

Professor Md. Serajul Islam, PhD

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Presently working as a Professor of Physics Education at the Institute of Education and Research (IER), University of Dhaka, Bangladesh. Current responsibilities include teaching, assessing students and conducting research work in the area of Science Education. Motivated to explore the strategy, methods and materials that led to fresh insights into what makes physics accessible to students. Also engaged in fostering the use of evidence-based teaching-learning practices through curriculum development, action research, and professional development for educators at all levels.

Education:

- (i) Visiting Professor at National Chiao Tung University, Taiwan (2018)
- (ii) Post-Doctoral Researcher, Hokkaido University, Japan.(2015)
- (iii) Doctor of Philosophy (PhD) in Photophysics, Hokkaido University, Japan (2012)
- (iii) Master of Education, Ahsanullah University of Science and Technology (2014)
- (iv) Bachelor of Education, Northern University, Bangladesh (2006)
- (v) Master of Science (MSc) in Physics, University of Dhaka (1998)
- (vi) Bachelor of Science in Physics, Department of Physics, University of Dhaka (1997)

Employment record:

Period	Employing organization and position	Country	Summary of activities performed
August to December, 2023	Employer: Bangladesh Technical Education Board (BTEB) Position: Resource person Project Name: Developing teachers' guide for the JSC vocational courses	Bangladesh	Editing pedagogy of the teachers' guides for the JSC vocational courses (Level: VI, VII & VIII)
June, 2022 to November, 2022	Employer: Directorate of Primary Education, Gov. of Bangladesh. Position: Key Expert (part time) Project Name: Bangladesh Covid-19 School Sector Response Project (CSSR)	Bangladesh	Training need analysis, Developing training modules on remedial teaching and learning at primary level, developing training module and providing training on mental health and wellbeing of children and teachers, developing training module and conducting training on distance Education for selected primary and secondary teachers.

January 2021 to April 2021	<p>Employer: Directorate of Primary Education, Gov. of Bangladesh.</p> <p>Position: Key Expert (part time)</p> <p>Project Name: Capacity building of gov. officials responding to crisis in Cox's Bazar district, under Reaching out of School Children Phase-II</p>	Bangladesh	Training need analysis and capacity need analysis, developing training modules on emergency in Education, Education data analysis, context of forcibly displaced Myanmar nationals, inclusive Education, IT and computer operation, children and gender based violence
February 2016 to January 2017	<p>Employer: UNICEF-Bangladesh.</p> <p>Position: Consultant and Team Leader (of the team working for the development of teaching learning material for the subject Primary Science)</p> <p>Project Name: Each Child Learns Strengthening Model</p>	Bangladesh	Analysing the curriculum of the subject primary science, and Bangladesh and global studies of grade-1 and grade-2, converting the curriculum into a functional form, developing learning activities, designing learning cycle, designing assessment tools, developing materials for the trainer, conducting training
January 2007-July 2008 and January 2013-March 2014	<p>Employer: Institute of Education and Research (IER), University of Dhaka</p> <p>Position: Resource Person (Part-time)</p> <p>Project Name: Teaching Quality Improvement-Secondary Education Project (TQI-SEP)</p>	Bangladesh	Preparing training manual and materials, monitoring the training, facilitating TOT, preparing master trainer, assessing and selecting best performer, reporting, developing and modifying materials on the basis of participants' feedback, assisting trainees, providing and guiding field level support as per as required
April 2014 - March 2015	<p>Employer: Research Institute for Electronic Science (RIES), Hokkaido University, Japan</p> <p>Position: Visiting Researcher at Postdoctoral Level (Full-time)</p> <p>Project Name: Study of the Metal-Insulator-Superconductor</p>	Japan	Monitoring time-resolved fluorescence, conducting research on the properties of organic insulators and superconductors. sample preparation, doing experiment, analysis of data, writing articles.
January 2003–October 2006	<p>Employer: Bangladesh Open University (BOU), Gazipur-1705</p>	Bangladesh	Writing books in the modular form, writing script for distance Education program, conducting examination.

Major Publications:

- (i) **Resource Book:** Operate and Management of ICT Equipment including Video Conference
- (ii) HSC Physics book part II, Bangladesh Open University
- (iii) Science Book of Grade-Vi for JSC program of Bangladesh Open University
- (iv) Science Book of Grade-VII for JSC program of Bangladesh Open University
- (v) Science Book of Grade-VIII for JSC program of Bangladesh Open University
- (vi) Md. Abdus Salam, **Md. Serajul Islam**, Shahnaz Sultana; “*Secondary schools` Readiness for using ICT in Classroom Activities in Dhaka City*”; Teachers World, **37-38** (2011) ISSN 0040-0521
- (vii) Mst. Rebeka Sultana, S M Hafizur Rahman and **Md. Serajul Islam**, *Teachers` views regarding the new approaches of primary science textbook: rural and urban perspectives*, Primary Education Journal, ISSN 2519-5174, 10(1), June 2019
- (viii) Amirul Islam, Sakiba Ferdowsi, **Md. Serajul Islam**, Quality Control in Bachelor of Education Program of Bangladesh Open University: Present Status and Challenges, Teachers World, ISSN 0040-0521
- (ix) **Md. Serajul Islam**, *Reflection of science process skills in the secondary level physics examination*, Teachers World, ISSN 0040-0521
- (x) Nusrat Jahan Tanima, **Md. Serajul Islam**, *Teachers` role in promoting scientific literacy through teaching controversial issues*, Teachers World, 40(2014), ISSN 0040-0521
- (xi) **Md. Serajul Islam**, Shah Shamim Ahmed, Md. Abdus Salam, *Change management and leadership in education-a critical review*, Teachers World, 39 (2013), ISSN 0040-0521
- (xii) Shah Shamim Ahmed, **Md. Serajul Islam**, Md. Abdus Salam; “*Nonformal Vocational Education in Empowering Adolescent Girls*”; Teachers World, **37-38** (2011) ISSN 0040-0521
- (xiii) Takakazu Nakabayashi, **Md. Serajul Islam**, Liming Li, Masahide Yasuda, Nobuhiro Ohta; “*Studies on external electric field effects on absorption and fluorescence spectra of NADH*”; Chem. Phys. Lett., 595–596 (2014) 25–30
- (xiv) **Md. Serajul Islam**, Masato Honma, Takakazu Nakabayashi, Masataka Kinjo, Nobuhiro Ohta; “*pH Dependence of the Fluorescence Lifetime of FAD in Solution and in Cells*”; Int. J. Mol. Sci., 14 (2013) 1952-1963
- (xv) Shinya Ogikubo, Takakazu Nakabayashi, Takashi Adachi, **Md. Serajul Islam**, Tomokazu Yoshizawa, Masataka Kinjo, Nobuhiro Ohta, “*Intracellular pH Sensing Using Autofluorescence Lifetime Imaging*” J. Phys. Chem. B, **115**(2011), 10385-10390
- (xvi) Takakazu Nakabayashi, **Md. Serajul Islam**, and Nobuhiro Ohta; “*Fluorescence Decay Dynamics of Flavin Adenine Dinucleotide in a Mixture of Alcohol and Water in the Femtosecond and Nanosecond Time Range*”; J. Phys. Chem. B, 2010, 114 (46), pp 15254–15260]

- (xvii) R.I. Chowdhury, M.S. Hossain, **M.S. Islam**, F. Sabeth, G. Mustafa, S.F.U. Farhad, D.K. Saha, F.A. Chowdhury, S. Hussain and A.B.M.O. Islam; “Characterization of electrodeposited cadmium selenide thin films”; *Dhaka Univ. J. Sci.* 60(1): 137-140, 2012
- (xviii) **M. S. Islam**, N. Shams, SupriyaSaha, M. Ahmed and Ain-u Huda; “A Study of Electronic Structure and Magnetic Properties of Cobalt Alloys Using Linear Recursive Method”; *Dhaka Univ. J. Sci.* 55(2): 157-161 2007
- (xix) Farzana Sabeth, Rahima Khatun, **Md. Serajul Islam**, Toshifumi Iimori, Nobuhiro Ohta, “Reversible Photocurrent Switching in Ionic and Superionic Conductors of Polycrystalline Silver Iodide,” *J. Phys. Chem. C*, 122(47)

Seraj

21/06/2024

Signature

Date