CURRICULUM VITAE

Personal Details

1. Name: **B.M.A. RAHMAN**
2. Date of Birth: 1st June 1953
3. Sex: Male
4. Nationality: British
5. Address: School of Science and Technology, City, University of London,
Northampton Square, London EC1V 0HB, U.K., Tel:020-7040-8123
Tel: 079-31-256-982 Email: B.M.A.Rahman@city.ac.uk

Educational Details

Degree	Institute	Year	Subject	
B.Sc.Eng. (Elect.)	Bangladesh Univ. Engineering & Technology, Dhaka.	1976	Elect.Engg.	*Ranked 1st*
M.Sc.Eng. (Elect.)	-do- (BUET)	1979	Elect.Engg.	*Ranked 1st*
Ph.D.(Electronics)	University College London	1982	Electronics	

Theses

1. B.Sc.Eng. "Digital Computer Solution of Waveguide Problems"
2. M.Sc.Eng. "On Computer Solution of Some Microwave Problems"
3. Ph.D. "Finite Element Analysis of Optical and Microwave Guides"

Prizes:

University Gold Medal, 1976, for being the best undergraduate student of the university
University Gold Medal, 1979, for being the best post-graduate student of the university
The Royal Society, Inaugural Athena Runner-up prize, 2016
Institute of Physics, Biennial Prize in 2022 for Optics and Photonics Prize
Chinese Academy of Science, PIFI Distingusihed Scientist 2025.

Employment

Lecturer, Bangladesh University of Engineering and Technology, Bangladesh 1.4.76 -20.9.1979
Lecturer, City, University of London, 1.4.1988-30.6.1996
Reader of Photonics, City, University of London, 1.7.1996-30.6.2000
Professor of Photonics, City, University of London, 2000-2024
Emeritus Professor, City, University of London, since 2024.

Fellowships

Fellow of all three leading societies in Photonics, namely the IEEE, the Optical Society of America, Optica, and the International Photonics Society (SPIE)

Selected Publications (total publications more thany 750)

IEEE, OSA and IEE Q3-4 Journal papers only

1] B.M.A. Rahman and J.B. Davies: 'Finite-Element Analysis of Optical and Microwave Waveguide Problems', IEEE Trans. Microwave Theory Tech., pp.20-28, Jan 1984. Citations 397

2] B.M.A. Rahman and J.B. Davies: 'Penalty Function Improvement of Waveguide Solutions by Finite Elements', IEEE Trans Microwave Theory Tech., pp.922-928, Aug. 1984. Citations 387

3] B.M.A. Rahman and J.B. Davies: 'Finite-Element Solution of Integrated Optical Waveguides', IEEE/OSA J. Lightwave Tech., pp.682-688, Oct. 1984. Citations 489

4] B.M.A. Rahman and J.B. Davies: 'Vector-H Finite Element Solution of GaAs/GaAlAs Rib Waveguides', Proc. IEE, part J(Opto-electronics), Dec. 1985, pp.349-353. Citations 153

5] B.M.A. Rahman and J.B. Davies: 'Analyses of Optical Waveguide Discontinuities', IEEE/OSA J. Lightwave Technology, pp.52-57, Jan. 88. Citations 133

6] B.M.A. Rahman and J.B. Davies: 'Analysis of Optical Waveguides and Some Discontinuity Problems', IEE part J.(Opto-electronics), pp.339-342, Oct. 1988.

7] B.M.A. Rahman, J.R. Souza and J.B. Davies: 'Numerical analysis of Non-linear bistable optical waveguides', IEEE Photonic Technology Letters, pp.265-267, Apr. 1990

8] B.M.A. Rahman F.A. Fernandez and J.B. Davies: 'Review of finite element method for microwave and optical waveguides', Proc. IEEE (special issue on Electromagnetics), **79**, pp.1442-1448, Oct. 1991. Impact Factor 9.24, Citations 181

9] B.M.A. Rahman with R. Ettinger *et al*.: 'Finite element analysis of slab-loaded nonlinear waveguide with saturable media', IEEE Photonics Technology Letters, pp.147-149, Feb 1991.
10] B.M.A. Rahman, Y. Liu and K.T.V. Grattan, 'Finite element modeling of one-and two-dimensional MQW semiconductor optical waveguides', IEEE Photonics Technology Letters, pp.928-931, Aug. 1993
11] C. Themistos, B.M.A. Rahman and K T V Grattan, 'Finite element analysis of lossy optical waveguides by using perturbation techniques', IEEE Photonic Technology Letters, vol.6, pp.537-539, April 1994.
12] Y. Liu, B.M.A. Rahman and K.T.V. Grattan, 'Thermal stress induced birefringence in bow-tie optical fibers using the finite element method', Applied Optics, vol.33, pp.5611-5616, August 1994. Citations 60
13] Y. Liu, B.M.A. Rahman and K.T.V. Grattan, 'Analysis of the birefringence properties of optical fibers made by a preform deformation technique', IEEE/OSA J Lightwave Technology, pp.142-147, Feb. 1995.
14] Y Liu, BMA Rahman, YN Ning, KTV Grattan, 'Accurate mode analysis of graded-index multimode fibers, for the application of mode noise analysis', Applied Optics, 34, pp.1540-1543, No.9, 1995.
15] BMA Rahman, P Lepkowski, KTV Grattan, 'Thermal modelling of Vertical Cavity Surface Emitting Lasers', IEE Part J: Optoelectronics, pp.82-86, April 1995.
16] C Themistos, B M A Rahman, A Hadjicharalambous, K T V Grattan, 'Loss/gain analysis of optical waveguides', IEEE J Lightwave Technol., pp.1760-1765, Aug. 95.
17] C Themistos, BMA Rahman, KTV Grattan, 'Finite element analysis of lossy surface plasmon modes using perturbation technique', Applied Optics, 34, pp.7695-7701, 1995.
18] FA Katsriku, BMA Rahman, KTV Grattan, 'Finite element analysis of diffused anisotropic channel waveguides', IEEE/OSA J. Lightwave Technology, pp.780-786, May 96.
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Major GRANTS

Total value in excess of £13.0 million for research projects on Photonic Crystal Fibres, High speed modulators, compact bends, DWDM components, Hi-Bi fibres, and Polarization Rotators from the EPSRC, UKIERI, EU, PMI2, EU, Royal Society, Corning, Marconi, Nortel, Bookham, and QinetiQ.

Medals Awarded

1. Gold Medal, 1976, Best undergraduate of the University, ranked first in the whole university.
2. Gold Medal, 1979, Best postgraduate of the University, obtained all 8 'A' grades.
3. The Royal Society, Inaugural Athena Runner-up prize, 2016 for inclusiveness and diversity
4. Institute of Physics, Biennial Prize in 2022 for Optics and Photonics Prize
5. Chinese Academy of Science, PIFI Distingusihed Scientist 2025.

PhD awarded

As the first supervisor, 36 students have completed their PhD research.

Citations: More than 10300 citations H-index: 45

Admistrative responsibilities

Asst. Dean (Internationalization): 2005-2014.
Asst. Dean (Electrical Engineering Academic programmes): 2003-2005
Asst. Dean (Recruitments): 2001-2003
Senior Tutor for Research: 1991-2001