



Department of Electronics and Communication Engineering  
Khulna University of Engineering & Technology  
Khulna - 9203, Tel: 041-769471 (191); Fax : 041-774403



**Dr. Monir Hossen, SMIEEE, FIEB**

Professor

**Research Area** Publication Chair TPC

Secretary General Secretary: Organizing

Secretary: Research Projects: 4. 3. 2. 1.

Research Interest: Thesis Titles: Editorial

Board Member:

## Biography

Most welcome and thank you very much for visiting my website. My main research intention focuses on designing a modern city called ubiquitous city (u-City). A u-City is an autonomous city. A significant number of service providers such as fiber-to-the-home (FTTH), wireless sensor networks (WSNs), high-definition television (HDTV) or video on demand (VoD), and Femto networks (FNs), will comprise in the modern u-Cities. Each home and business appliance in a future u-City will be equipped with several sensor nodes remotely monitored by the owners and service providers. Usually, sensor nodes will send notifications to the central office (CO) concerning any abnormality of any household or commercial device that is expected to be deployed in the u-Cities, e.g., gas systems, temperature and pressure monitoring systems, electric sparking and smoke detection systems, automobile systems, and medical sensor nodes in a hospital. However, constructing a closed, specific-use network for each individual application and accommodating several users using different access terminals and servers require an enormous amount of time and expense. To overcome the enormous expense and deployment of several backbone networks for all the service providers, I have proposed a passive optical network (PON)-based converged network to connect the FTTH and WSNs in a single optical network, because the PON systems have enough bandwidth that can effectively share the upstream channel and the CO equipments over the high-speed and high-capacity bandwidth demands. The main objectives of my present researches are to provide a suitable network architecture and dynamic bandwidth allocation (DBA) algorithm for the PON-based hybrid networks for combining several service providers in a u-city with reduced overhead and better quality of services (QoSs). If my present research outcomes are implemented then the several service providers of developed countries, e.g., USA, Japan, Korea, and Europe, will be connected by a single PON that will reduce the installation cost of new networks deployment. In my future research, I would like to extend my PON-based hybrid network concept for the open access network (OAN) in the over populated areas of developing countries, e.g., Bangladesh, India, Pakistan, etc., where the network cost per user will be less and provided that the better QoSs will be guaranteed.

## Education

### Doctor of Philosophy in Information and Mechanical System Engineering

University of Yamanashi, Japan (2011-2014)

**Thesis Title:** [Architectures and Dynamic Bandwidth Allocation Algorithms for Passive Optical Hybrid Networks.](#)

### Master of Science in Electronics Engineering

Kookmin University, Seoul, Korea (2008-2010)

**Thesis Title:** [PON-based Large Sensor Network and its Protocol.](#)

### Bachelor of Science in Electrical & Electronic Engineering

Khulna University of Engineering & Technology (KUET), Bangladesh (1998-2002)

### Post Doctoral Follow-up Research Fellowship of Japan Student Services Organization (JASSO)

University of Yamanashi, Japan (2018-2018)

## Service Records

- **Lecturer**  
**Department/Section:** Electronics and Communication Engineering  
**Khulna University of Engineering & Technology (KUET)** From 28-06-2004 to 07-07-2007
- **Assistant Professor**  
**Department/Section:** Electronics and Communication Engineering  
**Khulna University of Engineering & Technology** From 08-07-2007 to 28-11-2015
- **Associate Professor**  
**Department/Section:** Electronics and Communication Engineering  
**Khulna University of Engineering & Technology** From 29-11-2015 to 31-12-2017  
Working Area: Optical and Wireless Communication
- **Professor**  
**Department/Section:** Electronics and Communication Engineering  
**Khulna University of Engineering & Technology** From 01-01-2018 to 01-01-1970

## Research Interest

### Publication Chair

6th International Conference on Electrical Information and Communication Technology (EICT 2023), KUET, Khulna -9203.

### TPC Secretary

6th International Conference on Electrical Information and Communication Technology (EICT 2023), KUET, Khulna -9203.

### General Secretary:

1st International Conference on Information and Communication Technology for Development (ICICTD 2022), IICT, KUET, Khulna-9203.

**Organizing Secretary:**

4th International Conference on Electrical Information and Communication Technology (EICT2019), KUET, Khulna -9203.

**Research Projects:****4.**

Name of Project: Design and Performance Investigation of Multi-thread Online Polling Algorithm for Multi-OLT PON based Open Access Networks.

Funding Authority: KUET, Bangladesh

Amount: 68,000 BDT

Duration: 01/07/2017 - 30/06/2018

**3.**

Name of Project: Performance investigation of PON based open access networks using concatenated OCDM technology

Funding Authority: KUET, Bangladesh

Persons: Dr. Monir Hossen

Amount: 65,000 BDT

Duration: 01/07/2015 - 30/06/2016

**2.**

Name of Project: Supplementary Fund for Developing Research Facilities for Teachers and Students in Department of Electronics and Communication Engineering at KUET

Funding Authority: Sub-Project of Higher Education Quality Enhancement Project (HEQEP), UGC, Bangladesh

Persons: Dr. Md. Faruque Hossain, Dr. Md. Mostafizur Rahman, Dr. Monir Hossen

Amount: 70,00000 BDT

Duration: 01/07/2017 - 31/12/2018

**1.**

Name of Project: Establishment of Virtual Lab for Collaborative Research in the area of Signal Processing and Communication Engineering

Funding Authority: Sub-Project of Higher Education Quality Enhancement Project (HEQEP), UGC, Bangladesh

Persons: Dr. Pallab Kumar Choudhury, Md. Alamgir Hossain, Dr. Monir Hossen, Mehanuma Tabassum Omar

Amount: 151,00000 BDT

Duration: 01/07/2014 - 30/06/2016

**Research Interest:**

- \* Optical networks
- \* PON-based hybrid networks and its algorithm
- \* MAC protocol of wireless sensor network
- \* Vehicular Ad Hoc Network (VANET)

**Thesis Titles:**

- \* PhD Thesis Title:- Architectures and dynamic bandwidth allocation algorithms for passive optical hybrid networks
- \* M. Sc. Thesis Title:- PON-based large sensor network and its protocol

**Editorial Board Member:**

- \* Journal of Asian Science, Technology & Innovation (JASTI)
- \* International Journal of Wireless & Mobile Networks (IJWMN)
- \* International Journal of Innovative Research in Electronics and Communications (IJIREC)
- \* American Journal of Science, Engineering and Technology (AJSET)
- \* Journal of Frontiers in Communications and Networks

**Publication**

---

**Books**

1. (2020) , " Cross-Correlation-Based Fisheries Stock Assessment Technique: Utilization of Standard Deviation of Cross-Correlation Function as Estimation Parameter with Four Acoustic Sensors", **Underwater Work** , ISBN:978-1-78985-222-6,IntechOpen, UK, DOI:10.5772/intechopen.93240

## Journals

38. Trisha,S. M. and Hossen,M. (2023) , " Auction-based hybrid DBA algorithm in EPON-WiMAX converge network for 5G and beyond (5 GB) communications," **Optical Fiber Technology**, Elsevier BV, DOI:<https://doi.org/10.1016/j.yofte.2023.103542>
37. Rawshan,F. , Hossen,M. , Islam,M. R. and Park,Y. (2023) , " Multi-OLT PON-based open access network for multi-service performance tuning via the Event-Horizon algorithm," **Journal of Optical Communications and Networking**, Optica Publishing Group, DOI:<https://doi.org/10.1364/JOCN.479756>
36. (2022) , " Optimal Planning of Residential Microgrids Based on Multiple Demand Response Programs Using ABC Algorithm," **IEEE Access**, Institute of Electrical and Electronics Engineers (IEEE), DOI:<https://doi.org/10.1109/ACCESS.2022.3219070>
35. Mohammadani,K. H. , Hossen,M. , Butt,R. A. , Memon,K. A. and Shaikh,M. M. (2022) , " ONU migration using network coding technique in Virtual Multi-OLT PON Architecture," **Optical Fiber Technology**, Elsevier BV, DOI:<https://doi.org/10.1016/j.yofte.2021.102788>
34. Tasneem,N. and Hossen,M. (2021) , " Traffic localization-based dynamic bandwidth allocation algorithm for improvement of QoS in peer-to-peer architecture of passive optical networks," **Optical Fiber Technology**, Elsevier BV, DOI:<https://doi.org/10.1016/j.yofte.2021.102722>
33. Basu,S. ,Hossen,M. and Hanawa,M. (2021) , " Cluster-based PON with dynamic upstream data transmission sequence algorithm for improving QoSs," **Optical Fiber Technology**, Elsevier BV, DOI:<https://doi.org/10.1016/j.yofte.2021.102584>
32. Hossain,S. A. and Hossen,M. (2020) , " Impact of Unequal Distances Among Acoustic Sensors on Cross-correlation based Fisheries Stock Assessment Technique," **Scientific Reports**, Springer, vol10
31. Hossain,S. A. and Hossen,M. (2020) , " Selection of the Optimum Estimation Parameter in Cross-correlation based Population Estimation Technique of Fish and Mammals," **The Journal of Ocean Technology (TheJOT)**, vol15
30. Hossen,M. and Hanawa,M. (2020) , " Delay and energy efficient dynamic bandwidth allocation algorithm for hybrid optical and wireless sensor networks," **Optical Fiber Technology**, Elsevier BV, DOI:<https://doi.org/10.1016/j.yofte.2020.102159>
29. Hossain,S. A. and Hossen,M. (2019) , " Statistically Processing of Different Fish Sounds to Estimate the Population Size of Volcanizing Fish and Mammals with Two Acoustic Sensors," **Marine Technology Society Journal**, vol53
28. Hossain,S. A. and Hossen,M. (2019) , " Impact of Dispersion Coefficient on Cross-correlation based Fish Population Estimation Technique of Fish and Mammals," **The Journal of Ocean Technology (TheJOT)**, vol14
27. Hossain,S. A. and Hossen,M. (2019) , " Error Calculation in Cross-corelation based Population Estimation Technique of Fish and Mammals," **Journal of Acoustical Science and Technology**, vol40
26. Hossain,S. A. ,Mallik,A. and Hossen,M. (2019) , " An Analytical Analysis on Fish Sounds," **Akustika**, vol33
25. Hossain,S. A. and Hossen,M. (2019) , " Population size estimation of chirp and grunt generating fish and mammals using cross-correlation based technique with three acoustic sensors," **Journal of Ocean Engineering and Science**, Elsevier BV, DOI:<https://doi.org/10.1016/j.joes.2019.04.003>
24. Hossain,S. A. and Hossen,M. (2019) , " Impact of Underwater Bandwidth and SNR on Cross-correlation based Fish Population Estimation Technique," **Journal of Underwater Technology**, vol36, no.2
23. Morshed,M. S. ,Hossen,M. and Rahman,M. M. (2019) , " Dynamic hybrid slot-size bandwidth allocation algorithm for reducing packet delay and jitter variation of real time traffic in EPON," **Optik**, Elsevier BV, DOI:<https://doi.org/10.1016/j.ijleo.2019.02.076>
22. Hossain,S. A. , Hossen,M. , Mallik,A. and Hasan,S. M. (2019) , " A Technical Review on Fish Population Estimation Techniques: Non-Acoustic and Acoustic Approaches," **Akustika**, vol31
21. Saha,S. ,Hossen,M. and Hanawa,M. (2019) , " A new DBA algorithm for reducing delay and solving the over-granting problem of long reach PON," **Optical Switching and Networking**, Elsevier BV, DOI:<https://doi.org/10.1016/j.osn.2018.09.003>
20. Hossain,S. A. and Hossen,M. (2018) , " Abundance Estimation from Different Distributions of Damselfish using Cross-correlation and Three Sensors," **New Zealand Acoustics**, vol31, no.3
19. Rahman,M. M. and Hossen,M. (2018) , " Bandwidth Allocation and Control Message Scheduling Algorithms for Improving the QoSs of High Priority Traffic in PON," **Journal of Communication and Information Networks**, Springer, vol4, no.3
18. Saha,S. , Hossen,M. , Rahman,M. M. and Yoshimura,N. (2018) , " Performance Analysis of Multi Thread Polling based DBA Algorithms for Long-Reach PONs," **International Journal of Innovative Research in Electronics and Communications (IJIREC)**, ARC, vol5, no.3
17. Hossain,S. A. ,Hossen,M. and Anower,M. S. (2018) , " Estimation of Damselfish Biomass Using an Acoustic Signal Processing Technique," **The Journal of Ocean Technology (TheJOT)**, vol13, no.2
16. Rahman,M. M. ,Hossen,M. and Rahama,M. T. (2017) , " Raspberry Pi as Sensor Node and Hardware of the Internet of Things (Iot) for Smart Home," **International Journal of Innovative Research in Electronics and Communications (IJIREC)**, ARC, vol4, no.1
15. Kundu,B. , Hossen,M. , Basu,S. and Arefeen,M. I. (2016) , " Modified Early DBA Algorithm for Reducing Packet Delay and Waiting Time of Unstable ONUs in PON," **International Journal of Innovative Research in Electronics and Communications (IJIREC)**, ARC, vol3, no.3
14. Hossen,M. and Hanawa,M. (2015) , " Multi-OLT and multi-wavelength PON-based open access network for improving the throughput and quality of services," **Optical Switching and Networking**, Elsevier BV, DOI:<https://doi.org/10.1016/j.osn.2014.09.001>
13. Hossen,M. ,Kim,K. and Park,Y. (2013) , " A PON-based Large Sensor Network and Its Performance Analysis with Sync-LS MAC Protocol," **Arabian Journal for Science and Engineering**, Springer, vol38, no.8
12. Hossen,M. and Hanawa,M. (2013) , " Dynamic Bandwidth Allocation Algorithm With Proper Guard Time Management Over Multi-OLT PON-Based Hybrid FTTH and Wireless Sensor Networks," **Journal of Optical Communications and Networking**, Optica Publishing Group, DOI:<https://doi.org/10.1364/JOCN.5.000802>
11. HOSSEN,M. and HANAWA,M. (2013) , " Adaptive Limited Dynamic Bandwidth Allocation Scheme to Improve Bandwidth Sharing Efficiency in Hybrid PON Combining FTTH and Wireless Sensor Networks," **IEICE Transactions on Communications**, Institute of Electrical and Electronics Engineers (IEEE), volE96-B, DOI:<https://doi.org/10.1587/TRANSCOM.E96.B.127>
10. Hossen,M. and Hanawa,M. (2011) , " Network Architecture and Performance Analysis of Multi-OLT PON for FTTHs and Wireless Sensor Networks," **International Journal on Wireless & Mobile Networks (IJWMN)**, AIRCC, vol3, no.6
9. Hossen,M. ,Kim,K. and Park,Y. (2011) , " Optimized Latency Secured (LS) MAC Protocols for Delay Sensitive Large Sensor Networks," **International Journal of Wireless Communication and Information Systems (IJWICS)**, vol1, no.1
8. Hossen,S. ,Kim,K. and Park,Y. (2010) , " Latency Secured Algorithm for Delay Sensitive Large-Scale Sensor Networks," **Journal of Korea Information and Communications Society**, KICS, Korea
7. Chung,J. , Hossen,M. , Choi,W. Y. and Kim,K. (2010) , " Image Contrast and Sunlight Readability Enhancement for Small-Sized Mobile Display," **Journal of Institute of Korean Electrical and Electronics Engineers (JIKEEE)**, vol13, no.4
6. Morshed,K. M. ,Karmokar,D. K. and Hossen,M. (2009) , " Numerical and Experimental Investigation of Inverted-L Antennas for 5 GHz Wi-Fi Operation," **Journal of Engineering Science**, KUET
5. Morshed,K. M. ,Karmokar,D. K. and Hossen,M. (2009) , " Numerical Analysis of Inverted-L Antennas for 5.5 GHz WLAN Application," **Journal of Electrical Engineering**, The Institute of Engineers Bangladesh (IEB), vol36
4. Morshed,K. M. , Hossain,M. F. , Rahman,M. M. and Hossen,M. (2008) , " An Improved Inverted-F Antenna to Achieve Better Performance in WLAN Applications," **Journal of Bangladesh Electronics Society (BES)**, BES, vol8
3. Hossen,M. ,Faruq,M. A. O. and Rahman,M. M. (2008) , " Reduction of Packet Delay and Performance Analysis of Ethernet Passive Optical

Network," *Journal of Deffodil International University*

2. Yusuf,M. S. U. , Hossen,M. , Faruque,M. and Goni,M. O. (2006) , " Lightning Surge Simulation of Vertical Conductor Model of a Tower," Journal of Electrical Engineering, "*Journal of Electrical Engineering*, The Institution of Engineers (IEE), volEE33

1. Alam,S. S. , Hossain,A. A. , Hossen,M. and Goni,M. O. (2006) , " Analysis of Blocking Probabilities for Queuing of Handoffs for the Sudden Changes of Traffic Capacity at the Cell Site," *Journal of The Bangladesh Electronics Society (BES)*, BES, vol6

## Conference

58. Nasim,G. M. ,Hossen,M. and Hossain,M. (2024) , "An Intelligent Approach to Spectrum Sharing Process for Coexistence Between Cellular and Wi-Fi Technologies," *6th International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT 2024)* , Dhaka, Bangladesh

57. Akter,M. and Hossen,M. (2023) , "Design and Numerical Analysis of a Multiband Antenna for 5G Wireless Communication," *3rd International Conference on Advancement in Electrical and Electronic Engineering (ICAEEE 2023)* , Gazipur, Bangladesh

56. Akter,M. and Hossen,M. (2023) , "A Compact E-Shape Patch Antenna for 5G Millimeter Wave Applications," *5th International Conference on Telecommunication and Photonics (ICTP 2023)* , Dhaka, Bangladesh

55. Wali,K. N. B. and Hossen,M. (2023) , "Dynamic Wavelength and Bandwidth Allocation Algorithm in NG-EPON by Serving ONUs Request in Sequential Order," *6th International Conference on Electrical Information and Communication Technology (EICT 2023)* , Khulna, Bangladesh

54. Rawshan,F. ,Hossen,M. and Islam,M. R. (2023) , "Multi-OLT PON-based Access Network Supporting 5G Wireless Transport and FTTH Services," *6th International Conference on Electrical Information and Communication Technology (EICT 2023)* , Khulna, Bangladesh

53. Hasan,M. ,Basu,S. and Hossen,M. (2022) , "Bandwidth Borrowing Technique for Improving QoS of Cluster-based PON System," *1st International Conference on Information and Communication Technology for Development (ICICTD 2022)* , Khulna, Bangladesh

52. Rawshan,F. ,Hossen,M. and Islam,M. R. (2021) , "Delay Performance Optimization in Passive Optical Network," *12th International Conference on ICT Convergence* , Ramada Plaza Hotel, Jeju Island, Korea

51. Hossen,M. F. ,Hossen,M. and Islam,M. A. (2020) , "Parked Car-based Clustering Hierarchy in Vehicular Ad Hoc Network for Energy Efficiency," *IEEE International Conference on Advanced Information and Communication Technology (ICAICT 2020)* , Dhaka, Bangladesh

50. Islam,M. A. ,Hossen,M. and Hossen,M. F. (2020) , "Central Lane-based Life Time Routing Protocol in Vehicular Ad Hoc Network," *IEEE International Conference on Advanced Information and Communication Technology (ICAICT 2020)* , Dhaka, Bangladesh

49. Tasneem,N. and Hossen,M. (2020) , "Improving QoS of Peer to Peer Multimedia Services by Employing Multiple Upstream Wavelengths in EPON," *IEEE Region 10 Symposium (TENSYP 2020)* , Dhaka, Bangladesh

48. Basu,S. ,Hossen,M. and Hanawa,M. (2020) , "A New Polling Algorithm for Dynamic Data Transmission Sequence of Cluster-based PON," *IEEE Region 10 Symposium (TENSYP 2020)* , Dhaka, Bangladesh

47. Basu,S. , Hossen,M. , Saha,S. and Hanawa,M. (2019) , "Dynamically Changing the Data Transmission Sequence of ONUs to Enhance the QoSs in PON Systems," *Best Paper Award, IEEE International Conference on Electrical Information and Communication Technology (EICT 2019)* , Khulna, Bangladesh

46. Hassan,M. R. , Hossen,M. , Akash,A. R. and Hossain,M. I. (2019) , "A New Re-clustering Algorithm for Improving Quality of Services of Wireless Sensor Networks," *IEEE International Conference on Electrical Information and Communication Technology (EICT 2019)* , Khulna, Bangladesh

45. Akash,A. R. , Hossen,M. , Hassan,M. R. and Hossain,M. I. (2019) , "Gateway Node-based Clustering Hierarchy for Improving Energy Efficiency of Wireless Body Area Networks," *IEEE International Conference on Advances in Electrical Engineering (ICAEE 2019)* , Dhaka, Bangladesh

44. Mafaz,M. B. ,Saha,S. and Hossen,M. (2019) , "A Sorted-Frame MTP Scheme for Alleviating the Over-Granting Problem in LR-PON," *IEEE International Conference on Advances in Electrical Engineering (ICAEE 2019)* , Dhaka, Bangladesh

43. Mustak,M. S. ,Hossen,M. and Saha,S. (2019) , "Weight-based Bandwidth Allocation Algorithm for Improving the QoSs of Multi-OLT PON in Downstream Direction," *IEEE International Conference on Advances in Electrical Engineering (ICAEE 2019)* , Dhaka, Bangladesh

42. Crystal,F. Z. and Hossen,M. (2019) , "A New MAC Protocol for Improving Energy Efficiency and Reducing End-to-end Packet Delay in Wireless Sensor Networks," *IEEE International Conference on Advances in Electrical Engineering (ICAEE 2019)* , Dhaka, Bangladesh

41. Hossen,M. F. , Islam,M. A. , Hossen,M. and Saha,S. (2019) , "Optical Network-based Clustering Hierarchy for Energy Efficiency in Vehicular Ad Hoc Network," *IEEE International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering (IC4ME2 2019)* , Rajshahi, Bangladesh

40. Runa,K. N. ,Hossen,M. and Saha,S. (2019) , "Sleep-based DBA Algorithm for Energy Efficiency by End Points Collaboration in EPON," *IEEE International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT 2019)* , Dhaka, Bangladesh

39. Monjur-UI-Ahsan,M. M. ,Saha,S. and Hossen,M. (2019) , "Grant Allocation Scheme with Void Filling Principle in the Multi-thread Polling based DBA Algorithm for the LR-PON System," *IEEE International Conference on Electrical, Computer and Communication Engineering (ECCE 2019)* , Cox's Bazar, Bangladesh

38. Hossain,S. A. and Hossen,M. (2018) , "Biomass Estimation of a Popular Aquarium Fish Using an Acoustic Signal Processing Technique with Three Acoustic Sensors," *IEEE International Conference on Advancement in Electrical and Electronic Engineering (ICAEEE 2018)* , Dhaka, Bangladesh

37. Usha,N. S. ,Hossen,M. and Saha,S. (2017) , "Efficient Duty Cycle Management For Reduction of Energy Consumption in Wireless Sensor Network," *IEEE International Conference on Electrical & Electronic Engineering (ICEEE 2017)* , Rajshahi, Bangladesh

36. Saha,S. and Hossen,M. (2017) , "An Efficient Multi-Threaded DBA Algorithm with Proper Grant Management to Solve Over-Granting Problem for Long-Reach PONs," *IEEE International Conference on Electrical & Electronic Engineering (ICEEE 2017)* , Rajshahi, Bangladesh

35. Saha,S. and Hossen,M. (2017) , "Scheduled Multi Gate Polling Algorithm for Delay Reduction of Long Reach PON based Access Network," *IEEE International Conference on Advances in Electrical Engineering (ICAEE 2017)* , Dhaka, Bangladesh

34. Chaity,M. D. ,Hossen,M. and Saha,S. (2017) , "An Efficient Intra Thread Scheduling Based Decentralized Online Multi Thread Polling Scheme for Improving QoSs of PON," *IEEE International Conference on Advances in Electrical Engineering (ICAEE 2017)* , Dhaka, Bangladesh

33. Hossen,M. and Saha,S. (2017) , "Thread Guaranteed Algorithm for Real Time Traffic in Multi-Threaded Polling of PON-based Open Access Network," *IEEE International Conference on Electrical, Computer and Communication Engineering (ECCE 2017)* , Cox's Bazar, Bangladesh

32. Rahman,M. M. ,Hossen,M. and Bushra,R. (2017) , "Control Message Scheduling Algorithm for Improving Throughput and Jitter Performance of The MHSSR DBA Scheme of PON," *Best Paper Award, IEEE International Conference on Electrical, Computer and Communication Engineering (ECCE 2017)* , Cox's Bazar, Bangladesh

31. Bushra,R. ,Hossen,M. and Rahman,M. M. (2016) , "Online Multi-thread Polling Algorithm with Predicted Window Size for DBA in Long Reach PON," *IEEE International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT 2016)* , MIST, Dhaka, Bangladesh

30. Rahama,M. T. ,Hossen,M. and Rahman,M. M. (2016) , "A Routing Protocol for Improving Energy Efficiency in Wireless Sensor Networks," *IEEE*

- International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT 2016)** , MIST, Dhaka, Bangladesh
29. Morshed, M. S. , Hossen, M. , Rahman, M. M. and Hanawa, M. (2016) , "Dynamic Hybrid Slot Size Bandwidth Allocation Algorithm for Reducing Packet Delay of Real Time Traffic in EPON," **Best Paper Award, International Conference on Advanced Information and Communication Technology (ICAICT 2016)** , Chittagong Independent University, Chittagong
  28. Kundu, B. , Hossen, M. , Basu, S. and Arefeen, M. I. (2016) , "An Algorithm for Reduction of Packet Delay and Waiting Time for Unstable ONUs in PON," **IEEE International Conference on Informatics, Electronics and Vision** , University of Dhaka, Dhaka, Bangladesh
  27. Rahman, M. M. and Hossen, M. (2016) , "Modified Hybrid Slot-Size/Rate DBA Algorithm for Improving Quality of Services of High Priority Data Packets of PON System," **IEEE International Conference on Informatics, Electronics and Vision** , University of Dhaka, Dhaka, Bangladesh
  26. Halder, S. and Hossen, M. (2016) , "Energy Balanced Protocol for Ensuring Equal Lifetime of Every Node of Wireless Sensor Networks," **IEEE International Conference on Informatics, Electronics and Vision** , University of Dhaka, Dhaka, Bangladesh
  25. Arefeen, M. I. , Hossen, M. , Basu, S. and Kundu, B. (2016) , "An Effective Hybrid Open Access Network for Broadband Communication using PON and Power Line," **Student Conference on Informatics, Electronics and Vision** , University of Dhaka, Dhaka, Bangladesh
  24. Basu, S. , Hossen, M. , Arefeen, M. I. and Kundu, B. (2015) , "An Efficient Multi-OLT and Multi Wavelengths Passive Optical Network for Differentiated Classes of Services," **IEEE International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT)** , Jahangirnagar University, Dhaka, Bangladesh
  23. Hossen, M. and Hanawa, M. (2014) , "A Novel Dynamic Bandwidth Allocation Algorithm for Multi-OLT and Multi-wavelength PON-based Hybrid Networks," **IEEE International Forum on Strategic Technology (IFOST) 2014** , Cox's Bazar, Bangladesh
  22. Hossen, M. and Hanawa, M. (2012) , "Adaptive Limited DBA Algorithm for Multi-OLT PON-Based FTTH and Wireless Sensor Networks," **IEEE Asia Pacific Conference on Communications (APCC2012)** , Jeju Island, Korea
  21. Uematsu, H. , Hossen, M. , Nonaka, K. , Choi, Y. , Park, C. and Hanawa, M. (2012) , "Low-Time-Jitter and Wavelength-tunable Short Optical Pulse Source Using Reflective Semiconductor Optical Amplifier as Gain Medium," **Asia-Pacific Microwave Photonic Conference (APMP2012)** , Kyoto, Japan
  20. Uematsu, H. , Hossen, M. , Hashiguchi, K. , Nonaka, K. and Hanawa, M. (2011) , "VCSEL-based Gain-Switching Short Optical Pulse Source with Time-Jitter Suppression by Self-Seeding Method," **Microoptics Conference (MOC'11)** , Sendai, Japan
  19. Hanawa, M. and Hossen, M. (2011) , "Experimental Investigation on Spectrum Scrambling of UWB-IR Signals Using High-speed Optical 2x2 Switch," **IEEE International Topical Meeting on Microwave Photonics** , Singapore
  18. Hossen, M. , Kim, K. and Park, Y. (2010) , "Efficient Clustering Algorithm for Delay Sensitive PON-based Wireless Sensor Network," **IEEE International Conference on Optical Internet (COIN)** , Jeju Island, Korea
  17. Hossen, M. , Kim, K. and Park, Y. (2010) , "Synchronized Latency Secured MAC Protocol for PON Based Large Sensor Network," **IEEE International Conference on Advanced Communication Technology (ICTACT)** , Phoenix Park, Korea
  16. Hossen, M. , Chung, J. and Kim, K. (2009) , "Luminance Enhancement by Histogram Shifting Algorithm to Improve the Sunlight Readability of Mobile Display," **International Conference on Computers, Communications and Systems (ICCS)** , Daegu University, Korea
  15. Hossen, M. , Jang, B. , Kim, K. and Park, Y. (2009) , "Extension of Wireless Sensor Network By Employing RoF-based 4G Network," **IEEE International Conference on Advanced Communication Technology (ICTACT)** , Phoenix Park, Korea
  14. Morshed, K. M. , Karmokar, D. K. and Hossen, M. (2009) , "Numerical Analysis of Inverted-L Antennas for Wi-Fi Operation," " **[Invited Talk] International Symposium on Microwaves and Optical Technology** , New Delhi, India
  13. Morshed, K. M. , Karmokar, D. K. and Hossen, M. (2009) , "Numerical Analysis of Dual Band Inverted-L Antenna for Wi-Fi and Mobile WiMAX Operation," **International Symposium on Microwaves and Optical Technology** , New Delhi, India
  12. Rana, M. M. , Hossen, M. and Rahman, D. M. (2008) , "1350nm Optical Fiber Communication Link Design," **International Conference on Computer and Information System** , Rajshahi University, Rajshahi, Bangladesh
  11. Rana, M. M. , Islam, M. N. , Rahman, D. M. and Hossen, M. (2008) , "Optical Fiber in the Context of Bangladesh," **International Conference on Computer and Information System** , Rajshahi University, Rajshahi, Bangladesh
  10. Hossen, M. and Hanawa, M. (2013) , "Multi-OLT and Multi-wavelength PON for Improving QoS of Open Access Network," **IEICE Society Conference** , Fukuoka, Japan
  9. Hossen, M. and Hanawa, M. (2013) , "A New Dynamic Bandwidth Allocation Algorithm for Multi-OLT PON-Based FTTH and Wireless Sensor Networks," **IEICE General Conference** , Gifu, Japan
  8. Hossen, M. and Hanawa, M. (2012) , "Performance Enhancement of Open Access Network by Employing Multi-OLT PON," **IEICE Society Conference** , Toyama, Japan
  7. Hossen, M. and Hanawa, M. (2012) , "Adaptive Limited Dynamic Bandwidth Allocation Algorithm for PON-based FTTH and Wireless Sensor Networks," **IEICE General Conference** , Okayama, Japan
  6. Hossen, M. and Hanawa, M. (2011) , "Network Architecture and Interleaved Polling Algorithm for Multi-OLT PON Based FTTH and Wireless Sensor Network," **IEICE Society Conference** , Hokkaido, Japan
  5. Hossen, M. , Chung, J. and Kim, K. (2009) , "Adaptive Method of Sunlight Readability Enhancement for Mobile Display without Distorting the Color Quality of an Image," **IEEK Summer Conference** , Jeju Island, Korea
  4. Chung, J. , Hossen, M. and Kim, K. (2008) , "A Modified HE Technique to Enhance Image Contrast for Scaled Image on Small-sized Mobile Display," **National Conference on Information and Control Systems (NCICS)** , Korea
  3. Hossen, M. , Asaduzzaman, A. and Sarker, G. C. (2007) , "Analysis of Dispersion of Single Mode Optical Fiber," **National Conference on Communication and Information Security (NCCIS)** , Dhaka, Bangladesh
  2. Hossen, M. , Faruq, M. A. O. and Rahman, M. M. (2007) , "Reduction of Packet Delay and Performance Analysis of Ethernet Passive Optical Network," **National Conference on Communication and Information Security (NCCIS)** , Dhaka, Bangladesh
  1. Hossen, M. , Faruq, M. A. O. and Rahman, M. M. (2007) , "Performance Analysis of Upstream Traffic Using TDM based Ethernet Passive Optical Network," **National Conference on Communication and Information Security (NCCIS)** , Dhaka, Bangladesh