Personal Profile

Name: **Dr. Mrinmoy Shannigrahi**

Date of Birth: 28th September, 1976

Designation: Assistant Professor

Institution: Department of Chemistry

Bankura Sammilani College,

P.O.: Kenduadihi, District: Bankura - 722102

West Bengal, India

Phone No. 03242-250741, FAX No. 03242-255511

College web site: www.bankurasammilanicollege.net

Status: Indian National, Hindu

Father's Name: Fakir Narayan Shannigrahi

Mother's Name: Pratima Shannigrahi

Permanent Address: Vill- Bagakhulia

P.O. – Pathordoba

Dist- Bankura

Pin- 722151 W. B.

Mobile Phone No.: 9434523755

E-mail: mrinmoy.physchem@gmail.com

EDUCATIONAL QUALIFICATIONS:

1991 Madhyamik (Secondary) Examination , Gadi Bero Sri Ram Chandra Adarsha Vidyalaya,Purulia, W. B. under the West Bengal Board of Secondary Education (WBBSE).

1993 Higher Secondary (H.S.) Examination, Kamalpur Netaji High School, Bankura, W. B., under the West Bengal Council of Higher Secondary Education (WBCHSE).

1996 Bachelor of Science (B.Sc.) with Chemistry(Honours), Saldiha College, Bankura
The University of Burdwan, Burdwan, W. B., India.

1998 Master of Science (M.Sc.) in. Chemistry (with Physical Chemistry as specialization)
The University of Burdwan, Burdwan, W. B., India

2000 Bachelor of Education (B.Ed.), Kalna B.Ed. College, The University of Burdwan, Burdwan, W. B.,

2005 Awarded Doctor of Philosophy (Ph.D.) in Science from The University of Burdwan, Burdwan, W. B.,
Thesis entitled: ***Study of Micro-environmental properties of Heterogeneous Media***
Thesis Supervisor: **Prof. (Dr.) Sanjib Bagchi**. Department of Chemistry, The University of Burdwan

2008 Masters of Education (M.Ed.), Department of Education, Kalyani University, Kalyani,W. B., India

Fellowships Awarded:

- **Graduate Aptitude Test in Engineering (GATE) 2000**

  Conducted by Indian Institute of Technology (IIT), Kharagpur, India.

- **NET- CSIR in Chemical Science, 2000**

  Fellowship awarded by CSIR-India

Research Experiences:

Aug 2001 – July 2003 : CSIR Junior Research Fellow
Aug 2003 – Mar 2005 : CSIR Senior Research Fellow

Research Highlights:

Synthesis of fluorescent dyes of different functionality

Exploring the nature of interactions for the surfactant- surfactant & polymer- surfactant systems

Studying the dye-metal ion interactions (search for metal ion sensors)

Computational DFT/ TD-DFT approach for dye-metal ion interactions

History of Science

Research Project (s) supervision : One (completed)

Project Title: Prediction of metal ion recognition abilities of some fluorescent dye molecules

Sanctioned No.: F. PSW-046/09-10 ERO w.e.f Nov. 2009

Funding Agency: University Grants Commission, INDIA

Research Collaborators:

Prof. Sanjib Bagchi	**Prof. Andrez Eilmes**
UGC Emeritus Professor Department of Chemistry Presidency University Kolkata e-mail: bsanjibb@yahoomail.com	Faculty of Chemistry Jagiellonian University Ingardena Krakow, Poland e-mail: eilmes@chemia.uj.edu.pl

Teaching Experiences (starting from recent):

Courses Taught	**Name of the University/ College / Institution**	**Duration**
B.Sc. Chemistry Honours (Theory & Practical) B.Sc. Chemistry General (Theory & Practical)	Working as Full time (on substantive basis) Assistant Professor of Chemistry in the Department of Chemistry, **Bankura Sammilani College** under the **University of Burdwan**	(from 15/5/2013 onwards)
Physical Science (Content, Pedagogy & Methodology) Physics & Chemistry (Practical)	Working as Full time (on substantive basis) Assistant Professor of Chemistry in the Department of Physical Sciences, **Sri Ramkrishna Sarada Siksha Mandir, Kamarpukur, Hooghly** under the **University of Burdwan**	6 yrs. 8 months (from 15/9/2006 to 14/5/2013)

Madhyamik standard (Physical Science & Mathematics)	Worked as Full-time(on substantive basis) Assistant Teacher of Chemistry in **Masatkhal Gandhi Adarsha Vidyalaya**, Fulmati, P.O. – Pathordoba, Dist- Bankura, W. B., Pin-722151	1yr. 5 months 16 days (31/03/2005 to 14/09/2006)

Publications (International & National) (starting from recent):

Sl. No.	Title, Authors, Journal, Book, Publishing year (starting from recent)	Publisher & ISSN / ISBN Number
16.	***Estimation of H-bond donation ability and the dipolarity-polarisability of associated water molecules at the SDS micellar interface using a fluorescence indicator*** ***M. Shannigrahi, Chemical Science Transactions****, 2(3), 969-977,* ***2013***	**WWW Publications, India** **ISSN:** 2278-3458
15.	***Photophysics of representative ketocyanine dyes: Dependence on molecular structure*** *N. Kedia, A. Sarkar,* ***M. Shannigrahi****, S. Bagchi,* **Spectrochim Acta, Part A: *Molecular and Biomolecular Spectroscopy,*** *81, 79-84,* ***2011***	**Elsevier** **ISSN:** 1386-1425 Impact Factor: 2.00
14.	***Use of Fluorescence Probes for Studying Kamlet-Taft Solvatochromic Parameters of Micellar System Formed by Binary Mixture of Sodium Dodecyl Sulfate and Triton-X 100*** *N. Deb,* ***M. Shannigrahi****, S. Bagchi,* ***J. Phys. Chem. B****, 112, 2868-2873,* ***2008***	**American Chemical Society** **ISSN: 1520-6106** Impact Factor: **4.189**
13.	***Electronic spectroscopic study of complexation of a ketocyanine dye in the ground and excited state with Lithium and Magnesium Ions.*** *J. K. Basu,* ***M. Shannigrahi****, S. Bagchi,* ***Chem. Phys. Lett.****, 441, 336-341,* ***2007***	**Elsevier** **ISSN:** 0009-2614 Impact Factor: **2.207**
12.	***Ground and Excited state Complexation of Ketocyanine Dyes with Alkaline-earth Metal Ions.*** *J. K. Basu,* ***M. Shannigrahi****, S. Bagchi,* ***J. Phys. Chem. A****, 111, 7066-7072,* ***2007***	**American Chemical Society** **ISSN: 1089-5639** Impact Factor: **2.918**
11.	***Interaction of lithium ion with a ketocyanine dye in excited state: A steady-state and time-resolved fluorescence study.*** *J. K. Basu,* ***M. Shannigrahi****, S. Bagchi,* ***Chem. Phys. Lett.****, 431, 278-282,* ***2007***	**Elsevier** **ISSN:** 0009-2614 Impact Factor: **2.207**
10.	***Lithium Ion – Ketocyanine Dye Interactions in Ground and Excited States.*** *J. K. Basu,* ***M. Shannigrahi****, S. Bagchi,* ***J. Phys. Chem. A****, 110, 9051-9056,* ***2007***	**American Chemical Society** **ISSN: 1089-5639** Impact Factor: **2.918**
9.	***UV–Vis spectroscopic study of interaction of metal ions with the ET(30)dye Involving micellar media.*** J. K. Basu, **M. Shannigrahi,** N. Ray, S. Bagchi, **Spectrochim Acta, Part A: *Molecular and Biomolecular Spectroscopy,*** 61, 2539-2542**, 2005**	**Elsevier** **ISSN:** 1386-1425 Impact Factor: **1.290**
8.	***Effect of electrolyte on ground and excited state properties of a ketocyanine dye in non aqueous solvents.*** *N. Ray, J. K. Basu,* ***M. Shannigrahi****, S. Bagchi,* ***Chem. Phys. Lett.****, 404, 63-68,* ***2005***	**Elsevier** **ISSN:** 0009-2614 Impact Factor: **2.438**
7.	***Influence of a Neutral Polymer (PVP) on the Solvatochromic Properties of SDS Micelles.*** ***M. Shannigrahi,*** *S. Bagchi,* ***J. Phys. Chem.*** *B, 109, 14567-14572,* ***2005***	**American Chemical Society** **ISSN:** 1520-6106 **Impact Factor: 4.033**
6.	***Time resolved fluorescence study of ketocyanine dye–β cyclodextrin***	**Elsevier**

	interactions in aqueous and non-aqueous media. ***M. Shannigrahi,*** *S. Bagchi,* ***Chem. Phys. Lett.****, 403, 55-61,* ***2005***	**ISSN:** 0009-2614 **Impact Factor: 2.438**
5.	***Novel fluorescent probe as aggregation predictor and micro-polarity reporter for micelles and mixed micelles.*** ***M. Shannigrahi,*** *S. Bagchi,* ***Spectrochim Acta, Part A: Molecular and Biomolecular Spectroscopy*** *, 61, 2131-2138,* ***2005***	**Elsevier** **ISSN:** 1386-1425 5- years Impact Factor: **2.00**
4.	***Use of Fluorescence Probes for Characterization of Solvation properties of Micelles: A Linear Solvation Energy Relationship Study.*** ***M. Shannigrahi,*** *S. Bagchi,* ***J. Phys. Chem. B****, 108, 17703-17708,* ***2004***	**American Chemical Society** **ISSN: 1520-6106** **Impact Factor: 3.834**
3.	***Dual probe solubilisation in two regions of pure and mixed micelles : A pico-second time resolved fluorescence study.*** ***M. Shannigrahi,*** *S. Bagchi,* ***Chem. Phys. Lett.****, 396, 367-371,* ***2004***	**Elsevier** **ISSN: 0009-2614** **Impact Factor: 2.438**
2.	***Steady-state fluorescence and photophysical properties of a ketocyanine dye in binary mixed surfactant and polymer-surfactant mixture.*** ***M. Shannigrahi,*** *S. Bagchi,* ***J. Photochem. Photobiol. A: Chem,*** *168, 133-141,* ***2004***	**Elsevier** **ISSN: 0223-5234** **Impact Factor: 2.235**
1.	***Studies of solvation in homogeneous and heterogeneous media by electronic spectroscopic method.*** ***M. Shannigrahi****, R. Pramanik. S. Bagchi,* ***Spectrochim Acta, Part A: Molecular and Biomolecular Spectroscopy****, 59, 2921- 2933,* ***2003***	**Elsevier** **ISSN: 1386-1425** **Impact Factor: 1.315**

PARTICIPATION IN SEMINAR, CONFERENCE, SYMPOSIA, WORKSHOPS ETC. (starting from recent):

Sl. No.	Name of the Seminar / Conference / Symposia / Workshop, etc.	Name of the Sponsoring Agency	Place and Date
1.	Oral presentation in ***National Seminar on Peace Education*** Topics of the talk: **True Spirit of Science and Peace Education**	University Grant Commission Organized by Sponsored Teachers' Training College, Purulia & Sidhu- Kanho-Birsha University, Purulia	Sponsored Teachers' Training College, Purulia April 12-13, 2013
2.	Participated in the **Annual Workshop on ' History of Science '**	The Asiatic Society , Kolkata	The Asiatic Society , Kolkata March 11-17, 2012
3.	Oral presentation in ***National Seminar on Design, Synthesis, Interaction, Chemical and Biochemical Activities of Different Functional Molecule*** Topics of the talk: ***Thermochemistry & Spectroscopy of Protonation of Ketocyanines: DFT/ TD-DFT approach***	Department of Chemistry, The University of Burdwan	Burdwan (March 15- 17, 2011)
4.	Actively participated in the UGC sponsored National Seminar on ***Professionalism in Teacher Education***	Department of Education, St. Xavier's College (Autonomous)	Kolkata (February 21- 22, 2011)
5.	Actively participated in the IASE Orientation-cum- Workshop programme on ***Research Methodology in Education***	David Hare Training College	Kolkata (May 17- 22, 2010)
6.	Actively participated in the State level IASE-Workshop on ***Pedagogical analysis in the perspective of modern Teaching Strategies in Physical Science***	David Hare Training College	Kolkata (October 11- 13, 2007)

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7.	Participated in ***National Workshop on Advanced Laser and Nanomaterials*** **(NWALNM- 2005)**	Department of Physics The University of Burdwan	Burdwan (January 25- 27, 2005)
8.	Participated in ***Celebration of Chemistry***	Chemical Research Society of India (Kolkata Chapter)	The University of Burdwan, Burdwan (August 03, 2004)
9.	Participated in ***Celebration of Chemistry***	Chemical Research Society of India(Kolkata Chapter)	IACS, Kolkata (August 01, 2003)
10.	Presented poster in ***International Symposium on Spectroscopy, Structure and Dynamics***	IACS, Kolkata	IACS, Kolkata (December 12- 13, 2002)
11.	Presented poster in ***National Conference on Self Aggregating Systems- Recent Advances***	Department of Chemistry, Jadavpur University	Department of Chemistry, Jadavpur University, Kolkata (March 16, 2002)

PROFESSIONAL TRAINING:

Participated in the UGC sponsored

74th Orientation Programme: 3rd March 2010 – 30th March 2010 **- obtained Grade A**

UGC Academic Staff College, The University of Burdwan, Burdwan

21st Refresher Course in **Environmental Sciences**: 22nd Sept 2012 – 12th Oct 2012 – obtained **Grade A**

UGC Academic Staff College, The University of Burdwan, Burdwan

INNOVATIVE CONTRIBUTIONS IN TEACHING:

Pedagogy analysis of the teaching content

Computer aided teaching

LABORATORY TECHNIQUES AND SKILLS: Spectroscopic instruments (UV-VIS, IR, Fluorescence)

Computational Chemistry

COMPUTER SKILLS: Basic computer knowledge

Date: July, 2013

Place: Bankura **(Mrinmoy Shannigrahi)**