

PUBLICATIONS (Journals: 18; Conferences: 24; Book-chapters: 2; Books: 2)

**JOURNAL
PUBLICATIONS**

- **Year 2020:**
 1. Zeinab E. Ahmed, Mohammad Kamrul Hasan, Rashid A. Saeed, Rosilah Hassan, Shayla Islam, Rania A. Mokhtar, Sheraz Khan, and **Md Akhtaruzzaman**. **Optimizing Energy Consumption for Cloud Internet of Things**. *Frontiers in Physics*, Frontiers Media S.A., Switzerland, 2020, 8:358, doi: 10.3389/fphy.2020.00358. **(Q2, SCOPUS)**
 2. **Md. Akhtaruzzaman**, S. M. S. Bari, S. A. Hossain, and M. M. Rahman. **Link Budget Analysis in Designing a Web-application Tool for Military X-Band Satellite Communication**. *MIST International Journal of Science and Technology*, Jul. 2020, 8(1):17-33.
- **Year 2017:**
 3. **Md. Akhtaruzzaman**, Amir A. Shafie, Md. Raisuddin Khan. **Quasi-inverse Pendulum Model of 12-DoF Bipedal Walking**. *International Journal of Automation and Computing (IJAC)*, Springer Verlag, 2017, 14(2):179-190. DOI: 10.1007/s11633-016-1023-1 **(Q2, ISI, SCOPUS)**
- **Year 2016:**
 4. **Md. Akhtaruzzaman**, Amir A. Shafie, Md. Raisuddin Khan. **Gait Analysis: Systems, Technologies, and Importance**. *Journal of Mechanics in Medicine and Biology (JMMB)*, 2016, World Scientific Publishing, (2016), 16(7):1-45. doi: 10.1142/S0219519416300039. **(Q3, ISI, SCOPUS)**
 5. **Md Akhtaruzzaman**, Amir A. Shafie, Md. Raisuddin Khan. **A Review on Lower Appendicular Musculoskeletal System of Human Body**, *IIUM Engineering Journal*, IIUM Press, 2016, 17(1): 83-102. **(ISI, SCOPUS, DOAJ)**
 6. **Md Akhtaruzzaman**, Amir A. Shafie, Md. Raisuddin Khan. **Representation of Human Gait Trajectory Through Temporospatial Image Modelling**, *ARNP Journal of Engineering and Applied Sciences*, Asian Research Publishing Network, 2016, 11(6): 4105-4110. **(SCOPUS)**
 7. **Md Akhtaruzzaman**, Amir A. Shafie, Md. Raisuddin Khan. **Automated Threshold Detection for Object Segmentation in Colour Image**, *ARNP Journal of Engineering and Applied Sciences*, Asian Research Publishing Network, 2016, 11(6): 4100-4104. **(SCOPUS)**
- **Year 2015:**
 8. T. Mantoro, **M. Akhtaruzzaman**, M. Mahmud, M. A. Ayu. **Design and Development of an Interactive Monitoring System for Pilgrims in Congregation of Hajj Ritual**. *Journal of Convergence Information Technology (JCIT)*, Advanced Institute of Convergence Information Technology Research Center, 2015, 10(1): 28 – 57. **(Q4, SCOPUS)**
- **Year 2012:**
 9. Farhat Anwar, Aisha Hassan Abdalla, S. M. Sadakatul Bari, **Md. Akhtaruzzaman**, Mosharrof Hussain Masud, Jannatul Naeem, Md. Saiful Azad, and Md. Arafatur Rahman. **Enhancing Performance of MAODV Routing Protocol for Wireless Mesh Network using Integrated Multiple Metrics Technique (IMMT)**. *International Journal of Networks and Communications*, SAP, USA, 2012, 2(2): 1-6, doi: 10.5923/j.ijnc.20120202.01
 10. Md. Abul Kalam Azad, Md. Rezaul Haque Ansary, **Md. Akhtaruzzaman Akhter**, S. M. Mostofa Al-Mamun, Mohi Uddin, M. M. Rahman. **Disposal Practice for Unused Medications among the Students of the International Islamic University Malaysia**. *Journal of Applied Pharmaceutical Science*, 2012, 2(7): 101-106. **(SCOPUS)**
 11. **Md. Akhtaruzzaman**, Amir A. Shafie and Mahbubur Rashid. **Designing an Algorithm for Bioloid Humanoid Navigating in its Indoor Environment**. *Journal of Mechanical Engineering and Automation (JMEA)*, SAP, USA, 2012, 2(3):36-44, DOI: 10.5923/j.jmea.20120203.01.
 12. **Md. Akhtaruzzaman**, Norrul' Aine Binti Mohd Razali, Mohd. Mahabubur Rashid, Amir A. Shafie. **An Experiment on Electric Power Steering (EPS) System of a Car**. *Journal of Applied Mechanics and Materials (Vols. 110-116)*, Trans Tech Publications, Switzerland, 2012. 4941-4950. **(SCOPUS)**

- **Year 2011:**

13. **Md. Akhtaruzzaman** and Amir A. Shafie. **Geometrical Substantiation of Phi, the Golden Ratio and the Baroque of Nature, Architecture, Design and Engineering.** International Journal of Arts, Scientific & Academic Publishing, USA, 2011, 1(1): 1-22, doi: 10.5923/j.arts.20110101.01.
14. **Md. Akhtaruzzaman** and Amir A. Shafie. **Joint Behaviors of a Humanoid Platform while Overcoming an Obstacle.** Journal of Advances in Applied Science Research, Pelagia Research Library, 2011, 2(6):299-311.
15. **Md. Akhtaruzzaman** and Amir A. Shafie. **Novel Gait for an Anthropoid and Its Joint Demeanors while Stepping Up and Down Stairs.** Journal of Mechanical Engineering and Automation (JMEA), Scientific & Academic Publishing, USA, 2011, 1(1).
16. **Md. Akhtaruzzaman**, Amir A. Shafie. **Comparative Assessment and Result Analysis of Various Control Methods, Applied on a Rotary Inverted Pendulum, SRV 02 Series.** Journal of Advances in Applied Science Research, Pelagia Research Library, 2011, 2(6): 83-100.
17. **Md. Akhtaruzzaman** and Monami Hoque. **A Study on Cultural Adaptation of Bangladeshi Male Students at UIA, Malaysia.** American Journal of Sociological Research, Scientific & Academic Publishing, USA, 2011, 1(1):1-8, doi: 10.5923/j.sociology.20110101.01.

- **Year 2010:**

18. **Md. Akhtaruzzaman** and Amir A. Shafie. **Advancement of Android and Contribution of Various Countries in the Research and Development of the Humanoid Platform.** International Journal of Robotics and Automation (IJRA), Computer Science Journal (CSC Journal), Malaysia, 2010, 1(2):43-57.

CONFERENCE PROCEEDINGS

- **Year 2019:**

1. **Md Akhtaruzzaman**, **Prototype of a Force-Sensitive Smart Toothbrush.** 4th International Conference on Electrical Information and Communication Technology (EICT), 20-22 December 2019, Khulna, Bangladesh, 2019.
2. **Md Akhtaruzzaman**, Amir A. Shafie, Md Raisuddin Khan, and Md Mozasser Rahman. **Knee Joint Kinesiology: A Study on Human Knee Joint Mechanics.** 4th International Conference on Electrical Information and Communication Technology (EICT), 20-22 December 2019, Khulna, Bangladesh, 2019.

- **Year 2015:**

3. **Md. Akhtaruzzaman**, Amir Shafie, Raisuddin Khan. **Electro-goniometric system; an instrumentation to capture knee movements for forward walking.** The 10th Asian Control Conference 2015 (ASCC 2015), Malaysia, 2015. (**SCOPUS**)

- **Year 2014:**

4. Md Ashrafuzzaman, Mohammad Shahadat Hossain, **Md Akhtaruzzaman**, Hasan Sarwar. **An Assessment of Software Development Practices of SMEs in Bangladesh.** Proc. of the Intl. Conf. on Advances in Computer Science and Electronics Engineering, Institute of Research Engineers and Doctors, 2014, Pages: 17-20.

- **Year 2013:**

5. Mahbuba Hossain, Muhammad Mahbubur Rashid, Sayem Ahmed, and **Md. Akhtaruzzaman.** **A Qualitative Approach to Mobile Robot Navigation Using RFID.** Proceedings of 2013 5th International Conference on Mechatronics (ICOM `13), 2-4 July 2013, Kuala Lumpur, Malaysia. (**SCOPUS**)

• **Year 2011:**

6. **Md. Akhtaruzzaman**, Amir A. Shafie, Sharif M. Raihan, M. K. Hasan, Tanveer Ahsan, M. S. Alam, Md. Bahlul Haider. **Golden Ratio, the Phi, and Its Geometrical Substantiation**. 2011 IEEE Student Conference on Research and Development, 19-20 Dec. 2011, Putrajaya, Malaysia. Pages: 326 - 331. **(SCOPUS)**
7. **Md. Akhtaruzzaman** and Amir A. Shafie. **Contriving a Turning Gait for an Anthropomorphous System**. 2011 IEEE Student Conference on Research and Development, 19-20 Dec. 2011, Putrajaya, Malaysia. Pages: 101 – 106. **(SCOPUS)**
8. **Md. Akhtaruzzaman** and Amir A. Shafie. **Joint Demeanors of an Anthropomorphic Robot in Designing the Novel Walking Gait**. The 8th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI 2011), Nov. 23-26, 2011 in Songdo ConventiA, Incheon, Korea. **(SCOPUS)**
9. **Md. Akhtaruzzaman**, Amir A. Shafie and Mahbubur Rashid. **Component Selection Strategy for an Anthropomorphic Robot**. National Postgraduate Conference (NPC) 2011, 19-20 September 2011, UTP, Tronoh, Perak, Malaysia. **(SCOPUS)**
10. **Md. Akhtaruzzaman** and Amir A. Shafie. **Geometrical Analysis on BIOLOID Humanoid System Standing on Single Leg**. Proceedings of 2011 4th International Conference on Mechatronics (ICOM `11), 17-19 May 2011, Kuala Lumpur, Malaysia. **(SCOPUS)**
11. **Md. Akhtaruzzaman** and Amir A. Shafie. **An Attempt to Develop a Biped Intelligent Machine BIM-UIA**. Proceedings of 2011 4th International Conference on Mechatronics (ICOM `11), 17-19 May 2011, Kuala Lumpur, Malaysia. **(SCOPUS)**
12. **Md. Akhtaruzzaman** and Amir A. Shafie. **A Novel Gait for Toddler Biped and its Control Using PIC 16F877A**. Proceedings of 2011 4th International Conference on Mechatronics (ICOM `11), 17-19 May 2011, Kuala Lumpur, Malaysia. **(SCOPUS)**
13. Mosharrof Hussain Masud, **Md. Akhtaruzzaman**, S. M. Sadakatul Bari and Farhat Anwar. **Engineers' Obligations towards Sustainable Environment**. In the proceedings of 2nd International Conference on Professional Ethics and Education in Engineering 2011 (ICEPEE `11). Kuala Lumpur, Malaysia, Pages: 85 – 92.

• **Year 2010:**

14. **Md. Akhtaruzzaman** and A. A. Shafie. **Evolution of Humanoid Robot and Contribution of Various Countries in Advancing the Research and Development of the Platform**. *Proceedings of International Conference on Control, Automation and Systems 2010 (ICCAS 2010), Oct. 27-30, 2010 in KINTEX, Gyeonggi-do, Korea. Pages: 1021 – 1028. (SCOPUS)*
15. **Md. Akhtaruzzaman** and A. A. Shafie. **Modeling and Control of a Rotary Inverted Pendulum Using Various Methods, Comparative Assessment and Result Analysis**. *Proceedings of 2010 IEEE International Conference on Mechatronics and Automation, Xi'an, China, August 4-7, 2010. Pages: 1342-1347 (SCOPUS)*

• **Year 2009:**

16. **Md. Akhtaruzzaman**, Dr. Rini Akmeliawati and Teh Wai Yee. **Modeling and Control of a Multi degree of Freedom Flexible Joint Manipulator**. *Proceedings of the Second International Conference on Computer and Electrical Engineering (ICCEE), December 28 – 30, 2009. Dubai, UAE. Pages: 249 – 254. (SCOPUS)*
17. **Md. Akhtaruzzaman**, Nurullzzati Bt Samsuddin, Norsofiana Bt Umar and Mozasser Rahman. **Design and Development of a Wall Climbing Robot and its Control System**. *Proceedings of 12th International Conference on Computer and Information Technology (ICCIT), December 21 – 23, 2009. Independent University, Bangladesh. Pages: 309 – 313. (SCOPUS)*
18. **Md. Akhtaruzzaman**, SK. Khirul Hasan and Dr. Amir A. Shafie. **Design and Development of an Intelligent Autonomous Mobile Robot for a Soccer Game Competition**. *Proceedings of the 2009 International Conference on Mechanical and Electronics Engineering (ICMEE), June 27 – 29, 2009. Chennai, India. Pages: 167 – 171.*
19. **Md Akhtaruzzaman**, Muhd Mahbub Rashid, Md Ashrafuzzaman. **Mathematical and Geometrical Analysis and Representation of North Indian Musical Rhythms Based on Multi Polygonal Model**. *2009 International Conference on Signal Processing Systems, Singapore, IEEE, 2009, Pages: 493-497. (SCOPUS)*

- **Year 2008:**

20. **Md Akhtaruzzaman. Representation of musical rhythm and its classification system based on mathematical and geometrical analysis.** International Conference on Computer and Communication Engineering, ICCCE 2008, Kuala Lumpur, Malaysia. Pages: 466-471. **(SCOPUS)**
21. **Md. Akhtaruzzaman. Unicode Searching Algorithm Using Multilevel Binary Tree Applied on Bangla Unicode.** International Conference on Computer and Communication Engineering, ICCCE 2008, Kuala Lumpur, Malaysia. Pages: 445-449. **(SCOPUS)**

- **Year 2007:**

22. Mohammad Tanvir Irfan, **Md Akhtaruzzaman**, Md Saiful Islam, Md Mahabubul Alam. **Mathematical representation and analysis of rhythms from various regions.** Proceedings of the International Conference on Information and Communication Technology, ICT BUET, Bangladesh, 2007. Pages: 13-16. **(SCOPUS)**

- **Year 2005:**

23. **Md. Akhtaruzzaman. Digital Bangla Clock Interfacing with Computer using Wireless media.** Proceedings of the International Conference on Computer and Information Technology (ICCIT), 2005. Dhaka, Bangladesh. Pages: 401 – 405.

BOOK CHAPTERS

- **Year 2011:**

1. Teddy Mantoro, Media A. Ayu, Murni Mahmud and **Md. Akhtaruzzaman. Hajj Pilgrims Tracking and Monitoring System.** In Ayu. M. A. (Ed.) *The Web: Its Utilisation, Evaluation and Security.* IIUM Press, 2011. ISBN.: 978-967-418-112-3.

- **Year 2007:**

2. **Md. Akhtaruzzaman. Unicode Searching Algorithm Using Multilevel Binary Tree Applied on Bangla Unicode.** T. Sobh (Ed.), *Innovations and Advanced Techniques in Computer and Information Sciences and Engineering, Springer Link 2007.* Pages: 321-326. ISBN: 978-1-4020-6267-4 (HB) 978-1-4020-6267-2 (e-book)

BOOKS

- **Year 2020:**

1. *Haji Mokbul Ahmed, Haji Forida Begom, Dr. Md Akhtaruzzaman, and Md. Ashrafuzzaman, "Solat O Masnun Dua Shikkah,"* Ananta Printing Press, Mirpur-10, Dhaka-1216, Bangladesh, 2018 & 2019, ISBN: 978-984-34-6943-4.

- **Year 2011:**

2. **Md. Akhtaruzzaman Akhter, Accumulation of Research,** LAP Lambert Academic Publishing, 2011, ISBN: 978-3-8443-3108-0.