

# Shishir Kumar Pandey

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**Nationality:** Indian

## Educational Details:

- B.Sc. Ewing Christian College ( University of Allahabad ) 2009.
- M.Sc. Applied Physics ( ISM(IIT) Dhanbad ) 2011.
- Ph.D. Dept. Of CMP&MS, S. N. Bose National Center For Basic Sciences, Kolkata ( University of Calcutta ) 2018.

## Research Interest:

Structural, magnetic and electronic properties of transitional metal compounds, Strongly Correlated Systems, 2D materials, Multiferroic materials, Metal-Insulator transitions

## Schools/Seminars / Conferences:

- Presented a paper on “*Fuel Cell-Mechanism & Modern Applications-2008*” in an Inter-college seminar, held at Ewing Christian College, Allahabad.
- Given a talk on “*Spin Polarized Current Due To Birefringence*” at The Harish-Chandra Research Institute, Allahabad, 23<sup>rd</sup> July, 2010.
- Actively participated in an “*International School/Conference on Functional Materials*” at Harish-Chandra Research Institute, Allahabad from 28<sup>th</sup> March to 2<sup>nd</sup> April, 2011.
- Participated in the international school ATHENA-2012 at SNBNCBS, Kolkata from 9th-12th April 2012.
- Attended JAIST International Winter School 2013 on “Quantum Monte Carlo Electronic Structure Calculation” organised by JAIST, Ishikawa, Japan from Feb. 19,2013 to Feb. 23,2013.

- Presented poster in International Conference on Directions in Materials Science held at JNCASR, Bangalore from November 30-December 1, 2013.
- Attended DST-SERC School in Advanced Functional Magnetic Materials held at Goa University from Feb. 3-21, 2014.
- Presented a poster in CMDAYS-14 held at University of Calcutta from August 27-29, 2014.
- Attended NANODAYS 2015 held at SNBNCBS, Kolkata from February 16-18 2015.
- Got best oral presentation award in Bose Fest 2015 held at SNBNCBS, Kolkata from March 02-04, 2015.
- Delivered a contributory talk in XXVII IUPAP Conference on Computational Physics held at IIT, Guwahati from December 2-5, 2015.
- Delivered an oral presentation in Emerging Trends in Advanced Functional Materials-2016 held at IOP, Bhubneshwar from January 18-21, 2016.
- Presented a poster in Indo-US Bilateral Workshop on Physics and Chemistry of Oxides: Theory meets experiments organized by S. N. Bose National Center For Basic Sciences, Kolkata from January 3-5, 2017.
- Participated in “The 16<sup>th</sup> Workshop on First-Principles Computational Materials Physics” organized at National Tsing-Hua University, Hsinchu, Taiwan from June, 25~26, 2018.
- Attended a workshop on “Recent Developments in Chiral Matter and Topology” organized by National Taiwan University, Taipei from Dec. 6~9 2018.

#### Scholarship/Awards/Achievements:

- Received merit cum mean stipend from ISM, Dhanbad in session 2010-2011.
- CSIR-UGC NET-2012.
- Got best oral presentation award in Bose Fest 2015 held at SNBNCBS, Kolkata from March 02-04, 2015.
- GATE-2016 .

#### List Of Publications:

- (I) Effect of boundary scattering on spin-hall effect  
S. K. Pandey and T. P. Pareek, **EPJB 92, 131 (2019)**

- (II) Route to high Neel temperatures in  $4d$  and  $5d$  transition metal oxides, S. Middey, A. K. Nandy, **S. K. Pandey**, Priya Mahadevan, D. D. Sarma, **Phys. Rev. B** **86**, 104406 (2012).
  - (III) Driving force for martensitic transformation in  $\text{Ni}_2\text{Mn}_{1+x}\text{Sn}_{1-x}$   
Soumyadipta Pal, Sagar Sarkar, **S. K. Pandey**, Chhayabrita Maji, and Priya Mahadevan, **Phys. Rev. B** **94**, 115143 (2016).
  - (IV) Doping an antiferromagnetic insulator: A route to an antiferromagnetic metallic phase, **S. K. Pandey**, Priya Mahadevan and D. D. Sarma, **Euro Phys. Lett.** **117**, 57003 (2017).
  - (V) The driving force for charge ordering in rare earth nickelates  
Basudeb Mandal, Sagar Sarkar, **S. K. Pandey**, Priya Mahadevan, Cesare Franchini, A. J. Millis, and D. D. Sarma  
<http://arxiv.org/abs/1701.06819v1>
  - (VI) Layer dependent electronic structure changes in transition metal dichalcogenides- The role of geometric confinement  
**S. K. Pandey**, Ruma Das and Priya Mahadevan  
<http://arxiv.org/abs/1702.04535v1>
  - (VII) Cr doping in rutile  $\text{VO}_2$ : A first principle study  
**S. K. Pandey**, Abhinav Kumar and Priya Mahadevan  
(*In communication*)
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