

CURRICULUM VITAE

Dr. Divya Jyoti, M.Sc. Physics, Ph.D. (CSIR-NET)

Chandigarh Clinic, Opposite Railway Crossing,

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Date of Birth-17.08.1986, Nationality-Indian, Marital Status-Married

ACADEMIC QUALIFICATIONS

- ★ **M.Sc. Physics** with 74.56% from Deptt. Of Applied Physics, Guru Jambheshwar University of Science & Technology, Hisar (Haryana) in 2007 with **gold medal**.
- ★ Qualified **CSIR-NET** exam (JRF) in 2007.
- ★ B.Ed. from Punjabi University, Patiala with 78% in 2008.
- ★ Qualified state teacher's eligibility Test (STET) by Haryana Board in 2008.
- ★ B.Sc. from Punjabi University Patiala in 2005 with 72.16% marks with distinction as **college color and Role of Honor**.
- ★ Senior Secondary from H.B.S.E. (Haryana) in 2002 with 75.8% marks with distinction as **District topper**.
- ★ Matriculation from H.B.S.E. (Haryana) in 2000 with 86.5% marks with distinction as **state topper**.

CAREER OBJECTIVE

To work in a challenging environment which would utilize my skills to the maximum and want to be an asset for the institution which gives me ample opportunities for growth and development.

PRESENT STATUS

- ★ Working as Assistant Professor in physics in **University College, Jaito, Punjab** since Sep. 7, 2013.

Ph.D. DETAILS

- ★ Topic: *Dye-Sensitized Solar Cells Based on Mesoporous Oxide Electrodes*
- ★ Supervisor: Prof. Devendra Mohan
- ★ Deptt. Of Applied Physics, Guru Jambheshwar University of Science & Technology, Hisar (Haryana)

PROJECTS COMPLETED

- ★ Study of Higher Order Non Linearities in semiconductors.
- ★ Preparation of Metal Oxides Using SOL GEL Technique.
- ★ Computer based programming in FORTRAN / C Language to solve Physics based problems.
- ★ Optical limiting and degenerate four-wave mixing in nonlinear optical materials using lasers.

EXTRA CURRICULAR ACTIVITIES

- ★ Won First Prize in AKHIL BHARTIYA SANSKRITI GYAN PARKISHA 2000.
- ★ Secured Second Position in Debate Comp. in INTER ZONAL YOUTH FESTIVAL in 2002.
- ★ Secured First Position in Cartooning in INTER ZONAL YOUTH FESTIVAL in 2002.
- ★ Secured Second Position in Debate Comp. in INTER ZONAL YOUTH FESTIVAL in 2004.
- ★ Won SILVER MEDAL in Cartooning Comp. at PBI University Patiala in 2004.
- ★ Won BEST DEBATER OF THE YEAR AWARD at GRC, Bathinda in 2004.
- ★ Awarded with COLLEGE COLOR in 2004.
- ★ Awarded with BEST STUDENT AWARD in 2004.
- ★ Secured Second Position in Poster Making comp. at GJUS&T Hisar in 2006.

- ★ Awarded with THIRD PRIZE by INTERNATIONAL POETRY SOCIETY for poem creative writing in 2007.
- ★ Won SECOND PRIZE by INTERNATIONAL POETRY SOCIETY for poem creative writing in 2010.

DISTINCTIONS

- ★ Awarded with **Albert Einstein Fellowship** in the year 2007 by Albert Einstein Institute, Germany
- ★ Life member of Indian Laser Association (ILA).
- ★ Member of Optical Society of America (OSA) since September 2011.
- ★ Member of Japanese Journal of Applied Physics (JJAP) since October 2011.
- ★ Editorial board member of International Journal of Environmental Sciences and Natural Resources since 2017.

EXPERIENCE

- ★ Five years (2008-2013) teaching experience at GURU JAMBHESHWAR UNIVERSITY OF SCIENCE AND TECHNOLOGY, HISAR, INDIA.

REFERENCES

Prof. D. Mohan

Deptt. Of Applied Physics,
G.J.U.S.T., Hisar.
E-Mail : Vand66@yahoo.com

Prof. N. Kishore

Chairman
Deptt. Of Applied Physics,
G.J.U.S.T., Hisar.
E-Mail : nks54@rediffmail.com

Date:

Place:

(Divya Jyoti)

A. LIST OF PUBLICATIONS

Sr.No.	Title	Author(s)	Name of Journal	ISSN/ISBN No.
1.	To investigate Opulence of Graphene in ZnO/Graphene nanocomposites based dye-sensitized solar cells	<i>Bulkesh Siwach, Devendra Mohan and Divya Jyoti</i>	Journal of Materials Science: Materials in Electronics , Vol. 28(15), 2017, 11500-11508.	ISSN No.: 0957-4522 (Print) 1573-482X (Online)
2.	Retrospection of Innate Dyes as Chromophores in Dye-Sensitized Solar Cells	<i>Divya Jyoti and Ruchika seth</i>	International Journal of Environmental Sciences and Natural resources , Vol. 3(3), 2017, 1-3.	ISSN No. 2572-1119
3.	Dye-Sensitized Solar Cells: From Abstract to Concrete	<i>Divya Jyoti</i>	Twenty first century publications , Vol. 1 (2016)	ISBN No. 978-93-85447-99-0
4.	To probe the equivalence and opulence of nanocrystal and nanotube based dyesensitized solar cells	<i>Divya Jyoti and Devendra Mohan</i>	AIP Conference Proceedings Vol. 1728, (2016) 020075,1-5; doi: 10.1063/1.4946126	ISSN No.: 1551-7616
5.	Comparative analysis between Commercial and Hydrothermal TiO ₂ films for their use in Dye-sensitized Solar Cells	<i>Divya Jyoti and Devendra Mohan</i>	Integrated Research Advances , Vol. 3(1), 2016, 23-25.	ISSN No.: 2394-0867
6.	Laser induced microstructure modification in the photoanode for dye-sensitized solar cells	<i>Divya Jyoti and Ruchik Seth</i>	Aarhat Multidisciplinary International Education Research Journal (AMIERJ) Vol. IV, Issue I, 2016, 1-4	ISSN No.: 2278-5655
7.	Modelling and Validation of Transmittance from Nanocrystalline Titania film for Photoanodic Action in Dye-Sensitized Solar Cells	<i>Divya Jyoti</i>	Nanoscale Systems: Mathematical Modeling, Theory and Applications Vol. 4, 2015, 30–34	ISSN No.: 2299-3290
8.	Performance probe for Nanostructured and Nanotube TiO ₂ Photoelectrodes in Dye-Sensitized Solar Cells	<i>Divya Jyoti</i>	IOSR Journal of Engineering (IOSRJEN) , Vol. 04, Issue 12 (December 2014), 21-24	ISSN No.: 2250-3021
9.	Growth and Performance of TiO ₂ Nanotubes on Anatase Blocking Layer in Dye-Sensitized Solar Cells	<i>Divya Jyoti and Devendra Mohan</i>	Progress in Nanotechnology and Nanomaterials , Vol. 3 (3), 2014, 57-63	ISSN No.: 2306-0034(Print) ISSN No.: 2306-0026(Online)
10.	A Performance Comparison of Dye-Sensitized Solar Cells Based on Mesoporous and Nanostructured Photoanodes	<i>Divya Jyoti, Devendra Mohan and Amrik Singh</i>	International Journal of Enhanced Research in Science, Technology & Engineering (IJERSTE) , ISSN No: 2319-7463, Vol. 3(2), 2014, 388-393	ISSN No.: 2319-7463
11.	A Critical Review on Mesoporous Photoanodes for Dye-Sensitized Solar Cells	<i>Divya Jyoti, Devendra Mohan, Amrik Singh and Dharamvir Singh Ahlawat</i>	Materials Science Forum , Vol. 771, 2014, 53-69	ISSN No.: 0255-5476 (Print) ISSN No.: 1662-9752 (Online)
12.	Effect of Material Parameters on the Optical Properties of Dye-Sensitized Solar Cell Photoanode	<i>Amrik Singh, Devendra Mohan, Dharamvir Singh Ahlawat and</i>	Materials Science Forum , Vol. 771, 2014, 115-119	ISSN No.: 0255-5476 (Print) ISSN No.: 1662-9752 (Online)

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13.	Morphological studies of Mesoporous Nanostructured TiO ₂ Photoelectrodes for Dye-Sensitized Solar Cells	Divya Jyoti, <i>Kshitij Bathla,</i> <i>Devendra Mohan</i> <i>and Rakesh Dhar</i>	International Journal of Research in Mechanical Engineering Technology (IJRMET), Vol. 3(2), 2013, 102-105	ISSN No.: 2249-5770 (Print) ISSN No.: 2249-5762 (Online)
14.	Thickness optimization of dye-sensitized solar cells for both front and back side illumination	<i>Devendra Mohan,</i> Divya Jyoti, <i>Rakesh Dhar and</i> <i>Amrik Singh</i>	CPIE-2013 Proceedings, 2013,652- 653	N.A.
15.	Effect of Cerium Doping on the Structural Parameters and Transmittance of ZnO Photoanode for Dye-Sensitized Solar Cells	<i>Devendra Mohan,</i> <i>Amrik Singh,</i> <i>Dharamvir Singh</i> <i>Ahlawat and</i> Divya Jyoti	CPIE-2013 Proceedings, 2013,713-715	N.A.
16.	The Growth Mechanism of Ordered Mesoporous Electrodes in view of their Response in Dye-Sensitized Solar Cells	<i>Devendra Mohan,</i> Divya Jyoti, <i>Rakesh Dhar and</i> <i>Amrik Singh</i>	AIP Conf. Proc., Vol. 1536, 2013, 383-384	ISSN No.:
17.	Swift Heavy Ion Tailoring of Anatase TiO ₂ film for its use in Dye-Sensitized Solar Cells	<i>Devendra Mohan,</i> Divya Jyoti, <i>Rakesh Dhar and</i> <i>Amrik Singh</i>	Invertis Journal of Renewable Energy, Vol. 3(1), 2013, 1-5	ISSN No.: 2231-3419 (print) ISSN No.: 2454-7611 (online)
18.	Investigation of the Opulent Porosity for Better Performance of Dye-Sensitized Solar Cell	Divya Jyoti, <i>Devendra Mohan</i> <i>and Rakesh Dhar</i>	Journal of Renewable and Sustainable Energy, Vol. 5, 2013, 013112-4	ISSN No.: 1941-7012
19.	Investigation of Optics Behind N719 Dye in Dye-Sensitized Solar Cells by using Molecular Dynamics Simulation	Divya Jyoti, <i>Devendra Mohan,</i> <i>Sunita Rani and</i> <i>Amrik Singh</i>	IEEE Proceedings, 2012, 1-4	E-ISBN : 978-1-4673-2462-5 Print ISBN: 978-1-4673-2461-8
20.	Investigation of Transport and Optical Properties of Mesoporous Anatase and Rutile TiO ₂ Films for Application in Dye-Sensitized Solar cells	Divya Jyoti, <i>Devendra Mohan</i> <i>and Rakesh Dhar</i>	Modern physics Letters B, Vol. 26(19), 2012, 1250123-8 pages	ISSN No.: 0217-9849 (Print) ISSN No: 1793-6640 (Online)
21.	Modelling of Trap Assisted Diffusion in Mesoporous Films for Dye-Sensitized Solar Cells	Divya Jyoti, <i>Devendra Mohan,</i> <i>Rakesh Dhar and</i> <i>Purnima</i>	Invertis Journal of Renewable Energy, Vol. 2(1), 2012, 7-10	ISSN No.: 2231-3419 (print) ISSN No.: 2454-7611 (online)
22.	Comparison of Anatase and Rutile TiO ₂ Thin films via Sol-Gel Route for their use in Dye-Sensitized Solar Cells	Divya Jyoti, <i>Devendra Mohan,</i> <i>Rakesh Dhar and</i> <i>Amrik Singh</i>	Invertis Journal of Renewable Energy, Vol. 2(1), 2012, 29-31	ISSN No.: 2231-3419 (print) ISSN No.: 2454-7611 (online)
23.	Optimization of Photoelectrode Porosity by using Simulation Analysis for Dye-Sensitized Soalr Cells	Divya Jyoti, <i>Devendra Mohan</i>	International Journal of Science, Engineering and Computer Technology, Vol. 2(1), 2012, 83-86	ISSN No.: 2231-508 X (Print) ISSN No.: 2278-7798(Online)
24.	Influence of Electrode Thickness on the Performance of Dye-Sensitized Solar Cells	Divya Jyoti, <i>Devendra Mohan,</i> <i>Rakesh Dhar and</i> <i>Purnima</i>	Invertis Journal of Renewable Energy, Vol. 1(2), 2011, 108-114	ISSN No.: 2231-3419 (print) ISSN No.: 2454-7611 (online)

25.	Theoretical Formulation and Validation of Optical Nonlinearity for Organic Dye based Self Protecting Optical Limiting Geometry	<i>Purnima, Devendra Mohan, Rakesh Dhar and Divya Jyoti</i>	International Journal of Science, Engineering and Computer Technology , Vol. 2(1), 2012, 160-163	ISSN No.: 2231-508 X (Print) ISSN No.: 2278-7798(Online)
26.	Study of optical limiting behavior in nickel complex dye doped polymeric and silica matrix under nanosecond laser source excitation	<i>Purnima, Devendra Mohan, Divya Jyoti</i>	Invertis Journal of Science and Technology , Vol. 5, no. 2, 2012, pp. 98-102	ISSN No.: 0973-8940(Print) ISSN No.: 2454-762X (Online)
27.	Laser induced optical bistability behavior of nickel complex dye (BDN) encapsulated in PMMA	<i>Purnima, Devendra Mohan, Umesh Gupta, Divya Jyoti</i>	Journal of Optics (Springer) Vol. 41(3), (2012), pp. 173–177	ISSN No.: 0972-8821 (Print) ISSN No.: 0974-6900 (Online)

B. CONFERENCES/SYMPOSIA/WORKSHOPS ATTENDED

Sr. No.	Name and Place	Month and Year
1.	Presentation on the topic "A Window View of Collective Model to Explain Optoelectronics Of Dye-Sensitized Solar Cells" in International Conference on the topic "International Conference on Advances in Optics and Photonics (ICAOP-2017)" held at GJUS&T, Hisar.	November 23-26, 2017
2.	Presentation on the topic "Natural Dyes As Supplement To Eco-Friendly Nature Of Dye-Sensitized Solar Cells" in International Conference on the topic "Emerging areas of environmental science and engineering" (EAESE-2017) held at GJUS&T, Hisar.	February 16-18, 2017
3.	Presentation on the topic "A Comparative Analysis of Electromagnetic Wave Theory in Anatase and Rutile Titania Films to be used in Dye-Sensitized Solar Cells" in National Seminar on the topic "Emerging trends in Physics and Material Science (ETPMS-2016)" held at CDLU, Sirsa.	March 19-20, 2016
4.	Presentation on the topic "Laser Induced Microstructure Modification in the Photoanode for Dye-Sensitized Solar Cell" in National Seminar on the topic "New Paradigm in Chemical Sciences: Synthetic and Analytical Perspective 2016" held at Punjabi University, Patiala.	Feb. 4-5, 2016
5.	Presentation on the topic "To Draw a Contrast between Commercial and Hydrothermal Technique for Their use in Dye-Sensitized Solar Cells" in National conference Photonics and Materials Science (NCPMS-2015) held at GJUS&T, Hisar	November 8-9, 2015
6.	Presentation on the topic "To probe the Equivalence and Opulence of Nanocrystal and Nanotube based Dye-Sensitized Solar Cells" in International conference on Condensed Matter and Applied Physics (ICC 2015) held at Govt. Engineering College, Bikaner.	October 30-31, 2015
7.	Presentation on the topic "A Comparative Analysis of Commercial and Hydrothermal Technique based TiO ₂ Dye-Sensitized Solar Cells" in National conference on Emerging Trends in Physics and Materials Science (ETPMS-2015) held at CDLU, Sirsa.	March 9-10, 2015
8.	Presentation on the topic "Theoretical Analysis of Transmission from Nanocrystalline TiO ₂ film for Application in Dye-Sensitized Solar Cells" in National conference on Photonics and Material Science (NCPMS-2014) held at GJUS&T, Hisar	March 20-21, 2014
9.	Presentation on the topic "Thickness optimization of dye-sensitized solar cell for both front and back side illumination" in International Conference on Production and Industrial Engineering (CPIE-2013) held at NIT, Jalandhar.	March 29-31, 2013
10.	Presentation on the topic "The Growth Mechanism Of Ordered Mesoporous Electrodes in View of their Response in Dye-Sensitized Solar Cells" in International Conference on Recent Trends in Applied Physics and Material Science (RAM-2013) held at Govt. College of Engineering and Technology, Bikaner.	Feb. 1-2, 2013
11.	Oral Presentation on the topic "Photoelectrochemical Properties of Eco-Friendly Dye-Sensitized Solar Cells Controlled by Sol Processing Parameters" in International Conference on Emerging Trends in Physics for Environmental Monitoring & Management (ETPEMM-12) held at Punjabi University, Patiala.	Dec. 17-19, 2012
12.	Presented Poster on the topic "Comparison between Performance of Commercial and Hydrothermal Processed Sol made TiO ₂ Dye-Sensitized Solar Cells" in Bhartiya Vigyan Sammelan held at LPU, Fagwara.	Oct. 11-13, 2012
13.	Presented poster on the topic "Modeling of the Passage of Swift Heavy Ions through Anatase TiO ₂ Film for Application in Dye-Sensitized Solar Cells" in International Conference on Swift Heavy Ions in Materials Engineering and Characterization (SHIMEC 2012) at IUAC, New Delhi.	Oct. 9-11, 2012

14.	Oral Presentation on the topic "Optimization of Photoelectrode porosity by using simulation analysis for Dye-sensitized solar cells" in National Conference on Role and Application of ICT in inaccessible areas (RAICTIA-12) held at GJUS&T, Hisar.	March 21, 2012
15.	Attended workshop on the topic "Recent Trends in Engineering and Technology (RTET)" held at GJUS&T, Hisar.	March 15,2012
16.	Oral Presentation on the topic "Comparison of Anatase and Rutile TiO ₂ Thin Films via Sol-Gel Route for their Use in Dye-Sensitized Solar Cells" in National Conference on Advances in Nanomaterials and Nanotechnology for Renewable Energy Conversion and Storage Devices held at Jaipur Engineering College, Kukas, Jaipur.	March 1-3, 2012
17.	Presented poster on the topic "Modelling of trap assisted diffusion in mesoporous films for dye-sensitized solar cells" in Indo-Japan Conference on Frontier Nanomaterials for Energy-2012 at Sharda University, Greater Noida.	Jan. 9-11, 2012
18.	Presented Poster on the topic "Design Parameters For The Analysis of Annual Performance of Dye-Sensitized Solar Cells" in National Symposium on "Frontiers in Optics and Photonics 2011", IIT, Delhi	Dec. 3-5, 2011
19.	Presented Poster on topic "Effect of Electrode Parameters on Electron Transport in Dye-Sensitized Solar Cells: Nonlinear Electron Transport Kinetics" in National Level Symposium on Recent Trends in Micro and Macro Physics held at Chamoli, Gopeshwar, Utrakhand on Oct. 13-15, 2011.	Oct. 13-15, 2011
20.	National workshop on "Trends in optical Coating for Head-up Display & High Laser Damage Threshold", G.J.U.S.T., Hisar	June 27, 2011
21.	National workshop on "Research Trends in Engineering and Technology". G.J.U.S.T., Hisar	March 15, 2011
22.	Presented poster on the topic "Effect of Electrode Film Thickness on the Efficiency of the Dye-Sensitized Solar Cells" in National Symposium on Radiation and Nuclear physics (NSRPN-2011) held at Punjabi University, Patiala.	Feb 4-5, 2011
23.	Attended National Laser Symposium, RRCAT, Indore.	Dec.1-4, 2010
24.	Attended conference on "Progress on Photovoltaics" held at Sharda University, Greater Noida	March 6,2010
25.	Two Weeks workshop on Research Methodology at G.J.U.S.&T., Hisar.	March 8-13, 2010
26.	IUAC Acquaintance Programme on "Accelerator Based Science and Technology", held at G.J.U.S. & T., Hisar.	Oct. 23, 2009
27.	Attended 2 days seminar on "Globalization and Education" held at Punjabi University College of Education, Bathinda.	March 29-30, 2008
28.	Oral Presentation on the topic "Advanced Materials for Solar Cells" in National conference on photonics and Materials Science (NCPMS-2008) held at GJUS&T, Hisar.	Oct. 24-25, 2008
29.	Twenty days workshop at CSIO, Chandigarh in collaboration with Albert Einstein Institute, Germany.	Dec.,2007