

Prof. Ranjana Jha, Department of Physics, Netaji Subhas University of Technology, has been actively involved in research and teaching in the field of Solar Energy materials and Applied Physics. Received *Lifetime Achievement award in Science*, Venus International Women Awards, 2017 conferred by Centre for Women Empowerment-CWE of Venus International Foundation. IMRF Achievers Award **2018** in Applied Physics has been conferred by The International Multidisciplinary Research foundation. India Education Award For Oustanding physicist & Professor Of The Year 2018, conferred by Blindwink.in the market and research company. National Award of Excellence 2018 for A Distinction Of Being One of The Best Teacher in the Country, conferred by Global Management Council Ahmedabad.Received "12th National Education Summit and Awards 2018" for Excellent research in Solar Energy Utilization. ASDF Global Awards for Best Professor of the year 2018 .Recieved "International Education Awards" for Most Promising Female Professor for Physics in Technical Institute of The Year - 2018, conferred by Time Cyber Media Pvt. Ltd. "Siksha Gaurav Puraskar", conferred by Centre for education growth and research (CEGR), New Delhi.India.

She has served as a member of Board of Research Studies of FOT (DU), member of Academic Council, NSUT, addition to being a chairman / member of various other committees at Institute and University level. Prof. Ranjana has also long experience in handling different academic and administrative responsibilities at NSUT.

She is *founder and in-charge of Research Lab for Energy Systems at Department of Physics*. Her research interest is Solar Energy Materials and Solar Energy Utilization, Development of Nano-structured thin film Solar cells and Characterization of Energy Materials for Device Applications.

Several postgraduate students have been awarded Ph.D degree and at present many students are pursuing their respective Ph.D under her supervision in Solar Energy materials and utilization and published their research work in SCI Indexed journals under the umbrella of Research Lab for Energy Systems. Several students of B.Tech and M.Sc., level have worked under her supervision for their research projects required by their respective University.

Published 110 manuscripts in reputed international/national journals and proceedings. The papers authored/ co-authored by her, have received best paper prize, best oral and poster award, innovative pitch speaker at various national/international conferences.

Undertaken several research projects from AICTE, DST, PCRA, MNRE and Energy efficiency & Renewable Energy Management Centre, Deptt. Of Power, GNCTD, Delhi.

The project proposal submitted by her in the International Green and Sustainable Chemistry Challenge, Elsevier was selected in top 53 proposals. She has one patent (Design Of A Novel Trailing Arm Suspension System With Type One Lever Mechanism, Patent ID-201611042722, Publication No.-25/2018, IPC Classification-F01N11/00) in her credit.

She has been awarded the certificate of Outstanding Reviewer twice, (2014 & 2016) by Solar Energy Journal, Elsevier. She has been reviewer of several journals and conferences held in India and Abroad.

She is Nodal Officer, Solar Rooftop Power Plant at NSUT. Project in charge of NSUT Solar Car concept from 2009, to demonstrate the viability of application of photovoltaic technology in the automotive industry. She has organized National and International Conferences/Seminars/ Workshops/ Exhibitions organized in various capacity.Participated in the iLUMEN EUROPEAN SOLAR CHALLENGE(iESC) Green technology events at Circuit Zolder,Belgium 21-23 September 2018 as a Faculty Incharge of NSUT Solar Car Team.

She is Life member of various learned societies such as Solar Energy Society of India; Indian Chapter of International Centre of theoretical Physics, Italy; Indian Carbon Society, NPL, New Delhi; International Association of Advanced Materials (Sweden), and Institute of Environmental Eco-toxicology and Environmental Sciences, India. Governing council member of Solar Energy Society of India. She is also the Gold member of International Multidisciplinary Research Foundation,Regd by Govt. of India NITI AYOG/ESTD:U/S 35 of 2001,Govt of A.P,India/HQ:Vijaywada,A.P,India.

She has delivered several invited lectures/talks related to Solar Energy Technologies in various educational and research institutions as well as in various national or international conferences and workshops and part of the panel discussions. She has also chaired or co-chaired several sessions in various National or International conferences.

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Awards/Prizes/Honors/Recognitions

- 25. Cetificates of AEIS Series as the committee Member of ICEOMN,2019
- 24. Research Excellence Awards 2019 under Excellent Author Category, MT Research and Educational Services (MTRES)
- **23.** "Siksha Gaurav Puraskar", conferred by Centre for education growth and research(CEGR), New Delhi, India.
 - 22. Recognized reviewer for Advanced Surface Sciences of the year 2019.
 - 21.ASDF Global Awards for Best Professor of the year 2018.
 - 20. Received "International Education Awards" for Most Promising Female Professor for Physics in Technical Institute of The Year 2018, conferred by Time Cyber Media Pvt. Ltd.

- 19. Recognized reviewer for Indian Journal of Pure & Applied Physics (IJPAP)
- 18. Received "12th National Education Summit and Awards 2018" for Excellent research in Solar Energy Utilization.
- 17. Received "Adarsh Vidya Saraswati Rashtriya Puraskar, National Award of Excellence" by Global management Council, Ahemadabad.
- 16. Received India Education Award 2018 by blindwink.in, Market Research Company.
- 15. Received *IMRF Achievers Award 2018 in Applied Physics* conferred by The International Multidisciplinary Research foundation.
- 14. Received *Lifetime Achievement award in Science*, Venus International Women Awards, 2017 conferred by Centre for Women Empowerment-CWE of Venus International Foundation (VIWA-2017).
- 13. Certificate of outstanding contribution in reviewing for Solar Energy Journal (Elsevier) for November, 2016.
- 12. Received Best Oral presentation award at International Conference on Nanoscience and Nanotechnology, held at Jamia Millia Islamia University, Delhi, November 2016.
- 11. Selected in Top 61 projects in Green and Sustainable Chemistry Challenge, Elsevier (semi final), Green Quantum Dots Adaptive Solar Cells for Solar Car, 2016.
- 10. Research paper presentation selected in **Innovation Award Pitch Session at ICMTECH-2016**, Delhi.
- 09. Received Best paper Award at 6th WRETC International Conference & Expoheld on 21-23rd August 2015, Delhi.
- 08. Certificate of outstanding contribution in reviewing for Solar Energy Journal (Elsevier) for November, 2014.

- 07. Member of Governing Council of Solar Energy Society of India (SESI) for two consecutive tenure i.e., from January 2013- December 2014 & January 2015- 2017.
- 06. Recognized reviewer of Solar Energy Journal Elsevier.
- 05. Honorary Editor of Invertis Journal of Renewable Energy since 2012.
- 04. Guest Editor of Invertis Journal of Science and Technology Special issue 1 on Solar Energy Utilization and Green Technology, Volume-4, No.-4, 2011.
- 03. Recognized Reviewer of many International Conferences held in US since 2008.
- 02. Chaired or Co-Chair several sessions in various National or International conferences.
- 01.4th prize for NSIT Solar Car at 3rd Renewable Solar Energy India Expo 2009 at Pragati Maidan, 10-12th August, 2009.

Academic Experience

Dr. Ranjana Jha joined the institute in 1992 since then she is actively involved in the teaching of 1ST and 2ND semester students. She is teaching the subjects i.e. Physics-I, Physics-II, Physics of Materials and Electrical Engineering materials. At present She is working as a Head, Department of Physics.

Supervising research scholars pursuing Ph.D degree (Title/ Topic Research):

- Study on Energy Conservation in Buildings: Degree awarded to Mr. Nikhil Jindal in March 2015.
- Studies on the Photoanode of Dye Sensitized Solar Cells: Degree awarded to Ms. Sarita Baghel, 2016.
- Studies on Nano-Structured Materials for Solar Energy Conversion: Degree awarded to Mr. Darshan Sharma,2018.
- Characterization of Nano structured materials and Thin films for Solar energy Conversion: Confirmation granted to Ms. Nandini Sharma, Thesis submitted.
- Confirmation granted to Ms. Reetu Sharma, Ms. Medha Bhushan, Ms. Rekha Bhardwaj and Ms. Ritu Goel, 2017; research work going on.
- Registered as a research Scholar for Ph.D.Ankita Singh 2017.

Travel Grants

Dr. Ranjana Jha has presented several research papers in various international conferences in countries like U.S., U.K., Australia, Switzerland and Nepal and received travel grants from various funding agencies like All India Council of Technical Education (AICTE), New Delhi, Council of Science and Industrial Research (CSIR), New Delhi and Netaji Subhas Institute of Technology (NSIT) New Delhi.

Patent:

1.Design Of A Novel Trailing Arm Suspension System With Type One Lever Mechanism,

- Patent ID-201611042722,
- **Publication No.-25/2018**,
- **IPC Classification-**F01N11/00

Grants/ Projects undertaken:

• Finanicial assistance to Netaji Subahas Institute of Technology(NSUT) for developing Solar Electric Vehicle

o *Sponsoring authority*: Energy efficiency & Renewable Energy Management Centre, Deptt. Of Power, GNCTD, Delhi

o Amount : 15 Lacs

o Duration : One year(July 2018-July 2019)

o Status : Ongoing

• Design and Development of a cost effective and highly efficient Solar Powered Electric Vehicle (SEV) Prototype

 Sponsoring authority: Ministry of New and Renewable Energy (MNRE)

Govt. of India, New Delhi

o Amount : 16.75 Lacs

o Duration : One year(November 2014-November 2015)

o Status : Completed

• Development of Solar Powered vehicle

 Sponsoring authority: Petroleum Conservation and Research Association(PCRA)

Govt. of India, New Delhi

o Amount : 5.10 Lacs

o Duration : Two years (January 2009-2011)

o Status : Completed

• Creation of Technical Resource Centre under probe participation of youth in real time field observation for the benefit of education

o Sponsoring authority: Department of Science and Technology (DST)

Govt. of India, New Delhi

o Amount : 10.0 Lacs

Duration : Six years (2005-2011)

o Status : Completed

• Modernization of Physics lab

o Sponsoring authority: All India Council of Technical Education

(AICTE)

Govt. of India, New Delhi

o Amount : 12.0 Lacs

o Duration : Two years (2000-2002)

o Status : Completed

Seminars/ Workshops/Conferences/ Exhibitions organized:

• 6th International Conference on Ecotoxicology&Environmental Sciences, Local Co-organizing secretary.

Sponsor: Institute of Ecotoxicology and Environmental sciences
 Jointly with Netaji Subhas Institute of Technology

o Duration: Three Days, February 19-21, 2018

o Venue : Netaji Subhas Institute of Technology, New Delhi

• International conference on Renewable energy Potential for sustainable Initiatives, Member National Advisory Board o Sponsor : Power Grid Corporation of India, Bharti Vidyapeeth's

College of engineering Engineering

o Duration: Two Days, February 8-9, 2018

Venue : Bharti Vidyapeeth's College of engineering , New Delhi

• Strengthening Technical Education through Institute Industry Partnership

o Sponsor: Delhi Government

o Duration: One day, May 5, 2007

o Venue : Delhi Secretariat, New Delhi

• European Higher Education Fair

o Sponsor : French Embassy and NSIT

o Duration: One day, February 16, 2007

o Venue : NSIT, Dwarka, New Delhi

• Pravasi Bhartiya Divas

o Sponsor : Government of India and NSIT

o Duration: Three day, January 7- January 9, 2007

o Venue : Vigyan Bhawan, New Delhi

• Bhagidari Mela Exhibition

o Sponsor : Delhi Government and NSIT, New Delhi

 \circ *Duration* : Three day, December 2006

Venue : Pragati Maidan, New Delhi

• Bhagidari Mela Exhibition

o Sponsor : Delhi Government and NSIT, New Delhi

o Duration: Three day, February 2006

o Venue : Pragati Maidan, New Delhi

• Springboard Women's Development Programme

o Sponsor : British Council, New Delhi

o Duration: Four day, February 2006

o Venue : NSIT Dwarka, New Delhi

• Prospective Library at NSIT, Dwarka

o Sponsor: NSIT, New Delhi

o Duration: One day, May 1998

o Venue : Old Campus, NSIT, Delhi

Administrative and other responsibilities in the Institute

- 1. Head of Department, Physics, NSUT, Dwarka since March 2017.
- 2. Nodal officer for the Solar Rooftop Power House, NSUT, Dwarka.
- 3. Project In-charge of NSUT Solar Car since February 2009.
- 4. In-charge of Physics Lab since October 1998.
- 5. In-charge of Research Lab for Energy Systems.
- 6. Public Relation Officer of the Institute form September 2005 to September 2007.
- 7. Member of various purchase committees, Reception committee for annual convocation, printing of prospectus etc.
- 8. Superintendent of Practical Exam for School of Applied Sciences i.e. Physics, Chemistry, Mathematics & Biotechnology for all semesters from February 2006 to April 2015.
- 9. Chairperson of the committee for prevention of sexual harassment of working women. Amendment of CCS conduct rules, 1964 & Establishment of Redressal Mechanism.

10.Member of the committee for revision of the courses & studies, Scheme of examination based on grading system.

Invited Lectures/ Talks

- 19. Eco Toxicity in Solar Cell, National Conference on Recent Trends and Advancements in Chemical Sciences, On 29-31 March, 2019, Department of Chemistry and Bhskaracharya College of Applied Sciences, University of Delhi in association with Society for Promotion of Education and Sciences at New Delhi, India.
- 18. Red Alert For Environment, Human-Health and Sustainability From Green Photovoltaic Electricity on 14-15 March 2019,IAPE,Innovative Applied Energy, St Cross College, University of Oxford, United Kingdom.
- 17.QDSSC:A Saga of Semiconductor Nano-Materials on 27-28 February 2019,Innovation ,Chemical, Biological & Environmental Sciences(in association with The Indian Science Congress Association:Rohtak Chapter) Royal society of Chemistry,London at Arya P.G College,Panipat,Haryana.
- 16. ग्रीन नैनो टेक्नोलॉजी सतत विकास की राह on 13-14 February 2019, उभरती हरित प्रौद्योगिकी एवं तकनिकी शब्दावली organized by by Commission for Scientific and Technical Terminology ,Ministry of Human Resource Development,Department of Higher Education,Government of India at Ramjas College,University of Delhi,New Delhi.
- 15. Harvesting Photons through Quantum Dot Sensitized Solar Cells on 8th January 2019,6th World Congress on Nanomedical Sciences ISNSCON-2019 at Vigyan Bhawan, New Delhi.

- 14. "Use of Nanotechnology in Solar Cells for Sustainable development on 28thNovember, NSTC Nanotech 2018 in Crowne Plaza Delhi
- 13.QDSSC: Recent Quantum Leap ,Approach And Entice on 27th-29th November 2018 ,2nd International Conference on Recent Advances in Environmental Protection ,St. John's College,Agra,India.
- 12.SOLAR ENERGY:THE PATH FORWARD TOWARDS A SUSTAINABLE ENVIRONMENT on 31st October 2018 in Guru Jhambheswar University & Technology ,Hisar.
- 11.Can Quantum Dot Sensitized Solar Cells be a potential Contender of Energy Crisis? International conference on Photonics Research (INTERPHOTONICS 2018) on October 8-12 in Kemer, Antalya-TURKEY.
- 10.Environmental, Health and safety (EHS) Issues: Toxicity in Solar Cells, 6th International Conference on Ecotoxicology & Environmental Sciences, February 19-21, 2018, Netaji Subhas Institute of Technology, New Delhi, India.
- 9. Shaping the Future of Solar Power: Solar cells, National Workshop on Solar Energy Technology, March 23, 2017, Invertis University, Bareilly, Lucknow, India.
- 8. Aspiration with Competence, Courage & Determination: Key to Success, Annual Women's Meet (AWM-2017), March 4, 2017, Venus International Foundation, Chennai, India.
- 7. Pathways to Enhance Performance of Quantum Dot Sensitized Solar Cell, International Conference on New Scintillations on Materials Horizon (ICNSMH-2016), October 22, 2016, M.J.P. Rohilkhand University, Bareilly, India.
- 6.Quantum Dot Sensitized Solar Cells: Recent Advances & Future Perspective in Photoanode, NanoDev-2016, July-2016, Chandigarh .
- 5.बहु-दीवारिय कार्बन नैनोट्यूब के उपयोग से संकर रंजक सुग्राहित सौर सेल के जीवनकाल और दक्षता में वृद्धि, ऊर्जा अनुप्रयोगों हेतु कजर्ान पदजर्थों पर रजष्ट्रीय सम्मेलन-2015, सीएसआईआर-राष्ट्रीय भौतिक प्रयोगशाला, इा के एस कृष्ट्णन् मागग, नई दिल्ली.
 - 4. Energy in Building Materials and Buildings, Environment and Energy Management, Faculty Development Programme, organized by Department of Applied Sciences, Maharaja Agrasen Institute of Technology, New Delhi (June7 June 17, 2011).

- 3. Efficiency Enhancement of Dye Sensitized Solar Cells using Nanomaterials, International Conference on National Solar Mission Issues and Solutions, Mumbai, organized by PV+ Solar India Expo 2011 (April 20, 2011).
- 2. Youth Entrepreneurial Green Awards, 3rd Renewable Energy India 2009 Expo, New Delhi, organized by International Exhibition and Conference, Pragati Maidan, New Delhi India(August 10- August 12, 2009).
- 1. Effects of Pollution on Solar Radiation and Ambient Temperature, AICTE Sponsored Short Term Training programme on "Production and Storage of Hydrogen Energy and its Utilization as Non-Polluting Fuel", C.R. STATE College of Engineering, Murthal ,Sonepat (July 19-July 30, 2004).

Memberships

- 1. Gold member of International Multidisciplinary Research Foundation, Regd by Govt. of India NITI AYOG/ESTD:U/S 35 of 2001, Govt of A.P, India/HQ: Vijaywada, A.P, India
- 2. Life member of Institute of Environmental Eco-toxicology and Environmental Sciences, Kolkata, India.
- 3. Five years membership of International Association of Advanced Materials till year 2021 (Mjärdevi Science Park, Teknikringen 4A S58330, Linköping, Sweden).
- 4. Life member of Solar Energy Society of India.
- 5. Life member of Indian Chapter of International Centre of Theoretical Physics, Trieste, Italy.
- 6. Life member of Indian Carbon Society, NPL, New Delhi, India.

LIST OF PUBLICATION MADE IN JOURNALS

- **38.** Jun-Lian Chen, Wen-Bin Zuo, Xian-Wen Ke, Alexander B Tolstoguzov, Can-Xin Tian, Neena Devi, Ranjana Jha, Gennady N Panin, and De-Jun Fu, Structure, conductivity, and ion emission properties of RbAg4I5 solid electrolyte film prepared by pulsed laser deposition, Chin. Phys. B Vol. 28, No. 6 (2019).
- 37. Review: Synthesis and Application of Nickel Sulphide Nanoparticle 338-340 Rekha Bhardwaj, Ranjana Jha, Medha Bhushan and Ritu Goel, Journal of Basic and Applied Engineering Research (JBAER) p-ISSN: 2350-0077 e-ISSN: 2350-0255.
- 36. α-MoO3 Nanopowder: A Transition Metal Nano-Oxide and its Photo-Chromic Properties: 334-337 An Overview Reetu Sharma, Ranjana Jha and Anjana Sarkar, Journal of Basic and Applied Engineering Research (JBAER) p-ISSN: 2350-0077 e-ISSN: 2350-0255.
- 35. Recent Developments of Zinc Oxide Nanostructures as Solar Photocatalysts 329-333 Nandini Sharma and Ranjana Jha, Journal of Basic and Applied Engineering Research (JBAER) p-ISSN: 2350-0077 e-ISSN: 2350-0255.
- 34. A Critique on Synthesis of 1-D Nanostructure of ZnS and its Potential Applications 325-328 Medha Bhushan, Ranjana Jha, Rekha Bhardwaj and Ritu Goel, Journal of Basic and Applied Engineering Research (JBAER) p-ISSN: 2350-0077 e-ISSN: 2350-0255.
- 33.Growth of Size-Controllable Tetragonal Rutile Stannic Oxide Nanostructures by Co-Precipitation Route for Eosin Y Dye Degradation under Solar Radiation "Author(s): Nandini Sharma, Ph.D. pursuing; Ranjana Jha, PhD; Reetu Sharma, accepted in "Journal of Materials Science: Materials in Electronics (JMSE)" .(Imapact Factor-1.486)
- 32. Recent advances in Utilization of Wide Band Gap Metal Oxides for Photocatalysis of Organic Waste, Nandini Sharma, Ranjana Jha, Reetu Sharma, Nikhil Jindal, Siddhant Baweja, International Journal of Nanomaterials and Nanostructures (Peer reviewed), 2017, Vol.3, Issue 2, ISSN:-2455-5584.
- 31. Sonochemical synthesis of Zinc oxide nanoparticles, Nandini Sharma and Ranjana Jha, Advanced Materials Letters, 2017, 2(5), 299-303.(Impact factor-1.46)

- 30. Analysis of structural, optical and magnetic properties of Fe/Co co-doped ZnO nanocrystals, Darshan Sharma, Ranjana Jha, Ceramics International, Volume 43, Issue 11, 2017, Pages 8488–8496, DOI: https://doi.org/10.1016/j.ceramint.2017.03.201. (Impact factor-2.986)
- 29. Hydrothermally synthesized Stannic oxide nano-hexagons, Nandini Sharma, Ranjana Jha, Nikhil Jindal, Materials Today: Proceedings, Accepted for publication. (Peer Reviewed)ISSN: 2214-7853
- 28. Transition metal (Co, Mn) co-doped ZnO nanoparticles: Effect on structural and optical properties, Darshan Sharma, Ranjana Jha, Journal of Alloys and Compounds, PP.532-538, DOI: 10.1016/j.jallcom.2016.12.227. ,(Impact factor-3.779)
- 27. Structural and optical properties of Co-doped ZnO nano-ampoules synthesized by co-precipitation method, Darshan Sharma, Ranjana Jha, Materials Letters, Volume 190, 9-12 DOI: 10.1016/j.matlet.2016.12.124. (Impact factor-2.572)
- **26.** Study on photo-catalyst Zinc Oxide annealed at different temperatures for photo-degradation of Eosin Y dye, Nandini Sharma, Ranjana Jha, Sarita Baghel and Darshan Sharma, Journal of Alloys and Compounds, Volume 695, PP.270-279, http://dx.doi.org/10.1016/j.jallcom.2016.10.194. .(Impact factor-3.779)
- 25.Aloe Vera Gel mediated Green synthesis of gamma- Fe2O3 nanoparticles, Ranjana Jha, Ranjana Dagar, Nandini Sharma, International Journal of Innovations in Engineering and Technology (IJIET) Volume 7, Issue 1, PP.663-668. (Impact factor-5.558),2016
- 24. Quantum dot sensitized solar cell: recent advances and future perspectives in Photoanode, Darshan Sharma, Ranjana Jha and Shiv Kumar, Solar Energy Materials & Solar Cells, 2016, Vol. 155, PP. 294–322, DOI: 10.1016/j.solmat.2016.05.062. (Impact factor-5.018)

- 23.Influence of DL-Alanine Fuel Concentration on Structural and Magnetic properties of Nickel Ferrite nanoparticles, Nandini Sharma, Ranjana Jha, International Journal of Innovative Research in Science, Engineering and Technology, Vol. 4, Issue 5, PP-3508-3515, ISSN(Online): 2319-8753, ISSN (Print): 2347-6710, DOI: 10.15680/IJIRSET.2015.04050103, May 2015.(Impact factor-7.089)
- **22.** Material Selection for Dye Sensitized Solar Cells using Multiple Attribute Decision Making Approach(Peer Reviewed), Sarita Baghel, Ranjana Jha and Nikhil Jindal, Journal of Renewable Energy, Vol. 1, 2014, 506216, PP-7.DOI: 10.1155/2014/506216, December 2014.
- 21. Thermal response of a non air conditioned buildings by using insulation of various thickness at the different positions of the walls and roof at cold stations of India, N.Jindal, R.Jha and S.Baghel, Journal of Environmental Research And Development (Peer Reviewed), Vol. 8, Issue 1, E-ISSN: 2319-5983, Sept 2013.
- **20.** Enhancement Of Indoor Temperature For Human Thermal Comfort Using Variable Glazing Area For Cold Stations Of India, N.Jindal, R.Jha and S.Baghel, International Journal of Scientific & Technology Research, Vol 2, Issue 10, ISSN 2277-8616, October 2013.(Impact factor-3.023)
- 19. Investigation of the Indispensability of Renewable Energy Sources from the Standpoint of Conservation of Ecology and Environment, Shyama Kant Jha, Ranjana Jha, Invertis Journal of Renewable Energy(Peer Reviewed), Vol.2, No. 4, ISSN: 2231-3419, Dec.2012.
- 18. Life Cycle Assessment of Greenhouse Gas Emissions from Prototype Solar Electric Vehicle & its Feasibility in the Indian Transportation System, Ranajna Jha, Puneet Upadhyaya and Nikhil Gupta, Invertis journal of Renewable Energy vol. 2, (Peer Reviewed) No. 3, July 2012.
- 17. Numerical model for the prediction of interfacial effect of ZnO/TCO on the performance of dye sensitized solar cells, S.Baghel, R.Jha and N.Jindal, Journal of Photonics for Energy (JPE), Society of Photo-Optical Instrumentation Engineers (SPIE). (Peer Reviewed) [DOI: 10.1117/1.JPE.2.XXXXXXX), **E-ISSN:** 1947-7988, USA, May 2012.

- 16. Elucidation of Rational Trends of G_0 , G_1 and G_2 Tier Dendrimer Prepared with Triazine Ring as Core and Malonate Ester as Branching Unit in Terms of Excess Viscosities, Volumes and Free Energies Measured at 298.15 and 303.15 K. in Aqueous Binary Solution, Shalini Gupta, Man Singh, K.C. Gupta and Ranjana Jha, Invertis Journal of Science and Technology, (Peer Reviewed) Vol.4, Issue 4, Pg 240-245, 2011.
- 15. Organic Solar Cells: A Review, Sarita Baghel, Ranjana Jha. Nikhil Jindal and Nisha Tanwar, Invertis Journal of Science and Technology, (Peer Reviewed) Vol.4, Issue 4, Pg 229-233,

2011.

- 14. Benefits of Sol-Gel Electrocromism, Amrita Kumari and Ranjana Jha, Invertis Journal of Science and Technology, (Peer Reviewed) Vol-II, No: 1, pp 24-32, 2008.
- 13. Different Glazing Systems and their impact on human thermal comfort –Indian Scenario, Mahesh Singh, S.N.Garg and Ranjana Jha, Building and Environment, (Peer Reviewed)Vol 43, no. 10, pp 1596-1602,2008.
- **12.** Performance Prediction of Hybrid Air-to-Water Solar Heater. H.P. Garg, C.Chaudhary, Ranjana Jha. Renewable Energy Vol. 2, no.3, PP 211-318, 1992 U.K. (Impact Factor-4.357)
- 11. Solar Water Heaters Suitable for high Latitude Stations. H.P.Garg, C. Chaudhary, Ranjana Jha and Z.H.Zaidi. Renewable Energy, 1992.(Impact factor-4.357)
- 10. Design Parameters of Winter House for Thermal Heating. Ranjana Jha G.N. Tiwari, H.P.Garg and Z.H. Zaidi, Energy Convrs. Mgmt 31 (5), 555-563, 1991.(Impact factor-5.589)
- **9.** Performance Parameters of Solar Heated House. Ranjana Jha, C. Choudhary, H.P.Garg and Z.H. Zaidi, Energy Convrs. Mgmt. Vol. 33 no. 4, PP 263-273, 1992.(Impact factor-5.589)
- 8. Solar Thermal System with Transparent Insulation. J.Prakash, H.P.Garg, Ranjana Jha and D.S. Hrishikeshan, Energy Convrs. Mgmt., 33 (11) 987-996, 1992.(Imapet factor-5.589)

- 7. Thermal Evaluation of a Winter House. Ranjana Jha, C. Choudhary, H.P. Garg, Z.H. Zaidi Energy Convrs. Mgmt. 31(6) 555-563, 1991.(Impact factor-5.589)
- 6. Theoretical Analysis on a New Finned Type Solar Air Heater. H.P. Garg, Ranjana Jha, C. Choudhary and Gouri Datta. Energy.(Peer Reviewed) The International Journal 16 (10), 1231-1236, 1991.
- 5. Evaluation of the Performance of a Cabinet Type Solar Dryer. Sanjay Sharma, V.K. Sharma, Ranjana Jha and R.A. Ray, Energy Convrs. Mgmt., Vol 30, no 2, PP. 75-80, 1990.(Impact factor-5.589)
- 4. "Theoretical Studies on the use of Transparent Insulation in some Solar Energy Device". H.P.Garg, J.Prakash, Ranjana Jha and D.S. Harishikesan. Proc. World Solar Energy Congress.(Peer Reviewed)Kobe, Japan Press, 1990, PP 2227-2231.
- **3.** Analysis of a Solar Air Heater with Natural Flow in the Upper Channel and Forced Flow in the Lower Channel. A.K. Bhargava, Ranjan Jha, H.P. Garg. Energy Conservation and management, Vol 30. No. 3, PP. 231-234, 1990.(Impact factor-5.589)
- 2. Performance Studies of an Integrated Solar Collector Cum Storage Water Heating System with Transparent Insulation Cover. J.Prakash, H.P. Garg, D.S. Hrishikesan and Ranjan Jha, Solar and Wind Technology, (Peer Reviewed)Vol 6, no 2, PP. 171-176, 1989.
- 1. System Performance of Built- Storage type Solar Water Heater with Transparent Insulation. H.P. Garg, D.S. Garg, D.S. Hrishikeshan and Ranjana Jha. Solar and Wind Technology, (Peer Reviewed) Vol 5, no. Page 533-538, 1988.

LIST OF PUBLICATION MADE IN CONFERENCE

74. Ritu Goyal, Ranjana Jha, Medha Bhushan, Rekha Bhardwaj and Chaya Ravikant Electrical and optical properties oh Nio thin film synthesized via Hydrothermal technique, National Conference on Recent Trends and Advancements in Chemical Sciences, 0n 29-31 March, 2019, Department of Chemistry and Bhskaracharya College of Applied Sciences, University of Delhi in association with Society for Promotion of Education and Sciences at New Delhi, India.

- 73. Rekha Bhardwaj, Medha Bhushan, Ranjana Jha Synthesis of unique Nickel Sulphide (Ni3S2& β-NiS) Nano morphology for counter electrode in Quantum Dot Dye Sensitized Solar Cell on 14-15 March 2019,IAPE,Innovative Applied Energy, St Cross College, University of Oxford, United Kingdom.
- 72. Reetu Sharma *, Ranjana Jha and Anjana Sarkar Synthesis and Growth of Hetero-structures of α -MoO3 Nanoparticles and its doped variants for Photo-Chromic Properties, on 14-15 March 2019,IAPE,Innovative Applied Energy, St Cross College, University of Oxford, United Kingdom.
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Short term Courses/Workshop attended

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S.No.	Name of Courses/Workshop/Programme attended	Sponsoring Institution	Duration
01	International Workshop on Renewal Energy Project Implementation and Management, 22 nd to 28 th March, 1993	IIT, Delhi	One Week
02	ISTE Summer School on Instructional Methodology, 6 th to 11 th June, 1994	IIT, Delhi	One Week
03	QIP Summer School on Advanced Processing of Semi-Conductor, 20 th June to 1 st July, 1994	IIT Delhi	Two Week
04	Induction Course for Teachers of Engineering College (Code: T-1), 28 th March to 18 th April, 1995	Centre for Professional Development in Higher Education, Delhi University	Three Week
05	Second Solar Photovoltaic Training Programme for system Design and Engineering Courses, 9 th to 20 th December, 1996	IIT, Delhi	Two Week
06	Management Development Programme for Nataji Subhas Institute of Technology, 14 th , 15 th , 21 st & 22 nd January, 2006	National Foundation of Indian Engineers at NSIT, Delhi	One Week

07	Spring Board Women's Development Programme, 13 th Dec 2005, 17 th Jan, 2 nd Feb and 21 st Feb 2006	Spring Board Project, a joint collaboration of the Women Studies, Network of Indian Universities, Madhya Pradesh Police and British Council Division, British High Commission at NSIT	One Week
08	ISTE Short Term Training Programme on CAD and Optimization, 20 th November to 1 st December 2006	NSIT, Delhi	Two Week
09	ISTE Short Term Training Programme on Modeling and Simulation, 4 th to 15 th December 2006	NSIT, Delhi	Two Week
10	Short Term Course under Quality Improvement Programme on "Energy Conservation", 2 nd December to 8 th December 2007	IIT, Delhi	One Week
11	AICTE-ISTE Sponsored Short Term Course on "Nanotechnology", 16 th June to 20 th June, 2008	NSIT, New Delhi	One Week
12	Refresher Course on Latex and MatLab, 12 th July to 24 th July 2010	NSIT, New Delhi	Two Week
13	4 th International Training School On Atmospheric Brown Clouds (ABC), 21-26 th March, 2011	UNEP, ICIMOD, Nepal	One Week
14	AICTE-ISTE Sponsored Short Term Course on "Nanotechnology", 16 th June to 20 th June, 2008	NSIT, New Delhi	One Week
15	Refresher Course on Latex and MatLab, 12 th July to 24 th July 2010	NSIT, New Delhi	Two Week
16	4 th International Training School On Atmospheric Brown Clouds (ABC), 21-26 th March, 2011	UNEP, ICIMOD, Nepal	One Week
17	Refresher Course on Numerical Methods and MATLAB, June, 2015	NSIT, New Delhi	Two Week
18.	Short term course on Design of Experiments and Advanced Optimization Techniques .	Panipat institute of Engineering and Technology ,Panipat	5 days
19.	Workshop on "Research Methodology and Scientific Writing"	Netaji Subhas Institute of Technology.	5 days
20.	5 th Prof. Ved Ratna Memorial Lecture - 2017 and a session on Demonstration Experiments in Physics.	New Delhi	Two Days
21.	"The Faculty Development Programme" on "Functional	Amity University,Noida	One Week

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