

Kirat Bir Kaur

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Sri Guru Granth Sahib World University

Department of Nanotechnology

Fatehgarh Sahib, Punjab

INDIA.

Date of birth: 28th January 1988

Gender: Female

Nationality: Indian

Current Position

Assistant Professor in Department of Nanotechnology, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab, INDIA.

Research Interests

Nanophotonics, Nanoelectronics , Spintronics, Dye Sensitized solar cells (DSSC)

Career Highlights

- Awarded for oral presentation at CHASCON -2010 Panjab University, Chandigarh

Area of Expertise

- Luminescence
- Synthesis of Nanomaterials
- Optical (PL and UV visible) Spectroscopy
- Sol Gel Process
- Scanning Electron Microscope
- Atomic Force Microscope
- X-ray Diffraction
- High Resolution TEM (HRTEM)
- Particle Size Analyzer
- FTIR Spectroscopy

Educational Qualifications

- **2009-2011**
M.Tech Nanoscience and Nanotechnology
Field: Nanotechnology

University/Institution: Panjab University, Chandigarh, INDIA.

- **2005-2009**

B. Tech Electronics and Communication

Field: ECE

University/Institution: University College of Engineering (U.Co.E.) Punjabi University Patiala, Chandigarh)

Research Work experience

- **Duration: 2 years 2013**

Designation: Student researcher

Funding Agency: Department of Physics, Panjab University

Main activities and responsibilities: Synthesis of Titanium dioxide Nanomaterial and their application.

Skill Acquired: Sol-gel synthesis technique, Spin coating, Analysis of sample prepared by microscope, High Resolution TEM (HRTEM), Photo-luminescence UV and Visible Spectroscopy. Fabrication of DSSC devices.

Name and address of employer: Department of Physics, Panjab University

- **Duration:** 6 months

Designation: Student Researcher

Master project: SPOON FEEDING ROBOTIC SYSTEM.

Supervisor: Dr. R. C. Agnihotri

Name and address of employer: ISTC, CSIO, Chandigarh

Teaching Experience

- **Duration:** 9th January 2012- 31st April 2010

Designation: Assistant Professor

Subjects Taught: BEEE

Experimental Labs: BEEE

Additional Responsibility: Deputy Hostel Warden at Mata Sahib Kaur Girls Hostel, BBSBEC, Fatehgarh Sahib

Name and address of employer: BBSBEC Fatehgarh Sahib, INDIA.

- **Duration:** Since July, 2013

Designation: Assistant Professor

Subjects Taught: Semi-conductor Nanomaterials, Nano-Photonics, Analog & Digital Electronics, Polymer nanocomposites, Spintronics, MEMS and NEMS, Nanolithography, Optical Properties of Nanomaterials

Experimental Labs: Synthesis of Nanomaterials, Analog and Digital Electronics Lab., Semiconductor Lab.

Name and address of employer: Department of Nanotechnology, Sri Guru Granth Sahib World University, Fatehgarh Sahib, INDIA.

List of Publications:

1. Synthesis and Characterization of Dye Sensitized Nanorods Mamta Rani, Kirat Bir Kaur and S. K. Tripathi AIP Conf. Proc. **1393**, 351 (2011); DOI:10.1063/1.3653754

Oral Talk/Poster Presented at Conferences:

1. Poster on “ Effect of Chemical Vapors on the sensing behavior of TiO₂ film and the study of its kinetics at international Conference on /Nanosensors and Technology (ICNST-2010) at C.S.I.O. , Chandigarh
2. Poster on ‘Characterization of dye sensitized TiO₂’ at 4th Chandigarh Science Congress (CHASCON 2010), P.U., Chandigarh.
3. Synthesis and Characterization of Dye Sensitized Nanorods Mamta Rani, Kirat Bir Kaur and S. K. Tripathi international Conference on Advances in Condensed and Nano Materials (ICACNM-2011)at P.U. Chandigarh

Workshops/Conferences attended:

- International Conference on Nanoscience and Technology (ICNST-2010), CSIO, Chandigarh
- Oral Presentation at 4th Chandigarh Science Congress (CHASCON 2010) P.U. Chandigarh.
- Participation in IMS Workshop-2010 on “ Advances in Microelectronics & Embedded Systems at UIET P.U Chandigarh
- Participation in International Conference on Nanosensors and Technology (ICNST-2010) at C.S.I.O. Chandigarh
- Participation n workshop on Characterization tools foe materials’ Panjab University Chandigarh
- Participation in international Conference on Advances in Condensed and Nano Materials (ICACNM-2011)at P.U. Chandigarh
- Participation in international interdisciplinary conferee (CORTONA-2010) organized by ETH Zurich, Switzerland at Hyderabad

- Participation in 15th Chandigarh Science Congress(CHASCON 2011) P.U. Chandigarh
- Attended an International Conclave on Nanotechnology held at Taj hotel organized by CII at New Delhi 14- 15 April 2010
- Participation in national Conference on Power and Energy Management (PEMCON-2012) sponsored by AICTE and organized by BBSBEC Fatehgarh Sahib
- Participation in National Conference on Emerging horizons of science and technology (EHST-2013)organized by Sri Guru Granth Sahib World University , Fatehgarh Sahib , Punjab , India

- **Knowledge of Computer Language & Software**

- C, C++ Language
- Matlab
- Fortran
- Wolfram Mathematica
- Gauss View Software
- OrCAD

- **Knowledge of Language**

- **Native Language:** Punjabi, Hindi.

- **Other Languages:**

English: Proficient level skill in speaking, reading, writing and listening