Dr. SOUMITRA SARKAR
Assistant Professor
M.Sc (Mathematics); PhD (Mathematics)
Phone No.: +91 8906871760
Mail ID: soumitrasarkar@tdbcollege.ac.in

Overview:
I am Soumitra Sarkar from small-town Gangarampur of West Bengal. I was born and grew up in this town. I started working as a faculty member in the mathematics department of this college on November 25, 2020.I try to return society for all it has given me by teaching students. What I appreciate best about teaching is that it is a life-long learning process since I am always learning new things when educating students.

Date of appointment to the present job:
25ᵗʰ November 2020

Other Academic/ Administrative post: NA

Academic background:
- Madhyamik from Gangarampur High School (2008)
- H.S from Gangarampur High School (2010)
- B.Sc in Mathematics (Hons.) from Gangarampur College (2013)
- M.Sc in Mathematics from University of Gour Banga (2015)
- Ph.D in Mathematics from University of Gour Banga (2021)

Specialisation: Pure Mathematics

Information about M Phil/Ph D etc.:

- **PhD Topic**: ENTROPY GENERATION ANALYSIS OF NON-NEWTONIAN NANOFLUID FLOW IN PRESENCE OF MAGNETIC FIELD

Area of present academic/ Research interest/ Research Projects & Schemes and Collaborations:

- Research/ special interest: Mathematical modeling of Blood flow, Nanofluid flow, Bio-fluid Dynamics, Numerical Modeling.

Publications:
- Sarkar S., Ali A., and Das S., 2022. Bioconvection in non-Newtonian nanofluid near a perforated Riga
  plate induced by haphazard motion of nanoparticles and gyrotactic microorganisms in the attendance
  of thermal radiation, and Arrhenius chemical reaction: Sensitivity analysis, International Journal of

Ambient Energy(Taylor & Francis). (https://doi.org/ 10.1080/01430750.2022.2086919).

- Sarkar S., Pal T.K., Ali A., and Das S., 2022. Themo-bioconvection of gyrotactic microorganisms in a polymer solution near a perforated Riga plate immersed in a DF medium involving heat radiation, and Arrhenius kinetics, Chemical Physics Letters (Elsevier),797: 139557. (https://doi.org/10.1016/j.cplett.2022.139557)

- Ali A., Sarkar S., Das S., and Jana R.N., 2022. A report on entropy generation and Arrhenius kinetics in magneto-bioconvective flow of Cross nanofluid over a cylinder with wall slip, International Journal of Ambient Energy(Taylor & Francis), 43 . (https://doi.org/10.1080/01430750.2022.2031292)

- Ali A., Sarkar S., Das S., and Jana R.N., 2021. Investigation of Cattaneo–Christov Double Diffusions Theory in Bioconvective Slip Flow of Radiated Magneto-Cross-Nanomaterial Over Stretching Cylinder/Plate with Activation Energy, International Journal of Applied and Computational Mathematics (Springer), 7: 1-28 . (https://doi.org/10.1007/s40819-021-01144-w)

- Sarkar S., Jana R.N., and Das S., 2021. Time-dependent entropy analysis in magnetized Cu-Al2O3/ethylene glycol hybrid nanofluid flow due to a vibrating vertical plate. International Journal of Fluid Mechanics Research, 47: 419-443. (https://doi.org/10.1615/InterJFluidMechRes.2020033884)

- Sarkar S., Jana R.N., and Das S., 2020. Activation energy impact on radiated magneto-Sisko nanofluid flow over a stretching and slipping cylinder: Entropy analysis, Multidiscipline Modeling in Materials and Structures, 16: 1085-1115. (https://doi.org/10.1108/MMMS-09-2019-0165.)

- Sarkar S., Jana R.N., and Das S., 2020. Feature of entropy generation in Cu-Al2O3/ethylene glycol hybrid nanofluid flow through a rotating channel, BioNanoScience (Springer,) 10: 950–967. (https://doi.org/10.1007/s12668-020-00773-7)

- Das S., Sarkar S., and Jana R.N., 2020. Assessment of irreversible losses of non-Newtonian nanofluid flow underlying Hall current, chemical reaction and thermal radiation, World Journal of Engineering, 18: 228-250. (https://doi.org/10.1108/WJE-07-2020-0266)

- Das S., Sarkar S., and Jana R.N., 2019. Entropy Generation Minimization of Magnetohydrodynamic Slip Flow of Casson H2O+Cu Nanofluid in a Porous Microchannel, Journal of Nanofluids (American Scientific Publishers), 8: 205-221. (https://doi.org/10.1166/jon.2019.1554)

- Das S., Sarkar S., and Jana R.N., 2018. Entropy Generation Analysis of MHD Slip Flow of Non- Newtonian Cu-Casson Nanofluid in a Porous Microchannel Filled with Saturated PorousMedium Considering Thermal Radiation, Journal of Nanofluids (American Scientific Publishers), 7: 1217-1232. (https://doi.org/10.1166/jon.2018.1530)

Books and Chapters: NA

Seminars, Webinars and Conferences attended:

- Sarkar S. "Entropy *analysis of Casson magneto-nanofluid flow in a porous channel with Navier slip*" Presented in International conference on exploring advances in Mathematical science held at Department of Mathematics, University of Gour Banga, Malda during 23-24th March 2017.

- Sarkar S. "*Entropy generation during MHD rotating transport of Casson hybrid-nanofluid throuhgh a porous channel in presence of thermal radiation*" Presented in International conference on Recent Trends in Mathematical Sciences held at Department of Mathematics, University of Burdwan during 06 - 07th February 2019.

- Sarkar S. "*Thermodynamic analysis of radiated MHD Sisko nanofluid flow past a stretching cylinder with hydromagnetic thermal slip*" Presented in National conference MEPRFSTM-2019 held at Department of Mathematics, Gangarampur College, Gangarampur, on 29th March 2019