

FACULTY PROFILE PROFORMA

Title (Ms/Mr/Dr/Prof)	DR	FirstName	Aravind	LastName	Kumar	
Designation	Assistant Professor					
Department	Physics					
Address (Official)	B-3 FF Kh No -784/3 Galaxy Apartment Mander Wali Gali Sant Nagar Burari-110084					
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Email	arvindsoniyal@gmail.com (Personal) arvindkumar@kalindi.du.ac.in (official)					

Education Qualification's

Subject	Institution	Year	Details
Physics	Ch.Charan.Singh University Meerut	2010	Ph.D
Physics	Ch.Charan.Singh University Meerut	2005	M.Phill
Physics	Ch.Charan.Singh University Meerut	2002	M.Sc
Physics, Chemistry, Maths	Ch.Charan.Singh University Meerut	2000	B.Sc

Career Profile

Organisation/Institution	Designation	Duration	Role
S.G.T.B Khalsa College, University of Delhi	Assistant Professor	28/08/2008 to 31/04/2009	Teaching
Kalindi College, University of Delhi	Assistant Professor	22/07/2009 to Current Date	Teaching

Research Interests/Specialization

Ph.D work entitled "optical properties of Hydrogenated Amorphous silicon thin films deposited by plasma enhanced chemical deposition technique" its related with different optical structural and electrical studies of plasma glow discharge semiconductors thin films. The thin films of un doped a-Si:H and doped a-Si:H films, have prepared by plasma glow discharge deposition technique. In optical properties we have determine the optical band gap with the help of absorption spectra and refractive index and exaction coefficient by using the transmission spectra of un doped a-Si:H and both doped (n-type & p-type) a-Si:H semi conducting thin films. Photoluminescence study observed the recombination process in a-Si:H.. The FT-IR measurement were study the chemically bonding of SiH, SiH₂ and SiH₃ in a-Si:H, and RAMAN spectra study the phase transition in a-Si:H . XRD, SEM, and AFM show the structural properties in a-Si:H. In electrical properties we measured the dark conductivity, photo conductivity with inverse of temperature, and also show the effect of annealing on all properties of the a-Si:H thin films.

Research Interests/Specialization			
<ul style="list-style-type: none"> • Thin Film technology • Hydrogenated Amorphous Silicon • Sensors • Solar Cell • PECVD Technique 			
Experiment Handling			
<ul style="list-style-type: none"> • UV Spectrophotometer • XRD, SEM, TEM, FESEM, EDEX • Raman Spectrometer • Photo Conductivity, Dark Conductivity • Photoluminescence 			
Administrative Assignments / Contribution to corporate life			
<p>Sawthta Abhiyan Nukkad Natak (awareness cleaning) NSS Committee Member Sports Committee Member Eco Club Committee Member Light Mike and sound Committee (Co- Convenor) IBSD Committee (Convenor) Ambedkar Centre Committee Member Departmental B.Sc(H) Committee (Co-Convenor) West Management Committee Member Proctor Board Committee Member Criteria 6 Committee Member Criteria 2 Committee Member</p>			
Teaching Experiences			
<p>SGTB Khalsa College University of Delh 2008-2009, as (Assistant Professor) (Ad-hoc)- 01 Year Kalindi College University of Delh from 22/07/2009 to current Date as (Assistant Professor) - 15 Year</p>			
Research Guidance			
NILL			
Publication (Peer Reviewed/Indexed Journals)			
Year of Publication	Title	Journal (Name of the journal. Vol Issue ISSN)	Co-Author
2006	Optical, Structural and electrical properties of zinc sulphide vacuum evaporated thin films	Indian Journal of Pure & Applied physics	Co Author
2007	Study of optical constants in CdxZn1-xS vacuum evaporated thin films	Indian Journal of Engineering & Material science	Co Author
2008	High pressure growth of nanocrystalline silicon films	Nano Science and Nanotechnology,	Co Author
2012	Study of Wavelength Dependence of Optical Constant for ZnSe Vacuum Evaporated Thin Films	International Journal of Latest Reserch in Science and Technology	Co Author
2013	Structural & Optical Characterization of	International Journal of Soft	Co Auother

	Ge _x Se _{80-x} Pb ₂₀ Thin Films Prepared by Thermal Evaporation Technique	Computing and Engineering(IJSCE)	
2013	Effect of Post Deposition Annealing on Hydrogenated Amorphous Silicon Thin Films Grown at High Power by PECVD,	International Journal of Soft Computing and Engineering(IJSCE)	Auother
2015	Ellipsometric Analysis Cd _x Se _{1-x} thin films prepared by a Thermal Evaporation Technique	International Journal of Engineering Research & Management Technology	Co Author
2016	Spectroscopic Study of Vacuum Evaporated Crystalline Cadmium Zinc Sulphide thin films.	International Journal of Scientist & Engineering Reserch	Co-Auother
2019	Structural Optical and Raman Characterization of Nano- Crystalline Cu Doped ZnO Thin films Deposited by Pulse Laser Deposition Technique.	Global Journal of Science Frontier Research: A Physics and Space Science	Co -Auother
2021	Structural, Thermal and electrical properties of composites electrolytes (1-X) C _s H ₂ PO ₄ /xZrO ₂ (0≤x≤0.4) for fuel cell with advanced electrode.	SN Applied Science A Springer Nature Journal,	Co- Auother
2021	Effect of Post Growth Annealing Process on optical properties of CdSe thin films on Si p-type Substrate Deposited by pulsed Laser Deposition Technique	<i>The International Journal of analytical experimental model analysis,</i>	Co-Auother
2021	The Influence of TiO ₂ on the proton Conduction and Thermal Stability of CsH ₂ PO ₄ Composite Electrolytes	<i>“South African Journal of Chemical Engineering</i>	Co-Author
2023	Role of cerium pyrophosphate for improving protonic conduction and stabilization of SDP.2H ₂ O composite electrolytes.	Inorganic Chemistry Communications	Co-Author

Seminar/Workshop/Conferences Presentation/Organisation

2007	Electrical Properties of microcrystalline silicon films grown using PECVD” by Jhuma Gope, Aravind Kumar A. Prashar, sushil Kumar, C.M.S. Rautahn and P.N.Dixit	<i>7th national conference on condensed matter</i> during 1-3 Feb,2007 at Jaipur, India.	
2007	Properties of high rate deposited amorphous silicon films using PECVD technique” Aravind Kumar , Sushil Kumar, P.N.Dixit and V.K.Rastogi	<i>7th national conference on condensed matter</i> during 1-3 Feb, 2007 at Jaipur, India.	First -Author
2007	“Estimation of mobility of nano/micro crystalline silicon films using conductivity measurement” by Jhuma Gope, Aravind Kumar , P.N.Dixit and C.M.S. Rauthan,	<i>Material Research Society of India,</i> Feb. 12-14,2007, New Delhi.	Co-Author
2007	“Diamond-like carbon coating with silicon prepared by plasma-assisted chemical vapour deposition technique” by Neha Goyal, Sushil Kumar, Aravind Kumar , C.M.S. Rauthan and P.N.Dixit,	<i>Material Research Society of India,</i> Feb. 12-14,2007, New Delhi.	Co-Author
2007	“Effect of annealing on the properties of hydrogenated amorphous silicon thin films grown at high power by PECVD technique”	<i>Material Research Society of India,</i> Feb. 12-14,2007, New Delhi.	Co-Author

	by Aravind Kumar , Jhuma Gope, Sushil Kumar, P.N.Dixit and C.M.S. Rauthan,		
2009	“Vacuum Thermal Re-crystallization of a-Si:H Thin Films Deposited by PECVD Technique” by Aravind Kumar and P.N.Dixit,	96 th Indian Science Congress, January 6-7, 2009, Shillong, Meghalaya.	First Author
2011	Effect of Annealing on the Optical Properties of Hydrogenated Amorphous Silicon Thin Films Grown at High Power by PECVD Technique, Aravind Kumar, Pawan Kumar, Sushil Kumar, P.N. Dixit and V.K. Rastogi	National Conference on Advancement of Nano Materials and its Applications, Department of Physics D.A.V. College Kanpur (U.P), Feb. 15-16, 2011	First Author
2012	Effect of Thickness on the Optical and Electrical Properties of Cd _x Zn _{1-x} S. Vacuum Evaporated Thin Films. Pawan Kumar, Aravind Kumar & P.N.Dixit,	Advancement of Nano Materials and its Applications, Department of Physics D.A.V. Collage Kanpur (U.P), Feb. 09-11, 2012.	Co-Author
2013	Optical and Structural Properties of ZnSeTe Thin Films Deposited on galas & ITO Substrate, Pawan Kumar, Aravind Kumar , Pravinder Kumar, Kapil Malik,	Proceeding of National Conference on Upcoming Trends in Chemical Science UTCS-2013	Co-Author
2013	Investigation of optical and Structural Properties of ZnTe thin Films, Pawan Kumar, Aravind Kumar , Pravinder Kumar, Kapil Malik,	Proceeding of National Conference on Upcoming Trends in Chemical Science UTCS-2013.	Co-Author
2013	Effect of Thickness on Optical Properties of Se-Te Chalcogenide Semiconductor .Pawan Kumar, Kapil Malik, Parvinder, Anubha Gupta and Aravind Kumar,	National Conference on Emerging Trend in Engineering & Science, Faculty of Engineering & Technology Gurukul Kangri University Haridwar Jtrakhand India, November 09-10, 2013.	Co-Author
2014	Study of Optical Properties of CdSSe Vacuum Evaporated Thin Films Pawan Kumar, Aravind Kumar , Kapil Malik, Parvinder,	Inovation in science and Technology for Inclusive development, 22-23 March-2014, Organized by department of Chemistry C.C.S University Meerut with ISCA Hardwar Chapter.	Co-Author
2014	Study of Optical Properties of CdSSe Vacuum Evaporated Thin Films Pawan Kumar, Aravind Kumar , Kapil Malik, Parvinder,	SCA Haridwar Chapter National Conference on Inovation in science and Technology for Inclusive development, Jointly Organized by Indian Science Congress Association, Haridwar Chapter & Department of Chemistry C.C.S University Meerut(U.P) India. 22-23 March-2014,	Co-Author

National or International Workshop/Conferences/Symposium/ (Attended).

2014	National workshop on recent Trends in Atmospheric and Environmental Science	Gurukula Kangri Vishwavidyalaya Haridwar, 4-5 April 2014.	Author
2015	Workshop & Hand on Training on Synthesis and Characterization of thin films,	Department of physics Gurukula Kangri Vishwavidyalaya, Haridwar, 31 st March- 1 st April-2015.	Author
2000	International Conference on Advance Materials (ICAM-2000),	Department of Physics Ch.Charan Singh University Meerut, December 26-28, 2000.	Author
2004	National Conference on Engineering Optics & Spectroscopy,	Department of physics, Meerut College Meerut, Ch.Charan Singh University Meerut, April 5-7,2004.	Author
2006	International Symposium on Advances in Physics,	Department of physics, NAS College Meerut, Ch.Charan Singh University Meerut, Feb 25,2006.	Author
2007	National Symposium on Perspectives in Engineering optics	Department of physics, Meerut College Meerut, Ch.Charan Singh University Meerut, April 15,2007	Author
2008	National Conference on Semiconductor Material & Technology	Department of physics Gurukula Kangri University Haridwar, 16-18 October-2008.	
2009	National Symposium on Laser and Their Applications,	Department of Physics Ch.Charan Singh University Meerut, Sponsored by Asian Journal Of Physics, September 12, 2009.	Author
2009	Indo-Russian Workshop on Nanotechnology and Laser induced Plasma-2009	University of Delhi Delhi, November 24-26, 2009.	Author
2010	Second National Workshop on Quantum Mechanics: Theory and Application	Organized by Forum for interdisciplinary Application in Science (FiDAS), Deen Dayal Upadhyaya College, University of Delhi, October 22-23, 2010.	Author

2013	Workshop on The Physics and Mathematics of the Universe	Gurukula Kangri Vishwavidyalaya Haridwar, March 11-12, 2013.	Author
2013	National Seminar on Role of Ion Beam in Material Science and Application Programme on Ion Beam Facilities at IUAC New Delhi	, Department of Physics Ch.Charan Singh University Meerut, September 20,2013.	Author
2015	Workshop & Hands on Training on Synthesis and Characterization of Thin Films,	Department of physics Gurukula Kangri Vishwavidyalaya Haridwar, 31March-1 April, 2015.	Author
2016	Seminar on Light & Light Based Technologies (SLT-2016),	Organised by Optical Society of india (Dehradun Local Chapter) & Doon University Dehradun, 13-14 February 2016.	Author
2020	Two day workshop on skill Enhancement by ICT learning in the period of online knowledge exchange	Two day workshop on skill Enhancement by ICT learning in the period of online knowledge exchange Organised by Department of physics and IQAC kalindi college on Dec9-10 2020	Technical Committee
2020	Skill Enhancement by ICT learning in the period of online knowledge exchange	Two day workshop on skill Enhancement by ICT learning in the period of online knowledge exchange Organised by Department of physics and IQAC kalindi college on Dec9-10 2020	Trainer
2021	Online National Seminar on Exploring physics with expert	Organised by Department of physics kalindi college in association with National Academy of Science India(NASI), Delhi Chapter on 10 Feb2021.	Organizing Committee
2021	Two Days National Webinar on Sewa Swadheenta and Sankalp: Naye Bharat ka nirmaan to celebrate 75 year's of india independence- Azadi ka Amrat Mahotsav 6-7 August 2021	Ramanujan college and Kalindi college university of delhi	Participated
2022	National Workshop Fascinating science and Indian contribution	Under the aegis National Academy of Science India(NASI), Delhi Chapter Science Socitey program organised by by Department of physics kalindi college on 28-29 October 2022.	Participated
2022	National Workshop Fascinating science and Indian contribution	Under the aegis National Academy of Science India(NASI), Delhi Chapter Science Socitey program	Organising Team

		organised by by Department of physics kalindi college on 28-29 October 2022.	
2022	National Webinar on Omnipresent Physics: An Experiential Approach	Omnipresent Physics: An Experiential Approach Under the aegis National Academy of Science India(NASI), Delhi Chapter Science Socitey program organised by by Department of physics kalindi college on 19 October-1 November 2022.	Organising Team
2021	Online National Seminar on Exploring physics with expert	Organised by Department of physics kalindi college in association with National Academy of Science India(NASI), Delhi Chapter on 10 Feb2021.	Organizing Committee
Seminar/Workshop/Conferences Presentation/Organisation			
2019	National Seminar on Nuclear, Particle & Acceleration Physics	Jointly Organised Department of physics kalindi college, The National Academy of Science India(NASI), Delhi Chapter	Participated
2020	A Two days workshop on skill Enhancement by ICT Learning in the period of online knowledge Exchange	Organised Department of physics kalindi college and IQAC kalindi college on Dec 9-10. 2020	Trainer
2020	Webinar on Art and Science of Mentoring	Lectured by Dr Pratibha Jolly(FNASc, FInstP (UK), Academic Consultant NAAC, Former Principal Miranda House University of Delhi Organised Department of physics, Daulat Ram College on June1,2020	Participated
2020	National Level Quiz Competition on COVID-19	Organized by IQAC of Vanita Vishram women's college of commerce surat on 4-5 -2020 to spread awareness about CORONA	Participated (With 85% Grad)
2020	COVID-19 Awareness Champions QUIZ	Organized byDepartment of Chemistry, Navyug Kanya Mahavidyalaya Rajender Nagar Lucknow on 25-5-2020	Passing (With 100% Score)
2023	2 nd International Conference on Advanced Functional Material & Device (AFMD-2023)	Organised by IQAC & Department of physics ARSD college on March 13-15. 2023	Participated
2023	National Seminar on Energy	Organised by Physithon- The Physics Society, Department of physics kalindi college on 27 April 2023.	Organizing Committee Member
2024	Scivolution on the occasion National Science Day in Collaboration with Indraprastha Shakti- A National Movement for women	Organised by Physithon- The Physics Society, Department of physics kalindi college on 28 Feb 2024.	Organizing Committee Member
2024	For Being a worthy attendee in the webinar to commemorate the death anniversary of APJ Abdul Kalam on the topic creating a liveable	Organised by Darayao Singh Rathore Mem. Degree College Gularia Budaun	Attended

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Faculty Development/ Refresher course/ orientation Programs			
2024	Two Week Refresher Course “Life and Science, Delhi	Teaching Learning center Ramanujan college university of delhi under the aegis Ministry of education Malaviya Mission Teacher Training Programme, Delhi	28/02/2024 to 13/03/2024
2024	Two Week Interdisciplinary Refresher course” Advanced Research Methodology”, Delhi	Teaching Learning center Ramanujan college university of delhi under the aegis Ministry of education Malaviya Mission Teacher Training Programme, Delhi	26/04/2024 to 9/05/2024
2024	Four Week Faculty Induction/Orientation Programme for faculty in University/Colleges/ Institutes of higher Education,	Teaching Learning center Ramanujan college university of delhi under the aegis Ministry of education Malaviya Mission Teacher Training Programme, Delhi	27/03/2024 to 23/04/2024
2024	NEP 2020 Orientation & Sensitization Programe NEP 2020 Orientation & Sensitization Programe,	Maharshi Dayanand Saraswayi university Ajmer UGC- Malaviya Mission Teacher Training center(MMTTC) (Erstwhile UGC-Human Resource Development Center), Ajmer Rajasthan	01/07/2024 to 10/07/2024
2024	7 Days faculty Development Program “Practical Use of official Language Hindi	Kalindi college university of Delhi	22/05/2024 to 28/05/2024
2024	Two week Faculty Development Program(FDP) in Programming Using Python	Hindu College University of Delhi in collaboration with Spoken-Tutorial IIT Bombay	22/07/2024 to 02/08/2024
2021	One Week(online) Interdisciplinary Faculty Development Programme on Creation and	Keshav Mahavidyalaya, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Center Hansraj College University, Delhi	24/08/2021 to 31/08/2021
2021	Two Week(online) Interdisciplinary Faculty Development Programme on MOOCs E-Content Development, Research Methodology and Statistical Tools in Open Education World	of Delhi in collaboration with Mahatma Hansraj Faculty Development Center Hansraj College University of Delhi	03/08/2021 to 17/08/2021
Awards & Distinctions			
First Dr B.R Ambaidkar National Teachers Award -2010			
Public Service/ University Service/ Consulting Activity			

Sawthta Abhiyan Nukkad Natak (awareness cleaning)
NSS Committee Member
Sports Committee Member
Eco Club Committee Member
Light Mike and sound Committee (Co- Convenor)
IBSD Committee (Convenor)
Ambedkar Centre Committee Member
Departmental B.Sc(H) Committee (Co-Convenor)
West Management Committee Member
Proctorial board Committee Member

Professional Societies Memberships

NILL

Projects (Major Grants/ Collaborations)

STUDENT DATABASE SYSTEM BY C++ (Self Funded)

Other Details

NCC 'B' Certificate

NSS 240 Hours Work and Two Campus Certificate



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