

MD ZAHIDUL ISLAM

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Personal details



MD ZAHIDUL ISLAM



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December 29, 1978



Kushtia, Bangladesh



Male



Bangladeshi by born



Married



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php/site/dept_mainmenu/ICT/18](https://iu.ac.bd/index.php/site/dept_mainmenu/ICT/18)



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user=MDcI1LQAAAAJ&hl=en](https://scholar.google.com/citations?user=MDcI1LQAAAAJ&hl=en)



Spouse Name: Feroza Naznin



Residential Address: Residential
Address : D-172, New Town,
Housing Estate, Kushtia – 7000,
Bangladesh

RESEARCH & CAREER INTEREST: SHORT BIOGRAPHY

I, Dr. Md. Zahidul Islam, was born on December 29th, 1978, in Kushtia, Bangladesh. I received my B.Sc. and M.Sc. degrees in Applied Physics and Electronic Engineering from the University of Rajshahi (RU), Bangladesh, in 2000 and 2002, respectively. In 2003, I embarked on my academic career as a lecturer in the Department of Information and Communication Engineering at Islamic University (IU) in Kushtia, Bangladesh.

In June 2018, I was appointed as a Professor in the Department of Computer Science and Engineering at Green University of Bangladesh, a position I held until June 2020 while on lien leave. My doctoral research, focusing on Visual Object Tracking Systems, was conducted in the Department of Computer Engineering under the supervision of Prof. Chil-Woo Lee at the Intelligent Image Media & Interface Lab, Chonnam National University (CNU), South Korea. I was awarded my Ph.D. from the same department in August 2011.

Furthermore, I completed a research internship in the 3D Vision Lab at the Samsung Advanced Institute of Technology (SAIT) in Suwon, South Korea. My research interests are diverse and include computer vision, 3D object recognition, human and motion tracking, tracking articulated bodies, medical imaging as well as exploring the potentials of genetic algorithms and bioinformatics.

Education

PhD in Computer Engineering

Feb 2007 - Aug 2011

[Chonnam National University, Gwangju, South Korea](#)

PhD Thesis Title:

"Robust Visual Tracking Using Multiple Cues Synthesis With Non Resampling Based Particle Filter"

Supervisor: Prof. Chil-Woo Lee

Intelligent Image Media & Interface Lab,

School of Electronics & Computer Engineering

Chonnam National University, Gwangju 500-757, KOREA (South)

Tel: +82-62-530-0258 Web: www.image.chonnam.ac.kr

M.Sc. in Applied Physics & Electronic Engineering

Jul 2001 - Dec 2002

[University of Rajshahi, Rajshahi](#)

University of Rajshahi, Rajshahi, Bangladesh

Dissertation: "Function Optimization with Genetic Algorithm Model"

Supervisor: Prof. Dr. Ramesh Chandra Debnath.

Dept. Applied Physics & Electronic Engineering (Present name EEE),
Rajshahi University, Rajshahi, Bangladesh. Web : <http://www.ru.ac.bd/>

B.Sc in Applied Physics & Electronic Engineering

Sep 1997 - Jun 2001

[University of Rajshahi, Rajshahi](#)

Employment

Lecturer

Dec 2003 - Dec 2006

Dept. of Information & Communication Technology, Islamic University, Kushtia –
7003, Bangladesh

Assistant Professor*

Dec 2006 - Feb 2012

Dept. of Information & Communication Technology, Islamic University, Kushtia –
7003, Bangladesh

INTERESTS AND HOBBIES

■ Travelling, Reading book, Movie

COUNTRY VISITED FOR CONFERENCE / SEMINAR

India, Nepal, Pakistan, Sudan, Turkey, Malaysia, Thailand, China, Singapore, Japan, South Korea, USA, UK, Canada, Australia, England, New Zealand, Italy, Germany etc.

Volunteering Activities

CCAP-UNESCO
Acting as **CEV (Cultural Exchange Volunteer)** from **2007 to 2011**.
CCAP is organized by Korean National Federation of UNESCO Clubs and Associations(KNFUCA) with support from the Ministry of Education, South Korea.

*Study Leave from February, 2007 to August, 2011

Associate Professor **Mar 2012 - Sep 2016**
Dept. of Information & Communication Technology, Islamic University, Kushtia – 7003, Bangladesh

Professor **Sep 2016 - Jun 2018**
Dept. of Information & Communication Technology, Islamic University, Kushtia – 7003, Bangladesh

Professor* **Jul 2018 - Jun 2020**
Dept. of Computer Science and Engineering, Green University of Bangladesh, Dhaka
*On Lien leave

Professor **Jul 2020 - Present**
Dept. of Information & Communication Technology, Islamic University, Kushtia – 7003, Bangladesh

ACADEMIC POST / POSITIONS

- Head / Chairman, Dept. of Information and Communication Engineering, Islamic University, Kushtia** From 23rd May 2013 to 22nd May 2016.
- Academic Council (AC) Member of Islamic University Kushtia and Green University of Bangladesh, Dhaka**
- Faculty member, Faculty of Engineering and Technology, Islamic University, Kushtia**
- Former member of International Affairs Cell, Islamic University, Kushtia**
- Evaluator, Board of Accreditation for Engineering and Technical Education (BAETE), IEB Dhaka**
- Faculty member of Engineering Faculty, Green University of Bangladesh, Dhaka**
- Director, Central Lab, Islamic University, Kushtia, Bangladesh**
- Visiting Research Fellow, Edith Cowan University, Perth, Australia**

PROFESSIONAL SOCIETY ACTIVITIES

- Senior Member of IEEE (SMIEEE) (<https://www.ieee.org/>)
- Vice Chair (Activity) of IEEE Computer Society Bangladesh Chapter 2020 (<https://site.ieee.org/bangladesh-cs/>)
- Secretary of IEEE Computer Society Bangladesh Chapter 2022 (<https://site.ieee.org/bangladesh-cs/>)
- Student Branch Counselor of Islamic University IEEE student branch (Founder of the branch)
- Member of IEEE Robotic Society ; Member of IEEE Computer Society; Member of Internet Governance Forum (IGF)
- Vice Chair (Technical), IEEE Computer Society Bangladesh Chapter 2025

Editorial and Technical Program Activities

- TPC Chair of STI 2019, 2020, 2021 and 2022 (<https://fse.green.edu.bd/sti-2022/>)
- General Co-Chair, STI 2023, STI 2024 (<https://sti.green.edu.bd/>)
- TPC Co-Chair, BIM 2021 (<https://confbim.com/>)
- TPC Co-Chair, MIET 2022 (<https://confmiet.org/>)
- Organizing Co-Chair NCIM 2023 (<https://confncim.com/>)
- Organizing Secretary of IEEE CS Summer Symposium 2023 (<https://site.ieee.org/bangladesh-cs/ss2023/>)
- Technical Co-Chairs, IEEE CONFERENCE ON COMPUTING APPLICATIONS AND SYSTEMS (COMPAS 2024) - <https://www.compasconf.org/>
- Organizing Chair, 2nd IEEE Int. CONFERENCE ON COMPUTING APPLICATIONS AND SYSTEMS (COMPAS 2025)(<https://www.compasconf.org/>)
- Guest Lead Editor, Special Collection on "User-Centric Design Approaches for Enhancing Safety and Accountability in Assistive Medical Robotics" International Journal of Advanced Robotic Systems (SAGE ARX, IF ~2.1) Link: <https://journals.sagepub.com/topic/collections-arx/arx-001785/arx>

Leadership and Elected Positions

1. Elected Executive Member of Islamic University Teachers Association (2014, 2016, 2018).
2. Vice-President of Zia Parishad, Islamic University (2024).
3. Served several times as organizing secretary, joint organizing secretary and publicity secretary of Zia Parishad, Islamic University from 2012 to 2018.
4. House Tutor, Shahid Ziaur Rahman Student Hall, Islamic University (2004 ~ 2006)
5. Admin of the University Teachers Association of Bangladesh (UTAB) Facebook group since 2009, a professional community with over 10,000 members, exclusively comprising university faculty across the country.

Research Grant

Project Title: Identifying psychiatric disorders like Schizophrenia and Major Depression Disorder as a risk factor for obesity

Jun 2021 - Jun 2022

[UGC research project grant for 2021-22 Fiscal year](#)

Our proposed method has generated new insights into disease mechanisms that links between Psychiatric disorders and Obesity pathologies and may mediate their interaction which may lead the discovery of therapeutic intervention. Finally, we have also compared genome-wide association study (GWAS) and whole-genome sequence (WGS) data regarding these diseases (SCZ, MDD, OBE) to validate our findings. The above strategies help to find a gene cluster that describes the stated problem.

Project Title: Pathologically Significant Prostate Cancer Detection and Segmentation Using Deep Learning on Bi-parametric MRI Images

Jun 2023 - Jun 2024

UGC research project grant for 2023-24 Fiscal year

In this work, however, we present a deep neural network that simultaneously detects and segments cancer tissue in an end-to-end fashion. This is more clinically relevant than the classification goal of the Pi-cai challenge. We used the dataset of this challenge for training and testing for lesion segmentation purposes. We use a 3D AttU-Net with MRI slices and label maps as input that segments the cancerous region as voxel-based and provides as output. We propose a 3D voxel-based segmentation method that takes advantage of the prostate zone segmentations as prior information, and the ensembling techniques.

Integrating Advanced Deep Learning and Radiomics for Precise Segmentation and Grade Classification of Prostate Cancer through Biparametric MRI Analysis: A Pathway to Improved Diagnostic Accuracy

2024 - 2025

UGC Special research project grant for 2024-25 Fiscal year

Our innovative approach seeks to harness the synergy between deep learning segmentation and radiomics feature extraction, culminating in the development of machine learning classifiers capable of accurately classifying PCa lesions. By overcoming the limitations associated with traditional mp-MRI techniques and enhancing the accuracy of PCa diagnosis and grading, this work aims to provide a significant contribution to the field of medical imaging and oncology, offering a more reliable, efficient, and non-invasive diagnostic tool for the detection and characterization of PCa.

Development Project

Establishment of ITRRC in IU-Kushtia (CP285)

2011 - 2014

Contributed to the development and execution of the Institutional Technical Resource and Research Center sub-project at department of Information and Communication Technology, Islamic University, Kushtia

EDGE-ICTIU Digital Skills Training for University Students in Bangladesh

2024 - 2025

Supported the planning and execution of university-level digital skills training, ensuring alignment with program objectives

PARTICIPATED WORKSHOP / TRAINING FELLOWSHIP

- Conference on Sensing, Information and Decision at the Cellular Level, Organized by ICTP, Trieste, Italy, 14 July 2015 - 17 July 2015, Trieste, Italy (Full funded fellowship)
- Asian Regional School on FPGA Design for Scientific Instrumentation, Organized by ICTP, Trieste, Italy, 7 December 2015 - 18 December 2015, Jamshoro - PAKISTAN, Mehran University of Engineering and Technology (Full funded fellowship)
- Participated two National workshops on "Out-come based education (OBE)", organized by Engineers Institution of Bangladesh (IEB), June, 2019, Dhaka, Bangladesh (Full funded fellowship)
- International Training Course on Key Technologies for Intelligent Manufacturing, Organized Southwest University of Science and Technology (SWUST), China, from October 11 to October 25, 2024

PATENT

- "Method for resampling particles based on exponential function and method for tracking video object using same", Publication number WO2012144813 A2
Publication type registration Registration number PCT / KR2012 / 002987

INSTITUTIONAL RESEARCH EXPERIENCE

Research Assistant **Feb 2007 - Aug 2011**
Intelligent Image Media and Interface Lab, School of Computer Engineering,
Chonnam National University, Gwangju, South Korea

Global Research Intern **Jun 2011 - Aug 2011**
Samsung Advanced Institute of Technology, 3D camera vision lab, Samsung
Electronics, Suwon, South Korea

Research Director **Feb 2013 - Present**
Computer Vision and Intelligent Interfacing Lab (CVIIL), Dept of Information and
Communication Engineering, Islamic University, Kushtia 7003, Bangladesh

Coordinator **Nov 2016 - Present**
ICE Innovation Lab, Dept of Information and Communication Engineering, Islamic
University, Kushtia 7003, Bangladesh

Principal Investigator **Jun 2022 - Present**
The Biomedical Robotics, AI and Imaging Network (BRAIN) Lab (<https://biorainlab.net/>)

Sub Project Manager (SPM) **Apr 2025 - Mar 2027**
Establishment of a Digital Fabrication Laboratory (Fab Lab) at Islamic University,
Kushtia to Drive Interdisciplinary Innovation, Skill Development, and HPC-
Enhanced Prototyping and Entrepreneurship

RESEARCH SUPERVISION

- Ph.D (2): One is going and other one is completed
- M.Phil (1): One (1) ongoing
- M.Sc (22+): Two (2) is ongoing, More than twenty (20) has been completed.
- B.Sc (50+): More than 50 has been completed.

Research Publications

Conferences (Full peer reviewed paper):

1. Md Shafiqul Islam, Mustakim Musully Pias, Alauddin Sabari, Tarek Hasan Al Mahmud, Md Zahidul Islam, "An Efficient Early Identification of Chronic Kidney Disease using Machine Learning Techniques", 2024 27th International Conference on Computer and Information Technology (ICCIT), **DOI: 10.1109/ICCIT64611.2024.11022079**, 20-22 December 2024, Cox's Bazar, Bangladesh.
2. Alauddin Sabari, Md Jakir Hossain, Imran Hasan, Abdullah Ali Ahhad, Md Shafiqul Islam, Feroza Naznin, Md Zahidul Islam, "MLBlock: Harnessing Machine Learning, Blockchain, and XAI for Smarter Land Valuation", 2024 27th International Conference on Computer and Information Technology

(ICCIT), **DOI:** 10.1109/ICCIT64611.2024.11022180, 20-22 December 2024, Cox's Bazar, Bangladesh.

3. Mohammad Ali, Mahmudul Hasan, Meherun Nesa Meem, Feroza Naznin, Riad Hassan, Md Zahidul Islam, "Enhancing Visibility for Autonomous Vehicle Object Detection in Dust or Sandstorm Conditions Using Dark Channel Prior and YOLOv9", 2024 6th International Conference on Sustainable Technologies for Industry 5.0 (STI), **DOI:** 10.1109/STI64222.2024.10951081, 14-15 December 2024, Narayanganj, Bangladesh.
4. Md Rakibul Islam, Abdullah Nazib, Riad Hasan, Md Zahidul Islam, "Automated Radiomics Based Clinically Significant Prostate Cancer (csPCa) Grade Classification From Biparametric MRI", accepted in Digital Image Computing: Techniques & Applications DICTA 2024, 27 - 30 November, 2024, Perth, Australia.
5. Mohammad Ali; Mahmudul Hasan; Meherun Nesa Meem; Feroza Naznin; Riad Hassan; Md. Zahidul Islam, "Enhancing Visibility for Autonomous Vehicle Object Detection in Dust or Sandstorm Conditions Using Dark Channel Prior and YOLOv9", 2024 6th International Conference on Sustainable Technologies for Industry 5.0 (STI), Narayanganj, Bangladesh, 2024, pp. 1-6, doi: 10.1109/STI64222.2024.10951081.
6. Md Mustakim Musully Pias, Tarek Hasan Al Mahmud, Md Jashim Uddin, Khandaker Ahmed, Shafiqul Islam, Md. Alamgir Hossain, Md Zahidul Islam, "Real-time Speech Enhancement using Deep Neural Network Based Beamforming", accepted in Digital Image Computing: Techniques & Applications DICTA 2024, 27 - 30 November, 2024, Perth, Australia.
7. Abdullah Nazib, Riad Hassan, Zahidul Islam and Clinton Fookes, "Uncertainty Driven Bottleneck Attention U-net for Organ at Risk Segmentation", 21st IEEE International Symposium on Biomedical Imaging (ISBI 2024), Athens, Greece.
8. Mohammad Ali , Mahmudul Hasan , Meherun Nesa Meem , Feroza Naznin , Riad Hassan, Md. Zahidul Islam , "Enhancing Visibility for Autonomous Vehicle Object Detection in Dust or Sandstorm Conditions Using Dark Channel Prior and YOLOv9",; 2024 6th International Conference on Sustainable Technologies for Industry 5.0 (STI)
9. Sajib Miah, Feroza Naznin and Md Zahidul Islam, "Visual Identification of Domestic Animals using Deep Convolution Neural Network", 3rd International Conference on Advanced Communication and Intelligent Systems (ICACIS 2024), JNU, New Delhi, India.
10. Feroza Naznin, Md. Shoab Alam, Samia Alam Sathi and Md. Zahidul Islam, "Improving Real-Time Object Tracking through Adaptive Feature Fusion and Resampling in Particle Filters", Human Computer Interaction International Conference (HCII2024), Washington DC, USA, 2024.
11. Nosin Ibna Mahbub, Feroza Naznin, Md Imran Hasan, Syed Mahfuzur Rahman Shifat, Md Alamgir Hossain, Md Zahidul Islam, "Detect Bangladeshi Mango Leaf Diseases Using Lightweight Convolutional Neural Network", 2023 International Conference on Electrical, Computer and Communication Engineering (ECCE), 2023.
12. Most Maria Akter Misti, Sajal Mondal, Md Anwarul Islam Abir, Md Zahidul Islam, "A Novel Texture Descriptor Evaluation Window Based Adjacent Distance Local Binary Pattern (EADLBP) for Image Classification", International Conference on Machine Intelligence and Emerging Technologies, 2022.
13. SMRH Raj, SJ Mukta, TK Godder, MZ Islam, "An Approach for Multi-human Pose Recognition and Classification Using Multiclass SVM", ICO20200 3rd International Conference on Intelligent Computing and Optimization (Springer), PP 922-937, 2020, Thailand.
14. M. Atikuzzaman, T. R. Rahman, E. Wazed, M. P. Hossain and M. Z. Islam, "Human Activity Recognition System from Different Poses with CNN," 2020 2nd International Conference on Sustainable Technologies for Industry 4.0 (STI), Dhaka, Bangladesh, 2020, pp. 1-5, doi: 10.1109/STI50764.2020.9350508.

15. Ariful Hoque , A.K.M. Ashek Farabi , Fahad Ahmed , Md. Zahidul Islam, " Automated Detection of Lung Cancer Using CT Scan Images", 2020 IEEE Region 10 Symposium (TENSYP), 5-7 June 2020, Dhaka.
16. Tareq Hosain, Mohammad & Arif, Abdullah & Pritom, Ahmed & Rahman, Md Rashedur & Islam, Md. Zahidul, "Development of a Tangent Based Robust Speech Feature Extraction Model", ICONCS2020, 15-16 February, 2020, Dhaka, Bangladesh.
17. M. Atikuzzaman, M. Asaduzzaman and M. Z. Islam, "Vehicle Number Plate Detection and Categorization Using CNNs," 2019 International Conference on Sustainable Technologies for Industry 4.0 (STI), Dhaka, Bangladesh, 2019.
18. Y. A. Joarder, Md Bipul Hossain, Md Jashim Uddin, Md Zahidul Islam: "A Novel Hand Written Technique Using Touch-Less Finger Gesture Movement for Human Computer Interaction", HCI (3) 2018: 285-296, Las Vegas, USA, 15-20 July, 2018.
19. Md Bipul Hossain, Feroza Naznin, Y. A. Joarder, Md Zahidul Islam, " Recognition and Solution for Handwritten Equation Using Convolutional Neural Network", 7th International Conference on Informatics, Electronics & Vision (ICIEV) & 2nd International Conference on Imaging, Vision & Pattern Recognition (icIVPR), 25~29 June, 2018, Kitakyushu, Japan.
20. Md Shohel Rana, Md Jashim Uddin and Md Zahidul Islam, "Efficient multi-cue predictive tracking of multiple similar interacting objects", 7th International Conference on Informatics, Electronics & Vision (ICIEV) & 2nd International Conference on Imaging, Vision & Pattern Recognition (icIVPR), 25~29 June, 2018, Kitakyushu, Japan.
21. A F M Shahab Uddin, Md. Jashim Uddin, Md. Abdul Awal, and Md. Zahidul Islam, "Particle Filter Based Moving Object Tracking with Adaptive Observation Model", International Conference on Informatics, Electronics & Vision (ICIEV), 1-3 September 2017, Himeji, Hyogo, Japan.
22. Y. A. JOARDER, PARESH CHANDRA BARMAN, Md Zahidul Islam, " Enhancement of ANN-based Offline Hand Written Character Recognition Using Gradient and Geometric Feature Extraction Techniques", HCI International 2017, Vancouver, Canada, 9 - 14 July 2017.
23. ASADUZ ZAMAN, MD ABDUL AWAL, CHILL WOO LEE and MD ZAHIDUL ISLAM, "Real Time Finger Binary Recognition Using Relative Finger-Tip Position", The International Arab Conference on Information Technology (ACIT'2013)17 - 19 December 2013, Khartoum, Sudan.
24. MD SOHEL RANA, MD ABDUL AWAL and MD ZAHIDUL ISLAM, "Eye Detection And Iris Center Tracking With Eyelashes Occlusion Correction", The International Arab Conference on Information Technology (ACIT'2013) 17 - 19 December 2013, Khartoum, Sudan.
25. Chi-Min Oh, Md. Zahidul Islam, Chil-Woo Lee, "MRF-based Particle Filters for Multi-touch Tracking and Gesture Likelihoods", CIT 2011: 144-149.
26. Chi-Min Oh, Md. Zahidul Islam, Jun-Sung Lee, Chil-Woo Lee, In-So Kweon, " Upper Body Gesture Recognition for Human-Robot Interaction", HCI (2) 2011: 294-303.
27. Md. Zahidul Islam, Chi-Min Oh & Chil-Woo Lee, "Optimized Particle Filter with Genetic Algorithm", in Proc of 10th IEEE TENCON, Fukuoka, Japan, pp 1410 - 1414, 2010.
28. Md. Zahidul Islam, Chi-Min Oh & Chil-Woo Lee, "Attenuated Sequential Importance Resampling (A-SIR) Algorithm for Object Tracking" in Proc. of 10th International Workshop in Visual Surveillance (VS 2010) conjunction with ACCV, LNCS 6468, Queenstown, New Zealand, 2010.
29. Md. Zahidul Islam, Chi-Min Oh & Chil-Woo Lee, "Modifed Re-sampling Based Particle Filter for Visual Tracking with MPH", in Proc of 10th IEEE International conference on Computer and Information Technology (CIT), Bradford, UK, pp. 1582-1587, 2010.
30. Md. Zahidul Islam, Chi-Min Oh, JS Lee & Chil-Woo Lee, "Multi-Part Histogram based visual tracking with Maximum of Posteriori", In Proc of ICCET, vol 6, pp. 435-439, Chengdu, China, 2010.
31. Md. Zahidul Islam, Chi-Min Oh & Chil-Woo Lee, "New Integrated Framework

- for Video Based Moving Object Tracking", In Proceedings of the 13th International Conference on Human-Computer Interaction. Part III: Ubiquitous and Intelligent Interaction, LNCS 5612, pp. 423-432, San Diego, USA, 2009.
32. Chi-Min Oh, Md. Zahidul Islam, Chil-Woo Lee, "Two Dimensional Edge and Corner Model based Object Tracking using Particle Filter", 15th Japan-Korea Joint Workshop on Frontiers of Computer Vision (FCV2009), Korea Multimedia Society(KMMS), IEEE, IES, Korean Studies Advancement Center, Andong, Korea, Vol.1, PP.223-228, FEB 5-7 2009.
 33. Md. Zahidul Islam, Chil-Woo Lee, "Adaptive Template Based Object Tracking with Particle Filter", 5th International conference on Electrical and Computer Engineering (ICECE 2008), BUET, Dhaka, Bangladesh, Page 873 - 877, 20-22 December 2008.
 34. Md. Zahidul Islam, Chil-Woo Lee, "Shape based moving object tracking with particle filter", International Conference on Control, Automation and Systems (ICCAS 2008), Institute of Control, Robotics and systems, COEX, Seoul, Korea, p679- p682, 14 - 17 October 2008.
 35. Md. Zahidul Islam, Chimin Oh, Chil-Woo Lee, "Real time moving object tracking by particle filter", The IEEE International Symposium on Computer Science and its Application (CSA 2008), IEEE (CS), SERSC, University of Tasmania, Hobart, AUSTRALIA, pp - 347-352, 13 - 15 October 2008.
 36. Md. Zahidul Islam, Chimin Oh, Jeong-Seok Yang, Chil-Woo Lee, "DT template based moving object tracking with shape information by particle filter", 7th IEEE International Conference on Cybernetic Intelligent Systems 2008, IEEE SMC, Middlesex University, London, UK, p127- p132, 9-10 Sept.2008.
 37. Md. Mainul Islam Mamun, K.M.Mohiuddin , Md. Zahidul Islam, "Design and Development of an Orthogonal Frequency Division Multiplexing (OFDM) Technique for High Speed Wireless Communication", International Conference on Electronics, Computer and Communication ICECC 2008, 27-29 June 2008 , Rajshahi University, Bangladesh.
 38. Md. Zahidul Islam, Chill-Woo Lee, "Probabilistic Object tracking by Particle Filter with Color Information", Annual Korea Information Processing Society (KIPS) Conference, 25 - 27 June 2008, Korea.
 39. Md. Zahidul Islam, Nurul Arif Setiawan, Hyung-Kwan Kim , Chil-Woo Lee, "Template Based Object Detection & Tracking by Chamfer Matching in Real Time Video", Annual Korea Robotic Society (KRS) conference, , 16 - 17 May 2008, Korea.
 40. Md. Zahidul Islam, Chimin Oh, Daehyun Song, Chil-Woo Lee, "AR Traffic Book by AR Toolkit: A Review of Some Selected Challenging Issues", Korea HCI 2008, 13 - 15 February 2008, Korea.

Published Journal Paper:

1. Md Rakibul Islam, Riad Hassanb, Abdullah Nazib, Kien Nguyen, Md Zahidul Islam, Clinton Fookesd, "Size and Smoothness Aware Adaptive Focal Loss for Small Tumor Segmentation", Computers in Biology and Medicine, 2025 (under 2nd minor review).
2. Awal, Md Abdul, Md Abu Rumman Refat, Feroza Naznin, and Md Zahidul Islam. "A Particle Filter Based Visual Object Tracking: A Systematic Review of Current Trends and Research Challenges." *International Journal of Advanced Computer Science and Applications* 14, no. 11 (2023): 1291-1301.
3. Md Anisur Rahman, Md Al Amin, Most Nilufa Yeasmin, Md Zahidul Islam, "Molecular Biomarker Identification Using a Network-Based Bioinformatics Approach That Links COVID-19 With Smoking", Bioinformatics and Biology Insights, 2023.
4. Md Sojib Hossain, Subrina Islam Rupa, Md Sumon Sarkar, Md Al Amin, Mst Tania Khatun, Md Shamim, Md Zahidul Islam, "Gender differences-based bioinformatics analysis to identify hub genes and key pathways in type 2 diabetes", Informatics in Medicine Unlocked, 2023.
5. Md Sumon Sarkar, Md Misor Mia, Md Al Amin, Md Sojib Hossain, Md Zahidul

- Islam, "Bioinformatics and network biology approach to identifying type 2 diabetes genes and pathways that influence the progression of breast cancer, Heliyon, 2023.
6. Mahajabin Snigdha, Azifa Akter, Md Al Amin, Md Zahidul Islam, "Bioinformatics approach to analyse COVID-19 biomarkers accountable for generation of intracranial aneurysm in COVID-19 patients, Informatics in Medicine Unlocked, 2023.
7. Md Bipul Hossain, Md Zahidul Islam, Mohammad Moni, "A Bioinformatics Approach to Identify Significant Pathways, Drug Targets Shared Between Parkinson's Disease and Bipolar Disorder", February 2022 Bioinformatics and Biology Insights 16:1-9.
8. Ahmed Iqbal Pritom, Md. Abdullah Al Mashuk, Somi Ahmed, Nazifa Monira & Md. Zahidul Islam, "GESTCHA: a gesture-based CAPTCHA design for smart devices using angular velocity", Multimedia Tools and Applications (2022), <https://doi.org/10.1007/s11042-022-13272-6>.
9. Md. Islam , Md. Islam , Md Zahidul Islam , Md. Rahman , Md Mamun , Salem Alyami , AKM Azad , Mohammad Moni, "Network based systems biology approach to identify disease and comorbidity associations of Systemic Sclerosis with Cancers", HELYIUN, CELL PRESS, e08892, 2022.
10. Nosin Ibna Mahbub; Md. Imran Hasan; Md Habibur Rahman; Feroza Naznin; Md Zahidul Islam and Mohammad Ali Moni, "Identifying molecular signatures and pathways shared between Alzheimer's and Huntington's disorders: A bioinformatics and systems biology approach", Informatics in Medicine - unlocked, 30, 100888, 2022.
11. Md Imran Hasan, Md Habibur Rahman, M Babul Islam, Md Zahidul Islam, Md Arju Hossain, Mohammad Ali Moni, "Systems Biology and Bioinformatics approach to Identify blood based signatures molecules and drug targets of patient with COVID-19", Informatics in Medicine Unlocked, Volume 28, Page 100840, 2022.
12. YA Joarder, F Naznin, MA Awal, MZ Islam. "An Improved Hybrid Evolutionary Clustering Algorithm to Mitigate Empty Clustering Problem." International Journal of Computer Engineering and Information Technology 11, no. 9 (2019): 197-203.
13. A F M Shahab Uddin, Feroza Naznin, Md. Alamgir Hossain, Md. Zahidul Islam, "Digital License Plate Detection and Recognition with Improved Vertical Edge Detection and Template Matching" International Journal of Advanced Research in Computer and Communication Engineering, Vol. 6, Issue 1, January 2017.
14. Md Monirul Islam, Md Mainul Islam Mamun, Md Zahidul Islam and Mumnunul Keramat, "Interactions of Aerosol Optical Depth and Cloud Parameters with Rainfall and the Validation of Satellite Based Rainfall Observations", American Journal of Environmental Sciences Volume 13, Issue 4 Pages 315-324, 2017.
15. Md Zahidul Islam, Feroza Naznin, Asaduz Zaman, "Development of Content Based Recommender Using Dynamic Artificial Neural Network", International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, Issue 11, November 2015.
16. Md Zahidul Islam, Md Shariful Islam, Md Sohel Rana, "Problem Analysis of Multiple Object Tracking System: A Critical Review", International Journal of Advanced Research in Computer and Communication Engineering, Vol. 4, Issue 11, November 2015.
17. Md Shariful Islam, Md Tariquzzaman, Md Abdur Razzaque, T K Godder and Md Zahidul Islam, "Depth of focus Resolution Viewing Angle Improvement of Integral Imaging System Multi-Directional Projections and non-uniform lenslets with Intermediate view Reconstruction method", Research Journal of Applied Sciences, Engineering and Technology, Sept 10, 2015.
18. Kazi Mowdud Ahmed, Feroza Naznin, Md Shahinuzzaman and Md Zahidul Islam, "Development of Pedestrian Tracking System Using Lucas Kanade Technique", Journal of Emerging Trends in Engineering and Applied Sciences (JETEAS) 6(3): pp. 233- 235, 2015.
19. Md. Shariful Islam , Md. Tariquzzaman and Md. Zahidul Islam, "Integral

- Imaging Three-Dimensional (3d) Display With Wide-Viewing Angle Using Multiple Illuminations", International Journal on Cybernetics & Informatics (IJCI) Vol. 3, No. 4, pp. 11-19, August 2014.
20. Md Sohel Rana, Md Mainul Islam Mamun, Md Alamgir Hossain, Md Abdul Awal, Md Zahidul Islam, "Eye and Robust Iris Center Tracking with Presence of Facial Occlusions", International Journal of Electronics and Computer Science Engineering, pp. 388-397, Volume 3, Number 4, 2014.
 21. Asaduz Zaman, Md Mainul Islam Mamun, Md Abdul Awal, Md Alamgir Hossain, Md Zahidul Islam, "Development of Hand Finger Recognition System with Relative Positioning", International Journal of Electronics and Computer Science Engineering, pp. 398-405, Volume 3, Number 4, 2014.
 22. Md. Zahidul Islam, Chi-Min Oh & Chil-Woo Lee, "Effect of Resampling Steepness on Particle Filtering Performance in Visual Tracking" in The International Arab Journal of Information Technology (IAJIT), Vol. 10, No. 1, 2013.
 23. Md. Zahidul Islam, Chi-Min Oh & Chil-Woo Lee, "An Efficient Multiple Cues Synthesis For Human Tracking Using A Particle Filtering Framework", in International Journal of Innovative Computing, Information and Control (IJICIC), Vol. 7, No. 6. June, 2011.
 24. Md. Mainul Islam Mamun, Tarek Hasan-Al-Mahmud, Sumon Kumar Debnath, Md. Zahidul Islam: Analyzing the Low Power Wireless Links for Wireless Sensor Networks, Journal of Telecommunications, Volume 1, Issue 1, pp123-127, February 2010.
 25. Md. Zahidul Islam, Chi-Min Oh & Chil-Woo Lee, "Video Based Moving Object Tracking by Particle Filter", in International Journal of Signal Processing, Image Processing and Pattern (IJSIP), Published by SERSC, Vol. 2, No. 1. March, 2009.
 27. Md. Zahidul Islam, R.C. Debnath, T.K. Godder "A Genetic Algorithm For One Dimensional Search Space Optimization Problem" Journal of Applied Science and Technology, Islamic University Studies, Vol 03 No. 02, 53-56, December 2003.
 28. T.K. Godder, M Mahbubur Rahman, Md. Zahidul Islam, S.K. Mondal "To Study The Voice Over Internet Protocol (VOIP) And Its Integration With The Existing Telephone And Telegraph (T&T) Networks In Bangladesh" Journal of Applied Science and Technology, Islamic University Studies, Vol 03 No. 02, 111-118, December 2003.
 29. Md. Zahidul Islam, R. C. Debnath, T. K. Godder, Md. Farukuzzaman Khan, "Two Variable Function Optimization with Genetic Algorithm Model" JAST, Islamic University, Vol. 01(03), 2004.
 30. Md. Shahjahan Ali, Md. Zahidul Islam, Md. Rezaul Karim, T. K. Godder, "Characterizations of inner product spaces in terms of Normed Linear spaces", JAST, Islamic University, Vol. 01(03), 2004.

Book Chapter

- Khairul Islam, Md Zahidul Islam, Al Amin, Mojibur Rahman Redoy Akanda, Shabuj Hossen, Feroza Naznin, Mohammad Ali Moni, "IoT and Deep Learning-based Smart Healthcare with an Integrated Security System to Detect Various Skin Lesions", Artificial Intelligence for Disease Diagnosis and Prognosis in Smart Healthcare, Chapter 13, March 30, 2023 by CRC Press.

References

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