



St. Xavier's College

Dr. Camil Bulcke Path, Ranchi

Faculty Profile

Name of Faculty Member	: Dr. Swarat Chaudhuri
Gender	: Male
Email ID	: swarat@sxcran.org
Name of Department	: Department of Physics
Designation	: Associate Professor
Level of Teaching	: Undergraduate
Academic Qualification	: M.Sc., PGDCA (Gold Medalist), M. Tech. (CS), Ph.D.
Total Teaching Experience	: 29 Years and 05 Months
UGC NET/SET Qualified	: No

Research Papers Published:

- 1) **Effect of Milling on Dielectric Properties of PZT**, Materials Science Forum Vol. 1097, pp 99-105 2023 Trans Tech Publications Ltd, Switzerland, 2023, ISSN: 1662-9752.
- 2) **Evaluation of Crystal size present in Graphene Oxide quantum dots using optical and Raman spectroscopy**, Recent Advances in Sustainable Material, Material Today Proceedings, 2021.
- 3) **Mathematical modelling of induced magnetization @ Mn(II) ion doped in perovskite host**. Pramana-J. Phys. (2021) 95:92, 2021.
- 4) **Impedance Spectroscopy Analysis of (1- x)Ba_{0.06}(Na_{1/2}Bi_{1/2})_{0.94}TiO₃-xNaNbO₃ Ceramics**, AIP Conference Proceedings 2220, 020133 (2020), 2020.
- 5) **Milling maps of nanocrystalline lead titanate ceramics synthesised by high energy ball milling**. AIP Conference Proceedings **2220**, 020133 (2020); Published Online: 05 May 2020.
- 6) **Effect of milling on the electrical properties of Ba(Fe_{1/2}Ta_{1/2})O₃**, *Advances in Materials Research*, Vol. 5, No. 3 (2016) 181-192, 2016, ISSN: 2234-0912 (Print) 2234-179X (Online).

- 7) **Dielectric and Raman studies of Ba_{0.06}(Na_{1/2}Bi_{1/2})_{0.94}TiO₃-NaNbO₃ ceramics**, *Materials Science-Poland*, 34(2), 437-445, 2016, ISSN: 2083-1331.
- 8) **Nd doped lead titanate crystals for microelectronic memory device applications**, *J Mater Sci: Mater Electron*, 27 (2016) 7478, 2016, ISSN: 0957-4522.
- 9) **Structure, Microstructure and Dielectric Properties of (1-x) Ba_{0.06}(Na_{1/2}Bi_{1/2})_{0.94} TiO₃-xNaTaO₃ Lead-Free Ceramics**, *Proceeding of Recent Trends in Computations and Mathematical Analysis in Engineering and Sciences*, International e publication Indore, 46-50, 2015, ISBN: 978-93-84659-04-2.
- 10) **Electrical Conduction in nanoceramic PGT synthesized by high energy ball milling**, *Journal of Theoretical and Applied Physics* 2013, 7:267, 2013, ISSN: 2251-7235.
- 11) **Impedance Spectroscopy of nano crystalline Gd doped Lead Titanate**, *The Institution of Electronics and Telecommunication Engineers*, 2012, ISBN: 978-81-86945-85-2.
- 12) **Adaptive Educational modeling: A generic process framework**, P. K. Mahanti, S. Chaudhuri, At the proceedings of CSITEd 9th International Workshop on Computer Science and Information technologies, Ufa, Russia, 2007.
- 13) **IT and its role in Indian Education System: An Overview**, P. K. Mahanti, S. Chaudhuri, GITMA world Conference, Orlando, Florida. 11-13 June 2006
- 14) **Effects Of caching in WWW and latency Removal**, A Thesis submitted in partial fulfillment of the requirements for the award of the degree of Master of Technology in Computer Science. July 2000.
- 15) **Conversion of ANSI Cobol program into C/C++ programs: A methodology**, B. Srinivasu, A. Kumar, S. Chaudhuri, S. Kumar. International AMSE conference on Computer Modelling, Simulation and Communication, Jaipur, December 1999.
- 16) **Caching of Multimedia Objects: A Survey**, P.K. Mahanti, S. Chaudhuri, Musbah Aqel, *International journal of Information and Computing Science*. Vol.II, number 2, pp 29-32, Aug 1999.
- 17) **Push-Pull modeling in WWW: A Review**, P.K. Mahanti, S. Chaudhuri, International AMSE conference on Computer Modelling, Simulation and Communication, Jaipur, December 1999.

Participation in UGC-HRDC Course/FDP/OC/RC:

- 1) Participated in Two-Days Online Faculty Development Program on "**The Role of Artificial Intelligence in Higher Education**", organized by the IQAC, St. Joseph College of Commerce, Bengaluru in Collaboration with Xavier Board of Higher Education in India (XBHEI) on 20th-21st February, 2025
- 2) Participated in the FDP on **e-Governance in Higher Education: Developing e-learning and Delivery Mechanism** on 14.12.2012 organized by Ranchi University, Department of Electronics & Information Technology and National e-Governance Plan, Gol.
- 3) Participated in the Acquaintance program on Inter University Accelerator Centre, New Delhi on 23.11.2012 organized by CUJ, Jharkhand and Inter University Accelerator Centre, New Delhi
- 4) Participated in the Refresher Course in **Experimental Physics** from 05.01.2012 to 25.01.2012 organized by UGC-HRDC, Ranchi University, Ranchi.
- 5) Participated in the Refresher Course in **Experimental Physics** from 17.02.2011 to 09.03.2011 organized by UGC-HRDC, Ranchi University, Ranchi.
- 6) Participated in the Refresher Course in **Physics** from 29.10.1998 to 18.11.1998 organized by UGC-HRDC, Ranchi University, Ranchi.
- 7) Participated in the Orientation Course from 10.03.1997 to 09.04.1997 organized by UGC-HRDC, Ranchi University, Ranchi.

Seminar/Conference attended/Paper Presented (National/International):

- 1) Participated in the International Conference on **Smart and Sustainable Energy Systems (ICSSSES 2024)** organized by Dept. of Electrical and Electronics Engineering, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh. 16-17 February 2024 and presented a paper titled "**Investigating the Impact of Annealing Temperature on CdS nanoparticles: Optimizing Solar Photovoltaic Efficiency**", 2024.
- 2) Participated in the Second Global Conference on **Recent Advances In Sustainable Materials** [GC-RASM 2022]. 28-29 July, Mangalore, Karnataka, India, and Presented a Research paper "**Evaluation of Crystal size present in Graphene Oxide Quantum Dots using Optical and Raman Spectroscopy**", 2022.
- 3) Participated in the 16th Conference of Asian Crystallographic Association (AsCA2019) held in UTown, National University of Singapore, Singapore from 17-20th December 2019, and Presented a paper titled "**Effect of**

Milling on the Structural and Electrical properties of NaNbO₃ Ceramic", 2020.

- 4) Participated in the Pre-Conference TOPAS Workshop of AsCA2019 held in the Faculty of Science, Department of Physics, National University of Singapore, Singapore from 15- 16th December 2019.
- 5) Participated in the 3rd International Conference on **Condensed Matter & Applied Physics (ICC 2019)** organized by Govt. Engineering College, Bikaner during Oct. 14-15, 2019 and presented a paper entitled "**Milling Maps of Nanocrystalline Lead Titanate Ceramics Synthesised by High Energy Ball Milling**", 2019.
- 6) Participated in the National Seminar on **Nanotechnology: Applications and Challenges**, Faculty of Science and Technology, ICFAI University, Jharkhand. 29th October, 2013, and presented a paper "**Electrical Conduction in Nanoceramic PLT synthesized by High Energy Ball Milling**", 2013.
- 7) Participated in the National Conference on **Emerging Trends in Condensed Matter Physics (ETCMP-2013)**, 17th -18th January 2013 at University Department of Physics, T. M. Bhagalpur University, Bhagalpur, and presented a paper "**Structural, IR and dielectric properties of (1-x)Ba_{0.06}(Na_{1/2}Bi_{1/2})_{0.94}TiO₃- xNaNbO₃; (0 ≤ x ≤ 1.0) ceramics**". 2013.
- 8) Participated in the 17th National seminar on **Ferroelectrics and Dielectrics (XVII NSFD-2012)**, 17th to 19th December 2012 at Institute of Technical Education and Research (ITER), Bhubaneswar, Odisha, and presented a paper titled "**Structural, FTIR and ac conductivity studies of NaMeO₃ (Me ≡ Nb, Ta)**", 2012.
- 9) Participated in the Zonal Seminar on **Nano-Technology**, 2nd and 3rd September 2012, Ranchi, Organized by "The institute of Electronics and Telecommunication Engineers (IETE)", and presented a paper on "**Impedance Spectroscopy of nanocrystalline Gd doped Lead Titanate**", 2012.

Book Authored:

- 1) **Software Engineering: A Case Study based approach**, book by Dr. R. P. Mahanti and S. Chaudhuri.

Experience of Ph, D, Guidance:

- 1) Two (2) Research Scholars are registered under my supervision for Ph. D.

Guest Lecture/Special Lecture Delivered/Resource Person:

- 1) Delivered lecture as a Resource Person in the Refresher Course during 09.01.2018 to 29.01.2018 organized by UGC-HRDC-RU, Ranchi.
- 2) Delivered lecture as a Resource Person in the Orientation Course during 04.07.2017 to 31.07.2017 organized by UGC-HRDC-RU, Ranchi.
- 3) Delivered lecture as a Resource Person in the Orientation Course during 12.03.2015 to 08.04.2015 organized by UGC-HRDC-RU, Ranchi.
- 4) Delivered lecture as a Resource Person in the Refresher Course during 10.07.2014 to 30.07.2014 organized by UGC-HRDC-RU, Ranchi.
- 5) Delivered lecture as a Resource Person in the Refresher Course during 03.03.2014 to 23.03.2014 organized by UGC-HRDC-RU, Ranchi.

Patents / Registration of Design:

Design No	Date	Title	Issuer
392477-001	10/08/2023	Nano-Synthesis Machine For producing Graphene Oxide	The Patent Office, Gol
400997-001	30/11/2023	Black Carbon Filtration Device	The Patent Office, Gol

[Dr. Swarat Chaudhuri]