

Curriculum Vitae

Name: Samia Subrina

Date of birth: January 01, 1980

Gender: Female

Present Position:

Associate Professor, Department of Electrical and Electronic Engineering,
Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

Contact address:

Mailing Address: Dept. of EEE, ECE Building, BUET, Dhaka-1205, Bangladesh
Email: samiasubrina@eee.buet.ac.bd, ssubrina@gmail.com
Contact No.: +88029665650-6150 (office), +8801937959083 (mobile)

Education:

- *Doctor of Philosophy* in Electrical Engineering, 2011
University of California, Riverside (UCR), USA
Dissertation title: Thermal transport in graphene multilayers and nanoribbons
CGPA: 3.93/4.00
- *Master of Science* in Electrical and Electronic Engineering, 2006
Bangladesh University of Engineering and Technology (BUET), Dhaka
Thesis title: Analytical modeling of erbium doped silicon nanocrystal laser
CGPA: 3.92/4.00
- *Bachelor of Science* in Electrical and Electronic Engineering, 2003
Bangladesh University of Engineering and Technology (BUET), Dhaka
Thesis title: Static VAR (Volt-Ampere-Reactive) compensator
CGPA: 3.87/4.00
- *Higher Secondary Certificate* (H. S. C.), 1996
Viqarunnisa Noon College, Dhaka Education Board, Bangladesh
Percentage of Marks: 86.7%
- *Secondary School Certificate* (S. S. C.), 1994
Agrani Girls' School, Dhaka Education Board, Bangladesh
Percentage of Marks: 85.9%

Publications:

i) Journals (publications since the last appointment have identified with asterisks):

1. M. Noshin, A. I. Khan, I. A. Navid, H. M. A. Uddin, and **S. Subrina**, "Impact of Vacancies on the Thermal Conductivity of Graphene Nanoribbons: A Molecular Dynamics Simulation Study," *AIP Advances*, AIP Publishing, 7, 015112, 2017; (Impact Factor: **1.44**)
2. M. A. Mahmud, and **S. Subrina**, "Analytical Model of Subthreshold Swing of Gate and Channel Engineered Double Gate MOSFET," *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, Wiley Publications, DOI 10.1002/jnm.2235. (Impact Factor: **0.62**)

3. E. Khan, T. S. Rahman, and **S. Subrina**, "Electronic Structure of Bilayer Graphene Physisorbed on Metal Substrate," *J. of Applied Physics*, AIP Publishing, 120, 185101, 2016; (Impact Factor: **2.04**)
4. M. A. Mahmud, and **S. Subrina**, "Two Dimensional Analytical Model of Threshold Voltage and Drain Current of Triple Material Double Gate Double Halo Gate Stacked MOSFET," *J. of Computational Electronics*, Springer, 2016. DOI 10.1007/s10825-016-0820-7; (Impact Factor on 2016:**1.10**)
5. A. I. Khan, I. A. Navid, M. Noshin, H. M. A. Uddin, F. F. Hossain and **S. Subrina**, "Equilibrium Molecular Dynamics (MD) Simulation Study of Thermal Conductivity of Graphene Nanoribbon: A Comparative Study on MD Potentials," *Electronics*, MDPI Publisher, 4, 1109, 2015. **Citations from Google Scholar: 2**
6. M. T. B. Kashem and **S. Subrina**, "Characteristics of Fully Depleted Four-Gate Field Effect Transistor with Localized Interface Charges: A 3-D Simulation Study," *J. of Nanoelectronics and Optoelectronics*, ASP Publishers, 10, 3, 304, 2015. (Impact Factor on 2015: **0.68**)
7. **Samia Subrina**, "Thermal Transport in Graphene and its Application in Chip Cooling," *J. of Nanoelectronics and Optoelectronics*, ASP Publishers, 8, 4, 317, 2013. (review paper). (Impact Factor on 2013: **0.37**) **Citations from Google Scholar: 5**
8. **S. Subrina**, "Heat Transport in Graphene Interconnect Networks with Graphene Lateral Heat Spreaders," *IEEE Trans. on Nanotechnology*, 11, 777, 2012. (Impact Factor on 2012: **1.80**) **Citations from Google Scholar:4**
9. M. Q. Huda and **S. Subrina**, "Multiple Excitation of Silicon Nanoclusters During Erbium Sensitization Process in Silicon Rich Oxide Host," *Applied Physics Letter*, AIP Publishing, 98, 111905, 2011. (Impact Factor on 2011: **3.84**) **Citations from Google Scholar: 5**
10. Suchismita Ghosh, Wenzhong Bao, Denis L. Nika, **Samia Subrina**, Evghenii P. Pokatilov, Chun Ning Lau and Alexander A. Balandin, "Dimensional Crossover of the Phonon Transport and Umklapp Scattering in Few-Layer Graphene," *Nature Materials*, Nature Publishing Group, 9, 555, 2010. (Impact Factor on 2010:**29.92**) **Citations from Google Scholar: 623**
11. **Samia Subrina**, "Modeling Based Design of Graphene Heat Spreaders and Interconnects in 3-D Integrated Circuits," *J. of Nanoelectronics and Optoelectronics*, ASP Publishers 5, 281, 2010. (Impact Factor on 2010: **0.90**) **Citations from Google Scholar:7**
12. V. Goyal, **S. Subrina**, D.L. Nika and A.A. Balandin "Reduced Thermal Resistance of the Silicon-Synthetic Diamond Composite Substrate at Elevated Temperature," *Applied Physics Letter*, AIP Publishing, 97, 031904, 2010. (Impact Factor on 2010:**3.84**) **Citations from Google Scholar: 19**

13. **S. Subrina**, D. Kotchetkov, and A.A. Balandin, "Heat Removal in Silicon-on-Insulator Integrated Circuit with Graphene Lateral Heat Spreaders," *IEEE Electron Device Letters*, 30, 1281, 2009. (Impact Factor on 2009: **2.61**) **Citations from Google Scholar: 72**
14. Qinghui Shao, **Samia Subrina**, Denis L. Nika, Guanxiong Liu, and Dmitri Kotchetkov, "Electric Current and Heat Propagation in Graphene Ribbons," *J. of Nanoelectronics and Optoelectronics*, ASP Publishers, 4, 291, 2009. (Impact Factor on 2009: **0.84**) **Citations from Google Scholar: 8**
15. **S. Subrina** and D. Kotchetkov, "Simulation of Heat Conduction in Suspended Graphene Flakes of Variable Shapes," *J. of Nanoelectronics and Optoelectronics*, ASP Publishers, 3, 249, 2008. (Impact Factor on 2008: **1.04**) **Citations from Google Scholar: 31**
16. A. I. Khan, I. A. Navid, M. Noshin, and **S. Subrina**, "Thermal Transport Characterization of Hexagonal Boron Nitride Nanoribbons Using Molecular Dynamics Simulation," (manuscript under review) (Impact Factor: 1.80).
17. S. Shamsir, L. P. Poly and **S. Subrina**, "Current Voltage Model of GNR p-n Junction and Schottky Junction Diode," (manuscript under review).
18. M. T. B. Kashem, and **S. Subrina**, "Analytical Modeling of Channel Potential and Threshold Voltage of Triple Material Gate AlGaIn/GaN HEMT Including Polarization Effect and Study of its Self-Heating Effect," (manuscript under review).
19. S.M.R. Islam, N. Saquib and **S. Subrina**, "Reliability Enhancement of FET Family Using Graphene Heat Spreader: A 3D Simulation Study," (manuscript under review).

*** Impact Factor is subject to change with year*

ii) Conferences (publications since the last appointment have identified with asterisks):

1. A. I. Khan, I. A. Navid, F. F. Hossain, M. Noshin and **S. Subrina**, "A Molecular Dynamics Study on Thermal Conductivity of Armchair Graphene Nanoribbon," IEEE TENCON 2016, Singapore, 2016.
2. M. A. Mahmud, M. T. B. Kashem and **S. Subrina**, "Study on Doping Profile and Scaling Characteristics of Gate and Channel Engineered Symmetric Double Gate MOSFET," 9th International Conference on Electrical and Computer Engineering (ICECE 2016), Dhaka, Bangladesh, 2016.
3. M. I. Dewan, M. T. B. Kashem and **S. Subrina**, "Characteristic Analysis of Triple Material Tri-Gate Junctionless Tunnel Field Effect Transistor," 9th International Conference on Electrical and Computer Engineering (ICECE 2016), Dhaka, Bangladesh, 2016
4. T. S. Rahman, E. Khan and **S. Subrina**, "Effect of point defect in the electronic structure of single layer graphene on Cu substrate," 2015 IEEE International WIE Conference on Electrical and Computer Engineering (WIECON-ECE), Dhaka, Bangladesh, 2015.

5. M. T. B. Kashem, M. I. Dewan and **S. Subrina**, "Thermal conductivity of single layer graphene supported on silicon nitride/silicon substrates," 2015 IEEE International WIE Conference on Electrical and Computer Engineering (WIECON-ECE), Dhaka, Bangladesh, 2015.
6. S. Shamsir, L. P. Poly and **S. Subrina**, "Electrostatic analysis of graphene nanoribbon p-n junction diode," 2015 IEEE International WIE Conference on Electrical and Computer Engineering (WIECON-ECE), 419, Dhaka, Bangladesh, 2015.
7. M. T. B. Kashem and **S. Subrina**, "Characteristics of Triple Material Gate AlGaIn/GaN High Electron Mobility Transistor," 3rd International Conference on Advances in Electrical Engineering (ICAEE 2015), Dhaka, Bangladesh, 2015.
8. T. S. Rahman, E. Khan and **S. Subrina**, "Electronic Structure of Stacking Dependent Tri-layer Graphene on Cu Substrate," 3rd International Conference on Advances in Electrical Engineering (ICAEE 2015), Dhaka, Bangladesh, 2015.
9. S.M.R. Islam and **S. Subrina**, "Efficient design of thermal management by graphene heat spreader in embedded system," 2nd International Conference on Electrical Information and Communication Technology (EICT 2015), Khulna, Bangladesh, 2015.
10. **Samia Subrina**, "Graphene: A Potential Candidate for Next Generation Electronics," TWAS 13th General Conference & 26th General Meeting, Vienna, Austria, 2015.
11. **Samia Subrina**, "Next Generation Electronic Chips Cooling: Graphene is a Potential Candidate", TWAS Regional Conference of Young Scientists on Nanoscience & Nanomaterials, JNCASR, Bengaluru, India, 2015.
12. S.M.R. Islam, N. Saquib and **S. Subrina**, "Thermal Management of FET Devices Using Graphene Heat Spreader," 8th International Conference on Electrical and Computer Engineering (ICECE 2014), Dhaka, Bangladesh, 2014 (**Dr. Fatema Rashid Second Best Paper Award**).
13. M. A. Mahmud and **S. Subrina**, "A Two Dimensional Analytical Model of Drain to Source Current and Subthreshold Slope of a Triple Material Double Gate MOSFET," 8th International Conference on Electrical and Computer Engineering (ICECE 2014), Dhaka, Bangladesh, 2014.
14. M. W. Khan, T. D. Gupta and **S. Subrina**, "p-i-n Solar Cell Modeling with Graphene as Electrode," 8th International Conference on Electrical and Computer Engineering (ICECE 2014), Dhaka, Bangladesh, 2014.
15. A. Barua, Md. S. Hossain, K. I. Masood and **S. Subrina**, "Thermal Management in 3-D Integrated Circuits with Graphene Heat Spreaders," 2012 International Conference on Solid State Devices and Materials Science, *Physics Procedia* 25, 311, 2012.
16. Md. S. Hossain, K. I. Masood, A. Barua and **S. Subrina**, "Thermal Management of 3-D IC using Carbon Nanotube Thermal Via," 7th International Conference on Electrical and Computer Engineering (ICECE 2012), Dhaka, Bangladesh, 2012.

17. M. Q. Huda and **S. Subrina**, “Occurrence of Multiple Excitations of Silicon Nanocrystals During Erbium Sensitization in Silicon Rich Oxide,” 7th International Conference on Electrical and Computer Engineering (ICECE 2012), Dhaka, Bangladesh, 2012.
18. Khan M. Farhan Shahil, **Samia Subrina** and Alexander A. Balandin “Graphene Thermal Interface Materials with Strongly Enhanced Heat Conduction Properties,” Graphene: The Road to Applications, Nature conference, Cambridge, MA, USA, May, 2011.
19. Khan M. F. Shahil, **Samia Subrina** and Alexander A. Balandin, “Graphene Based Thermal Interface Materials for the Next Generation Electronics”, The Seventh International Nanotechnology Conference on Communication and Cooperation (INC7), Albany, New York, USA May 2011.
20. Z. Yan, G. Liu, J. Khan, J. Yu, **S. Subrina** and A. Balandin, “Experimental Demonstration of Thermal Management of High-Power GaN Transistors with Graphene Lateral Heat Spreaders,” MRS Spring Meeting, San Francisco, CA, USA, 2011.
21. **Samia Subrina**, Dmitri Kotchetkov and Alexander A. Balandin, “Thermal Management with Graphene Lateral Heat Spreaders: A Feasibility Study,” Itherm 2010, Las Vegas, Nevada, USA, 2010.
22. S. Ghosh, **S. Subrina**, V. Goyal, D.L. Nika, E.P. Pokatilov and A.A. Balandin, “Extraordinary Thermal Conductivity of Graphene: Possibility of Thermal Management Applications,” Itherm 2010, Las Vegas, Nevada, USA, 2010.
23. V. Goyal, D. Kotchetkov, **S. Subrina**, M. Rahman and A.A. Balandin, “Thermal Conduction through Diamond – Silicon – Diamond Heterostructures,” Itherm 2010, Las Vegas, Nevada, USA, 2010.
24. **S. Subrina**, S. Ghosh, D. Kotchetkov and A. A. Balandin, “Heat Removal with Graphene Lateral Heat Spreaders,” APS March Meeting, Portland, Oregon, USA 2010.
25. **S. Subrina**, S. Ghosh, D. Kotchetkov and A. A. Balandin, “Heat Conduction Properties of Graphene and Applications in Thermal Management,” MRS Spring Meeting, San Francisco, CA, USA, 2010.
26. S. Ghosh, **S. Subrina**, V. Goyal, D.L. Nika, E.P. Pokatilov, J. N. Narayanan, R.R Nair and A.A. Balandin, “Thermal Properties of Polycrystalline Graphene Films and Reduced Graphene-Oxide Films,” MRS Spring Meeting, San Francisco, CA, USA, 2010.
27. **S. Subrina**, S. Ghosh, V. Goyal, M.Z. Hossain, D. Kotchetkov and A. A. Balandin, “Heat Conduction in Few-Layer Graphene and Graphene Devices,” 6th FENA Annual Review, Los Angeles, CA, USA, 2010.
28. M. Q. Huda, S. Saha , M.S. Akter , M.T. Hasan, **S. Subrina** and F. M. Mohammedy, “Erbium Doped Silicon Nanocrystal for Optical Amplification and Lasing,” CODEC-09, 2009, India.

29. **Samia Subrina**, “Graphene for Thermal Management of the Next Generation of Electronic Chips: Computer Modeling and Simulation Study,” SWE, Long Beach, CA, USA, 2009.
30. **S. Subrina**, D. Kotchetkov and A. A. Balandin, “Modeling of Heat Conduction in Graphene Flakes of Arbitrary Geometry,” MRS Spring Meeting, San Francisco, CA, USA, 2009.
31. **S. Subrina**, D. Kotchetkov and A. A. Balandin, “Simulation of Heat Conduction in Graphene Flakes: Effects of Geometry of the Flake and geometry of a Heat Source,” APS March Meeting, Pittsburgh, Pennsylvania, USA, 2009.
32. S.Ghosh, W. Bao, D. Teweldebrhan, I. Calizo, F. Miao, **S. Subrina**, E. P. Pokatilov, D. L. Nika, C. N. Lau, A. A. Balandin, “Experimental Investigation of Thermal Conduction in Suspended Few-Layer Graphene,” MRS Spring Meeting, San Francisco, CA, USA, 2009.
33. **Samia Subrina**, Dmitri Kotchetkov and A. A. Balandin, “Simulation of Thermal Transport in Graphene Layers of Arbitrary Shape,” 5th FENA Annual Review, Los Angeles, CA, USA, 2009.
34. S. Ghosh, I. Calizo, D. Teweldebrhan, **S. Subrina**, D.L. Nika, E.P. Pokatilov and A. A. Balandin, “Heat Propagation in Graphene: Theory and Experiment,” 5th FENA Annual Review, Los Angeles, CA, USA, 2009.
35. **Samia Subrina**, Md. Zahid Hossain, and Md. Quamrul Huda, “Modeling of Spontaneous Emission from Erbium Incorporated Silicon Nanocrystal,” Proc. of Asia Optic Fiber Communication & Optoelectronic Exposition & Conference, China, 2007.
36. Md. Zahid Hossain, **Samia Subrina** and Md. Quamrul Huda, “Modulation properties of Erbium doped Silicon Laser Diode,” Proc. of Asia Optic Fiber Communication & Optoelectronic Exposition & Conference, China, 2007.
37. S. Ghosh, W. Bao, D. Teweldebrhan, I. Calizo, F. Miao, C. N. Lau, **S. Subrina**, A. A. Balandin, ‘Giant Thermal Conductivity of Graphene: Thermal Management Applications in Nano-scale Devices and Circuits,’ 4th FENA Annual Review, Los Angeles, CA, USA, 2008.
38. **S. Subrina** and M. Q. Huda, “Spontaneous and Stimulated Emission from Erbium Doped Silicon Nanocrystals,” 4th International Conference on Electrical and Computer Engineering (ICECE 2006), Dhaka, Bangladesh, 2006.

Professional / Research Experience:

September 13- present

- *Associate Professor, Department of EEE, Bangladesh University of Engineering and Technology (BUET).*
- *Conducting courses and research projects of undergraduate students.*
- *Conducting courses and research projects of graduate students.*

- *Active member of Bureau of Research, Testing and Consultation (BRTC) of the Department of EEE, BUET, and have been involved in different testing and consultancy works.*
- *Deputy Sub-Project Manager, HEQEP Project, CP 3103*
Sub-Project Title: Enhancement of Experimental Facilities of High Voltage, Energy Conversion (Electrical Machines), Power System and Power System Protection Laboratories at EEE Department, BUET.
Organization offering the grant: University Grants Commission, Bangladesh;
- *Chair, IEEE ED/SSCS Bangladesh Chapter, 2017*

Sept 06- September 13

- *Assistant Professor, Department of EEE, Bangladesh University of Engineering and Technology (BUET).*

Mar 03-Sep 06

- *Lecturer, Department of EEE, Bangladesh University of Engineering and Technology (BUET).*

Sep 07- Jan 11

- *Graduate Student Researcher, Nano Device Laboratory, UCR.*
Student Researcher of the FCRP center on Functional Engineered Nano Architectonics (FENA) at UCLA, FENA Interconnect Focus Center (IFC) at Georgia Tech under Semiconductor Research Corporation (SRC)

Research Interest:

Modeling of thermal transport in nanoscale devices, Study of electronic transport characteristics of electronic devices, Study of thermal and electronic transport in nanoscale materials, Modeling of Optoelectronic devices, Device and material characterization, Smart grid, Renewable energy.

Experimental Skills:

- **Thermal Characterization Skills:** Transient Plane Source Technique-Hot Disk Thermal Constant Analyzer, Laser Flash Technique
- **Device/Material Characterization Skills:** I-V, C-V characterization, SEM/TEM imaging, Optical Microscopy, Fluorescence Spectrometer, XRD analysis, Raman Characterization (Horiba, Renishaw)

Computer Skills:

- **Programming language:** MATLAB, C/C++
- **Operating systems:** Windows, MS-DOS, Linux
- **Package programs:** MS-Office, PSpice, Orcad, Comsol, Cadence, Origin, Rhino, VHDL, DSCHEM, Microwind

Grants Received:

Higher Education Quality Enhancement Project (HEQEP), CP 3103

Sub-Project Title: Enhancement of Experimental Facilities of High Voltage, Energy Conversion (Electrical Machines), Power System and Power System Protection Laboratories at EEE Department, BUET.

Organization offering the grant: University Grants Commission, Bangladesh.

Duration: 2014-2017 (extended)

Fund: BDT 3,80,00,000

Honors, Fellowships and Awards:

- BAS (Bangladesh Academy of Sciences) - TWAS (The World Academy of Sciences) **Young Scientist Award**, 2016
- **Nominated and Full support** to attend *IEEE ED* South Asia Chapter Chair Meeting-2016 at NIST, Berhampur, Odisha, India, February (2016)
- **TWAS YOUNG AFFILIATE 2015**," Central & South Asian Region (TWAS-ROCASA) (2015)
- **Invitation and Full support** to attend TWAS 13th General Conference & 26th General Meeting, Vienna, Austria (2015)
- **Oral Presentation (selected)**, TWAS Regional Conference of Young Scientists on Nanoscience & Nanomaterials, JNCASR, Bengaluru, India (2015)
- **Travel grant by TWAS-ROCASA** for TWAS Regional Conference of Young Scientists on Nanoscience & Nanomaterials, JNCASR, Bengaluru, India (2015)
- **Dr. Fatema Rashid Second Best Paper Award**, 8th International Conference on Electrical and Computer Engineering (ICECE), 2014, Dhaka, Bangladesh (2014)
- **Second Best Poster Award**, 2010 Collegiate Poster Competition, Society of Women Engineers (SWE), Orlando, FL, USA (2010)
- **Finalist**, 2010 Collegiate Poster Competition, Society of Women Engineers (SWE), USA (2010)
- **Travel grant** by Society of Women Engineers, SWE (2010)
- **Third Best Poster Award**, Society of Women Engineers (SWE), Long Beach, CA, USA (2009)
- **Finalist**, 2009 IBM/ROCKWELL National Collegiate Poster Competition, Society of Women Engineers (SWE), USA (2009)
- **GSA travel grant**, University of California, Riverside, USA (2009, 2010).
- **Best Poster Award**, 5th Functional Engineered Nano Architectonics (FENA) Annual Review, Los Angeles, CA, USA (2009).
- **Research Assistantship**, Department of Electrical Engineering, University of California, Riverside, USA (2008-2010).
- **Dean's Distinguished Fellowship** in the University of California, Riverside, USA (2007-2008).
- **University Merit Scholarship** for result of undergraduate study during period (1998-2003)
- **DEAN'S LISTs** scholarship published (undergraduate) for academic excellence during period (1998-2003)
- **Board Scholarship** (general grade) for result of H. S. C. examination during period (1998-2003)

Membership in Professional Organizations:

- Member, Institute of Electrical and Electronic Engineers (IEEE)
- Member, IEEE Women in Engineering (WIE)
- Member, IEEE Electron Device Society (EDS)
- Member, Institution of Engineers, Bangladesh (IEB)
- Member, Materials Research Society (MRS, 2008-2010)
- Member, American Physical Society (APS, 2008-2010)
- Member, Society of Women Engineers (SWE, 2009-2010)

Professional Work at National and International Levels:

- Chair, *IEEE ED/SSCS Bangladesh Chapter*, 2017.
- Member, Electrical Adviser, Secondary and Higher Secondary Education Board, Dhaka, Bangladesh.
- Member, Selection Board, Sonargaon University, Bangladesh.
- Reviewer, *IEEE Trans. on Electron Devices*.
- Reviewer, *Nanoscale*.
- Reviewer, *Journal of Computational Materials*
- Reviewer, *IEEE Trans. on Nanotechnology*.
- Reviewer, *Microelectronics Journal*.
- Reviewer, *International Nano Letter*.
- Reviewer, International Conferences.
- Member, Designer Team for "Electrical Service Design for Sonali Bank, Rangpur, Bangladesh" (ongoing).
- Member, Consultants Team for "SCADA for Dhaka Power Distribution Company Limited (DPDC)," (ongoing).
- Member, Executive Committee, *IEEE ED/SSCS Bangladesh Chapter*, 2015- 2016.
- Member, TEC, Bangladesh Council of Scientific and Industrial Research (BCSIR)
- Member, Consultants Team for "The Sustainable Programme of Training of Trainers for Power Plant Simulator at BPDB Training Centre at Ghorashal,".
- Member, Consultants Team for "Performance Audit of Five Power Sector Entities of Bangladesh," .
- Member, Organizing Committee, 9th International Conference on Electrical and Computer Engineering (ICECE), Dhaka, Bangladesh, 2016.
- Serving as an Assistant Director (QC and Assurance) for installation of Photovoltaic Testing Laboratory (PTL), financed by IDCOL.
- Affinity Group Treasurer, Women in Engineering (WIE), *IEEE* Bangladesh section, 2015
- Session Chair, 2015 *IEEE* International WIE Conference on Electrical and Computer Engineering (WIECON-ECE), Dhaka, Bangladesh, 2015.
- Member, Organizing Committee, 2015 *IEEE* International WIE Conference on Electrical and Computer Engineering (WIECON-ECE), Dhaka, Bangladesh, 2015
- Member, Consultants Team for "G to G project for the Expansion and Strengthening of Power System Network under DPDC Area: Phase I," 2015.
- Member, Consultants Team for "Impact Study on Bangladesh Power System" of several new installed steel mills and pharmaceutical company, 2013-2015.
- Member, Consultants Team for "Power Plant Simulator, PSCDP, Bangladesh," 2014.
- Member, Organizing Committee, 8th International Conference on Electrical and Computer Engineering (ICECE), Dhaka, Bangladesh, 2014.
- Member, Technical Committee, Workshop on Fire Detection Systems and Electrical Safety, 22-23 May, 2014.
- Member, selection board for the recruitment of part-time accountant for the sub-project (CP-3103) under Higher Education Quality Enhancement Project (HEQEP), 2014.
- Member, selection board for the recruitment of MLSS for the sub-project (CP-3103) under Higher Education Quality Enhancement Project (HEQEP), 2014.
- Member, Consultants Team for "Fire and Electrical Safety Assessment for Ready-Made Garments Factories in Bangladesh," a project with International Labor Organization (ILO), 2013-14.

- Member, Consultants Team for “Vetting for Electrical Load of Franco-German Embassy,” 2013.
- Member, Consultants Team for “Executive SCADA for Bangladesh Power Development Board (BPDB),” 2013.
- Member, committee for the consultation of Light and Sound Show (Outdoor) System at Lalbagh Fort, Lalbagh, Dhaka, 2013.
- Member, Committee for the course design on Nanodevices for the Glass & Ceramics Engineering Department of the Bangladesh University of Engineering and Technology, 2012.
- Member, Organizing Committee, 7th International Conference on Electrical and Computer Engineering (ICECE), Dhaka, Bangladesh, 2012.
- Judge, 1st WIE Workshop on Electrical and Computer Engineering organized by IEEE Women in Engineering (WIE) Affinity Group, Bangladesh, 2012.
- Member, Judge Panel, EEE Undergraduate Project Workshop (EUProW) 2011, EEE, BUET.
- Member, Judge Panel, 1st WIE Research Presentation organized by IEEE Women in Engineering (WIE) Affinity Group, Bangladesh, 2011.
- Conducted tutorials of an international short term training on “Reliability and Operational Aspects of a Regional Grid”, held during July 15- 17, 2004 at BUET, Dhaka, organized by Dept. of EEE, BUET.

Contribution to the Department/ University Other Than Teaching and Research:

- Post Graduate (PG) Tabulator, Department of EEE, BUET, 2016 to date.
- Member, Board of Undergraduate Studies (BUGS), Department of EEE, BUET, 2003 to date.
- Member, Board of Postgraduate Studies (BPGS), Department of EEE, BUET, 2011 to date.
- Member, Board of Undergraduate Studies (BUGS), participated in the revision of various old courses and inclusion of new courses in undergraduate level.
- Lab-in-charge, Electronic Circuit Simulation Laboratory, Department of EEE, BUET.
- Member, Bureau of Research, Testing and Consultation (BRTC), Department of EEE, BUET, have been involved in different testing and consultancy works.
- Advisor of undergraduate students, EEE, BUET.
- Advisor of graduate students, EEE, BUET.
- Member, sub-committee for the recruitment of P.S. to V.C., BUET, 2015.
- Member, selection board for the recruitment of Lab Assistant, Department of Mathematics, BUET, 2015.
- Member, selection board for the recruitment of Sweeper, Department of Chemical Engineering, BUET, 2015.
- Member, Strong Room Duty of Undergraduate Term Final Examination (2013).
- Member, Postgraduate Admission Committee (2012, 2013, 2014, 2015, 2016).
- Member, Undergraduate Admission Committee (2011, 2015).
- Member, sub-committee for the recruitment of Assistant Engineers for Engineering office, BUET, 2013.
- Member, selection board for the recruitment of guard for Suhrawardi Hall, BUET, 2013.

Workshops/Short Courses/Training Attended:

- Nominated by *IEEE/EDS* Bangladesh Chapter to attain *IEEE ED* South Asia Chapter Chair Meeting-2016 at NIST, Berhampur, Odisha, India, February, 2016.

- Short Course on Public Procurement Management under “PPA 2006 and PPR 2008”, organized by Directorate of Continuing Education (DCE), BUET held during 06-11 June, 2015 at BUET, Dhaka.
- Training course on “Capacity building training for fire safety audit,” organized by BRTC, BUET-ILO held during August 29-September 01, 2013 at BUET, Dhaka.
- Training workshop on “Quality Assurance in Engineering Education,” organized by the Department of Naval Architecture & Marine Engineering, BUET held on August 21, 2013 at BUET, Dhaka.
- Workshop on “VLSI Design Using Cadence EDA Tools,” organized by the Department of EEE, BUET, IEEE SED/SSC Bangladesh Chapter and IEEE Gold Affinity Group Bangladesh Chapter, held on July 7, 2013 at BUET, Dhaka.
- Workshop on “Teaching and Curriculum Development,” organized by the Department of Naval Architecture & Marine Engineering, BUET held on June 10, 2013 at BUET, Dhaka.
- Workshop on COMSOL Multiphysics, conducted by COMSOL on 2008 in CA, USA
- Workshop on “Use of Linux in Everyday Life,” organized by the Department of Computer Science and Engineering, BUET held during April 7-9, 2007 at BUET, Dhaka.
- E-learning based Professional Development (PD) course on “Overview of Energy Sector Technology”, organized under the linkage program between Bangladesh University of Engineering & Technology (BUET) and University of Alberta, Canada delivered during July 25-December 3, 2004 at BUET, Dhaka,
- Training course on “Teachers Appreciation Workshop”, organized by Directorate of Continuing Education (DCE), BUET held during April 1-2, 2004 at BUET, Dhaka.
- Training course on “Bangladesh Betar” organized by Dept. of EEE, BUET delivered during July 16-31, 2001.

Supervision of Undergraduate and Graduate Research Work:

- *Graduate Research Work:* 2 completed and 4 ongoing
- *Undergraduate Research Work:* 8 completed and 3 ongoing

Teaching activities undertaken (course and laboratory) at undergraduate and graduate levels:

Graduate

- EEE 6402 Compound Semiconductor Devices
- EEE 6404 MOS Devices

Undergraduate

Course

- EEE 413 Solid State Devices
- EEE 207 Electronics II
- EEE 105 Electrical Circuits II
- EEE 163 Basic Electrical Engineering
- EEE 231 Electrical Machines I
- EEE 165 Basic Electrical Technology