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DR. MD ZAIR HUSSAIN | ASSOCIATE PROFESSOR

CURRENT DESIGNATION/
INVOLVEMENT Controller of Examinations

AREA OF SPECIALIZATION Information Technology

INNOVATION WITH FIELD OF STUDY AND COLLABORATIVE EFFORTS

- Implementation of Digital Marking for Evaluation for Open and Distance Learning Examinations
- Implementation of norms laid by DGT/ NCVT, Ministry of Skill Development and Entrepreneurship for MANUU ITI Bangalore
- Accreditation management of MANUU ITI Bangalore through QCI (Quality Council of India).
- Grading management of MANUU ITI Bangalore by DGT, Ministry of Skill Development and Entrepreneurship.

ACADEMIC AND ADMINISTRATIVE EXPERIENCE

- **29 years of Professional Career, starting from May 1993**
- Includes technical/ managerial/ academic and administrative experience, in both academia and industry,
 - **5 years industrial experience**
 - 3 years in an ISO 9002 certified manufacturer for electronic assemblies.
 - 2 years in business development.
 - **24 years of teaching experience**
 - 7 years in a Central University established at National Level.
 - 17 years of teaching in an Engineering college.
 - 5 years as Incharge Principal of MANUU ITI, Bangalore.
 - 11 years as Head of Department.
 - 3 years as Proctor and 1 year as Assistant Proctor.
 - **Open and Distance learning mode**
 - Counsellor for courses leading to certificate, bachelor and master degree
 - 7 years of counselling in the largest Open University in the world.
 - 3 years of independent management of Programme

Study Centre.

- Having excellent analytical and communication skills.
- Experience of organizing workshop

EDUCATIONAL
QUALIFICATION

- **DOCTOR OF PHILOSOPHY (Ph.D.), 2013**
Department of Information Technology/Engineering, BRAB University

Master's Degree in Technology (Computer Science)

Master of Science (Engineering)

Bachelor of Engineering (B.E) in Computer Science

TEACHING PROFICIENCY

1. Computer Fundamentals
2. Computer Networks
3. Data Structure and 'C'
4. Discrete Mathematics
5. Numerical Analysis & Techniques.
6. Assembly Language Programming (8086).
7. Computer Organisation.
8. Advance Architecture.
9. Computer Hardware.
10. Computer Organisation
11. Operating System
12. Advance Microprocessors
13. Distributed Systems
14. ICT
15. E-Commerce

RESEARCH PUBLICATION
DETAILS

1. "Autonomous navigation system based on a dynamic access control architecture for the internet of vehicles", Md. Zair Hussain et al., Computers and Electrical Engineering, 29th April, 2022, **(MANUSCRIPT ID:108037), Publisher: Elsevier Ltd. ,ISSN (Online): 0045-7906 DOI: <https://doi.org/10.1016/j.compeleceng.2022.108037> (SCI, SCOPUS), Impact Factor: 4.15**
2. "HYBRID APPROACH TO IMPLEMENT MULTI-ROBOTIC NAVIGATION SYSTEM USING NEURAL NETWORK, FUZZY LOGIC AND BIO-INSPIRED OPTIMIZATION METHODOLOGIES", Md. Zair Hussain et al., Computational Intelligence 2022, Online, pp 1-15, 12th July 2022, wileyonlinelibrary.com/journal/coin © 2022 Wiley Periodicals LLC., DOI: 10.1111/coin.12547 <http://doi.org/10.1111/coin.12547>(**SCI, SCOPUS**), **Impact Factor: 2.14**
3. "Collaborative analysis of audio-visual speech synthesis with sensor measurements for regulating human-robot interaction", Md. Zair Hussain et al., International Journal of System Assurance

Engineering and Management (IJSA-D-21-00941), Online 9th August 2022, Publisher: **Springer, (Emerging Source Citation Index, SCOPUS)**, DOI: <https://doi.org/10.1007/s13198-022-01709-y>

4. "Defining multiple geometrical areas with modeling of elementary geometrical volumes in robot-environment interaction", Md. Zair Hussain et al., International Journal of System Assurance Engineering and Management, (IJSA-D-21-00937), 29th June 2022, Publisher: **Springer, DOI: <https://doi.org/10.1007/s13198-022-01708-z> (Emerging Source Citation Index, SCOPUS)**
5. "Intelligent Data Post and Read Data System Like to Feed for IoT Sensors", Md. Zair Hussain et al., International Journal of System Assurance Engineering and Management (IJSA-D-21-00814), Online, 10 June 2022, Publisher: **Springer, (Emerging Source Citation Index, SCOPUS)**, DOI: <https://doi.org/10.1007/s13198-022-01683-5>
6. "Role Of Control Algorithms And Modeling Of System Dynamics Accuracy in Trajectory Planning Tracking For Autonomous Movement Of Robots", Md. Zair Hussain et al., Natural Volatiles & Essential Oils (NVEO), pp.1738-1751, volume 8, issue 5, 2021, E-ISSN 1714-1725. (**SCOPUS**)
7. "Robot Path Planning System in Populated Dynamic Environment using Dynamic Wave Expansion Neural Network Techniques", Md. Zair Hussain et al., Natural Volatiles & Essential Oils (NVEO), pp.1508-1521, volume 8, issue 5, 2021, E-ISSN 1726-1737. (**SCOPUS**)
8. "Physics-Based Traffic Motion Techniques in Motion Planning Of Intelligent Autonomous Robots", Md. Zair Hussain et al., Natural Volatiles & Essential Oils (NVEO), pp.1508-1521, volume 8, issue 5, 2021, E-ISSN 1714-1725. (**SCOPUS**)
9. "New Paths Generation Using Crossover And Mutation Genetic Operations For Mobile Robots To Find The Optimal Path in 2-D Static Environment", Md. Zair Hussain et al., Natural Volatiles & Essential Oils (NVEO), pp.1675-1688, volume 8, issue 5, 2021, E-ISSN 2148-9637 (**SCOPUS**)
10. "Feedback control of a nonholonomic-wheeled mobile robot for calculating the quickest straight-line trajectory planning problems", Md. Zair Hussain et al., Natural Volatiles & Essential

Oils (NVEO), pp.1738-1751, volume 8, issue 5, 2021, E-ISSN 1647-1657 (**SCOPUS**)

11. "Path Estimation and Path Improvements in Local Guidance of Automated Mobile Robots Using a Bio-mementic Method", Md. Zair Hussain et al., Natural Volatiles & Essential Oils (NVEO), pp.1508-1521, volume 8, issue 5, 2021, E-ISSN 2148-9637 (**SCOPUS**)
12. "Integration of V2x Information For Manoeuvre Feasibility Check, And Decision Making in Trajectory Planning And Tracking Of Autonomous Mobile Robots", Md. Zair Hussain et al., Natural Volatiles & Essential Oils (NVEO), pp.1467-1478, volume 8, issue 5, 2021, E-ISSN 2148-9637 (**SCOPUS**)
13. "Eigenfaces Technique, an Improved Face Recognition Approach Using Neural Network", Mohd Ashraf and Md Zair Hussain, Asian Journal of Computer Science and Technology (AJCST), pp.98-104, volume 8, number 2. 2019, ISSN 2249-0701 (**SCOPUS**)
14. "Using Satellite Image Recognize and detect vehicles in Digital Image Processing by Applying Otsu Threshold Method", Mohd Ashraf, Md Zair Hussain, International Journal of Engineering and Advance Technology (IJEAT), pp.29-36, volume 8, issue 6S, August 2019, ISSN 2249-8958 (**SCOPUS**)
15. "Modelling of Knowledge Based Transport Vehicle System using Reliable Software System", Mohd Ashraf, Z. Hussain, V. Singh, International Journal of Computer Science and Engineering (IJCSE), pp.251-256, volume 7, issue 5, May 2019, E-ISSN 2347-2693 (UGC Approved)
16. "Secure Multi Parties Communication using Randomize Group Technique in Privacy Preserving Data Mining", Mohd Ashraf, Md Zair Hussain and Dinesh Kumar Singh, International Journal of Control and Automation (IJCA), pp.29-36, volume 12, number 4, 2019, ISSN 2005-4297 (**SCOPUS**)
17. "Enumeration Of Terminal And Multi-Terminal Path Sets For Directed Communication Network", Mohd Ashraf, Zair Hussain and Vrinda Singh, Journal of Analysis and Computation (JAC), Volume XII, Issue IV, April 2019, (An International Peer Reviewed Journal), www.ijaconline.com, ISSN 0973-2861 (UGC Approved)
18. "Multi-Criteria Decision Based Recommender System Using Fuzzy Linguistics Model for E-Commerce", Mohd Ashraf and Md. Zair Hussain, International Journal of Scientific Research in Science and Technology (IJSRST), pp.61-67, volume 4, issue 5, March-April 2018, Publisher IJSRST UGC Approved Journal(Journal No:

64011), ISSN (Print): 2395-60611; ISSN: 2395-602X (Online)

19. "Investigation of Performance Analysis of Classification Algorithms in Data Mining", Mohd Ashraf and Md. Zair Hussain, International Journal of Scientific Research in Science, Engineering and Technology (IJSRST), pp.58-66, volume 4, issue 4, March-April 2018, Publisher IJSRSET UGC Approved Journal(Journal No: 471471), ISSN (Print): 2395-1990; ISSN: 2394-4099 (Online)
20. "An Analysis on Handling Working Structure in Small Business: a review, Dr. Md. Zair Hussain, International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), pp. 203-207, Volume6, Issue1, January 2018, ISSN: 2321-8169 (SCOPUS)
21. "Working Phases and Novel Techniques of Digital Marketing", Dr. Md. Zair Hussain, International Journal on Future Revolution in Computer Science & Communication Engineering (IJFRCSCE), pp. 613-616, Volume3, Issue11, November 2017, ISSN: 2454-4248 (SCOPUS)
22. "An analysis on safety management techniques in business strategies and online business", Dr. Md. Zair Hussain, International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), pp. 249-254, Volume5, Issue8, August 2017, ISSN: 2321-8169 (SCOPUS)
23. "Quality Management with Business Growth and Common Business Problems", Dr. Md. Zair Hussain, International Journal on Recent Technologies in Mechanical and Electrical Engineering (IJRMEE), pp. 01-05, Volume3, Issue12, December 2016, ISSN: 2349-7947
24. "Changing Trends of Marketing using Digital Promotion and its Importance", Dr. Md. Zair Hussain, International Journal on Future Revolution in Computer Science & Communication Engineering (IJFRCSCE), pp. 13-16, Volume2, Issue10, October 2016, ISSN: 2454-4248
25. "A Study of Management of Risk Management for B2B Online Business", Dr. Md. Zair Hussain, International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), pp. 386-390, Volume4, Issue7, July 2016, ISSN: 2321-8169
26. "Development of Smart Helmet System for Accident Identification and Location Tracking", Mohd Ashraf, Dr. Sandeep Sharma and Md. Zair Hussain, International Journal of Electronics Engineering

(IJEE), pp. 47-53, vol8, num2, June-December 2016, ISSN: 0973-7383

27. "Steady Flow of MicroPolar Fluid in a Pipe with Porous Wall", Syed Azharuddin, Md. Zair Hussain and Mohd Yousuf", International Journal of Engineering Sciences & Research Technology, IJESRT, pp.568-574, volume 5, issue 3, March 2016, Publisher IJESRT, ISSN : 2277-9655 (UGC)
28. "Importance of Big Data to Business World & IT", Dr. Md. Zair Hussain, International Journal on Future Revolution in Computer Science & Communication Engineering (IJFRCSCE), pp. 15-18, Volume1, Issue7, December 2015, ISSN: 2321-8169
29. "Security in Ad hoc Network through Intrusion Detection Techniques" , Dr. Md. Zair Hussain, Dr. Mohd Ashraf, International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), pp. 5649-5652, Volume3, Issue9, September 2015, ISSN: 2321-8169
30. "Data Management for Grid Computing", Dr. Md. Zair Hussain, International Journal on Future Revolution in Computer Science & Communication Engineering (IJFRCSCE), pp. 26-29, Volume1, Issue1, June 2015, ISSN: 2454-4248
31. "A Survey of Wireless Sensor Network", Shabbir Hasan, Md. Zair Hussain, R.K.Singh, International Journal of Emerging Technology and Advanced Engineering (IJETAEE), March 2013, Volume 3, Issue 3, **ISSN: 2250-2459 (Online), ISO 9001:2008 Certified Journal**
32. "Sensing Area Coverage Problem For Wireless Sensor Network", Shabbir Hasan, Md. Zair Hussain, Ram Kishore Singh, International Journal of Advance in Communication Engineering (IJACE), pp. 57-62, Volume 5, Number 2, **Jan-June 2013, , ISSN: 0975-6094.**
33. "Analysis of Lifetime of Wireless Sensor Network", Md. Zair Hussain, M.P. Singh, R.K. Singh, International Journal of Advanced Science and Technology (IJAST), pp. 117-126, March 2013, Volume 53, **Publisher SERSC, Science & Engineering Research Support society), Korea, ISSN: 2005-4238.**
34. "Network Security Solutions and Vulnerabilities in E-Government ", Mamatha. T and Md. Zair Hussain, International Journal of Computing and Business Research (IJCBR) Volume 3, Issue 3, **September 2012 (MANUSCRIPT ID : IJCBRVOL3N3P3),**

ISSN (Online): 2229-6166.

35. "A Top-down Hierarchical Multi-hop Secure Routing Protocol for Wireless Sensor Networks", M.P. Singh and Md. Zair Hussain, International Journal of Ad hoc, Sensor & Ubiquitous Computing (IJASUC), pp. 33-52, Volume 1, Number2, **June 2010, Publisher AIRCC, Academy & Industry Research Collaboration Center,ISSN : 0976 - 1764 (Online); 0976-2205 (Print).**

Books

"Wireless Sensor Networks Technologies and Routing Protocol", Mohd Ashraf and Md. Zair Hussain, ISBN-13: 978-93-86258-70-0 FIRST EDITION, SEPTEMBER 2017, INDIA

Patents

1. "Inverse Reinforcement learning based security mechanism against adversarial attacks for industrial IoT systems", Dr. Mohd Ashraf, Dr. Md. Zair Hussain, Dr. Mohd Wazih Ahmad, Mr. M. Israk Ahmed, Mr. Anil Wurity, Dr. Dinesh Kumar Singh, Dr. Devesh Katiyar, Dr. R.V.S. Lalitha, Publication Date: 17/06/2022 Application No: 202241032350 A dated 06/06/2022, Patent Office Journal No. 24/2022 dated 17/06/2022.
2. "System and Method For Detecting Spammers Web Pages", Dr. Mohd Ashraf, Dr. Md. Zair Hussain, Dr. Dinesh Kumar Singh, Dr. Devesh Katiyar, Dr. Mozaffar Islam, Mr. Sonu Rajak, Mr. E. Elamaran, Mrs. S. Nithiya, Publication Date: 22/07/2022 Application No: 202241034096 A dated 14/06/2022 Patent Office Journal No. 29/2022 dated 22/07/2022.
3. "IOT- Enabled WSM System Tracks Unauthorised Human Access Into The Highway Access-Side Restricted Forests", Mrs. K. Meenakshi, Mr. Praveen Goyal, Mr. Kamlesh Kumar Gautam, Dr. K. Prasanna Kumar, Mr. Kalluri Rama Krishna, Dr. Mahmoud Ahmad Al-Khasawneh, Dr. Mohd Ashraf, Dr. Md Zair Hussain, Mr. Anil Wurity, Publication Date: 22/07/2022 Application No: 202241038691 A dated 05/07/2022 Patent Office Journal No. 29/2022 dated 22/07/2022.

DETAILS OF
CONFERENCE/SEMINAR
/WORKSHOP/ FDP
(ATTENDED/PRESENTED)

- Faculty Development Programme on "**Sensor Networks, Internet of Things (IOT) and Internet of Everything**", organised by Department of Computer Science and Information Technology (CSIT), Maulana Azad National Urdu University, Hyderabad from **November 25, 2021 to December 8, 2021.**
- Workshop on "**Awareness of National Mission on Education Through ICT (NMEICT)**" on **17th and 18th January, 2014,** organized by National Institute of Technology, Patna under a project sponsored by Ministry of Human Resource and

- Development (MHRD).
- Winter School on **“Effective Teaching and Research (BITP-WSETR-12)”** conducted by BIT Patna Campus during **24-29 December 2012** under Technical Education Quality Improvement Programme.
 - Faculty Development Programme under TEQIP on **“Numerical Techniques in Water Resources and Environmental Engineering ” (NTWREE-2013)** conducted by Civil Engineering Department, National Institute of Technology, Patna, Bihar from **December 16, 2013 to December 20, 2013.**
 - Faculty Updation Training on **“Network Security and Malware Analysis”** organized by Centre for Development of Advanced Computing (C-DAC), Hyderabad in collaboration with Jawaharlal Nehru Technological University (JNTU), Hyderabad as a part of Advanced Faculty Training Project, HRD Division, Department of Electronics and Information Technology, Govt. of India at C-DAC for a period of 2 weeks starting from **14.05.2012 to 25.05.2012.**
 - Research promotion workshop on **“Introduction to Graph and Geometric Algorithms”** during **26th – 28th March, 2011**, organized by Department of Computer Science & Engineering, National Institute of Technology, Patna and School of Technology and Computer Science, Tata Institute of Fundamental Research, Mumbai sponsored by National Board for Higher Mathematics (NBHM), Government of India under the Department of Atomic Energy (DAE).
 - Workshop on **“Public Key Infrastructure (PKI)”** during **15th – 16th March, 2011**, conducted by Centre for Development of Advanced Computing (C-DAC), Electronics City, Bangalore under the PKI Outreach Programme (POP) project of DIT. MCIT, Govt. of India, in coordination with the Department of Information Technology, National Institute of Technology, Patna, Bihar.
 - Summer School course on **“Networks & Information Security”** organized by the Department of Information Technology, National Institute of Technology, Patna during **17th - 30th June 2008** under Faculty Development Programme sponsored by MHRD, Govt. of India / AICTE,
 - Winter School on **“Local Area Network – Design, Implementation, and Administration”** organized by Department of Computer Science & Technology, Bengal Engineering College, Howrah, during **10th January to 21st January, 2000**, under Quality Improvement Programme sponsored by All India Council of Technical Education.
 - Winter School on **“C++ & Introduction to JAVA”** organized by Department of Computer Science & Technology, Bengal Engineering College, Howrah, during **27th December 1999 to 07th January, 2000**, under Quality Improvement Programme sponsored by All India Council of Technical Education.
 - Winter School on **“UNIX & C”** organized by Department of Computer Science & Technology, Bengal Engineering College, Howrah, during **13th December to 24th December, 1999**, under Quality Improvement Programme sponsored by All India Council of Technical Education.

- Chief Faculty Coordinator for **National Android Development Championship** (NADC) 2013-14 zonal level workshop cum championship organised by ACM IIT Delhi and ARK Technosolutions from **January 18, 2014** to **January 20, 2014** at Maulana Azad College of Engineering and Technology, Patna.
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PROFESSIONAL
MEMBERSHIPS

- **IEEE (Membership number 92050024)**
- International Association of Computer Science and Information Technology (IACSIT) (Member number 80344393)
- Universal Association of Computer and Electronics Engineers (Associate membership ID AM1002644)
- International Association of Engineers (IAENG) (Member Number: 13336)

PERSONAL DETAILS

Father's Name : Mr. Reyaz Hussain
Date of Birth : 11-02-1969
Gender : Male
Marital Status : Married
Nationality : Indian
Language Known : English, Hindi, Urdu
Etc..

Date:

Place: Hyderabad

(Dr. Md Zair Hussain)

[Last update on: 28th February 2023]