

Curriculum Vitae (CV)

Dr. Puja Dey
Associate Professor

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D. O. B. : 28th April, 1979

Academic Qualification:

Name of the examination/Degree	Name of Institute/ University/ Board	Year of passing
Madhyamik (10)	W. B. B. S. E., W. B., India	1995
Higher Secondary (10 + 2)	W. B. C. H. S. E., W. B., India.	1997
Bachelor of Science (B. Sc.)	University of North Bengal, W. B., India	2000
Master of Science (M. Sc.)	University of North Bengal, W. B., India	2002
GATE	Conducted by I. I. Ts'	2002
Ph. D.	Indian Institute of Technology Kharagpur, Kharagpur, W. B., India.	2008

Employment History :

Period (Year)		Name of the examination/Degree/ Post as applicable	Area of specialization/ Subjects	Name of Institute/ University/
04/05/2018	<i>Present</i>	Associate Professor	Physics	Kazi Nazrul University Asansol
01/03/2016	03/05/2018	Assistant Professor	Physics	Kazi Nazrul University Asansol
12/08/2013	29/02/2016	Assistant Professor	Physics	National Institute of Technology Agartala, Tripura
July, 2012	August, 2013	Post Doctoral Researcher	Magnetism, Organic Spintronics	UGC-DAE Consortium For Scientific Research, Indore, India
October, 2008	September, 2011	CNRS Post Doctoral Research Fellow	Spintronics, Hybrid Inorganic-Organic Interface study	IPCMS, CNRS, Strasbourg, France
January, 2007	September, 2008	CSIR Senior Research Fellow	Magnetism and Magnetic Materials	Indian Institute of Technology Kharagpur, W. B., India

Area of Interest :

a. Organic Spintronics; **b.** Opto-Spintronics **c.** Organic Photodetector; **d.** Multifunctional Nanostructured Oxides and heterostructure **e.** Ultra-thin Ferromagnetic film.

Research :

No. of articles publications in Referred Journals: 60

Citations : 1001

h-index : 15

i10-index : 23

Website : Google Scholar Citation

Publications :

Books Published :

[1] "*Spintronics: Fundamentals and Applications*" [ISBN No. - 978-981-16-0068-5] by **P. Dey** and J. N. Roy, Springer Singapore, (2021).

[2] "*Spintronics For Beginners*" [ISBN No. - 978-3-639-66375-4] by **P. Dey** and S. K. Mandal, Scholars' Press, Saarbrücken, Germany, (2014).

[3] "*Physics of Oxide Materials For Spintronics*" [ISBN No. - 978-3-639-51305-9] by S. K. Mandal, **P. Dey** and T. K. Nath, Scholars' Press, Saarbrücken, Germany, (2013).

List of Publications (International Journal) :

(Total Publications in International Journals = 60 ; Total Citations = 1001, h-index = 15, i10-index = 23)

[1] Temperature dependent transition of conduction mechanism from carrier injection to multistep tunneling in Fe₃O₄ (111)/Alq₃/Co organic spin valve by Debajit Deb, P. Dey, R. J. Choudharye, R. Rawate, A. Banerjee *Organic Electronics* (accepted).

[2] Temperature Driven Pinned Layer Magnetization Reversal in Exchanged Biased Fe₃O₄/Alq₃/Co/CoO Hybrid Spin Valve by D. Deb, **P. Dey**, K. K. Sharma, R. J. Choudhary, R. Rawat, A. Banerjee, *IEEE Transactions on Magnetism* **57**, 4800106 (2021).

[3] Performance improvement of bilayer CuPc/BPPC organic photodetector by thermal annealing by Debarati Nath, **P. Dey**, Aneesh M. Joseph, J. K. Rakshit, J. N. Roy, *Optical Materials* **108**, 110371 (2020).

[4] CuPc/C60 heterojunction for high responsivity zero bias organic red light photodetector by D Nath, **P. Dey**, AM Joseph, JK Rakshit, JN Roy, *Applied Physics A* **126** (8), 1-8 (2020).

[5] A comparative study in different rare earth ions in multiferroic nanocomposites: Low temperature resistivity minima and low field magnetoresistance by P. Dutta, S. K. Mandal, **P. Dey**, A. Lakhani, S. M. Yusuf, *Journal of Magnetism and Magnetic Materials* **502**, 166569 (2020).

[6] Photocurrent generation under forward bias with interfacial tunneling of carrier at Pentacene/F₁₆CuPc heterojunction photodetector by Debarati Nath, **Puja Dey**, Aneesh M Joseph,

Jayanta Kumar Rakshit and Jitendra Nath Roy, *Journal of Alloys and Compounds* **815**, 152401 (2020).

[7] Zero bias high responsive visible organic photodetector based on Pentacene and C₆₀ by Debarati Nath, **P. Dey**, Aneesh M Joseph, J. K. Rakshit and J. N. Roy *Optics and LASER Technology* **131** 106393 (2020).

[8] Effect of interface on temperature dependent magnetoresistance and room temperature magnetoimpedance of La_{0.7}Sr_{0.3}MnO₃ / Polyvinyl Alcohol Nanocomposites, by D. Deb, R. Debnath, S. K. Mandal, A. Lakhani, A. Nath, **P. Dey**, *Physica B: Condensed Matter* **582**, 411962 (2020).

[9] Modeling of Temperature-Dependent Sign Reversal of Magnetoresistance in 99.95% La_{0.7}Sr_{0.3}MnO₃ - 0.05% Paraffin Wax Nanocomposite: The Role of Pinning Center at Intergrain Defect Site by D. Deb and **P. Dey**, *Physica Status Solidi (b)*, **257** (3), 1900402 (2020). doi: 10.1002/pssb.201900402.

[10] Interface driven electrical and magneto-transport properties of (100-x)% La_{0.7}Sr_{0.3}MnO₃ - x% Paraffin wax ($0 \leq x \leq 1$) hybrid nanocomposites by Debajit Deb, Sanjay K. Mandal, Archana Lakhani, Aparna Nath, and **Puja Dey**, *The European Physical Journal B*, **92** 165 (2019).

[11] Magnetically tunable alternating current electrical properties of (100-x)% La_{0.7}Sr_{0.3}MnO₃ - x% paraffin wax(0.05_x_1.0) hybrid nanocomposites, D. Deb, Rajesh Debnath, S.K. Mandal, A. Nath, **P. Dey**, *Journal of Alloys and Compounds* **776**, 71-82 (2019).

[12] Effect of glass boundaries on complex impedance and magnetoresistance of 99.5% La_{0.7}Sr_{0.3}MnO₃-0.5% glass nanocomposite by Debajit Deb, **Puja Dey**, Sanjay Kumar Mandal, Aparna Nath, AIP Conference Proceedings **2115** (1) 030083 (2019).

[13] Lead free $x\text{NiFe}_2\text{O}_4 - (1-x)\text{ErMnO}_3$ ($x=0.1, 0.3$ and 0.5) multiferroic nanocomposites: Studies of magnetoelectric coupling, AC electrical and magnetodielectric properties, S. K. Mandal, Swati Singh, Rajesh Debnath, **P. Dey**, *Ferroelectrics* **536** (1), 77 – 90 (2018).

[14] Light tuning DC and AC electrical properties of ZnO-rGO based hybrid nanocomposite film, Debarati Nath, S. K. Mandal, Debajit Deb, J. K. Rakshit, **P. Dey**, and J. N. Roy, *Journal of Applied Physics* **123**, 095115 (2018).

[15] Optical, electrical properties and structural characterization of ZnO:rGO based photodetector, Debarati Nath, S. K. Mandal, Debajit Deb, J. K. Rakshit, **P. Dey** and J. N. Roy, *AIP Conference Proceedings* **1942**, 080006 (2018).

- [16] Magnetoelectric coupling and electrical properties of inorganic-organic based LSMO-PVDF hybrid nanocomposites, R. Debnath, S. K. Mandal, **P. Dey**, A. Nath, *AIP Conference Proceedings* **1942** (1), 050016 (2018).
- [17] Room temperature magnetoelectric coupling and electrical properties of Ni doped Co-ferrite–PZT nanocomposites S Chakraborty, SK Mandal, **P Dey**, B Saha, *AIP Conference Proceedings* **1942** (1), 050015 (2018).
- [18] Magnetic field tunable ac electrical transport of LaFeO₃-wax nanocomposites S Roy, SK Mandal, R Debnath, D Nath, **P Dey**, *AIP Conference Proceedings* **1942** (1), 050020 (2018).
- [19] Frequency and temperature dependence of dielectric and ac electrical properties of NiFe₂O₄–ZnO multiferroic nanocomposite P Dutta, SK Mandal, **P Dey**, A Nath *AIP Conference Proceedings* **1942** (1), 050033 (2018).
- [20] Enhanced room temperature magneto resistance in (1-x) % La_{0.7}Sr_{0.3}MnO₃-x %WAX (x=0, 0.1, 0.2 and 1.0) nanocomposites, D Deb, **P Dey**, SK Mandal, D Nath, A Nath *AIP Conference Proceedings* **1942** (1), 050014 (2018).
- [21] Sign reversal of spin-polarized tunnelling magnetoresistance in 99.95% La_{0.7}Sr_{0.3}MnO₃-0.05% Paraffin wax nanocomposite: An effect of spin-flip scattering at intergranular Paraffin wax interface, **P. Dey**, D. Deb, Rajesh Debnath, S.K. Mandal, Archana Lakhani, T.K. Nath, J.N. Roy, A. Nath, *Journal of Magnetism and Magnetic Materials* **468**, 85–90 (2018).
- [22] Magnetoelectric coupling and AC electrical properties of xLa_{0.7}Sr_{0.3}MnO₃ - (1-x) HoMnO₃ (x = 0.1, 0.3 and 0.5) lead free multiferroic nanocomposites, S. K. Mandal, Swati Singh, Rajesh Debnath, **P. Dey**, J.N. Roy, T.K. Nath, *Materials Chemistry and Physics* **205** 217-227 (2018). **(Impact Factor = 2.08)**
- [23] Room-temperature magnetoelectric coupling, dielectric and impedance studies of 0.5ZnNiFe₂O₄–0.5HoMnO₃ nanocomposite by R. Debnath, S. K. Mandal, A. Nath, P. Dey *International Journal of Modern Physics B* **32** (19), 1840060 (2018).
- [24] Zn doped NiFe₂O₄-Pb(Zr_{0.58}Ti_{0.42})O₃ multiferroic nanocomposites: Magnetoelectric coupling, dielectric and electrical transport, S. K. Mandal, S. Chakraborty, P. Dey, B. Saha, T. K. Nath *Journal of Alloys and Compounds* **747**, 834-845 (2018).
- [25] xZn_{0.3}Ni_{0.7}Fe₂O₄–(1 - x)HoMnO₃ (x = 0.1, 0.3 and 0.5) nanocomposites: magnetoelectric, magnetodielectric and AC electrical response, S. K. Mandal , Rajesh Debnath, **P. Dey** and A. Nath, *Mater. Res. Express* **4**, 115014 (2017). **(Impact Factor = 1.08)**

[26] Signature of Magnetoelectric Coupling of $x\text{NiFe}_2\text{O}_4 - (1-x)\text{HoMnO}_3$ ($x = 0.1$ and 0.3) Multiferroic Nanocomposites, S. K. Mandal, Rajesh Debnath, Swati Singh, A. Nath, **P. Dey**, and T. K. Nath, *Journal of Magnetism and Magnetic Materials* **443**, 222–232 (2017).

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[27] Magnetoelectric Coupling, Dielectric and Electrical Properties of $x\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3 - (1-x)\text{Pb}(\text{Zr}_{0.58}\text{Ti}_{0.42})\text{O}_3$ ($x = 0.05, 0.1$) Multiferroic Nanocomposites, S. K. Mandal, Swati Singh, Rajesh Debnath, A. Nath and **P. Dey**, *Journal of Alloys and Compounds* **720**, 550-561 (2017). **(Impact Factor = 2.726)**.

[28] Temperature and Frequency Dependence of AC Electrical Properties of Zn and Ni doped CoFe_2O_4 Nanocrystals, S. K. Mandal, Swati Singh, **P. Dey**, J. N. Roy, P. R. Mandal and T. K. Nath, *Philosophical Magazine* **97**, 1628–1645 (2017). **(Impact Factor = 1.632)**

[29] Fabrication and characterization of organic semiconductor based photodetector for optical communication, Debarati Nath, **Puja Dey**, Debajit Deb, Jayanta Kumar Rakshit and Jitendra Nath Roy, SPECIAL ISSUE VISVESVARAYA 2016, *CSI transactions on ICT* **5** (2), 149-160 (2017), DOI 10.1007/s40012-016-0150-8.

[30] Magnetoelectric coupling and dielectric study of $x\text{NiFe}_2\text{O}_4 - (1-x)\text{ErMnO}_3$ lead free multiferroic nanocomposites, Swati Singh, S. K. Mandal, and **P. Dey**, *AIP Conference Proceedings* **1832**, 050022 (2017).

[31] Magnetoelectric coupling of $x\text{Zn}_{0.5}\text{Co}_{0.5}\text{Fe}_2\text{O}_4 - (1-x)\text{PbZr}_{0.58}\text{Ti}_{0.42}\text{O}_3$ ($x = 0.3$ and 0.4) nanocomposites, Sarit Chakraborty, S. K. Mandal, Swati Singh, **P. Dey**, and B. Saha, *AIP Conference Proceedings* **1832**, 050023 (2017).

[32] Magnetoelectric coupling and AC impedance studies of $0.5\text{NiFe}_2\text{O}_4-0.5\text{PbZr}_{0.58}\text{Ti}_{0.42}\text{O}_3$ nanocomposite, Rajesh Debnath, S. K. Mandal, Swati Singh, **P. Dey**, and A. Nath, *AIP Conference Proceedings* **1832**, 050028 (2017).

[33] Room temperature magnetoelectric coupling of $0.4\text{Zn}_{0.3}\text{Ni}_{0.7}\text{Fe}_2\text{O}_4 - 0.6\text{PbZr}_{0.52}\text{Ti}_{0.48}\text{O}_3$ multiferroic nanocomposite, S. Chakraborty, S. K. Mandal, Rajesh Debnath, Swati Singh, **P. Dey** and B. Saha, *Materials Today: Proceedings* **4**, 5663–5666 (2017).

[34] Irreversibility in Room Temperature Current-Voltage Characteristics of NiFe_2O_4 Nanoparticles: A Signature of Electrical Memory Effect", **P. Dey**, Rajesh Debnath, Swati Singh, S. K. Mandal and Jitendra Nath Roy, *Journal of Magnetism and Magnetic Materials* **421**, 132 (2017). **(Impact Factor = 2.630)**

[35] Frequency and Temperature Dependence of Dielectric and Electrical Properties of $T\text{Fe}_2\text{O}_4$ ($T=\text{Ni, Zn, Zn}_{0.5}\text{Ni}_{0.5}$) Ferrite Nanocrystals, S. K. Mandal, Swati Singh, **P. Dey**, J. N. Roy, P. R. Mandal, T. K. Nath, *Journal of Alloys and Compounds* **656**, 887-896 (2016). **(Impact Factor = 2.726)**.

[36] Tunable dielectric constant with transition metal (TM) doping in $\text{Zn}_{1-x}(\text{MnTM})_x\text{O}$ ($\text{TM} = \text{Co, Fe}$) nanocrystal, Swati Singh, **P. Dey**, J. N. Roy and S. K. Mandal, *Journal of Alloys and Compounds* **642**, 15- 21 (2015). **(Impact Factor = 2.726)**

[37] Magnetically tunable alternating current electrical properties of $x \text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3-(1-x) \text{ErMnO}_3$ ($x = 0.1, 0.3, \text{ and } 0.5$) multiferroic nanocomposite, Rajesh Debnath, **P. Dey**, Swati Singh, J. N. Roy, S. K. Mandal, and T. K. Nath, *J. Appl. Phys.* **118**, 044104 (2015). (Impact Factor = 2.276).

[38] Enhancement of dielectric constant in transition metal doped ZnO nanocrystals by S. Singh, **P. Dey**, J. N. Roy and S. K. Mandal, *Applied Physics Letters* **105**, 092903 (2014). **(Impact Factor = 3.817)**

[39] AC and DC electrical transport studies of (Fe, Co) codoped ZnO nanoparticles by Sanjay Kumar Mandal, **Puja Dey** and Tapan Kumar Nath, *J. Vac. Sci. Technol. B* **32**(4), 041803 (2014). **(Impact Factor = 1.52)**

[40] Temperature driven transition from Giant to Tunneling magneto-resistance in $\text{Fe}_3\text{O}_4/\text{Alq}_3/\text{Co}$ Spin Valve: Role of Verwey transition of Fe_3O_4 by **P. Dey**, R. Rawat, S. R. Potdar, R. J. Choudhary, A. Banerjee, *J. Appl. Phys.* **115**, 17C110 (2014). **(Impact Factor = 2.276)**

[41] Breakdown of the electron-spin motion upon reflection at metal-organic or metal-carbon interfaces by F. Djeghloul, **P. Dey**, A. Hallal, E. Urbain, S. Mahiddine, M. Gruber, D. Spor, M. Alouani, H. Bulou, F. Scheurer, W. Weber, *Phys. Rev. B* **89**, 134411 (2014) *(Editor choice)*. **(Impact Factor = 3.767)**

[42] Structural, electrical and dielectric properties of $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3\text{-ErMnO}_3$ multiferroic composites by S. K. Mandal, **P. Dey** and T. K. Nath, *Materials Science and Engineering B* **181** 70 (2014). **(Impact factor = 2)**

[43] Electron-Spin Motion as a New Tool to Investigate Ferromagnetic Film Systems: A Few Examples by A. Hallal, T. Berdot, **P. Dey**, L. Tati Bismaths, L. Joly, A. Bourzami, H. Bulou, F. Scheurer, F. Djeghloul, E. Urbain, D. Spor, J. Henk, M. Alouani, W. Weber, *Sensor Letters*, **11**, 1632 (2013). **(Impact Factor = 1.5)**

[44] Electron-spin motion: A new tool to study ferromagnetic films by **P. Dey** and W. Weber, *J. Phys.: Condens. Matter (Topical Review)* **23**, 473201 (2011). **(Impact Factor = 2.332)**

[45] Influence of lattice relaxation on the electron-spin motion in ferromagnetic films: Experiment and theory, T. Berdot, A. Hallala, **P. Dey**, L. Tati Bismaths, L. Jolya, A. Bourzamib, H. Buloua, F. Scheurera, J. Henk, M. Alouania, W. Weber, *Proc. of SPIE*, **8100**, 81000Z-1 (2011).

[46] Ultimate limit of electron-spin precession upon reflection in ferromagnetic films by A. Hallal, T. Berdot, **P. Dey**, L. Tati Bismaths, L. Joly, A. Bourzami, F. Scheurer, H. Bulou, J. Henk, M. Alouani and W. Weber, *Phys. Rev. Lett.* **107**, 087203 (2011).

(Impact Factor = 7.943)

[47] Effect of submonolayer MgO coverages on the electron-spin motion in Fe(001): Experiment and theory by T. Berdot, A. Hallal, L. Tati Bismaths, L. Joly, **P. Dey**, M. Alouani, J. Henk and W. Weber, *Phys. Rev. B* **82**, 172407 (2010). **(Impact Factor = 3.767)**

[48] Microstructural, magnetic, magneto-transport and complex impedance spectroscopy of $x\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3-(1-x)\text{ErMnO}_3$ multiferroic ($0 \leq x \leq 1$) composites by **P. Dey**, T. K. Nath, S. K. Mandal and A. Das, *Int. J. Mod. Phys. B* **23**, 4889 (2009). **(Impact Factor = 0.8)**

[49] Temperature dependence of phonon modes in nanocrystalline $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ as observed by infrared spectroscopy by T. N. Sairam, **P. Dey et al.**, *J. Nanosci. Nanotechnol.* **9**, 5471 (2009). **(Impact Factor = 1.483)**

[50] Enhanced grain surface effect on magnetic properties of nanometric $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ manganite: Evidence of surface spin freezing of manganite nanoparticles by **P. Dey**, T. K. Nath, P. K. Manna and S. M. Yusuf, *J. Appl. Phys.* **104**, 103907 (2008). **(Impact Factor = 2.276)**

[51] Magnetoimpedance, magnetoresistance, and magnetic properties of nanometric CMR manganites, T. K. Nath, P. Dutta, and **P. Dey**, *J. Appl. Phys.* **103**, 07F725 (2008). **(Impact Factor = 2.276)**

[52] Effect of nanometric grain size on room temperature magnetoimpedance, magnetoresistance and magnetic properties of $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ nanoparticles by P. Dutta, **P. Dey** and T. K. Nath, *J. Appl. Phys.* **102**, 073906 (2007). **(Impact Factor = 2.276)**

[53] Effect of disorder on magnetic ordering of $\text{La}_{0.5}\text{Gd}_{0.2}\text{Sr}_{0.3}\text{MnO}_3$ manganites by **P. Dey**, T. K. Nath and A. Banerjee, *J. Phys.: Condens. Matter* **19**, 376204 (2007). **(Impact Factor = 2.332)**

[54] Effect of substrate-induced strain on transport and magnetic properties of epitaxial $\text{La}_{0.66}\text{Sr}_{0.33}\text{MnO}_3$ thin films by P. Dey, T. K. Nath and A. Taraphder, *Applied Physics Letters*, **91**, 012511 (2007).
(Impact Factor = 3.817)

[55] Enhanced grain surface effect on magnetic properties of $\text{La}_{0.5}\text{Gd}_{0.2}\text{Sr}_{0.3}\text{MnO}_3$ nanoparticles: A comparison with bulk counterpart by P. Dey, T. K. Nath and A. Banerjee, *Applied Physics Letters*, **91**, 012504 (2007).
(Impact Factor = 3.817)

[56] Room temperature ferroelectric and ferromagnetic properties of multiferroics $x\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3 - (1-x)\text{ErMnO}_3$ (weight percent $x = 0.1, 0.2$) composites by P. Dey, T. K. Nath, M. L. NandaGoswami and T. K. Kundu, *Applied Physics Letters*, **90**, 162510 (2007).
(Impact Factor = 3.817)

[57] Tunable room temperature low-field spin polarized tunneling magnetoresistance of $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ nanoparticles by P. Dey and T. K. Nath, *Applied Physics Letters*, **89**, 163102 (2006).
(Impact Factor = 3.817)

[58] Effect of grain size modulation on the magneto- and electronic-transport properties of $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ nanoparticles: The role of spin-polarized tunneling at the enhanced grain surface by P. Dey and T. K. Nath, *Physical Review B*, **73**, 214425 (2006).
(Impact Factor = 3.767)

[59] Enhanced grain surface effect on the temperature dependent behavior of spin-polarized tunneling magnetoresistance of nanometric manganites by P. Dey and T. K. Nath, *Applied Physics Letters*, **87**, 162501 (2005).
(Impact Factor = 3.817)

[60] Effect of nanosize modulation of granular $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ manganites on temperature dependent low field spin polarized tunneling magnetoresistance by P. Dey, T. K. Nath, Uday Kumar and P. K. Mukhopadhyay, *Journal of Applied Physics* **98**, 014306 (2005).
(Impact Factor = 2.276)

[61] Strain modification of $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ CMR thin films using structural transitions of ferroelectric (001) BaTiO_3 substrate, P. Dey and T. K. Nath, *Indian J. Phys.* **78**(8), 833-836 (2004).
(Impact Factor = 0.988)

Papers presented in International/National Level Conferences (Selected) :

1. “Magneto-tunability of Photocurrent in $\text{Si}/\text{Zn}_{0.3}\text{Ni}_{0.7}\text{Fe}_2\text{O}_4/\text{ZnO-rGO}$ Structure” by A. Pal, S. Roy, P. Dey and J. N. Roy, *Physics of Novel Functional Materials (PNFM-2020)*, 11th

Vidyasagar- Satyendra Nath Bose National Workshop 2020, Vidyasagar University, Midnapore, WB.

2. “*Light-induced Tuning of Electrical Memory Effect in $Zn_{0.3}Ni_{0.7}Fe_2O_4/ZnO$ -rGO Heterojunction*” by A. Pal, J. N. Roy and **P. Dey**, *Current Trends in Materials Science and Engineering 2021 (CTMSE2021)*, Institute of Engineering & Management, Salt Lake, WB.

3. “*Magnetic Field Tuning of Photocurrent in $Si/NiFe_2O_4/C_{60}/ZnO$ -rGO composite based heterojunction*” by S. Ghosh, A. Pal and **P. Dey**, *Current Trends in Materials Science and Engineering 2021 (CTMSE 2021)*, Institute of Engineering & Management, Salt Lake, WB.

4. “*Variation of Impedance Spectroscopy of ZnO/rGO Bilayer Thin Film over Illumination of Light*” by P. Banerjee, K. Mukhopadhyay, **P. Dey**, International Conference on Current Trends in Materials Science and Engineering (CTMSE- 2021), IEM Kolkata India in association with American Institute of Physics IEM Society of Physics Students (SPS) Chapter Smart Society, USA. Published in “*Abstract_CTMSE2021_final_withcover*” Abstract ID 177, page no. 79.

5. “*A Journey towards Spintronics to Optospintronics*”, by **Puja Dey**, 64th DAE Solid State Physics Symposium (DAE SSPS 2019) held at Indian Institute of Technology Jodhpur, Rajasthan during December 18-22, (2019).

6. “*Fabrication and characterization of BPPC and $F_{16}CuPc$ based bilayer organic photodetector*” by Debarati Nath, **P. Dey**, J. K. Rakshit and J. N. Roy, *International Conference on Optics & Electro-Optics (ICOL-2019)*, Instruments Research & Development Establishment (IRDE), Dehradun, Uttarakhand, October 19 – 22, 2019.

7. “*Design of CuPc and C_{60} based bilayer organic photodetector*” by Debarati Nath, **P. Dey**, Debajit Deb, J. K. Rakshit and J. N. Roy, *International Conference on Fiber Optics and Photonics (Photonics-2018) (OSA publisher)*, Indian Institute of Technology, Delhi, December 12-15, 2018.

8. “*Optical, electrical properties and structural characterization of ZnO:rGO based photodetector*” by Debarati Nath, S. K. Mandal, Debajit Deb, J. K. Rakshit, **P. Dey**, J. N. Roy, *62nd DAE Solid State Physics Symposium (DAE-SSPS 2017)*, AIP conference Proceeding 1942, 080008, 2018, Bhabha Atomic Research Centre, Mumbai, December 26 – 30, 2017.

9. “*I-V Characteristics of $0.3La_{0.7}Sr_{0.3}MnO_3-0.7ErMnO_3$ Multiferroic Nanocomposite: An Observation of Electrical Hysteresis*”, by Rajesh Debnath, **P. Dey**, J. N. Roy and S. K. Mandal,

International Conference on Emerging Trends of Engineering, Science, Management and its Applications (ICETESMA-15), JNU, Delhi (2015).

10. “Dielectric and Electrical Properties of Ni and Zn doped Fe_3O_4 nanoparticles”, by Swati Singh, **P. Dey**, J. N. Roy and S. K. Mandal, *International Conference on Emerging Trends of Engineering, Science, Management and its Applications* (ICETESMA-15), JNU, Delhi (2015).

11. “Enhancement of capacitance in transition metal doped ZnO nanocrystals”, by Swati Singh, **P. Dey**, J. N. Roy and S. K. Mandal, *Advance Trends in Engineering and Technology* (ICATET-2014), Jaipur, Rajasthan, India.

12. “Temperature driven transition from Giant to Tunneling magneto-resistance in $Fe_3O_4/Alq_3/Co$ Spin Valve: Role of Verwey transition of Fe_3O_4 ”, by **P. Dey**, R. Rawat, S. R. Potdar, R. J. Choudhary, A. Banerjee, 58th International Conference on Magnetism and Magnetic Materials (“MMM 2013”), Denver, Colorado, USA.

13. “Contrasting behaviour of bulk and nanoparticles of $La_{0.5}Gd_{0.2}Sr_{0.3}MnO_3$ manganite”, by **P. Dey**, T. K. Nath and A. Banerjee, Proceedings of DAE Solid State Physics Symposium, page 261 (2006), Date :30th December, 2006; Department of Physics & Electronics, Barkatullah University, Bhopal.

14. “Technologically important granularity effect on Magnetoresistance and magneto impedance of nanocrystalline $La_{0.67}Sr_{0.33}MnO_3$ CMR manganites”, by **P. Dey** and T. K. Nath, DAE Solid State Physics Symposium proceedings (BRNS-DAE), page no. 32, (2004). Date :30th December, 2004; Guru Nanak Dev University, Amritsar.

15. “Synthesis, microstructural and electrical transport studies in granular nanosized $La_{0.67}Ca_{0.33}MnO_3$ CMR manganites”, **P. Dey** and T. K. Nath, DAE Solid State Physics Symposium proceedings, page no. 179, vol. 46, (2003). Date : 28th December, 2003; School of studies in Physics, Jiwaji University, Gwalior.

Sponsored Project :

[1] “Integration of Organic Photodetector and Spin Valve for development of Novel Spin-Controlled Magnetic Organic Photodetector”, PI : **Puja Dey**, CoPI : J. N. Roy, Sanctioned by Board of Research in Nuclear Sciences, DAE, Govt. of India, Sanction No.: 58/14/07/2020-BRNS/37074, dated 26/08/2020, Sanction Amount : 34,61,750/- (Status : **Ongoing**).

[2] “Fabrication of Hybrid Organic Molecular Semiconductor - Inorganic Ferromagnet based Organic Spin Valves for Molecular Spintronics Application”, funded by **DST, SERB, New Delhi, under Start-Up Research Grant Scheme**, Project No.- SB/FTP/PS-034/2014, **Sanctioned** Amount - 22.1 Lakhs (Status : **Completed**).

Thesis Supervision :

M. Sc. Thesis Supervision : 1. Nine Completed (2014-20), Four Ongoing (2021)

Ph. D. Thesis Supervision : 1. Five Ongoing

2. One Thesis submitted (**Thesis Title :** *Investigation of Hybrid Inorganic-Organic Magnetoresistive Nanocomposites and Spin Valves for Spintronics Applications*)

Other Academic Position :

Joint-Coordinator of CENTRE FOR ORGANIC SPINTRONICS AND OPTOELECTRONICS DEVICES (COSOD), Faculty of Science and Technology, Kazi Nazrul University, Asansol.

Organization of National/International Conference/Workshop :

1. A Webinar for One Day National Workshop “**Recent Trends in Optoelectronics and Semiconductor Devices for Computing and Communication**” Celebrating *National Inventors Month* was organized by COSOD, Kazi Nazrul University Asansol on 20th May, 2020.
2. BOSE-125 Outreach Programme entitled “**Conference on Research Trends in Multifunctional and Hybrid Nanomaterials (CRMN 2018)**” on the occasion of 125th Birth Anniversary of Professor S. N. Bose held on 21.06.2018.

Value added Course Offered :

A Certificate Course (Credit = 4) in “**Organic Optoelectronics & Spintronics : Fabrication, Modelling and Experimental Techniques**” was organized by COSOD, Kazi Nazrul University Asansol, **Coordinator:** Prof. J. N Roy; **Joint-Coordinators:** **Dr. Puja Dey** and Dr. Arindam Biswas.

Collaborators :

International - Centre National de la Recherche Scientifique (CNRS), Strasbourg, France.

National - (1) UGC-DAE Consortium For Scientific Research Indore.

(2) Bhabha Atomic Research Centre (BARC), Department of Atomic Energy, India.

(3) Dept. of Physics & Meteorology, I. I. T. Kharagpur.

(4) Dept. of Physics, I. I. T. Guwahati.

(5) NIT (Durgapur & Agartala): Department of Physics, Dept. of Electronics.

(6) UGC-DAE Consortium for Scientific Research Indore.

Awards & Fellowships:

Scholarship /Award	Institute/Organization	Year
Senior Research Fellowship	Council of Scientific and Industrial Research (C. S. I. R), India.	2007 - 2008
Post Doctoral Research Fellowship	Centre National de la Recherche Scientifique (CNRS), Strasbourg, France.	2008 - 2010
Post Doctoral Research Fellowship	UGC-DAE Consortium For Scientific Research, Indore, India	2012 - 2013