

## Biographical Sketch –JANGVIR SINGH SHAHI

JANGVIR SINGH SHAHI  
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### ACADEMIC BACKGROUND

Ph.D in Physics                      Panjab University, Chandigarh (2001)

Thesis Title: *X-Ray photon scattering cross section measurements and application in elemental analysis using EDXRF technique*

M.Phil.                                  Panjab University, Chandigarh

M.Sc. (Honors) Physics      Panjab University, Chandigarh  
(with Electronics specialization)

B.Sc. (Honors) Physics      Panjab University, Chandigarh

### PROFESSIONAL BACKGROUND

●Assistant Professor	Panjab University, India	10/2003 – Present
●Radio Chemist	Panjab University, India	06/1990 – 10/2003
●Lecturer	PEC Chandigarh, India	04/1988 – 06/1990
●Teaching Assistant	PEC Chandigarh, India	09/1986 – 04/1988
●Lecturer	S G T B Khalsa College Anandpur Sahib	01/1986 – 03/1995

### SERVICES

- Working as Coordinator Telecommunication Department, P U campus,
- In-charge B.Sc. 1st and 2nd year Lab, Dept. of Physics
- Member Departmental Administrative Committee

### COLLABORATIONS

- India-based Neutrino Observatory (INO)

### CURRENT POSITION

Working as Assistant Professor of physics. Teaching under graduate and graduate students (both theory and laboratory). Guiding research students for MSc project, and Ph.D. work. Member of the EDXRF and INO group in the department. Co-Investigator in various research projects.

## PUBLICATIONS

Author / Co-author of nearly 40 research papers in National / International Journals.

## RESEARCH INTERESTS

- XRF and its Applications
- Neutrino Physics (Detector Developments)
- Medical Physics (Radiation Dosimetry)
- Instrumentation

## LIST OF RECENT PUBLICATIONS

1. Rayleigh scattering of  $^{66}\text{Dy}$ -K X-rays in elements with  $22 \leq Z \leq 90$ ,  
Gurjot Singh, ArunUpmanyu, Prem Singh, H.S. Kainth, J.S.Shahi, Ranjit Singh,  
SanjeevKumar,Radiation  
*Physics and Chemistry 141 (2017) 257–263.*
2. Measurements of differential Rayleigh scattering cross sections for 25.2, 28.5, 37.4, 36.8 and 42.2keV photons in elements with  $22 \leq Z \leq 83$ ,  
Gurjot Singh, ArunUpmanyu, Gurjeet Singh, H.S. Kainth, Hitesh Sharma, J.S.Shahi and Sanjeev Kumar,  
*Communicated to EPJ D.*
3. Evaluation of positional accuracy of EPID using IMRT graticule phantom in extended source to imager distance setups: formalism of QA.  
Ranjit Singh, T. Verma, H.S. Kainth, C. Ram, D.Mehta, B. S. Rana, J. S. Shahi, and B. Singh,  
*International Journal of Current Advanced Research 6 (2017) 2893.*
4. Evaluation of positional accuracy of the Varian's Exact-arm and R-arm support EPID using IMRT graticule phantom.  
Ranjit Singh, H. S. Kainth, Sachin, D. Mehta, J. S. Shahi, B. Singh and T. Verma,  
*Accepted to Journal of Cancer Research and Therapeutics (2017).*
5. Comparative study and dose evaluation for conventional treatment of carcinoma breast patients with Co-60 and 6 MV radiation beam,  
Ranjit Singh, Arun. S. Oinam, H. S. Kainth, G. Trivedi, J. S. Shahi, B. Singh and R. Kapoor,  
*Accepted to Journal of Cancer Research and Therapeutics (2017).*
6. Study of chemical shift in  $L_I$  and  $L_{II}$  X-ray emission lines for different compounds of  $^{48}\text{Cd}$  and  $^{50}\text{Sn}$  using WDXRF technique.  
Harpreet Singh Kainth, Ranjit Singh, J.S.Shahi, Tejbir Singh.  
*X-ray spectrometry <https://doi.org/10.1002/xrs.2820>. (2017)*
7. Development and characterization of single gap glass RPC  
Manisha, VBhatnagar, J.S.Shahi, J.B. Singh,  
*Nucl. Instrum. Meth. A840 (2016) 128-132.*
8. Physics potential of the ICAL detector at the India based Neutrino Observatory (INO)  
ICAL Collaboration J.S.Shahi,

*Pramana 88(2017) no. 5, 79.*

9. Elemental Analysis of Condiments Food Additives and Edible Salts Using X-Ray Fluorescence Technique Heena Duggala, Atul Bhalla, Sanjeev Kumar J.S. Shahi, D. Mehta  
ICAL Collaboration J.S. Shahi,  
*Int. J. Pharm. Sci. Rev. Res.*, 35(2), Nov.– Dec. 2015; Article No. 24, Pages: 126-133
10. Influences of a new templating agent on the synthesis of coral-like TiO<sub>2</sub> nanoparticles and their photocatalytic activity  
Satwant Kaur Shahi, Navneet Kaura, Sofia Sandhua, J.S. Shahi, Vasundhara Singh.  
*Journal of Science: Advanced Materials and Devices*  
Volume 2, Issue 3, September 2017, Pages 347-353
11. Investigation of morphologies, photoluminescence and photocatalytic properties of ZnO nanostructures fabricated using different basic ionic liquids  
Satwant Kaur Shahi, Navneet Kaura, J.S. Shahi, Vasundhara Singh  
*Journal of Environmental Chemical Engineering*  
<https://doi.org/10.1016/j.jece.2016.12.029>
12. India-based Neutrino Observatory (INO)  
J.S. Shahi.  
*Bulletin of Indian association of Physics Teachers*,  
Volume 9, Issue 9, September 2017, Pages 240-244