Dr. CHAYAN KANCHAN KARMAKAR

Professional Introduction

Designation: Assistant Professor

Department: Physics

Affiliation: Netaji Mahavidyalaya

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Education and Degree Details

Bachelor Degree: 2010, Vivekananda Mahavidyalaya, Burdwan University

Master Degree: 2012, Burdwan University

Bachelor of Education: 2013, Government Training College, Burdwan University

Doctor of Phylosopy: 2023, Indian Institute of Engineering Science and Technology (IIEST), Shibpur, Howrah

Field of Interest

Specialization: Laser and Non-linear Optics

Research: Condensed Matter Physics and Ultrasonics

Area of Interest: Astronomy and Astrophysics, Nano Technology

Experience

Research: 17.08.2016 – 25.08.2023, (IIEST, Shibpur)

Professional: 04.04.2017 – Till Now (Netaji Mahavidyalaya, Arambag)

Journal Paper

- ◆ Chayan K. Karmakar, Biplab Dutta and Sampad Mukherjee, "Study of frequency and concentration dependence of ultrasonic attenuation of NiO nanoparticle embedded in polyvinilidyne fluoride", J. Pure Appl. Ultrason., Vol. 39, No. 2 (2017).
- ♦ Chayan Kanchan Karmakar, Samad Mukherjee, "Investigation of acoustic frequency band gap of one dimensional bi-mass system considering lattice vibrational model and considering phonon dispersion relation", Focus, Vol 8 (2017).
- ♦ Chayan Kanchan Karmakar, Priyanka Betal, Sampad Mukherjee, "Evaluation of gel time of TEOS using the idea of phononic band-gap for macro bi-mass system", Physica B 595 (2020) 412371.

Presented Paper

- ♦ Chayan Kanchan Karmakar, Priyanka Betal, Sampad Mukherjee, "Study of the effect on phononic bandgap during the phase transition of silica sol by using ultrasonic wave", XXth International Workshop on The Physics of Semiconductor Devices (IWPSD- 2019).
- ♦ P Betal, C K Karmakar, S Mukherjee, "*Ultrasonics study of freezing kinetics of wax*", XXth International Workshop on The Physics of Semiconductor Devices (IWPSD- 2019).
- ♦ Chayan Kanchan Karmakar, Priyanka Betal, Sampad Mukherjee, "Ultrasonic study on the effect on forbidden band introducing transition metal ion in colloidal liquid", International Conference on Condensed Matter Physics (IEMPHYS- 2019).
- ◆ P Betal, C K Karmakar, S Mukherjee, "Studies of forbidden frequency band using one dimensional mass chain model with different combination of metamaterials", International Conference on Condensed Matter Physics (IEMPHYS- 2019).
- ◆ Chayan Kanchan Karmakar, Priyanka Betal, Sampad Mukherjee, "Application of modified form of forbidden frequency band using silica gel and concrete composite", National Seminar on Recent Trends in Condensed Matter Physics including Laser Applications (NSCMPLA-2019)
- ♦ P Betal, C K Karmakar, S Mukherjee, "Modified form of forbidden frequency band using one dimmensional mass chain model and its experimental verification", National Seminar on Recent Trends in Condensed Matter Physics including Laser Applications (NSCMPLA-2019).

Course Work, Induction Program, Refreshers, Short Term

- Course work on Research Methodology, (2017), IIEST, Shibpur.
- ♦ Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education", (2020), HRDC, Teaching Learning Centre, Ramanujan College University of Delhi
- Refresher Course in Advances in Nano-Science and Nano-Technology, (2021), UGC-HRDC, University of Burdwan.
- ♦ 12th Online Faculty Induction Programme, (2022), UGC-HRDC, Aligarh Muslim University, Aligarh.
- ♦ NEP 2020 Orientation and Sensitization Programme-3, (2023), UGC, Malaviya Mission Teacher Training Centre, The University of Burdwan.

Workshop Course

- "Workshop on syllabus (sixth semester CBCS) of Physics (Hons) course of studies". Department of Physics, University of Burdwan.
- "Workshop on Scilab". Department of Physics, University of Burdwan
- "Workshop on some advanced topics in undergraduate studies under CBCS system". Department of Physics, University of Burdwan.

Project Details

Project fellow –NASF, ICAR (GOI).

Award

- ♦ *Lectureship in Joint CSIR-UGC-NET*, (2014), Council of Scientific and Industrial Research.
- ♦ *Dr. Parthasarathi Memorial Award* 2017 for best journal paper, November 10, 2018, Ultrasonics Society of India.