

PART A: GENERAL INFORMATION

1.	Name (In Block Letters)	:	DR. ANANDAKUMAR V M
2.	Father's Name/ Mother's Name	:	V. Madhavan Thampi
3.	Department	:	Physics
4.	Current designation & Grade Pay	:	Principal AGP : 10000
5.	Date of last promotion	:	07.06.2019
6.	Which Position and Grade pay are you an applicant under CAS	:	Principal (Academic Level 14: Professor) AGP : 10000
7.	Date of eligibility for promotion	:	NA
8.	Date and Place of Birth	:	31/05/1970 Thiruvananthapuram
9.	Sex	:	Male
10.	Marital Status	:	Married
11.	Nationality	:	Indian
12.	Indicate whether belongs to SC/ST/OBC Category	:	No
13.	Address for correspondence (with Pin code)	:	C2, Green View, TKD Road, Muttada PO, Thiruvananthapuram Pin Code: 695025
14.	Permanent Address (with Pin code)	:	Tc 12/759/1, Law College Road, Vanchiyur PO Thiruvananathapuram 695035
15.	Telephone No:	:	09447304866
16.	Email	:	anandmgc@gmail.com

17. Academic Qualifications (Matric till post-graduation):

Examinations	Name of the Board/ University	Year of Passing	% of Marks obtained	Division/ Class/ Grade	Subject
SSLC	Board of public Exam. Kerala State	1985	78.17	I	General
Pre Degree	Kerala University	1987	74.22	I	Physics, Chemistry, Biology
B.Sc.	Kerala University	1990	85.9	I	Physics Main Mathematics Statistics
M.Sc.	Kerala University	1992	73.8	I (II Rank)	Physics

18. Research Degree(s):

Degree	Title	Date of Award	University
Ph.D in Physics	Synthesis and Characterization of Nanostructured lead molybdate and calcium tungstate	25/02/2010	University of Kerala

19. Appointments held prior to joining Higher Education

Designation	Name of employer	Date of		Salary With Grade	Reason of leaving
		Joining	Leaving		
NIL	NIL	NIL	NIL	NIL	NIL

20. Posts held after appointment in Higher education

Designation	Department	Date of actual Joining		Grade
		From	To	
Lecturer	Physics	14/02/1996	13/02/2002	Lecturer
Lecturer Sr. Scale	Physics	14/02/2002	13/02/2007	Lecturer (Senior Scale)
Lecturer Sel. Grade	Physics	14/02/2007	13/02/2010	Lecturer (Selection Grade)
Associate Professor	Physics	14/02/2010	06.06.2019	Associate Professor with AGP 9000
Principal	VTM NSS College, Dhanuvachapuram	07.06.2019	15.07.2022	Principal AGP 10000
Principal	MG College	16.07.2022	05.02.2023	Principal AGP 10000
Principal	VTM NSS College, Dhanuvachapuram	06.02.2023	Till date	Principal AGP 10000

21. Period of teaching experience : 28 Years & 3 Months

22. Research Experience excluding years spend in M.Phil/Ph.D (in years) : 19 Years

23. Field of specialization under the Subject/Discipline : Synthesis and Characterization of nanostructured materials with novel properties.

24. Academic Staff College Orientation/Refresher Course attended:

Name of the Course /Summer School	Place	Duration	Sponsoring Agency
Orientation Course	UGC – HRDC, University of Kerala	02/08/2000 to 29/08/2000	UGC
Refresher Course	UGC – HRDC, University of Kerala	03/08/2001 to 24/08/2001	UGC
Refresher Course	UGC – HRDC, University of Kerala	14/08/2003 to 04/09/2003	UGC
Refresher Course	UGC – HRDC, University of Kerala	14/07/2004 to 04/08/2004	UGC
Refresher Course	UGC – HRDC, University of Kerala	26/07/2007 to 14/08/2007	UGC
Workshop for Principals	UGC – HRDC, University of Kerala	14/02/2020 to 15/02/2020	UGC
One day Workshop on Innovations in Teaching Learning Process	College Development Council, University of Kerala	24/02/2020	University of Kerala
One Day orientation on State Assessment and Accreditation Centre (SAAC)	The Kerala State Higher Education Council	14.07.2023	KHEC

PART B: ACADEMIC/ RESEARCH SCORE

METHODOLOGY FOR UNIVERSITY/COLLEGE TEACHERS FOR CALCULATING ACADEMIC/RESEARCH SCORE

**(Only for placement from Academic level 13A to 14; Associate Professor to
Professor/Principal)**

01. Published Research Papers in Peer-reviewed or UGC listed Journals

Sl. No	Title with page Nos.	Journal	UGC ISSN/ISB N No	Whether peer reviewed , Impact Factor, if any	No. of authors	Whether you are the main Author/ Corresponding Author
01	Microhardness studies of nanocrystalline calcium tungstate 43(02), 193 – 199 (2008)	Crystal Research Technology	0232-1300 1521-4079	Peer reviewed IF : 1.5	02	Yes
02	Synthesis, characterization and optical properties of nanocrystalline lead molybdate. 205(11), 2666 – 2672 (2008)	Physica Status Solidi (A) Applications and Materials	1862-6300 1862-6319	Peer reviewed IF : 2	02	Yes
03	Microhardness studies of nanocrystalline lead molybdate. 519(1-2), 141 – 146 (2009)	Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing	0921-5093	Peer reviewed IF : 6.4	02	Yes
04	Structural characterization, TL studies and kinetic analysis of SrSO ₄ :Eu nanophosphors under X-ray and gamma excitations 155, 21 – 27 (2016)	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	1386-1425	Peer reviewed IF : 4.4	06	No
05	TL dosimetric characterization of gamma irradiated SrSO ₄ :Eu phosphors. 183, 259 – 265 (2017)	Journal of Luminescence	0022-2313 1872-7883	Peer reviewed IF : 3.6	06	No
06	TL characterization	Journal of	0022-2313	Peer	06	No

	of Ag co-doped SrSO ₄ : Eu phosphor for gamma dosimetry applications. 184, 136 – 142 (2017)	Luminescence	1872-7883	reviewed IF : 3.6		
07	Structure and room-temperature ferromagnetism evolution of Sn and Mn-doped NiO synthesized by a sol-gel process. 43(14), 11090 – 11096 (2017)	Ceramic International	0272-8842	Peer reviewed IF : 5.2	04	No
08	Thermoluminescence properties and trap parameters Determination of CaSO ₄ :Dy, P, Si Phosphor under X-ray Excitation. 06(03), 325 – 332 (2017)	International Journal of Advance Research in Science and Engineering	2319 - 8354	Peer reviewed	06	No
09	Thermoluminescence studies of CaSO ₄ :Dy,P,Si phosphor under X-ray irradiation. 44(03), 3492 – 3496 (2018)	Ceramic International	0272-8842	Peer reviewed IF : 5.2	07	No
10	High temperature thermo luminescence emissions of SrSO ₄ nano phosphors doped with Eu and Mn. 03(08), 09 – 11 (2015)	International Journal of Engineering Research and Technology	2278-0181	Peer reviewed	05	No
11	Optical Properties of chemically synthesized nanostructured strontium tungstate. 09(05), 600 – 610 (2019)	International Journal of Basic and Applied Research	2249-3352 2278- 0505	Peer reviewed	01	Yes
12	DC conductivity of nanocrystalline calcium tungstate 8 (2) 1605 – 1621	International Journal of Scientific Research and	2279-0543	Peer reviewed	01	Yes

	(2019)	Reviews				
13	Emergence of fifth-order optical nonlinearity in 2-(2-Quinoly)-1,3-indanione with strong third-order nonlinear effect under low power CW laser excitation 769 (2021) 138434	Chemical Physics Letters	0009- 2614 1873- 4448	Peer reviewed IF: 2.8	04	Yes
14	Nonlinear analysis of solar wind parameters 365(2020) 46	Astrophysics and Space Science	0004- 640X 1572- 946X	Peer reviewed IF: 1.9	04	Corresponding Author
15	Nonlinear analysis of Radial Evolution of solar wind in the inner heliosphere 296 (2021) 23	Solar Physics	0038- 0938 1573- 093X	Peer reviewed IF: 2.8	04	Corresponding author
16	Synthesis and Characterization of Ag added nanostructured TiO ₂ using sol-gel technique 8 (2021) 1229 – 1240 Published on 25-06-2021	International Journal of Contemporary Architecture “The New ARCH”	2198 - 7688	Peer Reviewed	03	No
17	Switching of reverse saturable absorption to saturable absorption in Dye-carbon nanotube blended system under CW and Q-switched laser excitation 385 (2023) 122345	Journal of Molecular Liquids	0167 – 7322 1873 - 3166	Peer reviewed IF:6	04	Corresponding Author
18	Revealing the role of defect-induced trap levels in sol-gel derived TiO ₂ samples and synergistic effect of a mixed phase in photocatalytic degradation of organic pollutants 185 (2024) 111774	Journal of Physics and Chemistry of Solids	0022 – 3697 1879 - 2553	Peer reviewed IF:4	04	No
19	Structural	Research	0972-0626	Peer	03	Corresponding

	Parameters of amphetamine: A DFT approach 28 (2024) 86-99	journal of Chemistry and Environment		reviewed IF: 0.238		Author
20	Band alignment and interfacial charge transfer in sol-gel derived anatase/rutile heterophase TiO ₂ : explaining the synergistic photocatalytic activity 26 (2024) 13937 - 13948	Physical Chemistry Chemical Physics	1463 - 9076 1463 - 9084	Peer reviewed IF: 3.3	03	No

02. Publications other than Research Papers

02(a). Articles/Chapters published in Books/Full papers in Seminar Proceedings

Sl. No	Title with Page Nos.	Title of Book	Editor & Publisher	ISSN/ SBN No.	No. of Co-authors	Whether you are the main Author
01	Synthesis, characterization and DC conductivity of nanocrystalline Lead Molybdate.	Proceedings of the DAE Solid State Symposium	Board of Research in Nuclear Sciences, Dept of Atomic Energy, Mumbai	81-8372-035-8	01	Yes
02	Optical properties of nanocrystalline BaMoO ₄	Proceedings of UGC Sponsored National Seminar on Materials: Process and Applications of Novel Technologies	Department of Physics, HHSPB NSS College for Women, Neeramankara, Thiruvananthapuram Nalini Publications, Nagarcoil	978-93-80609-15-7	06	No
03	Optical characterization of chemically synthesized Nanocrystalline BaMoO ₄	Proceedings of the 27 th Kerala Science Congress	Kerala State Council for Science, Technology and Environment	81-86366-88-1	02	No
04	Suitability of VHR method for the computation of kinetic parameters of TL phosphors	Proceedings of the National Seminar on Interdisciplinary Approaches in Materials	Mahatma Gandhi College Research Committee in association with KSCSTE, Govt. of	978-9-5351-662-8	01	No

		and Biological Research in association with KSCSTE	Kerala			
05	A study of temperature dependent phase transition in nanostructured TiO ₂	Proceedings of International Conference on Recent Research Trends in Physics, Chemistry, Mathematics and Life Science 2022	Research and Development Cell, VTM NSS College Dhanuvachapuram	978-8-19-565360-7	04	No
06	Investigation of the structural parameters methamphetamine using density functional theory	Proceedings of National Conference on Recent Research Trends in Physics, Chemistry, Mathematics and Biological Sciences 2023	Research and Development Cell, VTM NSS College Dhanuvachapuram	978-81-962695-0-0	03	No

02(b). Translation works in Indian and Foreign Languages by faculties NIL

Sl. No.	Title with Page Nos.	Book, Title, Editor & Publisher	No. of Co-authors	Whether you are the main Author
01				

03. Creation of ICT mediated Teaching Learning pedagogy and development of new and innovative courses and curricula

03(a). Development of Innovative Pedagogy NIL

Sl.No.	Type of Pedagogy	Level (UG/PG)	Class and Semester	Topic Covered
01				

03(b). Design of New Curricula and Courses NIL

I. No.	Name of Course	Level (UG/PG)	Class and Semester	University
01				

03(c). MOOCs

NIL

Sl. No.	Name of MOOC	Level (UG/PG)	University
01			

03(d). Development of e-learning delivery process/material (available at <https://www.anandvm.in>)

Sl. No.	Title of Module/Material(Available at https://www.anandvm.in)
01	Evolution of Quantum Mechanics
02	Towards Quantum Mechanics
03	Probability Concepts in Quantum Mechanics
04	Electrodynamics
05	Theory of Scattering
06	Measurements and Error Analysis
07	Eigen value problems in quantum mechanics
08	Superconductivity
09	Relativistic Quantum Mechanics
10	Emergence of Quantum Mechanics
11	Band Theory
12	Quantum Mechanics – Free particle, Dirac Delta Potential and 1D Potential
13	Remote Sensing – Applications
14	Foundations of Quantum Mechanics
15	Quantum Mechanics for graduate students – Google Classroom
16	Solid State Physics for graduate students – Google Classroom

04. Research Guidance, Projects and Consultancy**04(a). Research Guidance**

Sl. No.	Name of the Candidate	Title of the Thesis	Status	Date of submission/ Date of Award
Ph. D.				
01	Lakshmi S. Nair	Synthesis and characterization of doped and undoped nanostructured Nickel Oxide	Degree Awarded	18/07/2019
02	Kiran K	Studies on Nonlinear Dynamics in Solar Wind Plasma in the Inner Heliosphere	Degree Awarded	25/02/2022
03	Nimmy A V	Improving the Photocatalytic Activity of Nanocrystalline	Thesis Submitted	18/04/2024

		Titanium Dioxide through Heterophase Formation and Surface Modification		
M. Phil or Equivalent				
01	Adarsh S. Pillai	Graphene doped pedot: PSS hybrid thin films for transparent conducting electrode applications	Degree Awarded	2017 - 18
02	Preksha Vishnu	Nanostructured Zinc Oxide through self-ignition route: synthesis, characterization and photocatalytic studies.	Degree Awarded	2017 - 18
PG				
01	Arathi R. Nair	Synthesis of nanocrystalline Calcium Molybdate and its characterization using X-ray diffraction	Degree Awarded	2018
02	Deepthi Krishna K.	Analysis of UV – visible spectra of nanocrystalline Calcium Molybdate.	Degree Awarded	2018
03	Lakshmi S. Nair	Analysis of Raman and IR Spectra of nanocrystalline Calcium Molybdate.	Degree Awarded	2018
04	Viji .S	Analysis of IR and Raman Spectra of nanocrystalline lead tungstate	Degree Awarded	2009
05	Lakshmi J.	Synthesis of nanocrystalline Lead Tungstate and its characterization using X-ray diffraction	Degree Awarded	2019
06	Reshmi V. R.	Analysis of UV-Visible spectra of nanocrystalline Lead Tungstate.	Degree Awarded	2019
07	Geethu M. S.	Analysis of photoluminescence spectra of nanocrystalline Lead Tungstate	Degree Awarded	2009
08	Gayathridevi V G	Study of Raman and IR spectra of nanocrystalline strontium tungstate	Degree Awarded	2010
09	Suvarna L S	Synthesis and characterization of nanocrystalline strontium tungstate	Degree Awarded	2010
10	Lavanya S	Analysis of UV-Visible spectra of nanocrystalline strontium tungstate with different grain size.	Degree Awarded	2011
11	Binisha F M	A study of photoluminescence properties of nanocrystalline strontium tungstate with different grain sizes	Degree Awarded	2011
12	Veena V S	Synthesis and characterization of nanocrystalline BaWO ₄	Degree Awarded	2012
13	Nimmy A V	Analysis of UV-Visible spectra of nanocrystalline BaWO ₄	Degree Awarded	2012

14	Dhanya G R	Study of photoluminescence spectra of nanocrystalline BaWO ₄	Degree Awarded	2012
15	Veena Raj R N	Synthesis and Characterization of nanocrystalline BaMoO ₄	Degree Awarded	2013
16	Aswathy V	Optical properties of nanocrystalline BaMoO ₄	Degree Awarded	2013
17	Ahalya P	Synthesis and characterization of nanocrystalline SrMoO ₄	Degree Awarded	2014
18	Anju J	Study of absorption spectra of nanocrystalline SrMoO ₄	Degree Awarded	2014
19	Aswathy V G	Analysis of IR and Raman Spectra of nanocrystalline SrMoO ₄	Degree Awarded	2014
20	Aneesha M A	Synthesis and Characterization of chemically prepared CaWO ₄ nanoparticles	Degree Awarded	2015
21	PoojaSudhakaran	Analysis of optical properties of CaWO ₄ nanoparticles	Degree Awarded	2015
22	Nidhi V S	Study of IR and Raman spectra of CaWO ₄ nanoparticles	Degree Awarded	2015
23	Niranjana S Nair	Synthesis and characterization of lead tungstate nanoparticles using X-ray diffraction	Degree Awarded	2017
24	Annu S G	Analysis of optical properties of nanocrystalline lead tungstate	Degree Awarded	2017
25	Akhil U. Nair	Investigation on properties of Schwarzschild black hole using n-sphere model.	Degree Awarded	2018

04(b). Completed Research Projects

Sl. No.	Title	Agency	Period	Grant/Amount Mobilized (Rs. Lakh)
01	Synthesis and Characterization of Nanocrystalline Lead Tungstate and Strontium Tungstate	UGC (Letter No MRP(S) -367/08- 09/KLKE027/UGC- SWRO dated 30/03/2009)	2009 - 2010	0.326 lakhs

04(c). Ongoing Research Projects NIL

Sl. No.	Title	Agency	Period	Grant/Amount Mobilized (Rs. Lakh)
01				

04(d). Consultancy NIL

Sl. No.	Title	Agency	Period	Grant/Amount Mobilized (Rs. Lakh)

01				
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05. Project outcome/outputs

05(a). Patent/technology transfer/product/process NIL

Sl. No.	Description/Patent	International/National
01		

05(b). Major Policy document submitted to an International Body/organisation or Central or State Government or Local Bodies NIL

Sl. No.	Description/Patent	International Bodies/ Central/State Government/ Local Bodies
01		

05(c). Fellowships/Awards

Sl. No	Award/Fellowship	International/National /State or University level	Awarded by
01	Junior Research Fellowship - UGC	National	UGC
02	UGC Fellowship under FIP	National	UGC
03	Best Poster Award, 52 nd DAE Solid State Symposium	National	Dept. of Atomic Energy. Govt. of India

06. Invited Lectures and Papers at International/National/State or University Level

Sl. No.	*Title of the Lecture/ Paper/ Academic Session	Title	Organized by	Whether International/ National/State or University Level
01	Microhardness of Nanostructured Lead Molybdate	National Conference on Advanced Characterization Techniques on Nanomaterials	Indian Institute of Technology, Roorkee	National
02	Raman Spectra of nanoparticles of Lead Molybdate	International Conference on Nano Science & Nanotechnology	India Habitat Centre, New Delhi	International
03	ICNT 53 – Microhardness studies of	International Conference on Nanotechnology –	Department of Physics, Coimbatore Institute of	International

	compacted nanoparticles of Calcium Tungstate	Materials and Methods (To Meet Global Challenges)	Technology	
04	Analysis of UV – Visible Absorption Spectra of Nanoparticles of Lead Molybdate.	International Symposium on Frontiers in Nanoscale Science, Technology and Education	CUSAT Cochin	International
05	B206 –Analysis of microhardness of compacted nanoparticles of Lead Molybdate.	8 th International Conference on Nanostructured Materials NANO 2006	Indian Institute of Science, Bangalore	International
06	Study of UV – Visible and Raman spectra of nanoparticles of Calcium tungstate.	International Conference on Nanoscience and Nanotechnology ICNSNT 2006	Centre for Nanoscience and Nanotechnology, University of Madras	International
07	Synthesis and characterization of nanostructured Calcium molybdate	UGC Sponsored Regional Seminar on Current Trends in Materials Science	Department of Physics, M G College, Tvm	University
08	Optical properties of nanocrystalline BaWO ₄	National Seminar on the Advancements in Physics	Department of Physics, University College, Tvm	National
09	Remote Sensing	National Seminar on Advancement in Physics	Department of Physics, University College	National
10	Fascinating world of Nano Materials	Seminar on Fascinating world of nanomaterials	Iqbal College, Peringammala	University
11	Introducing Quantum Mechanics	National Seminar on Introduction to Quantum Information	Govt. College for Women, Trivandrum	National
12	Remote Sensing and Applications	Recent Advancements in Space Physics and Technology	Sree Narayana College, Sivagiri	University
13	Nanotechnology – Solution to Energy Crisis	Three Day National Seminar on Energy Crisis: Problems and Prospects	C. Achutha Menon Study Centre & Library	National
14	Foundations of Quantum Mechanics	UGC sponsored seminar on Advancement in Physics	Post Graduate Department of Physics, MMNSS College, Kottiyam	National
15		National Science	St. Michael's	National

	Science for Nation Building	Day Celebrations sponsored by Kerala State Council for Science, Technology & Environment	College, Cherthala	
16	Conserving Ozone : Challenges and Prospects	One day Seminar and Poster Exhibition on Conservation of Ozone Layer – Challenges and Opportunities	Department of Chemistry, VTM NSS College, Dhanuvachapuram, Thiruvananthapuram	University
17	Introducing Quantum Mechanics	National Seminar on Space Physics and Quantum Mechanics	Department of Physics, Government Arts College, Thiruvananthapuram	National
18	An Introduction to Quantum Mechanics	Seminar on Theoretical Perspectives of Physics	Department of Physics, Government College, Kariavattom, Thiruvananthapuram	National
19	Elements of Statistical Mechanics	National Seminar on Theoretical and Experimental Physics	Department of Physics, Government College for Women, Thiruvananthapuram	National
20	Introducing Quantum Mechanics	National Seminar on Foundations of Physics	Department of Physics, Government College, Nedumangad	National
21	Foundation of Quantum Mechanics	Asthra 2018 National Seminar	Christian College, Kattakada, Thiruvananthapuram	National
22	Formulation of Quantum Mechanics	National Seminar on General Aspects in Physics	Department of Physics, Government Arts College, Thiruvananthapuram	National
23	Theoretical aspects of experiments in Physics	Workshop for Senior Secondary teachers	Blue Mount Public School	State