

Faculty Profile

1. Name of the faculty: **DR. KOUSIK DUTTA**
2. Name of the department: **DEPARTMENT OF PHYSICS, BEHALA COLLEGE**
3. Educational qualification: **M.Sc, P.hD**
4. Present position: **ASSISTANT PROFESSOR (Stage 2)**
5. Address for correspondence:
OFFICE ADDRESS: DEPARTMENT OF PHYSICS, BEHALA COLLEGE, PARNASREE PALLY, KOLKATA -700060
RESIDANCIAL ADDRESS: KOUSIK DUTTA, VILL- BIZRA, P.O- AMADPUR, P.S- MEMARI, DIST- BURDWAN, PIN-713154, WEST BENGAL
6. Email and contact no.: **duttakousik2003@yahoo.co.in**
7. Specialization: **NUCLEAR PHYSICS/ MATERIALS SCIENCE**
8. Total teaching experience: **EIGHTEEN YEARS**
9. Courses taught:
 1. **SEM I(HONS): MECHANICS**
 2. **SEM II(HONS) : MAGNETISM**
 3. **SEM III (HONS) : THERMAL PHYSICS**
 4. **SEM III (GEN) : THERMAL PHYSICS**
 5. **SEM IV(HONS) : ANALOG ELETRONICS**
 6. **SEM V (HONS) : NUCLEAR PHYSICS**
 7. **SEM VI (HONS) : NANOMATERIALS**
- PRACTICAL: Electrical, Non-electrical, Electronics, Solid state and Modern physics**
10. Research experience: **20 YEARS**

Research Experience :

Years Active: 2003 - 2008: Research Scholar in the Department of Materials Science, I.A.C.S. Jadavpur

2008 to Present : Involve Research work in Materials Science

Research interest: Inorganic –organic hybrid nanocomposite, Electrical transport and dielectric properties, Graphene synthesis

11. Minor research projects completed: Title of the project, Date of sanction and Duration, Grant received, Funding agency. PI or Co-PI.

MRP : Synthesis and temperature dependent transport properties of graphene –polymer nanocomposite and its applications.

UGC projects , 2015-2017, Grant Amount : 3,60,000/-

12. Participation in conferences, symposia and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person-Name of paper, organiser, name of conference, date , year.

1. Networking of undergraduate college Academic and Administrative Frontiers, UGC sponsored State Level seminar, Maheshtala College, 5th Feb, 2007

2. Undergraduate Physics teaching: Search for effective Methodology, National workshop, Behala College, 8-10 Feb, 2008

3. Trends in Nanoscience and Related Areas, National symposium, Department of Chemistry , Behala College, 9-10 December, 2010

4. Non-Conventional Energy Resources and Sustainable Development: Current Perspective, UGC sponsored National Conference St. Paul's College, 24-25th September, 2010

5. Physics behind Electronics/ optoelectronics and their Application, UGC sponsored National level Seminar, 01-02 December, 2011

6. Recent trends in Fibre optics and optical communication, UGC sponsored State level Seminar, St . Paul's College, January 18, 2012

7. Matrix and dynamics of teaching and its Documentation in higher education, College level symposium, Behala College, 26th April, 2014.

8. Annual Convention Computer Society of India, January, 2018

PAPERS PRESENTED/ PUBLISHED AT NATONAL/INTERNATIONAL CONFERENCE:

1. Synthesis, Characterization and Transport Properties of polypyrrole-titania nanocomposite; Ashis Dey, Sukanta De, Kousik Dutta A. De and S. K. De, International Seminar on Advances in Polymer Technology (APT'04), Kochi, India, Jan 16 -17 , 2004

2. Electrical transport and dielectric properties of zirconia polyaniline hybrid nanocomposites by Ashis Dey, Kousik Dutta and S. K. De, National Conference on Frontiers in Polymer Science and Technology, Polymer Science Unit, Indian Association for the Cultivation of Science, Kolkata, India, 10-12 February, 2006.

3. Dielectric and Optical properties of SiO₂ polyaniline nanocomposites by Kousik Dutta, Ashis Dey and S. K. De, National Conference on Frontiers in Polymer Science and Technology, Polymer Science Unit Indian Association for the Cultivation of Science, Kolkata, India, 10-12 February, 2006

4. Optical and diode like I-V properties of SnO₂-polyaniline – nanocomposites by Kousik Dutta and S. K. De, Department of Physics, Barkatullah University, Bhopal. DAE Solid State Physics Symposium, December 26- 30, 2006

5. Treands in Nanoscience and Related Areas, National symposium, Department of Chemistry , Behala College, 9-10 December, 2010

6. Physics behind Electronics/ optoelectronics and their Application, UGC sponsored National level Seminar, 01-02 December, 2011

7. Emerging Frontiers in Materials Science, National Seminar, National Seminar, 15th-16th, February, 2019

13. Refresher and Orientation courses attended:

1. Orientation Course , Jadavpur University, 19th Nov, 2007 - 17th December, 2007

2. Refresher course in ICT Application, Burdwan University, 6th March, 2013 – 26th March, 2013

3. National workshop on Scanning Electron Microscope, Burdwan University, 2014

14. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS. - Name of paper, Journal name, Vol. no., Page number, year.

List of publications: TWENTY TWO (22)

1. High dielectric permittivity in SiO₂-polyaniline nanocomposite. Kousik dutta and S. K. De, Journal of Nanoscience and Nanotechnology 6(2006) 499

2. Transport and optical properties of SiO₂-polypyrrole nanocomposites Kousik Dutta, S.K. De, Solid State communication 140 (2006) 167

3. Optical and electrical characterization of polyaniline-silicon dioxide Nanocomposite Kousik Dutta, S.K. De , Physics Letters A 361(2007) 141

4. Optical and diode like current-voltage characteristics of SnO₂-polypyrrole Nanocomposites Kousik Dutta and S K De, Journal of physics D: Applied Physics 40 (2007) 734

5. Electrical conductivity and optical properties of polyaniline intercalated graphite oxide nanocomposites. Kousik Dutta and S K De, Journal of Nanoscience and nanotechnology 7 (2007) 2459

6. Optical and electrical characterizations of self-assembled CdS nanorods. Kousik Dutta Sukanta De and S. K. De Journal of Applied Physics 101 (2007) 093711
7. Electrical conductivity and dielectric properties of SiO₂ nanoparticles dispersed in conducting polymer matrix, Kousik Dutta and S. K. De Journal of Nanoparticle Research 9 (2007) 631
8. Double dielectric relaxations in SnO₂ nanoparticles dispersed in conducting polymer, Kousik Dutta and S. K. De , Journal of Applied Physics 102 (2007) 084110
9. Optical and electrical characterization of ZnS Nanoparticles embedded in Conducting polymer, Kousik Dutta and S. K. De Synthetic Metals 159 (2009) 315
10. Optical and nonlinear electrical properties of SnO₂-polyaniline Nanocomposites Kousik Dutta and S. K. De Materials Letters 61 (2007) 4967
11. High dielectric permittivity observed in Na and Al doped NiO. Sujit Manna, Kousik Dutta and S. K. De J. Phys. D: applied Physics 41 (2008) 155416
12. Nanomedicine: An Overview, Kousik Dutta, Journal of Advanced Studies, 2014
13. Synthesis of ZnS nanoparticles using Plant leaf extract and study of dielectric properties of ZnS-PPY nanocomposite, International journal of Scientific Research and Review, 4(2015) 194
14. Synthesis and Nonlinear Properties of Inorganic - Organic Hybrid Nanocomposites. Kousik Dutta, Journal of Advanced Studies, 2(2016) 27
15. Synthesis of SnO₂ Nanoparticles using plant extract and study of dielectric properties SnO₂ – PPY Nanocomposites, International Journal of Creative Research Thoughts, 4(2016)108

16. Synthesis and characterization of Polypyrrole /Graphite oxide nanocomposite and study of electrical properties, Journal of Emerging Technologies and Innovative Research, 4(2017) 347

17. Graphene based polymer Nanocomposites and its Application, Kousik Dutta, Journal of Advanced Studies, 3(2017) 31

18. Green Synthesis : CdS Nanoparticle and Dielectric Properties of CdS – PPY Nanocomposite, International Journal of Research and Analytical Review, 4(2017) 279

19. Green Synthesis and transport properties of ZnS-PPy hybrid nanocomposites, Kousik Dutta , International Journal of Scientific and Engineering Research, 9(2018) 249

20. CdS Nanoparticles: Glucose/Starch Synthesis Method and Non Linear Electrical Properties Disperse in Polymer Matrix, Kousik Dutta, e-Journal of Surface Science and Nanotechnology, 16 (2018) 14

21. Impedance Spectroscopy of ZnS Nanoparticles Embedded in Conducting Polymer, Kousik Dutta, International Journal of Scientific Research and Review. 7(2018) 1274

22. Synthesis and Dielectric relaxation in self assembled Cadmium Sulphide nanorods dispersed in conducting polymer. Kousik Dutta, International Journal of Advanced Research and Management, 3(2018) 17

15. Conferences, seminars, symposia and workshops organized as convener/ coordinator:

Emerging Frontiers in Materials Science, National Seminar, Jt. Convener , 15th-16th , February, 2019

16. Membership of Professional Bodies :

1. Life Member of Indian Physical Society and Library of Indian Association for the Cultivation of Science

2. Member of Indian Association of Physics Teacher

