

Publications List (Kawsar Ahmed)

Book Chapter in 2019

116. Rifat, A. A., **Ahmed, K.**, Asaduzzaman, S., Paul, B. K., Ahmed, R., "Development of Photonic Crystal Fiber Based Gas/Chemical Sensors", *Springer Book Chapter*, (pp. 287-317), 2019.

Journal Publications in 2019

115. Paul BK, **Ahmed, K.**, "Si₇N₃ material filled novel heptagonal photonic crystal fiber for laser applications", *Ceramics International*, 45(1), pp. 1215–1218, 2019.
114. Suganthy M, Paul BK, **Ahmed, K.**, Islam MI, Jabin MA, Bahar AN, Rajan MM. "Analysis of optical sensitivity of analytes in aqua solutions", *Optik*, 178, pp. 970–977, 2019.
113. Thenmozhi H, Rajan MM, **Ahmed, K.**, "D-shaped PCF sensor based on SPR for the detection of carcinogenic agents in food and cosmetics", *Optik*, 180, pp. 264–270, 2019.
112. Maheswaran S, Paul BK, Khalek MA, Chakma S, **Ahmed, K.**, Rajan MM. "Design of Tellurite glass based quasi photonic crystal fiber with high nonlinearity", *Optik*, 181, pp. 185–190, 2019.
111. Ahmed, F., Roy S, **Ahmed, K.**, Paul BK, Bahar AN. "A novel star shape photonic crystal fiber for low loss terahertz pulse propagation", *Nano Communication Networks*, 19, pp. 26–32, 2019.

Book in 2018

110. Habib, N., **Ahmed, K.**, Rahman, M. M., "Gene regulatory network and drug design: Applications of R", *Lap Lambert Academic Publishing*, 2018.

Journal Publications in 2018

109. Paul, B.K., **Ahmed, K.**, Vigneswaran, D., Ahmed, F., Roy, S. and Abbott, D., Quasi-Photonic Crystal Fiber-Based Spectroscopic Chemical Sensor in the Terahertz Spectrum: Design and Analysis. *IEEE Sensors Journal*, 18(24), pp. 9948-9954, 2018.
108. Paul, B.K., Khalek, M.A., Chakma, S. and **Ahmed, K.**, Chalcogenide embedded quasi photonic crystal fiber for nonlinear optical applications. *Ceramics International*, 44(15), pp. 18955-18959, 2018.
107. Hasan, M. R., Akter, S., Rifat, A. A., Rana, S., **Ahmed, K.**, Ahmed, R., Abbott, D., "Spiral photonic crystal fiber based dual-polarized surface plasmon resonance biosensor," *IEEE Sensors Journal*, 18(1), pp. 133-140, 2018. DOI: 10.1109/JSEN.2017.2769720.
106. Islam, M. S., Sultana, J., **Ahmed, K.**, Islam, M. R., Dinovitser, A., Ng, B. W. -H., Abbott, D., "A novel approach of spectroscopic identification of chemical using photonic crystal fibre in terahertz regime," *IEEE Sensors Journal*, 18(2), pp. 575-582, 2018. DOI: 10.1109/JSEN.2017.2775642.
105. Khalek, M.A., Chakma, S., **Ahmed, K.**, Paul, B.K., Vigneswaran, D. and Zakaria, R., Materials Effect in Sensing Performance Based on Surface Plasmon Resonance Using Photonic Crystal Fiber. *Plasmonics*, pp. 1-7, 2018.
104. Hasan, M. R., Akter, S., **Ahmed, K.**, Abbott, D., "Plasmonic refractive index sensor employing niobium nanofilm on photonic crystal fiber," *IEEE Photonics Technology Letters*, 30 (4), pp. 315–318, 2018. DOI: 10.1109/LPT.2017.2786475.

103. Sultana, J., Islam, M.S., **Ahmed, K.**, Dinovitser, A., Ng, B.W.H. and Abbott, D., Terahertz detection of alcohol using a photonic crystal fiber sensor. *Applied optics*, 57(10), pp. 2426-2433, 2018.
102. Paul, B.K., Ahmed, F., Moctader, M.G., **Ahmed, K.** and Vigneswaran, D., Silicon nano crystal filled photonic crystal fiber for high nonlinearity. *Optical Materials*, 84, pp. 545-549, 2018.
101. Amiri, I.S., Paul, B.K., **Ahmed, K.**, Aly, A.H., Zakaria, R., Yupapin, P. and Vigneswaran, D., Tri-core photonic crystal fiber based refractive index dual sensor for salinity and temperature detection. *Microwave and Optical Technology Letters*, pp. 1-6, 2018, DOI: 10.1002/mop.31612.
100. Bashar, M.I., **Ahmed, K.**, Uddin, M.S., Ahmed, F., Emran, A.A. and Chakraborty, A., Depression and Quality of Life among Postmenopausal Women in Bangladesh: A Cross-sectional Study. *Journal of menopausal medicine*, 23(3), pp. 172-181, 2017.
99. Islam, M.I., **Ahmed, K.**, Paul, B.K., Chowdhury, S., Sen, S., Islam, M.S., Asaduzzaman, S. and Bahar, A.N., Ultra-high negative dispersion and nonlinearity based single mode photonic crystal fiber: design and analysis. *Journal of Optics*, pp.1-8, 2018.
98. Bahar, A.N., Uddin, M.S., Abdullah-Al-Shafi, M., Bhuiyan, M.M.R. and **Ahmed, K.**, Designing efficient QCA even parity generator circuits with power dissipation analysis. *Alexandria Engineering Journal*, 57(4), pp. 2475-2484, 2018.
97. Abdullah-Al-Shafi, M., Bahar, A.N., Bhuiyan, M.M.R., Shamim, S.M. and **Ahmed, K.**, Average output polarization dataset for signifying the temperature influence for QCA designed reversible logic circuits. *Data in Brief*, 19, pp. 42-48, 2018.
96. Islam, M.S., Paul, B.K., **Ahmed, K.**, Asaduzzaman, S., Islam, M.I., Chowdhury, S., Sen, S. and Bahar, A.N., Liquid-infiltrated photonic crystal fiber for sensing purpose: design and analysis. *Alexandria engineering journal*, 57(3), pp. 1459-1466, 2018.
95. Bahar, A.N., Billah, M., Bhuiyan, M.M.R., Abdullah-Al-Shafi, M., **Ahmed, K.** and Asaduzzaman, M., Ultra-efficient convolution encoder design in quantum-dot cellular automata with power dissipation analysis. *Alexandria engineering journal*, 57(4), pp. 3881-3888, 2018.
94. Abdullah-Al-Shafi, M., Bahar, A.N., Habib, M.A., Bhuiyan, M.M.R., Ahmad, F., Ahmad, P.Z. and **Ahmed, K.**, 2017. Designing single layer counter in quantum-dot cellular automata with energy dissipation analysis. *Ain Shams Engineering Journal*, 9(4), pp. 2641-2648, 2018.
93. Paul, B.K., Moctader, M.G., **Ahmed, K.** and Khalek, M.A., Nanoscale GaP strips based photonic crystal fiber with high nonlinearity and high numerical aperture for laser applications. *Results in Physics*, 10, pp. 374-378, 2018.
92. Bahar, A.N., Ahmad, F., Nahid, N.M., Hassan, M.K., Abdullah-Al-Shafi, M. and **Ahmed, K.**, An optimal design of conservative efficient reversible parity logic circuits using QCA. *International Journal of Information Technology*, pp. 1-10, 2018.
91. Ahmed, F., Roy, S., Paul, B.K., **Ahmed, K.** and Bahar, A.N., Extremely Low Loss of Photonic Crystal Fiber for Terahertz Wave Propagation in Optical Communication Applications. *Journal of Optical Communications*, 2018. DOI: 10.1515/joc-2018-0009.
90. Islam, M.T., Moctader, M.G., **Ahmed, K.** and Chowdhury, S., Benzene Shape Photonic Crystal Fiber Based Plasma Sensor: Design and Analysis. *Photonic Sensors*, 8(3), pp. 263-269, 2018.
89. Bahar, A.N., Laajimi, R., Abdullah-Al-Shafi, M. and **Ahmed, K.**, Toward Efficient Design of Flip-flops in Quantum-Dot Cellular Automata with Power Dissipation Analysis. *International Journal of Theoretical Physics*, 57(11), pp. 3419-3428, 2018.
88. Paul, B.K., Islam, M.S., Sen, S., **Ahmed, K.** and Uddin, M.S., Low material loss and dispersion flattened fiber for single mode THz-wave transmission applications. *Results in Physics*, 11, pp. 638-642, 2018.

87. Paul, B.K., Rajesh, E., Asaduzzaman, S., Islam, M.S., **Ahmed, K.**, Amiri, I.S. and Zakaria, R., Design and analysis of slotted core photonic crystal fiber for gas sensing application. *Results in Physics*, 11, pp. 643-650, 2018.
86. Anas, M.T., Asaduzzaman, S., **Ahmed, K.** and Bhuiyan, T., Investigation of highly birefringent and highly nonlinear Hexa Sectored PCF with low confinement loss. *Results in Physics*, 11, pp. 1039-1043, 2018.
85. Hossen, M.N., Ferdous, M., **Ahmed, K.**, Khalek, M.A., Chakma, S. and Paul, B.K., Single polarization photonic crystal fiber filter based on surface plasmon resonance. *Frontiers of Optoelectronics*, pp. 1-8, 2018.
84. Paul, B.K., Chakma, S., Khalek, M.A. and **Ahmed, K.**, Silicon nano crystal filled ellipse core based quasi photonic crystal fiber with birefringence and very high nonlinearity. *Chinese Journal of Physics*, 56(6), pp. 2782-2788, 2018.
83. Asaduzzaman, S., Al Masud, F., Bhuiyan, T., **Ahmed, K.**, Paul, B.K. and Rahman, S.M., Dataset on significant risk factors for Type 1 Diabetes: A Bangladeshi perspective. *Data in Brief*, 21, pp. 700-708, 2018.
82. Asaduzzaman, S. and **Ahmed, K.**, Investigation of ultra-low loss surface plasmon resonance-based PCF for biosensing application. *Results in Physics*, 11, pp. 358-361, 2018.
81. Hossen, M.N., Ferdous, M., Khalek, M.A., Chakma, S., Paul, B.K. and **Ahmed, K.**, Design and analysis of biosensor based on surface plasmon resonance. *Sensing and bio-sensing research*, 21, pp. 1-6, 2018.
80. Khalek, M.A., Chakma, S., Paul, B.K. and **Ahmed, K.**, Dataset of surface plasmon resonance based on photonic crystal fiber for chemical sensing applications. *Data in Brief*, 19, pp. 76-81, 2018.
79. Habib, N., Paul, B.K., Islam, M.S. and **Ahmed, K.**, Design regulatory interaction network for anxiety disorders using R: A bioinformatics approach. *Beni-Suef University Journal of Basic and Applied Sciences*. 7, pp. 326-335, 2018.
78. Islam, M.S., Sultana, J., Dinovitser, A., **Ahmed, K.**, Ng, B.W.H. and Abbott, D., Sensing of toxic chemicals using polarized photonic crystal fiber in the terahertz regime. *Optics Communications*, 426, pp.341-347, 2018.
77. Chakma, S., Khalek, M.A., Paul, B.K., **Ahmed, K.**, Hasan, M.R. and Bahar, A.N., Gold-coated photonic crystal fiber biosensor based on surface plasmon resonance: Design and analysis. *Sensing and bio-sensing research*, 18, pp. 7-12, 2018.
76. Habib, N., **Ahmed, K.**, Jabin, I. and Rahman, M.M., Modified HuffBit Compress Algorithm—An Application of R. *Journal of integrative bioinformatics*, article no. 20170057, 2018.
75. Reza, K.S., Paul, B.K. and **Ahmed, K.**, Highly birefringent, low loss single-mode porous fiber for THz wave guidance. *Results in Physics*, 11, pp. 549-553, 2018.
74. **Ahmed, K.**, Paul, B. K., Islam, M. S., Chowdhury, S., Sen, S., Islam, M. I., Asaduzzaman, S., "Ultra high birefringence and lower beat length for square shape PCF: analysis effect on rotation angle and eccentricity", *Alexandria Engineering Journal*, 57, pp. 3683–3691, 2018.
73. Islam, M.S., Paul, B.K., **Ahmed, K.**, Asaduzzaman, S., "Rhombic Core Photonic Crystal Fiber for sensing applications: Modeling and Analysis," *Optik-International Journal for Light and Electron Optics*, 157, pp. 1357–1365, 2018. DOI: 10.1016/j.ijleo.2017.12.048.
72. Islam, M. S., Paul, B. K., **Ahmed, K.**, Asaduzzaman, S., Islam, M. I., Chowdhury, S., Sen, S., Bahar, A. N., "Liquid-infiltrated Photonic Crystal Fiber for Sensing Purpose: Design and Analysis", *Alexandria Engineering Journal*, 57, pp. 1459–1466, 2018. DOI: 10.1016/j.aej.2017.03.015.
71. Habib, N., Classification and prediction of dengue fever from microarray samples by LDA based on PPI network. *Network Biology*, 8(2), pp. 65-82, 2018.

Conference Publications in 2018

70. Asaduzzaman, S., Paul, B.K., **Ahmed, K.**, Bhuiyan, T. and Rahman, S.M., "Highly sensitive SPR based PCF for biological substance sensing: design and analysis", In *Biophotonics: Photonic Solutions for Better Health Care VI* (Vol. 10685, p. 106851R). International Society for Optics and Photonics, 2018.

Journal Publications in 2017

69. **Ahmed, K.**, Chowdhury, S., Paul, B. K., Islam, M. S., Sen, S., Islam, M. I., Asaduzzaman, S., "Ultrahigh birefringence, ultralow material loss porous core single-mode fiber for terahertz wave guidance", *Applied Optics*, 56(12), pp. 3447-3483, 2017.
68. **Ahmed, K.**, Paul, B. K., Chowdhury, S., Sen, S., Islam, M. I., Islam, M. S., Hasan, M. R., Asaduzzaman, S., "Design of a single mode photonic crystal fiber with ultra-low material loss and large effective mode area in THz regime", *IET Optoelectronics*, 11(6), pp. 265-271, 2017.
67. **Ahmed, K.**, Islam, M., Sen, S., Paul, B.K., Chowdhury, S., Hasan, M., Uddin, M.S., Asaduzzaman, S. and Bahar, A.N., Low-Loss Single Mode Terahertz Microstructure Fiber with Near-Zero-Flattened Dispersion. *Advanced Science, Engineering and Medicine*, 9(10), pp. 829-836, 2017.
66. Islam, M. I., Khatun, M., **Ahmed, K.**, "Ultra-high negative dispersion compensating square lattice based single mode photonic crystal fiber with high nonlinearity", *Optical Review*, 24(2), pp. 147-155, 2017.
65. Islam, M.I., **Ahmed, K.**, Sen, S., Chowdhury, S., Paul, B.K., Islam, M.S., Miah, M.B.A. and Asaduzzaman, S., Design and optimization of photonic crystal fiber based sensor for gas condensate and air pollution monitoring. *Photonic Sensors*, 7(3), pp. 234-245, 2017.
64. Asaduzzaman, S., **Ahmed, K.**, "Microarray-core based circular photonic crystal fiber for high chemical sensing capacity with low confinement loss", *Optica Applicata*, 47(1), pp. 41-49, 2017.
63. Hasan, M.R., Akter, S., Rahman, M.S. and **Ahmed, K.**, Design of a surface plasmon resonance refractive index sensor with high sensitivity. *Optical Engineering*, 56(8), article no. 087101, 2017.
62. Islam, M. I., Khatun, M., **Ahmed, K.**, Asaduzzaman, S., Paul, B. K., Islam, M. S., Chowdhury, S., Sen, S., Miah, M. B. A., Bahar, A. N., "Design and analysis of single-mode PCF in optical communication covering E to L bands with ultra-high negative dispersion", *Ukrainian Journal of Physics*, 62(9), pp. 818-826, 2017.
61. Sen, S., Islam, M. S., Paul, B. K., Islam, M. I., Chowdhury, S., **Ahmed, K.**, Hasan, M. R., Uddin, M. S., Asaduzzaman, S., "Ultra-low Loss with Single Mode Polymer Based Photonic Crystal Fiber for THz Waveguide", *Journal of Optical Communications*, 2017. DOI: 10.1515/joc-2017-0104.
60. Islam, M. I., **Ahmed, K.**, Sen, S., Paul, B. K., Islam, M. S., Chowdhury, S., Hasan, M. R., Uddin, M. S., Asaduzzaman, S., Bahar, A.N., "Proposed square lattice photonic crystal fiber for extremely high nonlinearity, birefringence and ultra-high negative dispersion compensation", *Journal of Optical Communications*, 2017. DOI: 10.1515/joc-2017-0095.
59. **Ahmed, K.**, Morshed, M., Asaduzzaman, S., Arif, M. F. H., "Optimization and enhancement of liquid analyte sensing performance based on square-cored octagonal photonic crystal fiber", *Optik-International Journal for Light and Electron Optics*, 131(1), pp. 687-696, 2017.
58. **Ahmed, K.**, Islam, I., Paul, B. K., Islam, S., Sen, S., Chowdhury, S., Uddin, M. S., Asaduzzaman, S., Bahar, A. N., "Effect of photonic crystal fiber background materials in sensing and communication applications", *Materials Discovery*, 7, pp. 8-14, 2017. DOI:10.1016/j.md.2017.05.002.

57. **Ahmed, K.**, Paul, B. K., Chowdhury, S., Islam, M. S., Sen, S., Islam, M. I., Asaduzzaman, S., Bahar, A. N., Miah, M. B. A., "Dataset on photonic crystal fiber based chemical sensor", *Data in Brief*, 12(1), pp. 227-233, 2017.
56. Bashar, M. I., **Ahmed, K.**, Uddin, M. S., Ahmed, F., Abdullah-Al-Emran, Chakraborty, A., "Depression and Quality of Life among Postmenopausal Women in Bangladesh: A Cross-sectional Study", *Journal of Menopausal Medicine*, 23, pp. 172-181, 2017.
55. **Ahmed, K.**, Islam, M. S., Paul, B. K., "Design and numerical analysis: Effect of core and cladding area on hybrid hexagonal microstructure optical fiber in environment pollution sensing applications", *Karbala International Journal of Modern Science*, 3(1), pp. 29-38, 2017.
54. Chowdhury, S., Sen, S., **Ahmed, K.**, Asaduzzaman, S., "Design of Highly Sensible Porous Shaped Photonic Crystal Fiber with Strong Confinement Field for Optical Sensing", *Optik-International Journal for Light and Electron Optics*, 142(1), pp. 541-549, 2017.
53. Paul, B. K., **Ahmed, K.**, Asaduzzaman, S., Islam, M. S., "Folded Cladding Porous Shaped Photonic Crystal Fiber with High Sensitivity in Optical Sensing Applications: Design and Analysis", *Sensing and Bio-Sensing Research*, 12(1), pp. 36-42, 2017.
52. Islam, M. I., **Ahmed, K.**, et al., "A Single Mode Spiral Photonic Crystal Fiber for Gas Sensing Application", *Sensing and Bio-Sensing Research*, 13(1), pp. 55-62, 2017.
51. Chowdhury, S., Sen, S., **Ahmed, K.**, Paul, B. K., Miah, M. B. A., Asaduzzaman, S., Islam, M. S., Islam, M.I., "Porous Shaped Photonic Crystal Fiber with Strong Confinement Field in Sensing Applications: Design and Analysis", *Sensing and Bio-Sensing Research*, 13(1), pp. 63-69, 2017.
50. Sen, S., Chowdhury, S., **Ahmed, K.**, Asaduzzaman, S., "Design of a Porous Cored Hexagonal Photonic Crystal Fiber based Optical Sensor with High Relative Sensitivity for Lower Operating Wavelength", *Photonic Sensors*, 7(1), pp. 55-65, 2017.
49. Kabir, M. H., Miah, M. B., Asaduzzaman, S., **Ahmed, K.**, "Slotted Core Circular PCF in Chemical Sensing Applications", *Ukrainian Journal of Physics*, 62(7), pp. 589-593, 2017.
48. Paul, B. K., Islam, M. S., **Ahmed, K.**, Asaduzzaman, S., "Alcohol Sensing over O+E+S+C+L+U Transmission Band based on Porous Cored Octagonal Photonic Crystal Fiber", *Photonic Sensors*, 7(2), pp. 123-130, 2017.
47. Islam, I., Paul, B. K., **Ahmed, K.**, Hasan, R., Chowdhury, S., Islam, S., Sen, S., Bahar, A. N., Asaduzzaman, S., "Highly birefringent single mode spiral shape photonic crystal fiber based sensor for gas sensing applications", *Sensing and Bio-Sensing Research*, 14 (1), pp. 30-38, 2017.
46. Islam, M. I., **Ahmed, K.**, Islam, M. S., Paul, B. K., Sen, S., Chowdhury, S., Asaduzzaman, S., Bahar, A. N., Miah, M. B. A., "Single-mode spiral shape fiber based liquid sensor with ultra-high sensitivity and ultra-low loss: Design and analysis", *Karbala International Journal of Modern Science*, 3(3), pp. 131-142, 2017.
45. Shafi, M. A. A., Bahar, A. N., Ahmad, P. Z., Ahmad, F., Bhuiyan, M. M. R., **Ahmed, K.**, "Power analysis dataset for QCA based multiplexer circuits", *Data in Brief*, 11(1), pp. 593-596, 2017.
44. Sultana, R. S., Bahar, A. N., Asaduzzaman, M., Bhuiyan M. M. R, **Ahmed, K.**, "Numerical dataset for analyzing the performance of a highly efficient ultrathin film CdTe solar cell", *Data in Brief*, 12(1), pp. 336-340, 2017.
43. Safa Sultana, R., Bahar, A.N., Asaduzzaman, M. and **Ahmed, K.**, Numerical modeling of a CdS/CdTe photovoltaic cell based on ZnTe BSF layer with optimum thickness of absorber layer. *Cogent Engineering*, 4(1), article no. 1318459, 2017.

42. Hassan, M.K., Nahid, N.M., Bahar, A.N., Bhuiyan, M.M.R., Abdullah-Al-Shafi, M. and **Ahmed, K.**, Dataset demonstrating the temperature effect on average output polarization for QCA based reversible logic gates. *Data in brief*, 13, pp. 713-716, 2017.
41. Shafi, M. A. A., Bahar, A. N., Ahmad, F., **Ahmed, K.** "Performance evaluation of efficient combinational logic design using nanomaterial electronics", *Cogent Engineering*, 4(1), article no. 1349539, 2017.
40. Habib, N., **Ahmed, K.**, Jabin, I., Rahman, M. M., "Drug design and analysis for bipolar disorder and associated diseases: A bioinformatics approach", *Network Biology*, 7(2), pp. 41-56, 2017.

Conference Publications in 2017

39. Islam, M. S., Sultana, J., Dinovitser, A., **Ahmed, K.**, Islam, M. R., Faisal, M., Ng, B. W. -H., Abbott, D., "A novel zeonex based photonic sensor for alcohol detection in beverages," *IEEE Int. Conf. on Telecommunication and Photonics (ICTP)*, Dhaka, Bangladesh, pp. 114–118, 2017.

Journal Publications in 2016

38. **Ahmed, K.**, Morshed, M., "Design and numerical analysis of microstructured-core octagonal photonic crystal fiber for sensing applications", *Sensing and Bio-Sensing Research*, 7(1), pp. 1-6, 2016.
37. Arif, M. F. H., **Ahmed, K.**, Asaduzzaman, S., Azad, M. A. K., "Design and Optimization of Photonic Crystal Fiber for Liquid Sensing Applications", *Photonic Sensors*, 6(3), pp. 279-288, 2016.
36. Asaduzzaman, S., **Ahmed, K.**, "Proposal of a gas sensor with high sensitivity, birefringence and nonlinearity for air pollution monitoring", *Sensing and Bio-Sensing Research*, 10(1), pp. 20-26, 2016.
35. Asaduzzaman, S., **Ahmed, K.**, Bhuiyan, T., Farah, T., "Hybrid Photonic Crystal Fiber in Chemical Sensing", *SpringerPlus*, 5(1), pp. 748, 2016.
34. ASADUZZAMAN, S., **Ahmed, K.**, BHUIYAN, T., Arif, M. F. H., "Design of Simple Structure Gas Sensor Based on Hybrid Cladding Photonic Crystal Fiber", *Cumhuriyet Science Journal (CSJ)*, 37(3), pp. 187-196, 2016.
33. Arif, M. F. H., Asaduzzaman, S., Biddut, M. J. H., **Ahmed, K.**, "Design and Optimization of Highly Sensitive Photonic Crystal Fiber with Low Confinement Loss for Ethanol Detection", *International Journal of Technology*, 7(6), pp. 1068-1076, 2016.
32. Islam, M. S., Akter, S., Salahuddin, M., Sah, J. P., Rahman, M. R. T., Asaduzzaman, S., **Ahmed, K.**, Mohiuddin, A. K. M., Shibly, A. Z., "Early Prevention and Detection of Cancer Risk for Low Income Country using Data Mining Technology: Bangladesh Perspective.", *Biochemistry & Physiology*, 5(3), pp: 155, 2016.
31. Asaduzzaman, S., Chakraborty, S., Hossain, M. G., Bashar, M. I., Bhuiyan, T., Paul, B. K., Chandan, S. S., **Ahmed, K.**, "Hazardous Consequences of Polygamy, Contraceptives and Number of Childs on cervical cancer in a low incoming country: Bangladesh", *Cumhuriyet Science Journal*, 37(1), pp. 74–84, 2016.
30. **Ahmed, K.**, Jahan, P., Nadia, I., Ahmed, F., Abdullah-Al-Emran, "Assessment of Menopausal Symptoms among Early and Late Menopausal Midlife Bangladeshi Women and Their Impact on the Quality of Life", *Journal of Menopausal Medicine*, 22, pp. 39-46, 2016.
29. Habib, N., **Ahmed, K.**, Jabin, I., Rahman, M. M., "Application of R to investigate common gene regulatory network pathway among bipolar disorder and associate diseases", *Network Biology*, 6(4), pp. 86-100, 2016.

Conference Publications in 2016

28. Arif, M.F.H., Asaduzzaman, S., **Ahmed, K.** and Morshed, M., 2016, May. High sensitive PCF based chemical sensor for ethanol detection. In Informatics, Electronics and Vision (ICIEV), IEEE 5th International Conference on (pp. 6-9), 2016.
27. Asaduzzaman, S., Paul, B.K. and **Ahmed, K.**, 2016, September. Enhancement of sensitivity and birefringence of a gas sensor on micro-core based photonic crystal fiber. In Electrical Engineering and Information Communication Technology (ICEEICT), IEEE 3rd International Conference on (pp. 1-4), 2016.
26. Asaduzzaman, S., **Ahmed, K.**, Paul, B. K., "Slotted-core photonic crystal fiber in gas sensing application", *Proc. SPIE 10025, Advanced Sensor Systems and Applications VII*, p. 100250O, 2016.
25. Islam, M.I., Khatun, M., Sen, S., **Ahmed, K.**, Asaduzzaman, S., "Spiral Photonic Crystal Fiber for Gas Sensing Application", *IEEE 9th Int. Conf. on Electrical and Computer Engineering (ICECE)*, pp. 238-242, 2016.
24. Arif, M. F. H, Biddut, M. J. H., **Ahmed, K.**, Asaduzzaman, S., "Simulation Based Analysis of Formalin Detection through Photonic Crystal Fiber", *IEEE 5th international conference on informatics electronics & vision*, pp. 776-779, 2016.
23. Khan, M. A., Wahiduzzaman, M., Mia, M., Asaduzzaman, S., **Ahmed, K.**, et al., "The risk prediction of stress on neurodegenerative health consequences of Bangladeshi people: a data mining approach.", *Front. Cell. Neurosci. Conference Abstract: 14th Meeting of the Asian-Pacific Society for Neurochemistry*, 2016.
22. Paul, B. K., Islam, M. S., Chowdhury, S., Asaduzzaman, S., **Ahmed, K.**, "Porous Core Photonic Crystal Fiber based Chemical Sensor", *IEEE 9th Int. Conf. on Electrical and Computer Engineering (ICECE)*, pp. 251-254, 2016.

Journal Publications in 2015

21. Morshed, M., Arif, M.F.H., Asaduzzaman, S. and **Ahmed, K.**, Design and characterization of photonic crystal fiber for sensing applications. *European Scientific Journal*, ESJ, 11(12), pp.228-235, 2015.
20. Billah, M., Waheed, S., **Ahmed, K.**, Hanifa, A., "Real Time Traffic Sign Detection and Recognition using Adaptive Neuro Fuzzy Inference System", *Communications on Applied Electronics*, 3(2), pp. 1-5, 2015.
19. Morshed, M., Arif, M. F. H, Asaduzzaman, S., **Ahmed, K.**, "Design and characterization of photonic crystal fiber for sensing applications", *European Scientific Journal*, 11(12), pp. 228-235, 2015.
18. Asaduzzaman, S., **Ahmed, K.**, Chakraborty, S., Hossain, G., Bashar, M. I., Bhuiyan, T., Chandan, S. S., "Anticipation of the Significance of Risk Factors in Cervical Cancer for Low Incoming Country: Bangladesh Perspective", *International Journal of Scientific and Engineering Research*, 6(11), pp. 876-881, 2015.
17. **Ahmed, K.**, Asaduzzaman, S., Bashar, M.I., Hossain, G., Bhuiyan, T., "Association Assessment among Risk Factors and Breast Cancer in a Low Income Country: Bangladesh", *Asian Pacific Journal of Cancer Prevention*, 16(17), pp. 7507-7512, 2015.

Conference Publications in 2015

16. Asaduzzaman, S., Arif, M. F. H., **Ahmed, K.**, Dhar, P., "Highly Sensitive Simple Structure Circular Photonic Crystal Fiber Based Chemical Sensor", *IEEE Int. WIE Conference on Electrical and Computer Engineering*, pp. 151-154, 2015.

15. Morshed, M., Asaduzzaman, S., Arif, M. F. H, **Ahmed, K.**, "Proposal of simple gas sensor based on micro structure optical fiber", *IEEE Int. Conf. on Electrical Engineering and Information Communication Technology*, pp. 1-5, 2015.
14. **Ahmed, K.**, Asaduzzaman, S., Arif, F. H., "Numerical Analysis of O-PCF Structure for Sensing Applications with High Relative Sensitivity", *IEEE Int. Conf. on Electrical Information and Communication Technologies (EICT)*, pp. 254-258, 2015.
13. Arif, M. F. H., **Ahmed, K.**, Asaduzzaman, S., "A Comparative Analysis of Two Different PCF Structures for Gas Sensing Application", *IEEE Int. Conf. on Advances in Electrical Engineering*, pp. 247-250, 2015.
12. Asaduzzaman, S., **Ahmed, K.**, Arif, M. F. H., Morshed, M., "Application of Microarray-core Based Modified Photonic Crystal Fiber in Chemical Sensing", *IEEE Int. Conf. on Electrical and Electronics Engineering*, pp. 41-44, 2015.
11. Asaduzzaman, S., **Ahmed, K.**, Arif, F. H., Morshed, M., "Proposal of a Simple Structure Photonic Crystal Fiber for Lower Indexed Chemical Sensing", *IEEE Int. Conf. on Computer and Information Technology*, pp. 127-131, 2015.

Journal Publications in 2014

10. **Ahmed, K.**, Jesmin, T., "Comparative Analysis of Data Mining Classification Algorithms in Type-2 Diabetes Prediction Data Using WEKA Approach", *International Journal of Science and Engineering*, 7(2), pp. 155-160, 2014.

Journal Publications in 2013

9. Jesmin, T., **Ahmed, K.** and Miah, M.B.A., Brain Cancer Risk Prediction System Using Data mining. *International Journal of Computer Applications*, 61, pp. 45-78, 2013.
8. Rahman, M. Z., Hossain, S. M., **Ahmed, K.**, "Flag Identification Using Support Vector Machine", *JU Journal of Information Technology, JIT*, 2(1), pp. 11-16, 2013.
7. Jesmin, T., **Ahmed, K.**, Rahman, M. Z., Miah, M. B. A., "Brain Cancer Risk Prediction Tool Using Data Mining", *International Journal of Computer Applications*, 61(12), pp. 22-27, 2013.
6. **Ahmed, K.**, Jesmin, T., Habib, M. A., Rahman, M. Z., Miah M. B. A., "Prediction of Breast Cancer Risk Level with Risk Factors Perspective to Bangladeshi Women Using Data Mining", *International Journal of Computer Applications*, 82(4), pp. 36-41, 2013.
5. **Ahmed, K.**, Jesmin, T., Rahman, M.Z., "Early Prevention and Detection of Skin Cancer Risk Using Data Mining", *International Journal of Computer Applications*, 62(4), pp. 1-6, 2013.
4. **Ahmed, K.**, Abdullah-Al-Emran, Jesmin, T., Mukti, R. F., Rahman, M. Z., Ahmed, F., "Early Detection of Lung Cancer Risk Using Data Mining", *Asian Pacific Journal of Cancer Prevention*, 14(1), pp. 595-598, 2013.

Conference Publications in 2013

3. **Ahmed, K.**, Jesmin, T., Mukti, R. F., Abdullah-Al-Emran, Rahman, M. Z., "An early detection of lung cancer risk using data mining.", *Bangladesh Society for Biochemistry & Molecular Biology Conference-2013*.

Journal Publications in 2012

2. **Ahmed, K.**, Jesmin, T., Fatima, U., Moniruzzaman, M., Emran, A.A. and Rahman, M.Z., Intelligent and effective diabetes risk prediction system using data mining. *Orient J Comput Sci Technol*, 5(2), pp. 215-221, 2012.

Conference Publications in 2012

1. **Ahmed, K.**, Jesmin, T., Rahman, M. Z., Abdullah-al-Emran, "Disease Prediction Based with Genome Sequence", *Int. Conf. on Electrical, Computer and Telecommunication Engineering*, pp. 1-5, 2012.

Research Details Links

ORCID <https://orcid.org/0000-0002-4034-9819>

ResearchGate https://www.researchgate.net/profile/Kawsar_Ahmed4

Scholar https://scholar.google.com/citations?hl=en&user=U6c0zyMAAAAJ&view_op=list_works&sortby=pubdate

Scopus <https://www.scopus.com/authid/detail.uri?authorId=34879354400>