

## R E S U M E

### JASMIRKAUR B. RANDHAWA

Assistant Professor in  
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**Portfolios in hand:** First Year Coordinator, NISP  
Coordinator, Vice-president IIC

**Ph. D** Physics, 2006

S.G.B. Amravati University, Amravati,

**Topic:** *Development of Electrochemical SO<sub>x</sub> & CO<sub>2</sub> Gas Sensor Using Composite Solid Electrolyte*

**Research interests:** Impedance Spectroscopy,  
EC gas sensor and Composite electrolyte

**M. Sc.** Physics, 1995

*Solid State Physics; Electronics*

### Honors and Fellowships:

1. **'Best Poster Award'** Modified Transport Properties of LiNbO<sub>3</sub> Dispersed Li<sub>2</sub>CO<sub>3</sub> Composite System for Electrochemical CO<sub>2</sub> Sensor, XVII- NSFD, 17-19 Dec. 2012, SOA University, Bhubaneshwar.
2. **'Best Paper Presentation'** Prof Suresh Chandra Medal, in 4<sup>th</sup> National Conference on Solid State Ionics FNCSSI-2000, IIT Bombay, 3-5<sup>th</sup> March 2000.
3. State government Open Merit Scholarship during UG and PG studies.

### Experience:

**Teaching:** UG- 20 Ys, PG – 02 Years

### Administrative:

**Dean Student Welfare: 03 Years**

**Head, Department of Physics: 11 years**

**First Year Coordinator: 03 year**

**Warden, Girls Hostel: 11 years**

**Member Secretary, Subject Board 10 years**

### Patents:

1. IP India Patent No. 328056 Granted on 24/12/2019 on Mixed Potential Electrochemical CO<sub>2</sub> Gas Sensor (**Granted**)
2. An *in-situ* surface conductivity measurement device and working thereof (**Published on 23/02/2024**)

**Research Publications: 18**

**Conference/Workshop/STTP Organized: 11**

**Participations: 35**

(Conferences/Symposia/Workshops)

**Books/book chapter authored/edited:**

1. Advanced Engineering Materials, Jasmirkaur Randhawa, Uma Gaikwad, Sita Tolani, Prashant Ambekar and Shahin Sayyad, Alliance & Co. ISBN: 9788195177271
2. Applied Physics, Tanvir Quazi, Jasmirkaur Randhawa, Uma Gaikwad, Sita Tolani, Prashant Ambekar and Shahin Sayyad, Alliance & Co. ISBN: 9788195177240
3. Edited Proceedings of National Conference on Recent Applications of Mathematical Tools in Science & Technology, 08-09 May 2014, Govt. College of Engg. Amravati, ISBN: 978-93-82588-41-2.
4. Book chapter in an International Book: Chemical Methods for Processing Nanomaterials Edited by Dr VidyaNand Singh, Chapter 7: Quantum dots and their Synthesis Processes, Prashant Ambekar and Jasmirkaur Randhawa, Publisher CRC Press Taylor and Francis Group 2020 ISBN 9780367085889

### Minor/Major Research Projects:

AICTE New Delhi Sponsored MODROBS Project entitled, "Development of ac/dc characterization facility for materials in thin film/polycrystalline form", ₹15,37,875/- (2008-2011).

**Invited talks/Guest Lectures/Invitations: 10**

### Certifications:

**AICTE:** Innovation Ambassador Adv. Level  
Universal Human Value I

**IIT Bombay:** The BodhiTree and SAFE, Scilab  
**NPTEL Courses:** 02