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5. **Professional experiences:**



- I. **Assistant Professor**-National Institute of Foundry and Forge Technology,
Khunti Road, Hatita, Ranchi-834003, India
 - II. **Assistant Professor** -Department of Physics, DIT University, Dehradun, India
 - III. **Post-doctoral Fellow**-Department of Physics, Nagoya University, Japan.
 - IV. **Post-doctoral Fellow** -Advance School of Materials Science and Engineering,
Sungkyunkwan University, Suwon, South Korea.
6. **Education:**
- I. **PhD in Physics (2010)**
Central Glass and Ceramic Research Institute (CSIR)/Jadavpur University, Kolkata, India.
 - II. **Master of Science in Physics (2002)**
Jadavpur University, Kolkata, India.
7. **Academic Achievements:** UGC-CSIR NET, GATE and JEST qualified
8. **Brief Vita:**
I obtained my Ph.D. in experimental condensed matter physics in August 2010 from Jadavpur University, Kolkata. However, I have carried out my doctoral work at Central Glass and Ceramic Research Institute (CSIR-India), Kolkata under the supervision of Dr. Dipten Bhattacharya. Then, I became a post-doctoral research fellow at Sungkyunkwan University, South Korea and worked with Prof. J.C Lee from October 2010 to February 2012. In March 2012, I moved to Nagoya University and worked more than two years as a post-doctoral fellow under the supervision of Prof. Ichiro Terasaki (Department of Physics). Presently I am working as assistant professor in DIT University, Dehradun, India.

9. **List of Publications:**

○ **Manuscripts under communication**

1. **P.S. Mondal** and Dipten Bhattacharya, "Universal scaling of latent heat of orbital order-disorder transition with average *R*-site ion size in perovskite RMnO₃ systems". (arXiv:cond-mat/0608080)
2. **P.S. Mondal** and Dipten Bhattacharya, "Orbital order-disorder transition in doped perovskite manganites: influence of intrinsic octahedral distortion". (arXiv: cond-mat/0912.5432)

○ **Published papers**

1. **P.S. Mondal**, R. Okazaki, H. Taniguchi and I. Terasaki, "Photo-transport properties of Pb₂CrO₅ single crystals", **J. Appl. Phys** **116**, 193706 (2014).
2. **P.S. Mondal**, S. Asai, T. Igarashi, T. Suzuki, R. Okazaki, Y. Yasui, K. Kobayashi, R. Kumai, H. Nakao, Y. Murakami and I. Terasaki, "A possible existence of two charge-

- ordered phases in $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$ for $0.40 \leq x \leq 0.50$ ", **J. Phys. Soc. Jpn.** **83**, 064709 (2014).
3. I. Terasaki, R. Okazaki, **P.S. Mondal** and Yu-chin Hesh, "Trial for Photo-thermoelectric energy conversion", **Mater Renew Sustain Energy**, **3**, 29 (2014).
 4. **P.S. Mondal**, R. Okazaki, H. Taniguchi and I. Terasaki, " Photo-Seebeck effect in tetragonal PbO single crystals" , **J. Appl. Phys** **114**, 173710 (2013).
 5. Rajib Nath, A. K. Raychaudhuri, Ya. M. Mukovskii, **P.S. Mondal**, Dipten Bhattacharya and P. Mandal, "Electric field driven destabilization of the insulating state in nominally pure LaMnO_3 ". **J. Phys.: Condens. Matter** **25**, 155605 (2013).
 6. T. M. Dao, **P. Mondal**, Y. Takamura, E. Arenholz, and J. Lee, "Metal-insulator transition in low dimensional $\text{La}_{0.75}\text{Sr}_{0.25}\text{VO}_3$ epitaxial thin films", **Appl. Phys. Lett.** **99**, 112111 (2011).
 7. **P. Mondal**, Dipten Bhattacharya, and P. Mandal, "Current driven orbital order-disorder transition in LaMnO_3 ", **Phys. Rev. B** **84**, 075111 (2011).
 8. **P. Mondal**, D. Bhattacharya, A. Maity, O. Chakrabarti, A. K. M. Maidul Islam, and M. Mukherjee, "Evolution of orbital phases with particle size in nanoscale stoichiometric LaMnO_3 ", **J. Appl. Phys.** **109**, 084327 (2011).
 9. Debraj Choudhury, Adyam Venimadhav, Chandrasekhar Kakarla, Kris T. Delaney, P. Sujatha Devi, **P. Mondal**, R. Nirmala, J. Gopalakrishnan, Nicola A. Spaldin, Umesh V. Waghmare, and D. D. Sarma, "Unusual dielectric response in B-site size-disordered hexagonal transition metal oxides", **Appl. Phys. Lett.** **96**, 162903 (2010).
 10. Debraj Choudhury, Abhijit Hazarika, Adyam Venimadhav, Chandrasekhar Kakarla, Kris T. Delaney, P. Sujatha Devi, **P. Mondal**, R. Nirmala, J. Gopalakrishnan, Nicola A. Spaldin, Umesh V. Waghmare, and D. D. Sarma, "Electric and magnetic polarizabilities of hexagonal $\text{Ln}_2\text{CuTiO}_6$ (Ln=Y, Dy, Ho, Er, and Yb)", **Phys. Rev. B** **82**, 134203 (2010).
 11. **P. Mondal**, Dipten Bhattacharya, P. Choudhury, and P. Mandal, "Dielectric anomaly at T_N in LaMnO_3 as a signature of coupling between spin and orbital degrees of freedom", **Phys. Rev. B** **76**, 172403 (2007).
 12. **P. Mondal**, Dipten Bhattacharya, P. Choudhury, "Dielectric anomaly near orbital order-disorder transition in $\text{LaMnO}_{3+\delta}$ ", **J. Phys.:Condens. Matter** **18**, 6869 (2006).
 13. N. Das, **P. Mondal**, and Dipten Bhattacharya, "Particle size dependence of the orbital order-disorder transition in LaMnO_3 ", **Phys. Rev. B** **74**, 014410 (2006).
 14. S. Bhaumik, **P. Mondal**, A.K. Barua, "The influence of hydrogen gas in the ambient gas mixture on the properties of indium tin oxide films deposited on glass and acrylic substrate by DC magnetron sputtering", **J. Phys D: Applied Physics** **39**, 3838 (2006).
 15. R. Mazumder, S. Ghosh, **P. Mondal**, Dipten Bhattacharya, S. Dasgupta, N. Das, A. Sen, A.K. Tyagi, M. Sivakumar, T. Takami, and H. Ikuta, "Particle size dependence of the magnetization and phase transition near T_N in multiferroic BiFeO_3 ", **J. Appl. Phys.** **100**, 033908 (2006).
- **Conference presentations (selected)**
1. **P. Mondal** , R. Okazaki, H. Taniguchi, and I. Terasaki, " Photo-Seebeck effect in Pb_2CrO_5 crystals" Japan Physical Society 2013 (69th) Annual meeting, Tokushima University, Japan, September 25- 28.
 2. **P. Mondal**, A. Horikawa, R. Okazaki and I. Terasaki, " Investigation of photo-Seebeck effect in PbO crystals" The 32nd International Conference on Thermoelectrics (ICT2013), Kobe, Japan , 30th June to 4th July.
 3. **P. Mondal** , A. Horikawa, R. Okazaki and I. Terasaki, " Investigation of photo-Seebeck effect in PbO crystals" Japan Physical Society 2013 (68th) Annual meeting, Hiroshima University, Japan, March 26- 29.

4. **P. Mondal** , S. Asai, T. Igarashi, R. Okazaki and I. Terasaki, " Signature of phase crossover form Zener-polaron to CE-type charge ordered phase across doping range $0.40 < x < 0.50$ in $\text{Pr}_{(1-x)}\text{Ca}_x\text{MnO}_3$ ", Japan Physical Society 2012 (67th) Annual meeting, Yukohama national University, Japan, Sept. 22- 28.
5. Tran M. Dao, **P. S. Mondal**, Jaichan Lee, Y.Yayoi Takamura, "Metal-insulator transition in ultra-thin $\text{La}_{0.75}\text{Sr}_{0.25}\text{VO}_3$ thin films", 18th International Workshop on Oxide Electronics, Napa Valley, California, USA.
6. Debraj Choudhury, S. V. Bhat, K. T. Delaney, J. Gopalakrishnan, C. Kakarla, Olof Karis, P. Lazor, R. Mathieu, **P. Mondal** , P. Nordblad, A. Negi, R.Nirmala, B. Sanyal, N. A. Spaldin, P. Sujatha Devi, A. Sundaresan, A. Venimadhav, U. V. Waghmare and **D. D. Sarma**, "Dielectric oxides: How to enhance their beneficial properties", APS March Meeting 2010, Portland, Oregon USA.
7. **P. Mondal** and Dipten Bhattacharya, "Electric field induce metal insulator transition in LaMnO_3 : voltage pulse sensor", The 10th International Conference on Advance Materials" IUMRS-ICAM, IISC Bangalore, India.