	Synthesis and characterization of lead –free Na _{0.5} Bi _{0.5} TiO ₃ -BiFeO ₃ ceramics	Devapriya M S	May 2019
22	Investigations on the synthesis and characterization of lead free Na _{0.5} Bi _{0.5} TiO ₃ - SrTiO ₃ ceramics	Arabinda Sahoo 213218024	May 2020
23	Structural refinement analysis of binary and ternary crystalline structure	Chambru Sardar 213219003	May 2021

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

24	Structure and dielectric properties of Lead free Na _{0.5} Bi _{0.5} TiO ₃ doped with CaTiO ₃	Sachin 213220020	May 2022
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(iv) Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Realization of crack free thick film PZT for the application to piezo cantilever fabrication	DST	Dec.2007	Mar. 2011	Completed
Development of PZT thick films with enhanced piezoelectric properties suitable for MEMS devices	NPOL (DRDO)	July 2010	Dec. 2011	Completed
Development of PZN-PT Single Crystal Technology for Naval Transducer Applications	DRDO	July 2017	Jan 2021	Completed

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
P. Jegatheesan	Investigations on Pb(Zr _x Ti _{1-x})O ₃ (PZT) films prepared by spin coating technique for the fabrication of microcantilever	Supervisor	2013
M. Muneeswaran	Investigations on the synthesis and properties of pure and rare earth (Dy, Pr and Tb) modified multiferroic BiFeO ₃ nanoparticles	Supervisor	2015
Radhalayam Dhanalakshmi	Investigations on the Synthesis and Photocatalytic Properties of Pure and Rare- Earth (La,Nd and Ce) Substituted BiFeO ₃ Nanostructures	Supervisor	2017
K. Shalini	Investigations on the Multiferroic Properties of Transition Metal Ions Substituted Ferroelectric K _{0.5} Na _{0.5} NbO ₃ bulk ceramics	Supervisor	2021
D. Dhayanithi	Investigations on the Structure, Electrical and Electro-Mechanical Properties of	Supervisor	2022

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

	NBT: Na _{0.5} Bi _{0.5} TiO ₃ Based Ternary Solid Solutions		
D. Padmapriya	Investigations on the synthesis and properties of (1-x)BaTiO ₃ -x(TM)Fe ₂ O ₄ (TM = Co, Ni and Mg) multiferroic composites	Supervisor	2022

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International / National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
12/10/2007-13/10/2007	National workshop on Non-Destructive Evaluation	Local	Participant	Department of Physics, NITT	NITT
09/12/2007-10/12/2007	MEMS innovation Fest 2007	National	Participant	Centre for Emerging Technologies	
23/02/2008	Workshop on Nanostructures and Devices	Local	Participant	Department of Physics, NITT	NITT
15/03/2008	Workshop on "X-ray diffraction Analysis (XRD) & Intellectual Property Rights (IPR)"	Local	Participant	Department of Physics, NITT	NITT
07/07/2008-12/07/2008	Instructional design and delivery	Local	Participant	NITTTR, Chennai	NITTTR
24/07/2008-26/07/2008	Fifth ISSS International conference on smart materials, structures and systems	International	Participant	IISc Bangalore	IISc
03/01/2009-05/01/2009	International conference on MEMS ICMEMS 2009	International	Participant	IIT-M, Chennai	IIT-M Chennai
20/02/2009-21/02/2009	Course on Traditional and	National	participant	IIT-M, Chennai	IIT-M, Chennai

**National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members**

	Emerging NDE methods- for Managers and Engineers				
10/12/2009-12/12/2009	NDE-2009	National	Participant	ISNT-Trichy & NITT	NITT
14/06/2011-24/06/2011	Workshop on Thermodynamics in Mechanical Engineering	National	Participant	ISTE workshop conducted by IIT Bombay	NITT
06/07/2011-12/07/2011	Faculty development program on Advanced nanomaterials- Process, Characterization and Applications	National	Participant	School of Nano Science and Technology, NIT-Calicut	NIT-C
26-28 Feb 2012	2nd International Conference on Key Engineering Materials	International	Paper presenter	IACSIT	Singapore
18/12/12-20/12/12	4th International Conference on Solid State Science & Technology	International	Paper presenter	University of Malaysia	Holiday inn, Malacca Malaysia
9-10 May 2013	Workshop on Perspectives of Curriculum	Local	Participant	NIT, Tiruchirappalli	NITT
30 June-5 th July 2013	International Conference on Materials for Advanced Technologies (ICMAT-2013)	International	Paper presenter	MRS-Singapore	SUNTEC Singapore
19-20 September 2014	Workshop on Elemental, compound and phase analysis by powder X-ray diffraction	Local	Participant	Department of Physics, NIT-Trichy	NITT
04/12/2014-06/12/14	NDE2014- National seminar and Exhibition	National	Participant	ISNT-Pune	Pune
28/04/2015-29/04/2015	Conclave on Academic Reforms	Local	Participant	NIT, Trichy	NIT-T

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

**National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members**

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
National level symposium on Non-Destructive Evaluation (Quality-12)	Local	13 th March 2012	Convener	NIT, Trichy
Workshop on Advances in Nanomaterials and Thin films (WANT-2013)	National	8 th - 9 March 2013	Convener	NIT, Trichy
National level symposium on Non-Destructive Evaluation (Quality-13)	Local	19-20 March 2013	Convener	NIT, Trichy
Short term course on "Optical and Ultrasonic methods in NDE"	National	16-20, October 2013	Co-convener	NIT, Trichy
National level symposium on Non-Destructive Evaluation (Quality-14)	Local	26 th March 2014	Convener	NIT, Trichy

18. Invited Talks delivered

Topic	Date	Inviting Organization
Optical fiber and its applications	3 rd November 2007	NIT, Tiruchirappalli
Sol-gel processing of ferroelectric thin films	24 th January 2008	NIT, Tiruchirappalli
Ferroelectrics- basics, materials, properties and applications	9 th March 2013	NIT, Tiruchirappalli
Nano Materials: Synthesis, Properties and Applications	7 th August 2014	Cauvery college for women, Trichy
Ferroelectrics and Multiferroics	11 th November 2014	UGC sponsored refresher course in physics for college and university, Bharathidasan Univeristy
Multiferroic materials	24 th April 2015	VELTECH HIGHTECH, Chennai
Thin films and Multiferroics	13 th May 2015	Summer research training programme-2015, Bishop Heber college, Trichy
Thin films and multiferroics	21 st July 2015	FDP on Advanced research in materials for engineering and technological applications, Anna University, Tiruchirappalli
Multiferroic materials	7 th November 2016	UGC-Human resource development centre, Bharathidasan University, Tiruchirappalli

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Ferroelectrics- basics, materials, properties and applications	2020	The Gandhigram Rural Institute, Gandhigram
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19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Member	Indian Society for Non-Destructive Testing	LM-8454 & 21/10/2009
Life Member	Materials Research Society of India	LMB2504 & 2015

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Singapore	February 26-28, 2012	2nd International Conference on Key Engineering Materials
Malaysia	December 18-20, 2012	4th International Conference on Solid State Science & Technology
Singapore	30 June-5 th July 2013	International Conference on Materials for Advanced Technologies (ICMAT-2013)
Srilanka	13-18 December 2016	ICNST-2016, Colombo, Sri Lanka

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Vol. (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Seethal Pappachan, A Rashid and Giridharan Nambi Venkatesan	Dissolution of four-stage to three-stage dynamic scaling behavior with stabilization of relaxor character in $K_{0.5}B_{0.5}TiO_3$ based binary system	Physica Scripta	97	065809	2022	
PM Priya Dharsini, L Venkidu, GC Ancy, MT Rahul, K Nandakumar, D Dayanithi, NV Giridharan, B Sundarakannan	Enhanced magnetoelectric coefficients in $Na_{0.5}Bi_{0.5}TiO_3$ - $CoFe_2O_4$ particulate composites prepared from pre-sintered constituents	Applied Physics A	128	1-10	2022	

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

R Rajesh, NV Giridharan	Enhanced energy storage performance and magnetocapacitance effect of polycrystalline BiFeO ₃ ceramics	Journal of the Australian Ceramic Society	58	539-548	2022	
Krupa Maria Kuruvila, D Dhayanithi, NV Giridharan	Investigation of structural and enhanced piezoelectric properties in low lead content Na _{0.5} Bi _{0.5} TiO ₃ -BaTiO ₃ -PbTiO ₃ system	Journal of Alloys and Compounds	897	163195	2022	
SV Meenakshi, R Saravanan, N Srinivasan, D Dhayanithi, Nambi Venkatesan Giridharan	Exploration of (1-x)BaTiO ₃ + xZnFe ₂ O ₄ magneto-electric ceramic composite on charge density: Structure and its characterization	Journal of Alloys and Compounds	888	161491	2021	
P Esther Rubavathi, D Dhayanithi, NV Giridharan, MT Rahul, Nandakumar Kalarikkal, B Sundarakannan	Origin of magnetic, magnetoelectric effect and the influence of reentrant ferroelectric phase on the structural and multiferroic properties of Dy ³⁺ -Fe ³⁺ co-substituted BaTiO ₃ ceramics	Journal of Magnetism and Magnetic Materials	538	168260		
A Rashid, K Shalini, NV Giridharan	Observation of Enhanced Unipolar Strain and Piezoelectric Charge Co-Efficient in K _{0.5} Na _{0.5} NbO ₃ Simultaneously Doped with Lithium and Antimony	Ferroelectrics	583	12-18	2021	
R Rajesh, NV Giridharan, K Ramesh Kumar, C Karthika	Effect of Mn doping on magnetodielectric properties of polycrystalline BiFeO ₃ ceramics	Journal of Alloys and Compounds	854	156981	2021	
Radhalayam Dhanalakshmi, Nambi Venkatesan Giridharan and Juliano C. Denardin	Magnetic Field-Assisted Photocatalytic Degradation of Organic Pollutants over Bi _{1-x} R _x FeO ₃ (R = Ce, Tb; x = 0.00, 0.05, 0.10 and 0.15) Nanostructures	Materials	14 (15)	4079	2021	
Dhayanithi Duraisamy, Krupa Maria Kuruvila, and Giridharan Nambi Venkatesan	Phase boundary and temperature driven enhanced piezoelectric and electrostrictive strain in (1-2x) Bi _{0.5} Na _{0.5} TiO ₃ -xBaTiO ₃ -xBa _{0.7} Ca _{0.3} TiO ₃ solid solution	Journal of Applied Physics	130	144102	2021	

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Padmapriya D, Dhayanithi D, Rahul M.T, Nandakumar Kalarikkal, Giridharan N V	Study of room-temperature magnetoelectric coupling in $(1-x)\text{BaTiO}_3$ and $(x)\text{NiFe}_2\text{O}_4$ multiferroic composites	Applied Physics A	127	293	2021	
Muniyandi Muneeswaran, Ali Akbari-Fakhrabadi, Miguel Angel Gracia- Pinilla, Juliano C. Denardin, Nambi Venkatesan Giridharan	Realization of structural transformation for the enhancement of magnetic and magneto capacitance effect in BiFeO_3 - CoFe_2O_4 ceramics for energy storage application	Scientific Reports	11	2265	2021	
Shahnaz Kossar R.Amiruddin, Asif Rasool, N.V.Giridharan, D.Dhayanithi, M.C.Santhosh Kumar	Ferroelectric polarization induced memristive behavior in bismuth ferrite (BiFeO_3) based memory devices	Superlattices and Microstructures	148	106726	2020	
D Padmapriya , D Dhayanithi, A Rashid, M T Rahul, Nandakumar Kalarikkal, M Muneeswaran, N V Giridharan	Composition-dependent structural, electrical, magnetic and magnetoelectric properties of $(1-x)\text{BaTiO}_3$ - $x\text{CoFe}_2\text{O}_4$ particulate composites	Bulletin of Materials science	43	276	2020	
P. Senthilkumar, D. Arockiya Jency, T. Kavinkumar, D. Dhayanithi, S. Dhanuskodi, M. Umadevi, S. Manivannan, N. V. Giridharan, V. Thiagarajan, M. Sriramkumar, and K. Jothivenkatachalam	Built-in Electric Field Assisted Photocatalytic Dye Degradation and Photo-electrochemical Water Splitting of Ferroelectric Ce Doped BaTiO_3 Nanoassemblies	ACS Sustainable Chemistry & Engineering	7 (14)	12032- 12043	2019	
P.Esther Rubavathi, M.Veera Gajendra Babu, B.Bagyalakshmi, L.Venkidu, D.Dhayanithi, N.V.Giridharan, B.Sundarakannan	Impact of Ba/Ti ratio on the magnetic properties of BaTiO_3 ceramics	Vacuum	159	374-378	2019	
Muniyandi Muneeswaran, Seung Hoon Lee, Dong Hun Kim, Beon Sung Jung, Seo Hyoung Chang, Jae-Won Jang, Byung Chun Choi, Jung Hyun	Structural, vibrational, and enhanced magneto-electric coupling in Ho-substituted BiFeO_3	Journal of Alloys and compounds	750	276-285	2018	

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Jeong, NV Giridharan, C Venkateswaran						
M Veera Gajendra Babu, B Bagyalakshmi, NV Giridharan, D Dhayanithi, B Sundarakannan	Coexistence of ferroelectric phases and electric field induced structural transformation in sodium potassium bismuth titanate ceramics	Journal of Applied Physics	123	234101	2018	
P Nisha Francis, S Dhanuskodi, MS Jayalakshmy, M Muneeswaran, J Philip, NV Giridharan	Optical limiting and magnetoelectric coupling in multiferroic BiFeO ₃ nanoparticles	Materials Chemistry and Physics	216	93-101	2018	
Dhayanithi Duraisamy <i>and</i> Giridharan Nambi Venkatesan	Compositionally driven giant strain and electrostrictive co-efficient in lead free NBT-BT-BFO system	Applied Physics Letters	112	052903	2018	
S.M.Abdul Kader, D.E.Jain Ruth, M.Veera Gajendra Babu, M.Muneeswaran, N.V.Giridharan, B.Sundarakannan	Investigations on the effect of Ba and Zr co-doping on the structural, thermal, electrical and magnetic properties of BiFeO ₃ multiferroics	Ceramics International	43	15544-15550	2017	
M Muneeswaran, JW Jang, BC Choi, JH Jeong, NV Giridharan	Structural, optical and multiferroic properties of pure and Dy modified YMnO ₃	Journal of Materials Science: Materials in Electronics	28	16788-16796	2017	
D. Dhayanithi, M. Muneeswaran & N. V. Giridharan	Structure, dielectric and electrical properties of lead-free (BiFeO ₃) _{1-x} (Bi _{0.5} K _{0.5} TiO ₃) _x solid solution	Ferroelectrics	515	103-108	2017	
K. Shalini & N. V. Giridharan	Structural, dielectric and magnetic properties of K _{0.5} Na _{0.5} NbO ₃ and K _{0.5} Na _{0.5} Nb _{0.975} Co _{0.025} O ₃ lead free ceramics	Ferroelectrics	518	52-58	2017	
Pranab Parimal Biswas, Thirmal Chinthakuntla, Dhayanithi Duraisamy, Giridharan Nambi Venkatesan, Subramanian Venkatachalam, <i>and</i> Pattukkannu Murugavel	Photovoltaic and photo-capacitance effects in ferroelectric BiFeO ₃ thin film	Applied Physics Letters	110	192906	2017	

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Radhalayam Dhanalakshmi, Pradeep Reddy Vanga, M. Ashok and N.V. Giridharan	The Effect of a 0.5T Magnetic Field on the Photocatalytic Activity of Recyclable Nd-modified BiFeO ₃ Magnetic Catalysts	IEEE magnetic letters	7	2106904	2016	
C Thirmal, PP Biswas, YJ Shin, TW Noh, NV Giridharan, A Venimadhav, P Murugavel	Study of ferroelectric characteristics of diisopropylammonium bromide films	Journal of Applied Physics	120	124107	2016	
P Nisha Francis, S Dhanuskodi, M Muneeswaran, Anitta Rose Thomas, NV Giridharan	Optical nonlinearity in multiferroic bismuth ferrite	Journal of Alloys and Compounds	688	796-802	2016	
Pradeep Reddy Vanga, RV Mangalaraja, NV Giridharan, M Ashok	Influence of divalent Ni and trivalent Cr ions on the properties of ytterbium modified bismuth ferrite	Journal of Alloys and Compounds	684	55-61	2016	
Radhalayam Dhanalakshmi ,M. Muneeswaran Pradeep Reddy Vanga, M. Ashok, N.V. Giridharan	Enhanced photocatalytic activity of hydrothermally grown BiFeO ₃ nanostructures and role of catalyst recyclability in photocatalysis based on magnetic framework	Applied Physics A	122	1-14	2016	
M. Bhuvanewari, S. Sendhilnathan, M. Kumar, R. Tamilarasan, N.V. Giridharan	Synthesis, investigation on structural and electrical properties of cobalt doped Mn-Zn ferrite nanocrystalline powders	Materials Science-Poland	34	344-353	2016	
DE Jain Ruth, M Muneeswaran, NV Giridharan, B Sundarakannan	Enhanced electrical properties in Rb-substituted sodium bismuth titanate ceramics	Applied Physics A	122	1-7	2016	
DE Jain Ruth, M Muneeswaran, NV Giridharan, B Sundarakannan	Structural and electrical properties of bismuth magnesium titanate substituted lead-free sodium bismuth titanate ceramics	Journal of Materials Science: Materials in Electronics	27	7018–7023	2016	
DE Jain Ruth, SM Abdul Kader, M Muneeswaran, NV Giridharan, D Pathinettam Padiyan, B Sundarakannan	Structural and electrical properties of (1-x)(Na 0.5 Bi 0.5) TiO ₃ -xBi (Mg 0.5 Zr 0.5) O ₃ lead-free piezoelectric ceramics	Ceramic International	42	3330-3337	2016	

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

D. E. Jain Ruth, S.M. Abdul Kader, M. Muneeswaran, N.V. Giridharan, D. Pathinettam Padiyan and B. Sundarakannan	Substitutional effect of bismuth ferrite on the electrical properties of sodium bismuth titanate ceramics	Journal of Materials Science: Materials in Electronics	27	407-413	2016	
Radhalayam Dhanalakshmi ,M. Muneeswaran, K.Shalini, N.V. Giridharan	Enhanced photocatalytic activity of La-substituted BiFeO ₃ nanostructures on the degradation of phenol red	Materials Letters	165	205-209	2015	
M. Muneeswaran, Radhalayam Dhanalakshmi and N. V. Giridharan	Effect of Tb substitution on Structural, optical, electrical and magnetic properties of BiFeO ₃	Journal of Materials Science: Materials in Electronics.	26	3827-3839	2015	
Somasundaram Saravanamoorthy, Muniyandi Muneeswaran, Nambi Venkatesan Giridharan, Sivan Velmathi	Solvent-free ring opening polymerization of ε-caprolactone and electrical properties of polycaprolactone blended BiFeO ₃ nanocomposites	RSC Advances	5	43897-43905	2015	
M. Muneeswaran, Radhalayam Dhanalakshmi and N. V. Giridharan	Structural, vibrational, electrical and magnetic properties of Bi _{1-x} Pr _x FeO ₃	Ceramics International	41	8511-8519	2015	
M Veera Gajendra Babu, SM Abdul Kader, M Muneeswaran, NV Giridharan, D Pathinettam Padiyan, B Sundarakannan	Enhanced piezoelectric constant and remnant polarisation in K-compensated sodium potassium bismuth titanate	Materials Letters	146	81-83	2015	
C Anthonyraj, M Muneeswaran, SG Raj, NV Giridharan, V Sivakumar,G Senguttuvan	Effect of samarium doping on the structural, optical and magnetic properties of sol-gel processed BiFeO ₃ thin films	Journal of Materials Science: Materials in Electronics	26	49-58	2015	
Pradeep Reddy Vanga, RV Mangalaraja, N.V. Giridharan, M. Ashok	PTCR behavior of BiFeO ₃ synthesized by the solvothermal method	Materials Letters	143	230-232	2015	
M. Muneeswaran, N. V. Giridharan	Effect of Dy-substitution on the structural, vibrational, and multiferroic properties of BiFeO ₃ nanoparticles	Journal of Applied Physics	115	214109	2015	

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Jegatheesan Periyannan, , Muneeswaran Muniyandi, and Giridharan Nambi Venkatesan	Effect of thickness and annealing temperature on the properties of PZT films at Morphotropic Phase Boundary composition prepared by sol-gel spin-on technique	Advanced Materials Research	895	17-20	2014	
Muneeswaran, M., P. Jegatheesan, M. Gopiraman, Ick-Soo Kim and N. V. Giridharan	Structural, optical, and multiferroic properties of single phased BiFeO ₃	Applied Phys. A.	114	853-859	2014	
C. Anthonyraj, M. Muneeswaran, P. Jegatheesan, N.V. Giridharan, V. Sivakumar and G. Senguttuvan	Effect of annealing time in low-temperature growth of BFO thin films spin coated on glass substrates	J. Mater. Sci: Mater. Electron	24	4148-4154	2013	
M. Muneeswaran, P. Jegatheesan and N. V. Giridharan	Synthesis of Nanosized BiFeO ₃ Powders by Co-precipitation Method	Journal of Experimental Nanoscience	8	341- 346	2013	
P. Jegatheesan M. Muneewaran S. Gokul Raj and N.V. Giridharan	Low temperature synthesis of Pb(Zr _{0.52} Ti _{0.48})O ₃ ceramic powders by gelatin agent assisted sol-gel process	Advanced Materials Research	488-489	310-314	2012	
M. Hussain Beevi, S. Vignesh, T. Pandiyarajan, P. Jegatheesan, R. Arthur James, N. V. Giridharan and B. Karthikeyan	Synthesis and antifungal studies on CuO nanostructures	Advanced Materials Research	488-489	666-670	2012	
P. Jegatheesan, N.V. Giridharan	Enhanced Electrical Properties of PZT thick films prepared by sol- gel technique through step-by-step crystallization process	J Mater. Sci: Mater. Electron	23	1103-1107	2012	
P. Jegatheesan, Harish Kumar Yadav , Vinay Gupta and N. V. Giridharan	Composition dependent preferential orientation, dielectric and ferroelectric properties of Pb(ZrxTi1-x)O ₃ thin films derived by sol-gel process	Materials Letters	65	901-904	2011	
S. Kazhugasalamoorthy, P. Jegatheesan, R. Mohandoss, N.V. Giridharan, B.	Investigations on the properties of pure and rare earth modified bismuth ferrite ceramics	Journal of Alloys and Compounds	493	569-572	2010	

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Karthikeyan, R. Justin Joseyphus, S. Dhanuskodi						
T. Pandiyarajan, B. Karthikeyan, P. Venkatesan, M. Ashok, S. Anandan, N.V. Giridharan	Simple synthesis and spectroscopic studies on cobalt added ZnO nanocrystals	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	74	84-86	2009	
Aur�lie Rolle, Pascal Roussel, Nambi Venkatesan Giridharan, Emmanuelle Suard, Rose-No�lle Vannier	A neutron diffraction study of the oxygen diffusion in molybdenum doped Ba ₂ In ₂ O ₅	Solid State Ionics	179	1986-1995	2008	
N.V. Giridharan and S. Supriya	Effect of processing on the properties of Bi _{3.15} Nd _{0.85} Ti ₃ O ₁₂ thin films	Thin Solid Films	516	5244-5247	2008	
N.V. Giridharan, M. Subramanian and R. Jayavel	Enhancement of polarization in bismuth titanate thin films co-modified by La and Nd for non-volatile memory applications	Appl. Phys. A	83	123-126	2006	
A.Rolle, R.N. Vannier, N.V.Giridharan and F. Abraham	Structural and electrochemical characterization of new oxide ion conductors for oxygen generating systems and fuel cells	Solid state ionics	176	2095-2103	2005	
N.V.Giridharan, S. Madeswaran and R. Jayavel	Growth of c-axis-oriented Bi _{3.15} Nd _{0.85} Ti ₃ O ₁₂ thin films for ferroelectric memory applications	Journal of Crystal Growth	275	e675-e679	2005	
S.Madeswaran, N.V.Giridharan, R. Varatharajan, G. Ravi and R.Jayavel	Effect of rhodium doping on the growth and characteristics of BaTiO ₃ Single crystals grown by step-cooling method.	Journal of Crystal Growth	266	481-486	2004	
S.Madeswaran, N.V.Giridharan and R.Jayavel	Sol-gel synthesis and property studies of layered perovskite bismuth titanate thin films	Materials Chemistry and physics	80	23-28	2003	
M.Senthil Kumar, R.R.Sumathi, N.V.Giridharan, R.Jayavel and J.Kumar	On the Capacitance-Voltage characteristics of Al/BaTiO ₃ /GaN MFS structures	Journal of Crystal Growth	237	1176-1179	2002	
S.Madeswaran, N.V.Giridharan and R.Jayavel	Growth of Co doped (Ba, Sr) TiO ₃ single crystals and their characterization	Journal of Crystal Growth	237	858-863	2002	
M.Senthil Kumar, R.R.Sumathi,	Investigations on Al/BaTiO ₃ /GaN MFS	Material letters	52	80-84	2002	

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

N. V. Giridharan, R. Jayavel and J. Kumar	structures					
N. V. Giridharan and R. Jayavel	Fabrication of ferroelectric (Pb, Ba)TiO ₃ thin films by sol-gel technique and their Characterization	Material letters	52	57-61	2002	
R. R. Sumathi, N. V. Giridharan, R. Jayavel and J. Kumar	BaTiO ₃ as an insulating layer for InP based metal-insulator-semiconductor structures	Material letters	51	56-60	2001	

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year
Radhalayam Dhanalakshmi, M. Muneeswaran and N. V. Giridharan	Effect of synthesis conditions on the photocatalytic property of multiferroic BiFeO ₃ towards the degradation of phenol red	AIP Conf. Proc.	130016	Solid state physics	Amity University UP, India	2016
K. Shalini, M. Muneeswaran and N. V. Giridharan	Structural and electrical properties of ferroelectric Na _{0.5} (Bi _{1-x} Pr _x) _{0.5} TiO ₃ (x=0.00 ,0.10) ceramics synthesized by sol-gel method	AIP Conf. Proc.	140018	Solid state physics	Amity University UP, India	2016
S. Abdul Khader, N. V. Giridharan, Arka Chaudhuri and T. Sankarappa	Structural, dielectric and magnetic studies of (x) Mg _{0.2} Cu _{0.3} Zn _{0.5} Fe ₂ O ₄ + (1-x) Ba _{0.8} Zr _{0.2} TiO ₃ magnetoelectric composites	AIP Conf. Proc.	020562	Condensed Matter and Applied physics	Govt. Engineering College, Bikaner, Rajasthan	2016
S. Abdul Khader, Asiya Parveez, N. V. Giridharan and T. Sankarappa	Structural, dielectric and magnetic studies of (x) Ni _{0.7} Co _{0.1} Cu _{0.2} Fe ₂ O ₄ + (1-x) BaTiO ₃ magnetoelectric composites	AIP Conf. Proc.	020573	Condensed Matter and Applied physics	Govt. Engineering College, Bikaner, Rajasthan	2016
P. Senthilkumar, S. Dhanuskodi, M. Muneeswaran and N. V. Giridharan	Multiferroism in hydrothermally prepared Ce:BaTiO ₃ nanoparticles	AIP Conf. Proc.	050017	Solid state physics	Amity University UP, India	2016
K. Aravinth, M. Muneeswaran, G. Anandha Babu, N. V. Giridharan and P. Ramasamy	Structure and electrical properties of 0.80 Na _{0.5} Bi _{0.5} TiO ₃ -0.16 K _{0.5} Bi _{0.5} TiO ₃ -0.04 BaTiO ₃ lead-free piezoelectric ceramics	AIP Conf. Proc.	100005	Solid state physics	Amity University UP, India	2016
S. Abdul Khader, M. Muneeswaran, N. V. Giridharan and T. Sankarappa	Structural, dielectric and ferroelectric studies of (x) Mg _{0.25} Cu _{0.25} Zn _{0.5} Fe ₂ O ₄ + (1-x) BaTiO ₃ magnetoelectric nano-composites	AIP Conf. Proc.	020529	Condensed Matter and Applied physics	Govt. Engineering College, Bikaner, Rajasthan	2016

**National Institute of Technology, Tiruchirappalli:
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R. Rathnaprabha, M. Muneeswaran, Radhalayam Dhanalakshmi and N. V. Giridharan	Structural, electrical and magnetic properties of multiferroic $\text{Bi}_{1-x}\text{Gd}_x\text{FeO}_3$ ($x = 0.00$ and 0.15)	AIP Conf. Proc.	140036	Solid state Physics	VIT University	2015
Radhalayam Dhanalakshmi, M. Muneeswaran, Pradeep Reddy Vanga, M. Ashok and N. V. Giridharan	Photocatalytic activity of BiFeO_3 nanoparticles synthesized through hydrothermal method	AIP Conf. Proc.	130014	Solid state Physics	VIT Univeristy	2015
M. Muneeswaran, S. Bhuvaneshwari, G. Senguttuvan and N. V. Giridharan	Structural, electrical and magnetic properties of $\text{Bi}_{0.90}\text{La}_{0.10}\text{Fe}_{0.90}\text{Co}_{0.10}\text{O}_3$ ceramics	AIP Conf. Proc.	1778	Solid state Physics	Thapar University, Patiala	2014
V. S. Sasanka Durvasula, Vivek Madhavan, Janardhan Padiyar M, N. V. Giridharan and Krishnan Balasubramaniam	Visualization studies of Lamb wave propagation and interactions with anomalies in composite laminates using air-coupled ultrasonics	AIP Conf. Proc.	1091	NDE	Baltimore, Maryland, USA	2014
M. Muneeswaran, C. Mascovani and N. V. Giridharan	Structural and multiferroic properties of YMnO_3 ceramics synthesized by co-precipitation method	AIP Conf. Proc.	1270	Solid state physics	IIT-B, Mumbai	2013
S. P. Keerthana, M. Muneeswaran, P. Jegatheesan and N. V. Giridharan	Structural and magneto-electric properties of $\text{Bi}_{0.4}\text{La}_{0.6}\text{Fe}_{0.8}\text{Mn}_{0.2}\text{O}_3$ ceramics	AIP Conf. Proc.	1333	Solid state physics	SRM Univeristy	2012
A. Rolle, N.V. Giridharan, P. Roussel, F. Abraham, R.N. Vannier	Oxide ion conduction in oxygen rich doped $\text{Ba}_2\text{In}_2\text{O}_5+\delta$ Brownmillerite	Mater. Res. Soc. Symp. Proc.	K2.4.2- K2.4.6	Ionic conductors	Boston, USA	2005