Name of the faculty: Dr. Dibyendu Dey

Designation: Assistant Professor

Education: (UG,PG, PhD): PhD

Contact: 9774275806, 7005414522

Address: Techno College of Engineering Agartala
Moheshkhola, Agartala, West Tripura, 799004

Mobile: 9774275806, 7005414522

Email:dey.dibyendu@tiaedu.org

Research Interest: Thin-film and Nano-Science Technology

Membership of professional bodies:

Professional Experience:

1. Post Graduate Teacher in H.S. School (09 years, 2011-2020).
2. Assistant Professor in Rajarshi College of Education and Skill (02 year, 2020-2022).
3. Assistant Professor in Techno College of Engineering Agartala (03 year, 2023-till date).

Patents:

Publications:

Publishes Journal/ Conference papers/ Book/ Book Chapters :

1. Dibyendu Dey, Ayush Dhaka, H. K. Pratihari, Syed Arshad Hussain, Arpan Datta Roy "Sensing of Gunshot Residue components from real sample using Fluorescence Resonance Energy Transfer." Spectrochimic a Acta Part A: Molecular and Biomolecular Spectroscopy vol. 319 pp. 1-10, 2024 https://doi.org/10.1016/j.saa.2024.124512Get rights and content (SCI)

2. Jaba Saha, Arpan Datta Roy, Dibyendu Dey, Syed Arshad Hussain "Role of Quantum dots in designing FRET based sensors." Materials Today vol. 05 pp. 2306-2313, 2018 https://doi.org/10.1016/j.matpr.2017.09.234 (SCI)

3. Jaba Saha, Arpan Datta Roy, Dibyendu Dey, Jayasree Nath, D. Bhattacharjee, Syed Arshad Hussain "Development of arsenic(v) Sensor based on Fluorescence Resonance Energy Transfer." Sensors and Actuators B: Chemical. Vol. 241 pp. 1–10 2017 http://dx.doi.org/10.1016/j.snb.2016.10.098 (SCI)

4. Jaba Saha, Arpan Datta Roy, Dibyendu Dey, D. Bhattacharjee, Pabitra Kumar Paul, R. Das, Syed Arshad Hussain "Effect of zinc oxide nanoparticle on Fluorescence Resonance Energy Transfer between Fluorescein and Rhodamine 6G" Spectrochimic a Acta Part A: Molecular and Biomolecular Spectroscopy vol. 175 pp. 110-116, 2017 http://dx.doi.org/10.1016/j.saa.2016.12.002 (SCI)

5. Arpan Datta Roy, Jaba Saha, Dibyendu Dey, D. Bhattacharjee, S. A. Hussain "Investigation on ionic states of 1,2-Dipalmitoyl-sn glycero-3-phosphorylcholine (DPPC) using organic laser dyes: A FRET study" Journal of Luminescence vol. 185 pp. 42-47, 2017
http://dx.doi.org/10.1016/j.jlumin.2016.12.040 (SCI)

6. Jaba Saha, Dibyendu Dey, Arpan Datta Roy, D. Bhattacharjee, S. A. Hussain "Multi step FRET among three laser dyes Pyrene, Acriflavine and Rhodamine B" Journal of Luminescence vol. 172 pp. 168-174, 2016
http://dx.doi.org/10.1016/j.jlumin.2015.12.004 (SCI)

7. Arpan Datta Roy, Jaba Saha, Dibyendu Dey, D. Bhattacharjee, S. A. Hussain "Influence of clay and DNA on Fluoresence Resonance Energy Transfer between two laser dyes Pyrene and Acriflavine" Advanced Science Letters vol. 22 pp. 149-153, 2016
http://dx.doi.org/10.1166/asl.2016.6810 (SCI)

8. Arpan Datta Roy, Dibyendu Dey, Jaba Saha, Santanu Chakraborty, D. Bhattacharjee, Syed Arshad Hussain "Development of a sensor to study the DNA conformation using molecular logic gates" Spectrochimic a Acta Part A: Molecular and Biomolecular Spectroscopy vol. 136 pp. 1797-1802, 2015
http://dx.doi.org/10.1016/j.saa.2014.10.086 (SCI)

9. Jaba Saha, Arpan Datta Roy, Dibyendu Dey, Santanu Chakraborty, D. Bhattacharjee, P.K. Paul, Syed Arshad Hussain "Investigation of Fluorescence Resonance Energy Transfer between Fluorescein and Rhodamine 6G" Spectrochimic a Acta Part A: Molecular and Biomolecular Spectroscopy vol. 149 pp. 143-149, 2015
http://dx.doi.org/10.1016/j.saa.2015.04.027 (SCI)

10. Syed Arshad Hussain, Dibyendu Dey, Sekhar Chakraborty, Jaba Saha, Arpan Datta Roy "Fluorescence Resonance Energy Transfer (FRET) sensor" Journal of Spectroscopy and Dynamics vol. 5 pp. 1-16, 2015
https://doi.org/10.48550/arXiv.1408.6559 (SCI)

11. Dibyendu Dey, Jaba Saha, Arpan Datta Roy, D. Bhattacharjee, S. A. Hussain "Development of an Ion Sensor using Fluorescence Resonance Energy Transfer" Sensors and Actuators B: Chemical vol. 195 pp. 382-388, 2014
http://dx.doi.org/10.1016/j.snb.2014.01.065 (SCI)

12 Dibyendu Dey, Jaba Saha, Arpan Datta Roy, D. Bhattacharjee, S. A. Hussain "Sensing of DNA conformation based on change in FRET efficiency between laser dyes" Sensors and Actuators B: Chemical vol. 204 pp. 746-753, 2014
http://dx.doi.org/10.1016/j.snb.2014.08.029 (SCI)

13 Santanu Chakraborty ,Dibyendu Dey, D. Bhattacharjee, Pintu Debnath, Syed Arshad Hussain "Formation and fluorescent H-aggregates of a cyanine dye in ultrathin film and its effect on energy transfer." Journal of Biological Physics A: Chemistry vol. 293 pp. 57-64, 2014
http://dx.doi.org/10.1016/j.jphotochem.2014.07.018 (SCI)

14 Dibyendu Dey, D. Bhattacharjee, S. Chakraborty, S.A. Hussain "Effect of nanoclay laponite and pH on the energy transfer between fluorescent dyes." Journal of Photochemistr y Photobiology A-Chemistry vol. 252 pp. 174– 182, 2013
http://dx.doi.org/10.1016/j.jphotochem.2012.12.003 (SCI)

15 Dibyendu Dey, D. Bhattacharjee, S. Chakraborty, S.A. Hussain "Development of hard water sensor using fluorescence resonance energy transfer." Sensors and Actuators B: Chemical vol. 184 pp. 268-273, 2013
http://dx.doi.org/10.1016/j.snb.2013.04.077 (SCI)

16 D. Bhattacharjee, Dibyendu Dey, S. Chakraborty, S.A. Hussain, S. Sinha "Development of a DNA sensor using a molecular logic gate." Journal of Biological Physics vol. 39 pp. 387-394, 2013
http://dx.doi.org/10.1007/s10867-012-9295-3 (SCI)

17 S. A. Hussain, Dibyendu Dey, S. Chakraborty, D. Bhattacharjee "J-aggregates of thiacyanine dye organized in LB films: Effect of irradiation of light." Journal of Luminescence vol. 131 pp. 1655-1660, 2011
http://dx.doi.org/10.1016/j.jlumin.2011.04.003 (SCI)

18. Revelation Komarapu, Ayush Dhaka, Dibyendu Dey, S. A. Hussain, Arpan Datta Roy "Molecular logic gate as a tool for the sensing of Lead in drinking water: a FRET based sensor." Interactions (Spriner) 2024

19 Sourav Shil, Dibyendu Dey, Thoudam Chandramani Singh, Ayush Dhaka, H. K. Pratihari, Arpan Datta Roy "Investigation of country-made firearms in forensic relevance." Interactions (Spriner) 2024

20 Ayush Dhaka, Dibyendu Dey, Bapi Dey, Arpan Datta Roy "Determining the concentration of copper (II) in drinking water by FRET analysis." Interactions (Spriner) 2024

21 Mathematical Physics-I for B.Sc. Physics (Major)- as per NEP 2020 guideline Dr. C. Debnath, Dr. B. Deb, Sri. S. Sengupta, Dr. R. Das, Dr. D. Dey, Dr. K. Adhikari, Prof. S. A. Hussain, Prof. D. Bhattacharjee, Prof. B. K. Dey Clever Fox 2023 Mechanics

22 Dr. C. Debnath, Dr. B. Deb, Sri. S. Sengupta, Dr. R. Das, Dr. D. Dey, Dr. K. Adhikari, , Prof. D. Bhattacharjee, Prof. B. K. Dey "Mechanics and Basic Instrumentation for B.Sc. Physics (Major)- as per NEP-2020 guideline" Clever Fox 2023

23 Dr. C. Debnath, Dr. B. Deb, Sri. S. Sengupta, Dr. R. Das, Dr. D. Dey, Dr. K. Adhikari, , Prof. D. Bhattacharjee, Prof. B. K. Dey "B.Sc. Physics Minor Course-I for B.Sc. Physics (Minor)- as per NEP-2020 guideline" Clever Fox 2023

24 Arpan Datta Roy, Jaba Saha, Dibyendu Dey, D. Bhattacharjee, S. A. Hussain "Design of a molecular logic X OR gate based on Energy Transfer between two dyes" Status of Research in Physics in North-East India 2015 Status of Research in Physics in North-East India

25 Jaba Saha, Arpan Datta Roy, Dibyendu Dey, D. Bhattacharjee, Syed Arshad Hussain "FRET based pH sensor"Status of Research in Physics in North-East India 2015 Status of Research in Physics in North-East India

26 Dibyendu Dey, D. Bhattacharjee, S. Chakraborty and Syed Arshad Hussain "Molecular Logic Gates using FRET Phenomenon."2015 Published in the Proceedings of CRTRP-2012

Achievements (if any):

Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

Sl. No.	Name of Award	Awarding Agency	Year
01	Gold medal (top position) in M.Sc.	Tripura University	2009
02	INSPIRE Fellowship for Ph.D	DST, India	2011
03	Junior Scientist award	Physics Academy of North East (PANE)	2011
04	Research Associate Award	CSIR, India	2018

Sl. No.	Project Name	Funding Agency	Project Title	Session
01	College Biotech Club-2024	Directorate of Biotechnology, Govt. of Tripura	Development of a fluorescence sensor to identify pollutants in Tripura's drinking water sources.	2024-26
02	AICTE-AURA	AICTE, Govt. of India	Fluorescence Sensors	2024-26

Hobbies: