

## BIO-DATA

**Name:** Professor (Dr.) Shahida Rafique



**Present Position:**

**1. Professor (Selection Grade)**, Department of Applied Physics, Electronics & Communication Engineering. University of Dhaka, Bangladesh. Tel: 01819-256950, 9337727 @

**2. Founder and Chairman**, Governing Body, Institute of Science & Technology

**National University**

Road No. 15A (New), House No. 54 (New)

Dhanmondi R/A, Dhaka-1209. Tel: 8119780, 9144335

E-Mail: [ist@bdcom.com](mailto:ist@bdcom.com)

**Residence:**

Eastern Tower, 20, Eskaton, Dhaka.

Tel: 9337727. E-mail: rim@bdcom.com

**Husband's Name:** Barrister Rafiqul Islam Mia, Exe Minister, Govt. of Banglaesh.

**Date of Birth:** 19-2-1950

**Education:**

1984-1985 Post-Doc. In on liquid semiconductors, Kyoto University, Kyoto, Japan

1976-1979 Ph.D in Solid State Electronics, King's College, University of London, U.K

1971-1973 M.Sc in Solid State Physics (Thesis group), Department of Applied Physics & Electronics, University of Dhaka, Bangladesh

1967-1971 B.Sc Honours in Physics, Department of Physics, University of Dhaka, Bangladesh

**HONOUR**

**from**

**Royal Swedish Academy of Sciences**

*Nobel Committee for Physics*

1. Invited to submit proposals for the **AWARD OF THE NOBEL PRIZE** in Physics for 2001. (*Specimen of invitation letter is attached as image in the next page*).

1. Included as a Member of "**ONE THOUSAND GREAT ASIANS**" by IBC (International Biographical Centre) Cambridge CB2 3QP England in Nov.2001



*Professor S. Rafiq*

On behalf of the Royal Swedish Academy of Sciences we, as members of the Nobel Committee for Physics, have the honour of inviting you to submit proposals for the award of

**The Nobel Prize in Physics for 2001.**

According to the Rules of the Nobel Foundation the discovery or invention should be indicated for which the award is proposed and reasons given for the suggestion. Work done in the past may be selected for the award only on the supposition that its significance has until recently not been fully appreciated.

The person nominating a candidate is requested, neither to make known his nomination, nor to inform his nominee of the nomination.

A summary of the regulations governing awards is appended as well as a form which may be used for the proposal of candidate(s).

Proposals, which should be addressed to The Nobel Committee for Physics, Box 50005, S-104 05 Stockholm, Sweden, cannot be considered unless received by the Committee not later than 31 January 2001. The street address (for express mail delivery) is Lilla Frescativägen 4.

Stockholm, September 2000,

*Tord Claeson*

TORD CLAESON  
CHAIRMAN

*P. Carlsson*

PER CARLSSON

*Mats Jonson*

MATS JONSSON

*Cecilia Jarlskog*

CECILIA JARLSKOG

*Sune Svanberg*

SUNE SVANBERG

*Anders Bårány*

ANDERS BÁRÁNY  
SECRETARY

### **Administrative Experience:**

1. **Member**, Board of Governors, BPATC (Bangladesh Public Administration and Training Centre), Savar, Dhaka, 1992-96.
2. **Chairman**, Deptt. of Applied Physics & Electronics, Dhaka University, 1996-99
3. **Chairman**, Governing Body, IST (Institute of Science & Technology), National University from 1993 to upto Now. Road-26, House-307, Dhanmondi R/A, Dhaka
4. **Member**, Board of Directors, Bangladesh Shishu Academy. 1993-96.
5. **Vice-Chairman**, Bangladesh Jatiya Mahila Sangstha. 1992-96.
6. **Executive Director**, WISTAR-Bangladesh from 1993 to upto now.
7. **Member**, Board of Directors, Center for Mass Education in Science (CMES), NGO working on appropriate technology and education, 1984 upto now.
8. **Vice President**, Bangladesh Physical Society, 2002-2004.
9. **General Secretary**, Solar Energy Society, Bangladesh, 2002-2008.
10. **Govt. Body Member**, RIM Girls' High School.
11. **Full Member**, TWOWS, Trieste, Italy, Vice President TWOWS Contact Person Bangladesh Chapter.

### **Research Experience:**

1. **Research on:**  
Communication Engineering, High Speed LAN/WAN, Image Processing, Artificial Intelligence, Neural Network, Solar Materials & Renewable Energy Technology.
2. **Post Doctoral Research on “Liquid Crystals”:**  
Interchain-Interaction of Se and Ses System within Modernite Matrix Channels, Kyoto University, Japan, 1984-1985.
3. **Research for Ph.D on “Solid State Electronics”:**  
“Defect Centers in Diamond” By Optical Signal Processing.  
Dept. of Physics, Wheatstone Research Lab, King's College, University of London U.K, 1975-1979.
4. **Research on:**  
“Design and Construction of a Pulse Generator” Electronics Division. Atomic Energy Centre, Dhaka, Bangladesh, 1974-1975
5. **Research on:**  
Thin Film Technology, Dept. of Applied Physics & Electronics, University of Dhaka, Bangladesh, 1971-1974.
6. **Research going on: SOLAR ENERGY AND COMPUTER TECHNOLOGY**, Department of Applied Physics and Electronics, University of Dhaka. 1987 – upto now.

## Academic Experience:

1. **Member**, Academic Council of Bangladesh Open University, nominated by the Chancellor, for two years from 11<sup>th</sup> August 2002.
2. **Member**, Selection Board of Bangladesh Open University, nominated by the Chancellor, for two years from 22<sup>nd</sup> July 2002.
3. **Member**, Selection Board (Associate Professor and Professor) of the Dept. of Computer Science of Dhaka University, nominated by the Chancellor of the Govt. of Peoples' Republic of Bangladesh, from October 2003.
4. **Member**, Selection Board (Associate Professor and Professor) of the Dept. of Applied Physics Electronics and Communication Engineering of Dhaka University, nominated by the Chancellor of the Govt. of Peoples' Republic of Bangladesh, from October 2003.
5. **Member**, Selection Board of Chittagong University, nominated by the President/Chancellor of the Govt. of Peoples' Republic of Bangladesh, for two years from 2<sup>nd</sup> February 2003.
6. **Specialist**, Selection Board of Islami University, nominated by the Prime Minister of the Govt. of Peoples' Republic of Bangladesh and Chancellor of Islami University, from 7<sup>th</sup> May 2002.
7. **Member**, Selection Board of Khulana University, nominated by the President/Chancellor of the Govt. of Peoples' Republic of Bangladesh, for two years from 2002 upto Now.
8. **Member**, Selection Board of Bangladesh Open University, nominated by the Chancellor, for two years from 22<sup>nd</sup> July 2002.
9. **Fellow**, Matsumai International Foundation, Tokyo, Japan, 1985 upto now.

## Culture & Social Experience:

### সামাজিক গবেষণা কর্ম

বাংলাদেশে বিজ্ঞানের বিভিন্ন শাখায় গবেষণারত বিজ্ঞানী এবং মহিলা বিজ্ঞানীদের গবেষণার উপর নিরীক্ষন ধর্মী গবেষণা কর্ম : যা বাংলাদেশ টেলিভিশন কর্তৃক “বিজ্ঞান ও নারী” অনুষ্ঠানে নিয়মিত প্রচারিত হচ্ছে।

অনুষ্ঠানের নাম	বিটিভিতে প্রচারিত তারিখ
১। বিজ্ঞানের জগতে নারী : যুগে যুগে	৯ জানুয়ারী ৯৪
২। মহাকাশ বিজ্ঞান	১৩ মার্চ ৯৪
৩। কমপিউটার বিজ্ঞান	৯ এপ্রিল ৯৪
৪। সমুদ্র বিজ্ঞান	৮ মে ৯৪
৫। পরিবেশ বিজ্ঞান	১২ জুন ৯৪
৬। খনিজ বিজ্ঞান	১০ জুলাই ৯৪

৭। সৌর বিজ্ঞান	৭ আগষ্ট ৯৪
৮। রসায়ন বিজ্ঞান	১০ সেপ্টেম্বর ৯৪
৯। স্থাপত্য বিজ্ঞান	২ অক্টোবর ৯৪
১০। শারীর বিজ্ঞান	১১ ডিসেম্বর ৯৪
১১। ভাষা বিজ্ঞান	১২ ফেব্রুয়ারী ৯৫
১২। পরমানু বিজ্ঞান	১২ মার্চ ৯৫
১৩। কৃষি বিজ্ঞান	এপ্রিল ৯৫
১৪। ইলেক্ট্রনিক্স বিজ্ঞান	
১৫। প্রাণী বিজ্ঞান	
১৬। পুষ্টি ও খাদ্য বিজ্ঞান	

"প্রযুক্তি ও নগর সভ্যতা" বিষয়ক গবেষণা ধর্মী নিবন্ধ (২০ টিরও অধিক) রেডিও বাংলাদেশ কর্তৃক "মহানগর" অনুষ্ঠানে প্রচারিত।

জাকার্তায় অনুষ্ঠিত UN-ESCAP Second Asian Conference ৭-১৪ জুন ১৯৯৪ এ অনুষ্ঠিত হয়েছে তা Drfi "Plan of Action" for the advancement of women in Asia and pacific এর অন্যতম রচয়িতা।

### Professional Experiences:

1. **Chairman**, Board of Governors, IST, National University.
2. **Chairman**, Dept. of Applied Physics & Electronics, University of Dhaka, Bangladesh, from 1996-1999.
3. **Professor**, Dept. of Applied Physics & Electronics, University of Dhaka, Bangladesh, 1992.
4. **Associate Professor**, Dept. of Applied Physics & Electronics, University of Dhaka, Bangladesh, from 1987-1992.
5. **Assistant Professor**, Dept. of Applied Physics & Electronics, University of Dhaka, Bangladesh, from 1980-1987.
6. **Teaching Assistant**: Department of Physics, King's College, University of London, U.K, 1976-1978
7. **Research Fellow**, Electronics Division, Atomic Energy Centre, Dhaka, Bangladesh

### Seminars, Symposiums, International Conferences Attended Year

- |  |      |
|--|------|
| 1. National Seminar on Renewable Energy in Bangladesh: Research and Application, 24~26 March 2005 at Physics Auditorium, Mukarram Bhaban, University of Dhaka.               | 2005 |
| 2. International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.  | 2004 |
| 3. Regional Workshop on Renewable Energy: Progress and Prospects, 26~27 Feb 2004, Physics Auditorium of University of Dhaka, and Atomic Energy Commission Auditorium, Dhaka. | 2004 |
| 4. IEEE Calcutta Section's Silver Jubilee Celebration Program, at Kolkata, India, 6-7 November, 2003.  | 2003 |

	<b>Year</b>
5. The 3 <sup>rd</sup> International Conference on Renewable Energy for Sustainable Development (ICRES-2003), 2-4 October, 2003 at IEB Campus, Dhaka.	2003
6. International conference on Electrical & Computer Engineering, Jan 5 & 6 2001, Sonargaon Pan Pacific Hotel, Dhaka, Bangladesh.	2001
7. International Conference on “Women, Biotechnology, Environment and Non Conventional Energy” October 17 <sup>th</sup> -21 <sup>st</sup> Hyderabad, India.	2000
8. Second General Assembly and International Conference: Women, Science and Technology for sustainable development. 8-11 Feb. Cape town, South Africa (TWOWS).	1999
9. Second International Seminar on “Renewable energy for poverty Alleviation”, 26-27 Nov. 1999 Dhaka.	1999
10. Sixth International Symposium on renewable energy education, 26-28 <sup>th</sup> Nov. 1998, New Delhi, India (TERI).	1998
11. Twentieth Bangladesh Science Conference (BASS) 28-30 <sup>th</sup> Nov. Dhaka	1998
12. UN-ESCAP Second Asian and Pacific Ministerial Conference on ‘Women in Development’ 7-14 <sup>th</sup> June, 1994, JAKARTA.	1994
13. International Conference on Women’s Vision of Science and Technology for Development and TWOWS first general assembly, Cairo, EGYPT, 10-13 January, 1993.	1993
14. UNESCO workshop “Enhancing girl’s participation in Science and Technology”, 9-13 <sup>th</sup> December, 1991, New Delhi, INDIA.	1991
15. Kathmundu Summer School on “High TC Superconductivity” 2-15 August	1991
16. Asian workshop on the technological charge and women to words 21 <sup>st</sup> Century, 5-9 February, 1990, New Delhi, India.	1990
17. International Symposium on Advanced Materials, Islamabad, Pakistan, Sept.	1989
18. International Conference on “Floods in Bangladesh: What are the Solutions?” Concordia University, Canada, May 11-12, 1989.	1989
19. International Conferences and Intensive Tutorial Course on Semiconductor Materials, New Delhi, India, Dec. 8-16, 1988.	1988
20. Survey tour on flood situation in various parts in India and Kathmundu, Nepal, Sept-Oct, 1988.	1988
21. Regional workshop on The Topics in Semiconductors Physics. Chulalongkorn University, Bangkok, Thailand, January 1987.	1987
22. Co-Author: International Conference on Circuits and Systems, California.	1987
22. Study tour on “Appropriate Technology”, various parts of France, June-July	1986
23. Spring College on Order and Chaos in Non-Linear Physical Systems, ICTP, Trieste, Italy, April-June, 1986	1986
24. Asian regional course on Material Science and Metallurgy, Quid-i-Azam University, Islamabad, Pakistan, November 1986	1986
25. Spring college on “Physics of Crystalline Semiconductor Materials and Devices”, ICTP (International Center for Theoretical Physics), Trieste, Italy April-June, 1984	1984
26. The Twenty-eighth International Diamond Conference, St. Catherine’s	1977

- College, Oxford, UK, 9-12<sup>th</sup> July, 1977
27. The twenty-seventh International Diamond Conference, Physics Dept. 1977  
University of Reading, UK, 7-9<sup>th</sup> July, 1977

LIST OF PUBLICATIONS  
OF  
DR. SHAHIDA RAFIQUE

**Research Publications:**

1. The Property of Metal and Metal Semiconductor contact, the Dhaka University Studies, Vol, XXII, No. 2, 1975
2. Photo capacity of Diamonds Conference Proceeding International Diamond Conference Reading U.K, 1977, PP-61-63
3. Photo capacity Measurements of natural on natural Semiconductor Diamond, J.Phy. C.Solid State Physics, Vol, 1978, P-1375-1380
4. The 2.367 eV Optical centers in type Ib Diamond Conference Proceeding International Diamond Conference, Oxford 1978: PP-64-70
5. Optical Studies of the 2.367 eV vibronic absorption system in irradiated type Ib diamond. Proceeding Royal Society, London, A367, 81-97, 1978.
6. High Temperature Annealing of Irradiated type Ib Diamonds, Proc, Symp. on the Role of Physics for Development, Dhaka, 1982.
7. Photo-Conductivity Measurements of Natural and Irradiated Diamonds. The Dhaka University Studies-B XXXi(I), 29-33:1983 , Jan.
8. Defects in Diamond: "Women and Science." Journal Published by the Association of Women Scientist, Bangladesh 1984.
9. Prospects of Raw Jute in Electronic Industry. Bangladesh Journal of Scientific and Industrial Research XX(1-4) 1986.
10. Interchain Interaction of Sc in Mordenite, Japanese Journal of Physics, 1985.
11. EXAFS, PAS and OP-Abs, Measurements of Ses Mixtures in mordenite. Japanese journal of Physics, 1985.
12. Investigation of Sc and Ses within Mordenite channels, Abstract of the Scientific papers, 10th annual Bangladesh Science conference, Mohakhali Health Complex March, 22-27., 1985.

13. Fuel-less Um Chula, and adaptation of the hay-box principle for Bangladesh and an investigation on its performance. *Appropriate technology* vol 13, No. 1, ITDG London, 1986.
14. An Investigation on the utility and efficiency of conventional as well as various improved chulas available in Rural Bangladesh, *Rural Technology Journal* Vol. 2 no. 4, Allahabad, India, 1986.
15. Some results of the solar drying of potato and vegetables, Published in *Rural Technology Journal*, Allahabad, 1987.
16. A loss less composite integrator (LCI) based on mixed LDI-Bilinear Transformation. *Proceeding of the International Conference on circuit and systems*, California, 1986.
17. Exact design of SC. filters using Ldi-Bilinear Integrators. *Circuits and Systems I.E.E.E. Trans*, 1987.
18. EXAFS of Single Selenium Chain within dielectric Matrix Channels. *Proceeding, International Conference and intensive tutorial course on semiconductor materials*, New Delhi, India, 1988.
19. Science and Technology amongst the rural poor women in Bangladesh. Some experiences and some efforts. *Proceeding of the Asian workshop on popularization of science and technology to enhance women's participation*. Dhaka, Bangladesh, 1987.
20. Who provides the strategy behind the computer. Vol 19. 19.No. 6186, *Bijnan Samoeeki*, Bangladeshi.
21. *Japan Journal*. A personal experience of Science and Technology in Japan, Vol. 1-10, *Bijnan Samoeeki*, Bangladesh.
22. *Advances in telecommunications: "Women and Science"* A Journal published by Association of women scientist Dhaka, Bangladesh, 1987.
23. "Make friendship with computer" *Bijnan Samoeeki*, Bangladesh, Dec. 1988.
24. "Photo acoustic Spectroscopy of Single Se chain in Mordenite Matrix Channel." Published in the *proceeding of international Symposium on advanced materials*. Islamabad, Pakistan, September 1989.
25. Technological changes and their impact on the Socio-Cultural Status of Women; Bangladesh context. *Proceeding, Asian workshop, Technological changes and women*, New Delhi, India, Feb. 1990.



26. "World of Electronics" and Women Published in the proceeding of Bangladesh Electronics Society Symposium, May 31, 1990.
27. The impact of Computer Technology for the Socio-Economic development of women in Bangladesh, Published in the Journal (Women and Science) By Women Scientist Association, Bangladesh, July 1990.
28. "Women in Science & Technology" Bangladesh Region, Presented and published in the Conference proceeding BAAS conference proceeding BAAS conference 1990.
29. "Bangladesh Towards 2020" and Science and Technology policy, Published in the conference proceeding International Conference on "Bangladesh 2020" arranged by ISB, Canada 1990.
30. Science policy and the status of women "Presented in the UNESCO workshop on "Enhancing girls Participation in Science and Technology" Published in the proceeding on the workshop. New Delhi, India 1991.
31. Prospects of "Data Entry" for employment in Bangladesh. Published in "Computer Jagat". A monthly, P-9-13, October, 1991.
32. "A solar Energy Plant for Rural Applications". Published in the Conference proceeding, International Conference on Women's vision of Science and Technology for Development and TWOWS first General Assembly, Cairo, Egypt, 10-13 Jan `93.
33. A computerized Legal Information Systems, Dhaka University Studies, B, 41(1): 63-67, 1993 (January)
34. "Your Honor", A data base legal information systems "InfoHokkaido `93 (on the 10th anniversary of IPSJ, Hokkaido), Japan, `93, P 46-47.
35. Microprocessor based solar Energy Recorder role Renewable Engorge in Policy, New Delhi, India, 1994.
36. Renewable energy education a case study and analysis Published in proceeding of the sixth International Symposium on Reusable energy education held on 26-28<sup>th</sup> November 1998 in New Delhi, India.
37. Time Series analysis of solar radiation to develop PV Technology in Bangladesh and involvement of women. Proceedings on the international seminar and 2<sup>nd</sup> general energy of TWOWS.
38. Development of a Database Management System in Bangladesh D.U. Journal of Science, 44(1): 87-90, 1996.

39. A Microcomputer Based Temperature Monitoring System. Physics of Scientific Devices vol. II 1282-V. Kumar and S.K. Agarwal (Eds), 1998. Narosa Publishing House, New Delhi, India.
40. A Graphical User Interface based information system for university of Dhaka. Published in the proceedings on Twentieth Bangladesh Science Conference (BASS), November 28-30, 1998.
41. A Real-time Signal processing: Algorithm vs. Architecture. Published in the proceedings on twentieth Bangladesh Science Conference (BASS), November 28-30, 1998.
42. PCM-based interface card for for digital telephone system. Published in the proceedings on twentieth Bangladesh Science Conference (BASS), November 28-30, 1998.
43. Women Scientists in the New Communication Era: Challenges and Opportunities, time series analysis of solar radiation to develop PV Technology in Bangladesh and involvement of women. Proceedings on the International Seminar and second general energy of TWOWS, Capetown, RSA, 8-11 February, 1999.
44. Women in Communication Technology in Bangladesh: A Statistical Analysis, 1999.
45. A Qualitative analysis of holographic and algorithmic approach through Neural network for pattern recognition. Accepted for publication in the proceedings of International Conference on Electrical & Computer Engineering, Jan. 5 & 6, 2001, Sonargaon Pan Pacific Hotel, Dhaka, Bangladesh.
46. Design and Development of a model of a small-scale fiber optic network. Accepted for publication in the proceedings of International Conference on Electrical & Computer Engineering, Jan. 5 & 6, 2001, Sonargaon Pan Pacific Hotel, Dhaka, Bangladesh.
47. PC-based EPROM Programmer. Accepted for publication in the proceedings of International Conference on Electrical & Computer Engineering, Jan. 5 & 6, 2001, Sonargaon Pan Pacific Hotel, Dhaka, Bangladesh.
48. An approach for solving real time problem using semaphore. Accepted for publication in the proceedings of International Conference on Electrical & Computer Engineering, Jan. 5 & 6, 2001, Sonargaon Pan Pacific Hotel, Dhaka, Bangladesh.
49. Solar Radiation in Bangladesh: A Qualitative evaluation of the expected values due to climate change. Published in the proceedings in the International Conference on "Women" Biotechnology, Environment and non-Conventional energy, Oct. 17<sup>th</sup> to 21<sup>st</sup>, 2000, Hyderabad, India.

50. Time series spectrum analysis of solar radiation in Bangladesh second International Seminar on renewable energy for poverty alleviation, Dhaka, Bangladesh, 26-27 November, 1999.
51. An Approach to solve real-time problem using semaphore in LINUX Environment, D.U. Studies, 2001.
52. The effect of different window functions in Spectrum analysis. Published in D.U. Journal of Science in January 2002 (Vol. 50, No. 1).
53. A Neural Network Approach in Bi-directional Associative Memory Utilizing Fuzzy Logic for Spatial Pattern Recognition, accepted in BAAS Conference 2001.
54. A Proposed Model for a Campus LAN using Optical Communication Link, accepted in 21st BAAS Conference, 2001.
55. An approach to compute solar irradiance at the top of the atmosphere through software: its spatial pattern on the earth surface at the location  $20^{\circ}34'$  to  $26^{\circ}38'$  N and  $88^{\circ}1'$  to  $92^{\circ}41'$  E, published in Solar Energy Journal, 2002.
56. Radiation Pattern Due to Global Temperature Change: A Comparative Analysis, published in Solar Energy Journal, 2002.
57. Telecommunication at the Beginning of the New Millennium: Present Scenario and Future Trend-A Model for Community LAN, published in proceedings of ICECE, Jan 5-6, 2001.
58. DWDM Technology: Implementation on a Unidirectional System through Algorithmic Approach, published by IEEE Press in the proceedings of PDCAT'03 Conference, August 2003, PR China.
59. FPGA Realization of Multipurpose FIR Filter, published by IEEE Press in the proceedings of PDCAT'03 Conference, August 2003, PR China.
60. Potential Sources of Energies In Bangladesh: Utilization and Environmental Issues, Published in proceedings of World Renewable Energy Congress (WREC) VII, 29 June-5 July 2002, Cologne, Germany.
61. Hardware Realization of Fuzzy Brake System, accepted for publication in Dhaka University Journal, 2003.
62. Mobility Management of GSM using Reverse Virtual Call Setup Algorithm, published Dhaka University Studies, July 2003.
63. A Proposed Wireless LAN (WLAN) for Dhaka University Campus: Utilizing Multi-Cellular Topology, presented in the Electronic Society seminar and accepted for publication in the Journal of Electronic Society, 2003.
64. Code Generation for Recognition of Different Types of Patterns through Neural Network, presented in the Electronic Society seminar and accepted for publication in the Journal of Electronic Society, 2003.
65. An Algorithm to Realize the Routing of a 4-Fiber SONET Ring Network: An Approach to Increase the Capacity through CDMA, presented in the Electronic Society seminar and accepted for publication in the Journal of Electronic Society, 2003.
66. Towards the Modification of TCP/IP Protocol, presented in the Electronic Society seminar and accepted for publication in the Journal of Electronic Society, 2003.
67. Two Dimensional Fast Fourier Transformation of Global Radiation with Time,

- published in the proceedings of the 3<sup>rd</sup> International Conference on Renewable Energy for Sustainable Development (ICRES-2003), 2-4 Oct 2003 at IEB Campus, Dhaka.
68. Statistical Analysis of Rainfall and Solar Radiation: Bangladesh Region, published in the proceedings of the 3<sup>rd</sup> International Conference on Renewable Energy for Sustainable Development (ICRES-2003), 2-4 October, 2003 at IEB Campus, Dhaka.
  69. A Software For Computation of Solar Irradiation on the Earth Surface at the Location 23° 46'N to 25° 02'N and 89° 50'E to 90° 46'E, published in the proceedings of the 3<sup>rd</sup> International Conference on Renewable Energy for Sustainable Development (ICRES-2003), 2-4 October, 2003 at IEB Campus, Dhaka.
  70. Design and Architecture of Highly Efficient Solar Cells, published in the proceedings of the 3<sup>rd</sup> International Conference on Renewable Energy for Sustainable Development (ICRES-2003), 2-4 October, 2003 at IEB Campus, Dhaka.
  71. Performance Study of Locally Fabricated Solar Panel, presented and published in the proceedings of International Conference on Renewable Energy Technology for Rural Development (RETRUD-03), at Kathmundo, Nepal, October 2003.
  72. Mobile Communication System Engineering: Evolution Toward 4G and Next, published as Key Note in IEEE Calcutta Section's Silver Jubilee Celebration Program (SJCP), at Kolkata, India, 6-7 November, 2003.
  73. Effects of Cell Phones on Human Body: Engineering and Biological Perspective, accepted for presentation in the National Conference on Radio Science (INCURSI-2003) at National Physical Laboratory, New Delhi, 27-29 Nov. 2003.
  74. A Shortest Path Routing Algorithm For Reliable Spanning Cost Minimization, accepted for presentation in the National Conference on Radio Science (INCURSI-2003) at National Physical Laboratory, New Delhi, 27-29 November 2003.
  75. Advances and Applications of Quantum Monte Carlo Method in Characterizing Compound Semiconductors and Devices, accepted for presentation and publication in the Conference CODEC 2004, at Kolkata, 1-3 January 2004.
  76. Design and Architecture of Highly Efficient Solar Cells, accepted for presented and published in the Conference CODEC 2004, at Kolkata, 1-3 January 2004.
  77. A Software-based Computation of Solar Radiation over the Top of the Global Atmosphere at the Location of 20°34' to 26°38' North Latitude and 88°01' to 92°41' East Longitude: its Pattern on the Earth Surface, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
  78. An Approach to find out the Relationship between Solar Radiation, Rainfall and Temperature by Statistical Analysis: Bangladesh Region, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
  79. Renewable Energy Scenario in Bangladesh: Estimation, Expectation and Future Trend, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
  80. An algorithmic approach to realize the routing of a four-fiber Bi-directional Line Switching Ring (BLSR) SONET Network, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.

81. An Improved Tunnel Dryer for Preservation of Marine Fish, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
82. Data Integrity using Encryption and a Modification Detection Code, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
83. Improvement of data transmission rate in a FDDI network using Load-Sharing through Dual Medium Access Control Address Resolution Protocol (DMARP), presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
84. Development of Congestion Control Algorithm for Satellite Router, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
85. A Proposed in-Campus Free Space Optical (FSO) Wireless LAN, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
86. A Comparative Study of Different Modeling Technique for Molecular Modeling and Electronic Structure Calculation, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
87. Spintronics and Spin-related Effects in Semiconductor, presented and accepted for publication in the International Conference on Physics for Understanding and Applications, 22~24 Feb 2004 at BUET, Dhaka.
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5. More than 50 scripts on Science and Technology have been broadcasted by Radio Bangladesh in various Science Programs. Different topics on Popular Sciences have been published by National News Papers and Science Journals.