

RESUME

of

DR. K. M. Rezanur Rahman, Ph.D.

Professor, School of Science and Technology
Bangladesh Open University, Gazipur-1705, Bangladesh.

Contact no: +8801726202060

E-mail: drkmrezanur@yahoo.com



Present Address

Sector#13, Road# 14, House#69
Uttara Model Town, Dhaka 1230.

Permanent Address

Vill. Baluchar, Upzilla, Thana & Post office: Chatmohar
District: Pabna.

Summary: 22 years of teaching experience in accredited universities of Bangladesh for undergraduate class room setups and distance delivery mode. Actively involved in academic activities, research, and project and published some research papers.

Objectives

To carry on research works at a reputed educational/research organization that requires teamwork by using my academic background and professional experience, so that I can strengthen the scientific capability in order to better contribute and serve the scientific and technical development of my own country.

Academic Details

<u>Name of the Institution</u>	<u>Degree</u>	<u>Year of Passing</u>	<u>Class</u>
University of Tokyo, Japan	JSPS Post-doctoral Research Fellowship (September,2001-March, 2002) (major in Integrated Optics and Optoelectronics)	2002	Awarded
Peoples' Friendship University, Moscow, Russia.	Ph.D. in Physics (major in Integrated Optics and Optoelectronics)	1996	Awarded
Peoples' Friendship University, Moscow, Russia.	Post-Graduate Fellowship in Computational Physics and Mathematical Simulation <u>(one year duration)</u>	1992	Awarded

Peoples' Friendship University, Moscow, Russia.	B.Sc. and M. Sc. in Physics (6 years duration) (Major in Particle Physics)	1991	First
Chatmohar College, Pabna, Bangladesh.	Higher Secondary Certificate (HSC) 2 Years duration	1982	First
Chatmohar High School, Pabna, Bangladesh.	Secondary School Certificate (SSC) 10 Years Duration	1980	First

Other Educational Achievements

Major: Integrated Optics, Optoelectronics (Optical waveguides modeling and characterization).

JSPS Post-Doctoral Research Fellowship: 6 months (29 Sept., 2001-30March 2002), Department of Electronic Engineering, University of Tokyo, Japan.

Major: Optoelectronics

Supervisor: Prof. Yashiko Nakano, Department of Electronic Engineering, University of Tokyo, Japan.

Dissertation of Ph.D. level

Title: A mathematical model for thin-film optical wave-guide and reconstruction of refractive index profile according to the spectral data. (Theoretical study)

Abstract: A mathematical model for the interrelation of function of the transverse distribution of refractive index of the diffused planar thin film optical wave guide and the discrete spectrum of the guided wave modes are studied - nonlinear spectral transformation of the potential of the Schrodinger's equation at the axis in spectral data of the scattering problem. In the context of the above-mentioned model, ill-posed problem of synthesis of the scattering potential according to the incomplete set of the spectral data has been considered and solved. For this purpose, Tikhonov's regularization method according to apriority (information) about the potential outside the interval to be studied (about the transverse distribution of refractive index outside the width of the guided wave layer) is used.

Supervisor: Prof. L. A. Sivastianov, Department of Theoretical Physics, Russian Peoples' Friendship University, Moscow, Russian.

Subject Taught: General Physics, Quantum Mechanics, Electrical Circuits and Networks, Digital Systems and Computer Organization (Electronics), Electronic Device and circuits, Computer Fundamental, Computer Programming etc.

Awards

- a. Russian Gov. scholarship, Ministry of Education (Former Soviet Union Gov. Scholarship), 1985.
- b. M.Sc. Thesis best award: 3rd position, 1991.
- c. JSPS Post-Doctoral Research Fellowship, Japan, 2001.

Professional Experiences and Position hold

1. Current Position: Professor

School of Science and Technology

Bangladesh Open University, Gazipur, Bangladesh.

Responsibility: delivery of lectures in Undergraduate level, conducting scientific seminars of the Department, do research, and do other works related to development of the School of Science & Technology, Counseling with the students.

2. (a) **Dean : From 2010-2018**

(b) **Dean –in-charge:** a) work as acting Dean from 21 June 2009 to 30 June 2009.

b) work as acting Dean from 01 July 2009 to 22 July 2009.

c) work as acting Dean from 5 December 2007 to 15 January 2008.

d) Work as acting Dean from 7 April to 12 April, 2008.

Responsibility: Design and develop curriculum, preparation of study materials for the students, delivery of lectures, coordinating students, conducting scientific seminars of the Department, do research, and do other works related to development of the School of Science & Technology, Counseling with the students.

3. **Visiting faculty:** Three years (2003-May 2006) at the Department of Applied Physics and Communication engineering, East West University, Dhaka, Bangladesh.

Subject Taught: Electrical Circuits and Networks, Physics.

4. **Teaching Assistant:** Six months teaching experience at the Department of Theoretical Physics under Russian Peoples' Friendship University, Moscow.

Responsibility: Deliver of lectures in Quantum Mechanics and conduct seminar classes.

Subject Taught: Quantum Mechanics

5. Three years teaching experience at Bangladesh Embassy School, Moscow.

Responsibility: Teach the secondary level students.

c) Two years research experience at M. Sc. level.

d) One year research experience at the level of Post-Graduate Fellowship.

e) Four years research experience at Ph.D. level.

f) Six months research experience at JSPS Post-doctoral Research.

Date of joining at Bangladesh Open University

a) As Lecturer in 3 March 1997.

b) As Assistant Professor in 18 July 1998.

c) As Associate in 29 April 2004.

d) As Professor in 21 January 2010.

Member of the different bodies of the University

(i) Board of Governors 'of BOU

(ii) Academic council of BOU

(iii) Academic Planning Committee of BOU

- (iv) Works Committee of BOU
- (v) Disciplinary Committee of BOU
- (vi) Chairman and members of the others committees of the BOU

Member of the following Professional Organizations

- a) Bangladesh Physical Society (M Q0116)
- b) Bangladesh Astronomical Society
- c) Bangladesh Computer Council (BCS M00661)
- d) CASTME, UK.
- e) Soviet Alumni Association (M-326)

Project implemented

- (i) **Project: Bangladesh Open University Information Management System**
Responsibility: Project Head Status: Implemented
- (ii) **Project: Interactive virtual Class Room**
(for establishment of the ICT and web-based learning system in Bangladesh Open University)
Founded: KOICA, Korea Position: Technical Team Head Status: Implemented

Research & Project work

- a) Thesis for M. Sc. Level, year: 2001
University: Department of Physics, Jahangirnagar University, Savar, Bangladesh.
Status: Co-supervisor.
- b) Ph. D Level (on going), year: 2009-2010
University: Department of Physics, Dhaka University, Dhaka, Bangladesh.
Status: Co-supervisor.
- c) **Ph.D year: 2018, University: BUP, Dhaka, status: Supervisor.**

Publications

1. **K. M. Rezanur Rahman**, L. A. Sivastianov, Diffraction coefficients of one-dimensional bar-like potentials with non-equal asymptotics, *Journal PFUR (RUSSIA) , VESTNIK, Physics, Vol. 5, No.1, , pp.35-38,1997.*
2. **K. M. Rezanur Rahman**, An equivalent mathematical model of the thin film optical wave guide, *J. Commun. in Theor. Physics (India)*, Vol. 1, No. 2, pp. 60-64, 1998.
3. **K. M. Rezanur Rahman**, Numerical reconstruction of refractive index profile of the diffused wave guide, *Bangladesh J. Sci. & Tech., 1(1):pp. 41-46, 1999.*
4. **K. M. Rezanur Rahman**, An Algorithm for reconstruction of the potential from the scattering data, *The Romanian Journal of Physics*, Vol. XL, pp.62-67, 1999.
5. **K. M. Rezanur Rahman**, Contribution of S,T,P,A-types of interactions on the probability of β -decay of tritium, *Journal of Bangladesh Open University, Vol. 1, No. 1, pp. 36-40, 1999.*

6. **K. M. Rezanur Rahman**, Neutrino mass effects in the β -decay process of tritium, *The Bangladesh Journal of Astronomical Research*, Vol. 2, No. 1., pp. 28-30, 1999.
7. Mohammad Shamim Hossain and **K. M. Rezanur Rahman**, The interactive multimedia and its use in Distance Education, *Pakishtan Journal of Distance Education*, Vol. XVII, No. 1, pp. 105-120, 2000.
8. **K. M. Rezanur Rahman**, M. R. Amin and Hasina Akther, Determination of Optimal Graded-index Profile of Optical Fibre by Using Computational Experiment, *Jahangirnagar University Journal of Science, Bangladesh*, Vol. 24, pp. 185-189, 2001.
9. M. A. Rouf, U. A. Mofiz, **K. M. Rezanur Rahman**, A. F. M. Y. Haider. Analysis of amplitude and phase characteristics of soliton propagation through optical fiber, *University of Dhaka Journal of Science*, 52(1): pp. 69-74, 2003.
10. **K. M. Rezanur Rahman**, M. R. Amin, Modeling of all nonlinear guided wave including MQW structure. *Journal of Applied Sciences, Asian Network for Scientific Information*, 5(8):pp. 1412-1414, 2005.
11. **K. M. Rezanur Rahman**, Analysing modes in diffused optical wave guides, *International J. Eng. Tech.*, 2(1):pp. 01-05, 2005.
12. Md. Tofazzal Islam, Md. Morshedur Rahman, **K. M. Rezanur Rahman**, Quality and Processes of Bangladesh Open University Course Materials Development, *Turkish Journal of Distance Education (TOJDE)*, Vol. 7, No. 2, pp.130-138, 2006.
13. **K. M. Rezanur Rahman**, Face-to-Face Tutorials for Distance Learners in Bangladesh Open University, *Asian Journal of Distance Education*, V. 5.2, pp. 42-48, 2007.
14. **K. M. Rezanur Rahman**, Anwar Sadat, Dr. Sarker Md. Numan, Enhancing Distance learning through E-mail communication: A case of BOU, *Turkish Journal of Distance Education (TOJDE)*, Vol. 9(2), pp. 125-130, 2008.
15. **K. M. Rezanur Rahman** and S. M. A. Rouf, Modeling and Characterization of the Pockels Materials, *International J. Eng. Tech* vol. 2, pp. 235-238, 2008.
16. S. M. A. Rouf, **K. M. Rezanur Rahman**, Dispersion Compensation in Pockels Materials Using Soliton Method, *Jahangirnagar University Journal of Science*, Vol.31, No. 2, December, 2008..
17. **K. M. Rezanur Rahman** and Anwar Sadat, Analysis of Tutorials services for distance learners at Bangladesh Open University, *PCF5 Proceedings, London*, pp. 2008.
18. **K. M. Rezanur Rahman**, Study of all nonlinear wave propagation in multiple quantum well structure, Proceedings of the International workshop on Crystal growth and characterization of advanced materials, Anna University, Chennai, India. 9-13 January, p. 101, 2006.
19. R. Saddar, **K. M. Rezanur Rahman**, Analysis of parameters of the electro-optic materials, Proceedings of the Regional Physics Conference, Bangladesh Physical society. 1-2 February, 2006, Atomic energy Commission, Dhaka,

20. S. M. A. Rouf, **K. M. Rezanur Rahman**, Dispersion Compensation in Pockels Materials Using Soliton Method, National Conference on Advanced Materials, Devices and Technologies, Feb. 20-22, 2008, Srivenketeswara University, Tirupati, India, pp. 45, 2008.
21. L.A. Sivastianov, **K. M. Rezanur Rahman**, A mathematical model for regular gradient optical wave guide. *Proceedings of the 29th Scientific Conference of the Russian Peoples' Friendship University on the problems of Physics, Mathematic and Natural Sciences*, 1993, p. 11.
22. L.A. Sivastianov, **K. M. Rezanur Rahman**, Modification of potential by the variation method according to the scattering data. *Proceedings of the 30th Scientific Conference of the Russian Peoples' Friendship University on the problems of Physics, Mathematics and Natural Sciences*, 1994, p. 4.
23. L.A. Sivastianov, **K. M. Rezanur Rahman**, Reconstruction of the transverse refractive index profile of regular thin-film optical wave guide according to the discrete spectrum modes. *Proceedings of the 5th International Conference of Science and Technology on the topics "Laser in Science, Techniques, Medicine"*, Rostov Viliky, Russia, 1994, p. 41-42
24. **K. M. Rezanur Rahman**, A discrete model of reconstruction of the potential variation method according to the variation of the discrete part of the spectrum. *Proceedings of the 31st Scientific Conference of the Russian Peoples' Friendship University on the problems of Physics, Mathematics and Natural Sciences*, 1995, p. 25-26.
25. **K. M. Rezanur Rahman**, A.N. Marchuk, L.A. Sivastianov, A model for calculation the parameters of the diffused wave guide according to the given equally-spaced spectrum. *Proceedings of the 31st Scientific Conference of the Russian Peoples' Friendship University on the problems of Physics , Mathematics and Natural Sciences*, 1995, p. 24.
26. A.N. Marchuk, **K.M. Rezanur Rahman**, L.A. Sivastianov, A regularized model for reconstruction of the refractive index profile of regular thin-film optical wave guide according to the discrete spectrum modes. *Proceedings of the 6th International Conference of Science and Technology on the topics "Laser in Science, Techniques, Medicine"*, Suzdal, Russia, 1995, p.77-79.
27. **K. M. Rezanur Rahman**, Mathematical model for interrelation between refractive index of the optical wave guide and scattering data, *1st International Conference on Modern trends in Computational Physics*, JINR, Dubna, Russia, pp. 143, 1998.

Writer of the following Modules

- a) **Basic Computer Skill for B. Ed.** programme of BOU, TQI project. **(0.66 credit)**.
- b) **Mathematics** (computer math.) for the Higher Secondary program of BOU. **(1 credit)**
- c) **Applied Science-I** for the program of B.Sc. in Nursing of BOU. **(0.6 credit)**
- d) **Applied Science-I practical** for the program of B.Sc. in Nursing of BOU. **(0.6 credit)**

Study Guide writer

- (i) Hand book for B.Sc. in Computer Science and Engineering program
- (ii) “Programming with C” for Diploma in Computer Science and Application Programme of the BOU. 3 credits.

Editor the following books

- a) **“Microcomputer Troubleshooting”** for the programme of Diploma in Computer Application of BOU. **3 credits**
- b) **“Desk-Top Publishing”** for the programme of Diploma in Computer Application of BOU. **3 credits**
- c) **“Computer Programming”** for the programme of DCSA. **3 credits**.
- d) **“Applied science”** for the programme of B.Sc. in Nursing of BOU. **1 credit**
- e) **“Mathematics”** for Class IX & X, Text Book Board, Dhaka.

Educational Skills and Training

Language proficiency: Bangla, English, and Russian.

Computer skill: Programming and word processing. (Fortran, Pascal, Mathematica, Latex, MS- Word, Excel, E-mail, Internet, Networking, HTML, JavaScript etc.)

- a) Instructional Design for Open and Distance learning, organized by the COL (Canada), 19-29 May 1997, Venue: Dhaka, Bangladesh.
- b) Orientation training course on GIS , Dec 22, 1999 - Jan 2, 2000.
- c) Training on Scriptwriting and Production for educational Television, March 19-29, 2001, Dhaka, Bangladesh.
- d) Training course on Internet and Web designing, 14 Feb.-31 May 2001, Grameen Communication, Mirpur, Dhaka, Obtained grade ‘A’.
- e) Familiarization program on various aspects of D&O learning, 12-29 June, 2001, OUSL Sri Lanka.
- f) Manger Training course for the project for establishment of the ICT and web-based learning system in Bangladesh Open University, 18-24 March, 2012, Seoul, Korea.

Participating in the following Seminars, Conferences, Workshop etc.

- a) Seminar of the Dept. of Theoretical Physics, Russian People's Friendship University, Moscow. (1991, 1995)
- b) The 29th, 30th & 31st Scientific Conference of the Russian Peoples' Friendship University on the problems of Mathematics, Physics and Chemistry, Moscow (1993, 1994, 1995)
- c) The 5th & 6th International Conference of Science and Technology on the topics "Laser in Science, Techniques, Medicine", Suzdal, Russia (1994, 1995).
- d) Seminar of the Lab. Computer Technique & Automation, JINR, Russia, 1995.
- e) Conference of the Bangladesh Physical Society, BUET, Dhaka. 1997.
- g) Twentieth Bangladesh Science Conference, BUET, Dhaka, 1998.

- h) International workshop on Crystal growth and characterization of Advanced materials, Anna University, Chennai, India, 9-13 January, 2006.
- i) 8th International Conference on Computer and information Technology-2005, 28-30 December, 2005, IUT, Bangladesh.
- j) Regional Physics Conference, Bangladesh Physical society. 1-2 February, 2006, Atomic energy Commission, Dhaka.
- k) Pan commonwealth Forum on Open learning-PCF5, 13-18 July 2008, London.

International relation with the following Institutions

- a) Russian People's Friendship University, Moscow, Russia.
- b) Joint Institute for Nuclear Research (JINR), Dubna, Russia.
- c) Department of Electronic Engineering, University of Tokyo, Japan.

Personal details

Name : Dr. K. M. Rezanur Rahman
 Father's Name : K. M. Abdus Sobhan
 Permanent Address : Vill. : Baluchar, P.O.: Chatmohar New Market, P.S.: Chatmohar, Dist.: Pabna.
 Present Address : Professor, School of Science and Technology (SST), Bangladesh Open University (BOU), Gazipur-1705.
 Date of Birth : 1st October 1965.
 Place of birth : Chatmohar, Pabna.
 Nationality : Bangladeshi
 Marital Status : Married
 Contact Address : School of Science and Technology, Bangladesh Open University Gazipur-1705, Bangladesh.
 Tel. 88-02-9291111(O), 01726202060(M), 58952871(Res.)
 E-mail: drkmrezanur@yahoo.com

Country Visited

Russia, Ukraine, Moldavia, Singapore, Japan, England, Sri-Lanka, India.

Hobby

Listening music, watching Football, Cricket and others Sports, Traveling, Reading Bibliography and historical literacy etc.

Signature



