

Curriculum Vitae

PERSONAL INFORMATION

Dr. Syed Shahbaz Ali (HEC Approved Ph.D Supervisor)



📍 School of Physical Sciences, University of the Punjab, Lahore, Pakistan

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Sex Male | Date of birth 06/04/1984 | Nationality Pakistani

WORK EXPERIENCE

Sept. 2020-Continue

Assistant Professor

School of Physical Sciences, University of the Punjab, Lahore, Pakistan

Jan. 2016-Sept. 2020

Assistant Professor

Dept. of Physics, The University of Lahore, Lahore, Pakistan

Nov. 2010-May 2011

Lecturer

Dept. of Physics, Govt. Science College, Lahore, Pakistan

EDUCATION AND TRAINING

2011-2016

Ph.D - Condensed Matter Physics

Institute of Physics, Chinese Academy of Sciences, Beijing, China

2008-2010

M.Phil - Microelectronics Engineering and Semiconductor Physics

University of the Punjab, Lahore, Pakistan

2006-2008

M.Sc - Physics

University of the Punjab, Lahore, Pakistan

PERSONAL SKILLS

Organisational / managerial skills

- Established research laboratory in The University of Lahore after getting research grant from HEC-Pakistan
- **May 2019-Sept. 2020**-Incharge of Materials Synthesis and Research Lab, The University of Lahore
- **Feb. 2017-Sept. 2020**-Departmental Sports Coordinator, The University of Lahore

Job-related skills

- XRD, SEM, TEM, UV-Vis, VSM, PPMS, SQUID
- Several fabrication techniques including Electrochemical deposition, Solgel, Coprecipitation
- Technical software including Multisim, MDI Jade, Origin

ADDITIONAL INFORMATION

Honours and awards	<ol style="list-style-type: none"> 1. Certification on getting passing grade in “Structure of Materials” through online learning offered by Massachusetts Institute of Technology, USA, 2020 2. Outstanding reviewer award from Journal of Magnetism and Magnetic Materials, 2017 3. HEC-Pakistan Approved PhD Supervisor, 2017 4. Full scholarship for PhD studies awarded by Chinese Scholarship Council and University of Chinese Academy of Sciences, 2011-2015 5. Annual President Award, Institute of Physics, Chinese Academy of Sciences, 2014 6. Best research paper (Oral presentation) in the 3rd Symposium on Engineering Sciences, University of the Punjab, Quaid-e-Azam Campus, Lahore, Pakistan, 2010
Courses taught	<ol style="list-style-type: none"> 1. Nanotechnology, Ph.D 2. Magnetic Materials, Ph.D 3. Materials Science, M.Phil/Ph.D 4. Methods and Techniques in Experimental Physics, M.Phil/Ph.D 5. Solid State Physics I and II, M.Sc 6. Electronics, M.Sc 7. Modern Physics and Electronics, BS
Research supervision	<ol style="list-style-type: none"> 1. Currently supervising 2 Ph.D and 5 M.Phil research students
Research Grant	<ol style="list-style-type: none"> 1. Research Grant of 0.5 Million PKR from HEC, Pakistan, 2016
Conferences with Oral/Poster presentations	<ol style="list-style-type: none"> 1. 2019 Joint MMM-Intermag Conference, Marriott Wardman Park hotel, Washington DC, USA, 14-18 January, 2019 (Oral speaker) 2. International Conference on Recent Advances in Physics (ICRAP-2018), The University of Lahore, Lahore, Pakistan, 7-9th April, 2018 (Oral Speaker) 3. International Scientific Spring (ISS) 13-17 March, 2017, National Center for Physics (NCP), Islamabad, Pakistan (Oral Speaker) 4. International Conference on Materials Science and Nanotechnology (ICMSN), The University of Lahore, Lahore Pakistan, 25th Sep. 2016 (Oral Speaker) 5. IEEE International Magnetic Conference, Intermag, Beijing, China, 11-15th May, 2015 (Poster Presentation) 6. The Third International Conference of Asian Union of Magnetism Societies (IcAUMS), Haikou, China, Oct. 28th -Nov. 02nd, 2014 (Poster Presentation) 7. Chinese Physical Society Fall Meeting, Harbin Institute of Technology, Harbin, China 12-15th Sep. 2014 (Poster Presentation) 8. International Conference on Solid State Physics, University of the Punjab, Lahore, Pakistan, 01-06th Dec. 2013 (Oral Speaker) 9. Chinese Physical Society Fall Meeting, Xiamen University, Xiamen, China 12-15th Sep. 2013 (Poster Presentation) 10. Symposium on Engineering Sciences, University of the Punjab, Quaid-e-Azam Campus, Lahore, Pakistan, 2010 (Oral Speaker)
Book Chapter	<ol style="list-style-type: none"> 1. “Magnetic Random Access Memory (MRAM), Data Storage at the Nanoscale: Advances and Applications”, Han Xiufeng and Syed Shahbaz Ali, Copyright © 2015 Pan Stanford Publishing Pte. Ltd. ISBN 978-981-4613-19-4

Publications

1. Temperature-Dependent Variations in Structural, Magnetic, and Optical Behavior of Doped Ferrites Nanoparticles, M. Saqib, S. S. Ali, M. Zulqarnain, Muhammad U. Qadri, M. Riaz, M. S. Hasan, M. I. Khan, M. Tahir, M. I. Arshad, H. S. Rani, Accepted in Journal of Superconductivity and Novel Magnetism, <https://doi.org/10.1007/s10948-020-05746-1> Published online 07th Nov. 2020
2. Titania nanotube array decorated in polymer matrix as a free-standing anode material for lithium-ion batteries, Tauseef Anwar, Rizwan Ur Rehman Sagar, Saqib Sheraz, Farhat Nosheen, Sehrish Aslam, Syed Nasir Shah, Syed Shahbaz Ali, Yang Hui, Tongxiang Liang, Accepted in Materials Today Communications, <https://doi.org/10.1016/j.mtcomm.2020.101760>, 10th October 2020
3. Study of Electrical Transport Properties of Cadmium-Doped Zn–Mn Soft Ferrites by Co-precipitation Method, M. Ajaz Un Nabi, M. Moin, M. S. Hasan, M. I. Arshad, Aisha Bibi, N. Amin, K. Mahmood, S. S. Ali, Accepted in Journal of Superconductivity and Novel Magnetism, <https://doi.org/10.1007/s10948-020-05588-x> 10th July 2020
4. Magnetization behavior of NiMnGa alloy nanowires prepared by DC electrodeposition, K. Javed, X. M. Zhang, S. Parajuli, S. S. Ali, N. Ahmad, S. A. Shah, M. Irfan, J. F. Feng, X. F. Han, J. Magn. Magn. Mater., 498, 166232, 2020
5. A two-step fabrication and characterization of 1D hybrid ferromagnetic-multiferroic Ni-BiFe_{1-x}CoxO₃ core-shell nanostructures, K. Javed, X. M. Zhang, S. Parajuli, S. S. Ali, N. Ahmad, M. Irfan, J. F. Feng and X. F. Han, J. Magn. Magn. Mater., 493, 165738, 2020
6. Fabrication, structural and magnetic properties of one-dimensional anti-ferromagnetic FeMn nanostructures, S. S. Ali, W. J. Li, X. M. Zhang, M. Irfan, J. F. Feng, K. Javed, G. J. Zhai and X. F. Han, AIP Advances, 9, 035225, 2019
7. Stacked Layer Effect of ZnO/TiO₂ on the Efficiency of Dye Sensitized Solar Cells, M. I. Khan, Muhammad Saleem, Saif Ur Rehman, S. S. Ali, Muhammad U. Qadri, Naseeb Ahmed, M. Sufyan Javed and Javed Iqbal, J. Nanoelectron. Optoelectron. 13, 1-6, 2018
8. Mg and La co-doped ZnNi spinel ferrites for low resistive applications, Hasan, Sajjad; Arshad, Muhammad; ali, adnan; mahmood, khalid; Amin, Nasir; Ali, Shahbaz; Khan, M; Mustafa, Ghulam; Khan, Junaid; Saleem, Murtaza, Mater. Res. Express, 6, 016302, 2018
9. Magnetic field annealing effect and superparamagnetic contributions in one-dimensional CoPt nanostructures, S. S. Ali, W. J. Li, K. Javed, M. Irfan, Fazal-e-Aleem, G. J. Zhai and X. F. Han, J. Alloys Comp. 722, 83-87, 2017
10. Fabrication, structural and magnetic properties of electrodeposited Fe₈₀Pt₂₀ nanowires and nanotubes, U. Khan, W. J. Li, S. S. Ali, Khalid Javed, Saira Riaz and X. F. Han, DOI: 10.1109/INTMAG.2015.7156931, Magnetism Conference (INTERMAG), IEEE, 2016
11. Influence of Nd³⁺ substitution on physical, electrical and dielectric properties of Ba₂Zn₂Fe₁₂O₂₂ hexagonal ferrites prepared by sol–gel auto combustion method, Muhammad Irfan, Muhammad Usman, Asmat Elahi, U. Khan, Tahira Khan, K. Javed, S. S. Ali, Abdul Shakoor, Mater Sci: Mater Electron, 27, 3637, 2016
12. Utilizing the anti-ferromagnetic functionality of multiferroic shell to study exchange bias in hybrid core-shell nanostructures, S. S. Ali, W. J. Li, K. Javed, D. W. Shi, S. Riaz, Y. Liu, Y. G. Zhao, G. J. Zhai and X. F. Han, Nanoscale, 7, 13398, 2015
13. Exchange bias in two-step artificially grown one dimensional hybrid Co-BiFeO₃ core-shell nanostructures, S. S. Ali, W. J. Li, K. Javed, D. W. Shi, S. Riaz, G. J. Zhai and X. F. Han, Nanotechnology, 27, 4, 2015
14. Low frequency noise in magnetic tunneling junctions with Co₄₀Fe₄₀B₂₀/ Co_{70.5}Fe_{4.5}Si₁₅B₁₀ composite free layer, Z. H. Yuan, J. F. Feng, Peng Guo, C. H. Wan, H. X. Wei, S. S. Ali, X. F. Han, T. Nakano, H. Naganuma, Y. Ando, J. Magn. Magn. Mater. 398, 215, 2015
15. Enhanced exchange bias and improved ferromagnetic properties in Permalloy-BiFe_{0.95}Co_{0.05}O₃ core-shell nanostructures, Khalid Javed, Wenjing Li, Syed Shahbaz Ali, Dawei Shi, Usman Khan, Saira Riaz, and Xiufeng Han, Scientific Reports, 5, 18203, 2015
16. Spin Hall magnetoresistance in CoFe₂O₄/ Pt Films, H. Wu, Q. T. Zhang, C. H. Wan, S. S. Ali, Z. H. Yuan, Lu You, J. Wang and X. F. Han, IEEE Transactions on Magnetism, VOL. 51, NO. 11, 2015
17. Nonlocal ordinary magnetoresistance in indium arsenide, Pan. Liu, Zhonghui. Yuan, Hao. Wu, S. S. Ali, Caihua. Wan, Shiliang. Ban, J. Magn. Magn. Mater. 385, 292, 2015

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18. Post magnetic field annealing effect on magnetic and structural properties of Co₈₀Pt₂₀ nanowires and nanotubes fabricated by electrochemical method, S. S. Ali, K. Javed, D. W. Shi, L. L. Tao, J. Jiang, G. J. Zhai and X. F. Han, *J. Appl. Phys.* 115, 17A762, 2014
19. Exchange-biased hybrid ferromagnetic–multiferroic core–shell nano-structures, Da-Wei Shi, Khalid Javed, Syed Shahbaz Ali, Jun-Yang Chen, Pei-Sen Li, Yong -Gang Zhao and Xiu-Feng Han, *Nanoscale*, 6, 7215, 2014
20. Magnetic Field Annealing Effects on Magnetic Properties of Electrodeposited Co/Cu Multilayered Nanowires, Khalid Javed, DaWei Shi, Syed Shahbaz Ali, Jun Jiang, Pan Liu and Xiu Feng Han, *IEEE Transactions on Magnetics*, Vol. 50, No. 8, 2014
21. Perpendicular magnetic anisotropy in Ta|Co₄₀Fe₄₀B₂₀|MgAl₂O₄ structures and perpendicular CoFeB|MgAl₂O₄|CoFeB magnetic tunnel junction, B. S. Tao, D. L. Li, Z. H. Yuan, H. F. Liu, S. S. Ali, J. F. Feng, H. X. Wei, X. F. Han, Y. Liu, Y. G. Zhao, Q. Zhang, Z. B. Guo and X. X. Zhang, *Appl. Phys. Lett.* 105, 102407, 2014
22. Perpendicular magnetic tunnel junction and its application in magnetic random access memory, Liu Hou-Fang, Syed Shahbaz Ali and Han Xiu-Feng, *Chin. Phys. B*, Vol. 23, No. 7, 077501, 2014
23. Nonlocal magnetoresistance due to Lorentz force in linear transport region in bulk silicon, C. H. Wan, Z. H. Yuan, P. Liu, H. Wu, P. Guo, D. L. Li and S. S. Ali, *Appl. Phys. Lett.* 103, 262406, 2013
24. MgO(001) barrier based magnetic tunnel junctions and their device applications, X. F. Han, S. S. Ali & S. H. Liang, *Science China*, Vol. 56, 29, 2013
25. Power Macromodelling for CMOS inverter of 0.12 μm Technology, Shahzad Naseem, Saira Riaz, Muhammad Azam, Syed S. Ali, Yaseer A. Durrani, International Conference on Advance Computer Science and Electronics Information (ICACSEI), 2013