



ST. ALOYSIUS COLLEGE EDATHUA

Established 1965 | Reaccredited by NAAC with 'A' Grade(Fourth Cycle) | DST-FIST Supported

Affiliated to Mahatma Gandhi University, Kottayam

www.aloysiuscollege.ac.in

"LET THY DIVINE LIGHT SHINE MIRACULOUSLY"

FACULTY PROFILE

Personal Details

Name	: Dr. LAKSHMI VIJAYAN
Department	: Research and post graduate Department of Physics
Designation	: Asst. professor
Educational Qualification	: Ph.D.
Area of Specialisation	: Material Science
Email	: lakshmivijayan@gmail.com
Phone number	: 9446478300

Education

Sl. No.	Degree	Institution/University	Year
1	B.Sc. in Physics	BCM College, Kottayam M.G. University, Kottayam	2000
2	M.Sc. in Physics	SPAP, M.G. University, Kottayam	2003
3	Ph.D. in Physics	Pondicherry Central University, Pondicherry	2012

Career Profile

Sl. No.	Institution/Organization	Designation	Period
1	Pondicherry Central University, Pondicherry	Research Associate	February 2012 to June 2012
2	Carmel College, Mala, Chalakudy	Assistant Professor	June 2012 to 21st August 2012
3	St. Aloysius College, Edathua	Assistant Professor	22 nd August 2012 onwards

Positions Held or Holding, if any

Sl. No.	Position	Period
1	Research Coordinator, St. Aloysius College, Edathua	2023 to 2025
2	Member, IQAC	2023 to 2025

3	Chairperson, Grievances Redressal Committee for College Union Election 2023-2024	2023
4	Member, College Staff council	2023 to 2025
5	Coordinator, Internal exam cell	2023 to 2025
6	Member, Anti-Narcotic cell	2023 to 2025
7	Member, Mobile squad Committee	2023 to 2025
8	Head of the Department of Physics	November 2023 – May 2025
9	Member, Women Cell	2017 to 2022
10	Coordinator, Nature and Energy Club	2023 -2025
11	Presiding Officer, Lok Sabha Election 2019	2019
12	Member, Staff Council Executive	2019-2021
13	Secretary, Diamond Dual, Alumni Association, Department of Physics	2020-2023

Research Publications

SI. No.	Publication
1.	Lakshmi Vijayan and G. Govindaraj Impedance spectroscopic studies of planetary ball-milled lithium titanium phosphate material Physica B: Physics of Condensed Matter 404 (2009) 3539–3543.
2.	Lakshmi Vijayan, Rajesh Cheruku, G. Govindaraj and S. Rajagopan Ion dynamics in combustion synthesized $\text{Na}_3\text{Cr}_2(\text{PO}_4)_3$ crystallites Materials Chemistry and Physics 125 (2011) 184–190.
3.	Lakshmi Vijayan, and G. Govindaraj Structural and electrical properties of high-energy ball milled NASICON type $\text{Li}_{1.3}\text{Ti}_{1.7}\text{Al}_{0.3}(\text{PO}_4)_{2.9}(\text{VO}_4)_{0.1}$ ceramics Journal of Physics and Chemistry of Solid 72 (2011) 613-619
4.	Rajesh Cheruku, Lakshmi Vijayan, G. Govindaraj Electrical Conductivity Studies of Solution Combustion Synthesized Nanocrystalline $\text{Li}_2\text{NiZrO}_4$ material AIP Conf. Proc. 1349 (2011) 1013-1014.
5.	Lakshmi Vijayan, Rajesh Cheruku, G. Govindaraj and S. Rajagopan Physical and electrical properties of combustion synthesized NASICON type $\text{Na}_3\text{Cr}_2(\text{PO}_4)_3$ crystallites: Effect of Glycine molar ratios Materials Chemistry and Physics 130 (2011) 862-869.
6.	Lakshmi Vijayan, Rajesh Cheruku, G. Govindaraj Structure and Ion Transport in $\text{Li}_3\text{Fe}_2(\text{PO}_4)_3$ Synthesized by Solution Combustion Technique Journal of Applied Physics 111 (2012) 064905

7.	Rajesh Cheruku, Lakshmi Vijayan, G. Govindaraj Ac conductivity studies of Solution Combustion Synthesized Nanocrystalline $\text{Li}_2\text{MgZrO}_4$ material AIP Conf. Proc. 1447 (2012) 345, ISBN 978-0-7354-1045-9
8.	Rajesh Cheruku, G.Govindaraj, Lakshmi Vijayan Electrical and magnetic properties of sol-gel synthesized nanocrystalline $\text{Li}_2\text{Ni}_{1-x}\text{Mg}_x\text{TiO}_4$ materials AIP Conf. Proc. 1512 (2013) 330 ISBN 978-0-7354-1133-3
9.	Lakshmi Vijayan, Rajesh Cheruku, G. Govindaraj Structural and ac electrical properties of LiCoPO_4 synthesised by template free hydrothermal approach AIP Conf. Proc. 1512 (2013) 428, ISBN 978-0-7354-1133-3
10.	Rajesh Cheruku, G. Govindaraj, Lakshmi Vijayan Structural and electrical conductivity studies of nanocrystalline $\text{Li}_2\text{NiTiO}_4$ material Indian Journal of Pure and Applied Physics 51 (2013) 343
11.	Viswarupa Mohanty, Rajesh Cheruku, G. Govindaraj, Lakshmi Vijayan Synthesis, structure and electrical conductivity studies of inverse spinel $\text{Li}_{0.5}\text{Fe}_{2.5}\text{O}_4$ Indian Journal of Pure and Applied Physics 51 (2013) 381
12.	Viswarupa Mohanty, Rajesh Cheruku, G. Govindaraj, Lakshmi Vijayan Ce-substituted Lithium Ferrite: Preparation and electrical relaxation studies Journal of Material Science & Technology (2013) 1
13.	Rajesh Cheruku, G. Govindaraj, Lakshmi Vijayan Ion dynamics in sol-gel synthesized $\text{Li}_2\text{Ni}_{1-x}\text{Mg}_x\text{TiO}_4$ nanocrystallites Materials Chemistry and Physics 141 (2013) 620
14.	Lakshmi Vijayan, Rajesh Cheruku, G. Govindaraj Electrical, Optical and Magnetic investigations on LiNiPO_4 based Olivines Synthesised by Solution Combustion Technique Materials Research Bulletin 10 (2014) 3
15.	Rajesh Cheruku, G. Govindaraj, Lakshmi Vijayan Super-linear frequency dependence of ac conductivity in nanocrystalline lithium ferrite Materials Chemistry and Physics 146 (2014) 389
16.	Rajesh Cheruku, G.Kruthika, G.Govindaraj, LakshmiVijayan Electrical relaxation studies of olivine type nanocrystalline LiMPO_4 (M=Ni, Mn and Co) materials Journal of Physics and Chemistry of Solids 86 (2015) 27
17.	Rajesh Cheruku, G Govindaraj, Lakshmi Vijayan Electrical relaxation, optical and magnetic studies of nanocrystalline lithium ferrite synthesized by different chemical routes Mater. Res. Express 4 (2017) 125008
18	Rajesh Cheruku, D. Surya Bhaskaram, G.Govindaraj, LakshmiVijayan Nanocrystalline Li_2MoO_4 : Synthesis and electrical studies Journal of Alloys and Compounds 788(2019) 779-786

Books Published

S. No.	Book Details
1.	Book chapter entitled “NASICON Materials: Structure and Electrical properties” Lakshmi Vijayan , G. Govindaraj Polycrystalline Materials, Chapter 4, p. 77-106, ISBN: 978-953-307-934-9 .
2.	Book chapter entitled “ <i>Electron Microscopic Studies on the Lithium Ion Conducting Materials</i> ” Rajesh Cheruku, Lakshmi Vijayan , G. Govindaraj Current Microscopy Contributions to Advances in Science and Technology (A. Méndez- Vilas, Ed.), Formatex Research Center, Vol. 2, p. 1312-1323, December 2012., ISBN (13): 978-84-939843-6-6

Invited Lectures/Paper Presentations in Conferences

Sl. No.	Invited Lectures & Presentation Details
1	Delivered a talk on ‘Nanotechnology and Health care’ for gifted children Programme at GHS, Kodupunna on 16 th September 2023.
2	Kerala Science Congress, Govt. Brennen College, Thalasserry, 28 th -30 th Jan, 2018 Lakshmi Vijayan, Srijitha Menon, Krishnaveni M. Hydrothermal Synthesis of LiMnPO ₄
3.	59 th DAE Solid State Physics Symposium, 16 th -20 th December, 2014, VIT, Vellore Electrical conductivity of Graphene Wrapped nanocrystalline LiMnPO ₄ Rajesh Cheruku, G. Govindaraj, D. Surya Bhaskaram, , Lakshmi Vijayan
4.	58 th DAE Solid State Physics Symposium, 17 th -2 st December, 2013, Thapar University, Patiala. Template Free Hydrothermal Synthesis of LiMnPO ₄ Lakshmi Vijayan, Rajesh Cheruku, G. Govindaraj
5	57 th DAE Solid State Physics Symposium, 03 rd – 07 th December, 2012, IIT Bombay, Powai, Mumbai. (a) Electrical and Magnetic Properties of Sol-Gel synthesised Nanocrystalline Li ₂ Ni _{1-x} Mg _x TiO ₄ materials Rajesh Cheruku, Lakshmi Vijayan, G. Govindaraj (b) Structural and AC electrical Properties of LiCoPO ₄ synthesised by Template Free Hydrothermal Approach Lakshmi Vijayan, Rajesh Cheruku, G. Govindaraj
6	56 th DAE Solid State Physics Symposium, December, 2011 Ac conductivity studies of solution combustion synthesized nanocrystalline Li ₂ MgZrO ₄ material Rajesh Cheruku, Lakshmi Vijayan, G. Govindaraj

7	11 th Asian Conference of Solid State Ionics An alternate approach for Jonscher's power law: Complex impedance spectra analysis of glassy materials G. Govindaraj, Lakshmi Vijayan New Materials for Pollution Free Energy Devices, 2008, p. 395-400 (Eds. B. V. R. Chowdari <i>et. al.</i>), ISBN: 023-063-567-9.
---	---

Seminar/Workshops Organized

Sl. No.	Title of the Seminar/ Workshop	Funding Agency	Amount	Date
1.	EUREKA CORAL 2016: Workshop for School students	KSCSTE funded	Rs. 20,000/-	10-11/11/2016
2.	Coordinator of Women Cell Inauguration of by Hon. Dist. Collector, Ms. Anupama IAS	KSWDC funded	Rs. 25,000/-	19/12/2017
3	Coordinator of Women cell training programme on Fabric painting			3/3/2018
4	Coordinator of Dr. Varghese Mathew Endowment Elocution competition,			8/3/2018
5	Coordinator of the poster designing competition	Nil	-----	14/2/2019
6	Coordinator of Celebration of International Women's day	ICDS cell-Alappuzha district	----	7/2/2019
7	Coordinator of talk on Violence against Women: Laws and Latches to Justice by Adv. Raji P Joy	KSWDC funded	Rs. 10,000/-	21/3/2019
8	Coordinator of Celebration of International Women's Day by Mrs. Manju Nair, SI, Mavelikara	KSWDC	Rs. 10,000/-	19 /12/2019
9	Coordinator of a National webinar series on the topic "Gender Bias and Gender Equality" by Divya. K and Dr. Amruthraj R M			6/3/2020
10	Coordinator of Invited talk on Global Environmental Pollutants by Dr. Mahesh Mohan organised by Nature and Energy Club and Department of Physics.			17-18/9/2020

11	Coordinator of Sabu Jacob Memorial all Kerala Intercollegiate Quiz Competition	Nil	----	9/1/2020
12	Coordinator of Environmental Day celebrations: International Webinar on Ecosystem Restoration, organised by Nature and Energy Club and Department of Physics	Nil	----	24/1/2020.
13	Coordinator of Environmental Day celebrations: International Webinar on Ecosystem Restoration, organised by Nature and Energy Club and Department of Physics	Nil	----	5/6/2021.
14	Coordinator of Commemoration of great scientists: Student presentation series.	Nil	----	12/8/2021 6/1/2022
15	Coordinator of space week celebrations	Nil	----	4/10/2021 to 10/10/2021
16	Coordinator of energy conservation day	Nil	----	14/12/2022
17	Coordinator of exhibition on national energy conservation day organised by Nature and Energy Club and Department of Physics.			14/12/2023
18	Two day workshop on experiments utilizing EXPEYES.	APT, Kerala	Nil	21-22/2/2024
19	Coordinator of Dr. Varghese Mathew Endowment Elocution competition.			14/02/2024

Research Projects

Sl. No.	Title of the Project	Funding Agency	Amount	Period
1.	Minor Research project Title: Investigations on Electrical, Magnetic, Electrochemical behaviour of NASICON and Olivine Materials.	UGC	Rs. 200000/-	2014

Awards/Achievements

Sl. No.	Details	Year
1	Reviewer of Journal of Applied Electrochemistry Springer Nature on 26 th August 2023	2023
2	Research Guide at Research Centre, St. Aloysius College, Edathua, M.G. University	2018 onwards