

## CURRICULUM VITAE

**NAME:** ZULQUERNAIN MALLICK, Ph.D.

**Present Position:** Professor

Department of Mechanical Engineering

Jamia Millia Islamia (A Central University, Govt. of India)

New Delhi-110025 (INDIA)

**E- Mail:** zmallick2002@yahoo.co.in , zmallick@jmi.ac.in

**Areas of Specialization:** Ergonomics and Manufacturing Processes

Degree Earned	University/ Board	Year	Division
Ph.D	Jamia Millia Islamia Delhi 110025 (India)	2001	Thesis is titled
M Sc. Engg. (Mech) (Industrial Engg.)	Aligarh Muslim University, Aligarh (India)	1989	1st
B. Sc. Engg. (Mech)	Aligarh Muslim University, Aligarh (India)	1987	1st
PUC	Aligarh Muslim University, Aligarh (India)	1980	1st
High School	Bihar Board	1979	1st

**Thesis titles:**

Ph.D: “Experimental Studies on Evaluation of Organismic

Variables and vibration Induced Stresses on Humans Working in a Mobile HCI Environment”.

M. Sc. Engg: “Ergonomic Studies on HCI under varying levels of Illumination, illumination source and task Structure”

### **TEACHING EXPERIENCE:**

- (i) at UG level: since 1990 till date.
- (ii) at PG level: Since 1999 till date.

### **EMPLOYMENT PROFILE:**

- (i) Worked as a Lecturer in the Department of Mech. Engg. at JMI University from 18-05-1990 to 27-07-1998, New Delhi (India).
- (ii) Worked as a Senior Lecturer from 28-07-1998 to 27-06-2004.
- (iii) Worked as a Reader from 2004 to 2007.
- (iv) Worked as Associate Professor from 2007 to 2010.
- (vi) Working as Professor from 2010 till date.
- (v) Worked as Lecturer from 2005 to 2007 in Universiti Sains Malaysia, Malaysia.

### **COURSES TAUGHT:**

- (i) At UG level: a. Production Engineering b. Workshop Technology c. Workshop Practice d. Engineering Economy and Management e. Ergonomics f. Metrology.
- (ii) At PG level: a. Research Methodology b. Statistics c. Advanced Manufacturing Process.

### **RESEARCH AND DEVELOPMENT:**

- (1) Established the Production Engg. Lab and continued as its in charge for several years.
- (2) Remained involved in Mobile Vibration and Noise Unit (MOVINRU) Laboratory supported by a grant of Rs. 4.00 lacs from AICTE in the department.

- (3) Participated in the establishment of Ergonomics in the Department of Mechanical Engineering, Aligarh Muslim University, Aligarh (India).
- (4) Was a member, organizing committee pertaining to the organization of International Conference: The International event, INCARF 96 (International conference on CAD, CAM, Automation, Robotics and Factories of Future) organized at JMI, New Delhi during December, 1996.
- (5) Established Ergonomics Laboratory in the Department and continuing as it's in charge.
- (6) Chaired one session in the "National Seminar on Ergonomic Research Techniques in Ergonomics" at Baroda.
- (7) Reviewed paper for the Journal of Society for Information Display (SID).

### **SHORT TERM COURSES/ TRAINING PROGRAMME ATTENDED:**

- (1) Attended a one week course on improvement of Instruction through educational technology.
- (2) Attended a four week orientation program organized by the Academic staff college, Jamia Millia Islamia, New Delhi.
- (3) Attended a two week course on Technology Management – organized by Indian Institute of Technology, Kharagpur in Kharagpur (India).
- (4) Attended a one week course on Reliability Engineering and Quality Management organized by the Indian Institute of Technology, Bombay.
- (5) Attended a two week course on Experimental Methods and Analysis organized by the Indian Institute of Technology, Delhi at Delhi.
- (6) Attended a four day workshop on Development of Quality Question Paper organized by the Academic Staff College, Jamia Millia Islmia, New Delhi.

### **PROJECT/ THESIS GUIDED:**

#### **Ph.D Thesis guided:**

1. Studies on the effect of noise and vibration on operators working in mobile human computer interaction (HCI) environment awarded in the year 2006.

2. Some studies on noise and its effects on industrial/cognitive task performance and modeling awarded in the year 2012.
3. The prevalence of upper limb work related musculoskeletal disorders (WMSDs) related to occupational tasks involving torque and power grip awarded in the year 2014.

#### **M. Tech Dissertation supervised:**

- Modeling of noise effects on worker's performance, 2010.
- Optimization of input parameters of CNC turning operation of the given component using Taguchi approach.

B.Tech/ B.E. Projects: Guided about 25 projects at Under Graduate level.

#### **ADMINISTRATIVE EXPERIENCE:**

- (i) Have been acting as Student Advisor for several yearly and presently too.
- (ii) Worked as Assistant Superintendent for B.Tech Entrance Examination during 1998, 1999, 2003 at JMI, New Delhi.

#### **PUBLICATIONS:**

##### **Book Chapter**

1. Some studies on Noise and its effects on industrial/cognitive task performance and modeling, Fuzzy inference system-Theory and applications, ISBN:978-953-51-0525-1.

##### **International/National Journal papers**

1. Mohammad, A. and Mallick, Z. 2017. Some investigations on the relationship between ergonomic and TQM. International Journal of Industrial and Systems Engineering. Vol. 27. No. 2.
2. Md. S.A., Umri., R.S., Naresh, K., Manoj, K. and Mallick, Z. 2017. Impact of cycle on potential CTS. International journal of advance engineering research and science. Vol. 4. No. 1. pp. 47-51.
3. Md. S.A., Umri., R.S., Naresh, K., Mallick, Z. And Manoj, K.2017. Comparison of sEMG signal of CTS sufferers and non CTS sufferers. International journal of advanced research. Vol. 5. No. 2. Pp. 594-599.

4. Bano, F.,| Mallick, Z., Khan, A. A., 2016. The effect of grip force, stroke rotation and frequency on discomfort for a torquing tasks. IOS press. Vol. 53 No. 4, pp.691- 708.
5. Mallick, Z., 2014, Futuristic approach of ergonomics in India, Global Sci-Tech, Al-Falah Journal of Science and Technology, Vol. 6, No. 1, pp.25-32.
6. Bano, F., Mallick, Z., Khan, A.A., 2015. Optimization of the levels of grip force, stroke rotation, frequency and grip span for a torquing task. International Journal of Occupational Safety and Ergonomics, Vol. 21. No. 1, pp. 94-104.
7. Bano, F., Mallick, Z., Khan, A.A., 2013. EMG Investigations regarding handle size, grip force and stroke rotation in screw driving. International Journal of Ergonomics (IJEG), 4(1).
8. Mallick,Z., Ahmed,S., and Bisht, L.S., (2012) Barriers and enablers in implementation of lean six sigma in Indian manufacturing industries. International Journal of advanced research in management. Vol:3, No:1, pp 11-19.
9. Mokhtar, M., Kamaruddin, S., Khan, Z. A., & Mallick, Z. (2012). A study on the effects of noise on industrial workers in Malaysia. *Jurnal Teknologi*, 46(1), 17-30.
10. Bano, F., Mallick, Z., Khan, A.A., 2012. Effect of grip, stroke rotation and handle size on discomfort for screwing task. International Journal of Human Factors and Ergonomics, 1(4), 390-407.
11. Mishra, R. V., Rathore, S., Ahmad, S. and Mallick, Z., 2012, Modelling of traffic constable comfort level variation in NCR region by fuzzy expert system, International Journal of Engineering Science and Technology, Vol:4, No:5, pp 2072-2082
12. Mallick, Z., Optimization of the operating parameters of a grass trimming machine, Journal of Applied Ergonomics, Vol-41, (2010),260-265.
13. Siddique, A.N., Khan, Z.A., Mallick, Z., Grey relational analysis coupled with principal component analysis for optimization design of the process parameters in in-feed centreless cylindrical grinding, International Journal of Advanced Manufacturing Technology (2010)46, 983-992.
14. Mallick., Z., Badruddin., I.A., Hussain, K., Ahmed, S. and Kanesan, J., Noise characteristics of grass trimming machine engines and their effect on operators,Inter-disciplinary International Journal of Noise and Health, 2009,Vol-11, 98-102.

15. Hameed, K.A., Mallick, Z., (2009), Expert system to predict effects of noise pollution on operators of power plant using neuro-fuzzy approach, Inter- disciplinary International Journal of Noise and Health Vol.-11 Issue-45, 206-216.
16. Khan, I.A., Mallick, Z., Khan, Z.A., and Muzammil, M., A study on the Combined Effect of Noise and Vibration on the Performance of a readability Task in a Mobile Driving Environment by Operators of Different Ages, International Journal of Occupational Safety and Ergonomics, 2009, Vol.-15(3), 277-286.
17. Mallick, Z., Kaleel, H., Siddiqui, A.N., An expert System for Predicting the Effects of Noise Pollution on Grass Trimming Task Using Fuzzy Modeling, International Journal of Applied Environmental Sciences Vol. 4 (2009), 389-403.
18. Mallick, Z., Data entry task in mobile computing: effects of vibration, display colour, and user age, Asian Journal of Ergonomics Vol. 9(2009), 19-32.
19. Mallick, Z., Cognitive performance of grass trimmers in noisy conditions- the effect of user age, Asian Journal of Ergonomics, Vol.9 (2009), 33-48.
20. Khan, I.A., Mallick, Z., and Khan, Z.A., (2008), A study on the effects of noise and vibration on operators' readability task performance in a mobile driving environment ASEAN Journal on Science and Technology for Development. 25(2), 163-176.
21. Mallick, Z., Haleem, A., and Siddique, A.N., (2008), Ergonomic Evaluation and optimization of levels of temperature, viewing angle and distance on text- readability task. Journal of Mechanical Engineering, 5(1) 17-27.
22. Mallick, Z., Siddique, A.N., Haleem, A., Mobile computing with special reference to readability task under the impact of vibration, colour combination and gender, Journal of Human Ergology, 37(2), 2008, 57-66.
23. Mallick, Z., Cognitive performance of grass trimmers the effect of age, UDYOG PRAGATI, the journal for practicing managers, 32(2), 2008.
24. Mallick, Z., Optimization of operating parameters for back- pack type grass trimmer. International Journal of Industrial Ergonomics, 38(1) 101-110. (2008).
25. Mallick, Z., Evaluation and optimization of handle design parameters of grass trimmer machine, International Journal of Occupational Safety and Ergonomics (JOSE), 14(3), 343-349. (2008).

26. Khan, I.A., Mallick, Z., and Khan, Z.A., (2007), A study on combined effect of noise and vibration on operators performance of a readability task in a mobile driving environment. *International Journal of Occupational Safety and Ergonomics (JOSE)* 13(2), 127-136.
27. Mokhtar, M., Kamaruddin, S., Khan, Z.A., and Mallick, Z., (2007), A study on the effects of noise on industrial workers in Malaysia. *Journal Teknologi*, 46, 17-30.
28. Mallick, Z., Investigating data entry task performance on a lap-top under the impact of vibration, the effect of colour, *International Journal of Occupational Safety and Ergonomics (JOSE)* 2007, 13(3) 291-303.
29. Badruddin, I. A., Zainal, Z. A., Khan, Z. A., & Mallick, Z. (2007). Effect of viscous dissipation and radiation on natural convection in a porous medium embedded within vertical annulus. *International journal of thermal sciences*, 46(3), 221-227.
30. Mallick, Z., badruddin, I.A., Optimization of operating parameters of video display units in text reading task: luminance contrast, viewing distance and character size, *Journal of SID (Society for Information Display)* 13(9), 2007, 745-756.
31. Mallick, Z., badruddin, I.A., Haleem, A., Siddique, A.N., and Tandkur, K.H., Ergonomic evaluation of data entry task performance under the influence of noise, and task structure- The effect of gender. *International Journal of Mechanical Engineering (IJMME)*, 2(2), 2007 161-172.
32. Mallick, Z., Badruddin, I.A., Hussain, K., Jagirdar, S.N., Operational characteristics optimization of human computer system. *IIUM Engineering Journal* Vol-8, 2007.
33. Khan, I.A., Mallick, Z., and Khan, Z.A., (2006), Effect of age of the operators on the task performance under varying levels of noise and vibration in mobile driving environment. *Udyog Pragati- Journal of Practicing Managers*, 30(4), 28-36.
34. Mallick, Z., Hasan, M.M., Khan, Z.A., and Siddique, A.N., (2006), Effect of gender on human performance under the impact of polluted mobile human-computer-interaction environment. *ASEAN Journal on Science and Technology for Development*, 23 (1 and 2), 43-53.
35. Mallick, Z., Khan, Z.A., Khan, I.A., Readability task performance in a mobile environment in the presence of noise and vibration, *Asian Journal of Ergonomics*, Vol: 7, 2006, 67-69.

36. Mallick,Z., Managing and optimizing the computer related readability task using Taguchi method, MANGALMAY, Journal of Management and Technology, 2006, Vol. 1(1), 86-96.

### **Conference papers:**

1. Md, S.A., Mallick, Z. and Mohammad, A., 2016, Comparison of Vibrating and Non-vibrating Manufacturing unit worker's using sEMG signals on CTS. National Conference on Mechanical Engineering – Ideas, Innovations & Initiatives (NCMEI3-2016) AMU Aligarh, April 16-17, 2016. ISBN: 978-93-85777-56-1.
2. Nafees, K., Mallick, Z. and Mohammad, A, 2014, Investigation on readability task under the varying level of text/background colour and font sizes, International conference on advancement in Mechanical engineering, 7-8, August, 2014, Al-Falah University, Dhauj, Haryana, India.
3. Khan, Z. A., Mallick, Z. and Siddiquee, A. N., 2013, Ergonomic study on the effect of manual concrete handling task on locomotive organs and discomfort level of workers of construction industry, HWWE-12, pp. 603-610.
4. Bano, F., Mallick, Z., Khan, A.A., 2013 The effect of stroke rotation and frequency of exertion on discomfort in gripping task. In: Proceedings of the International Conference on Automation and Mechanical Systems, 21st -22nd March, pp. 152-158
5. Bano, F., Mallick, Z., Khan, A.A., 2013, The effect of self pace cycle time for combinations of grip force and stroke rotation. In: e-Proceedings of the 2nd International Conference on Emerging Trends in Engineering & Technology, 12th -13th April.
6. Bano, F., Mallick, Z., Khan, A.A., 2013. EMG of forearm muscles in torqueing task with respect to grip force, stroke rotation and frequency. Submitted in International Conference HWWE-2013.
7. Mallick,Z Noise Induced Effects Assessments on workers of a thermal power plant: A case study Proceedings International Conference on Ergonomics (HWWE-2008), December 22-24), 2008, Pune, India
8. Kaleel, H ,Mallick,Z Industrial noise and its effects on workers. pp: 531-537 Proceedings international Conference on Emerging Technologies in Environmental Science and Engineering, (26-28 October,2009), AMU, India
9. Kaleel, H ,Mallick,Z An expert system for predicting cognitive performance in Reciprocating Pumps industry using Neuro-Fuzzy Approach Proc. 3rd International



Conference on Advances in Mechanical Engineering (January 4 - 6, 2010) Gujarat, India,pp:647-651

10. Mallick,Z. Haleem, A., Siddique, A.N.,Ilahi, Z..Development and Question of Technology Adoption, pp:292-297 Proc. 3rd Global Conference on Flexible Systems Management (GLOGIFT) (March 13 - 15, 2004) New Delhi, India.
11. Mallick,Z Industry-Human Factors Engineering Interaction in Indian Context,pp:122-125. Proc. National Seminar on Ergonomic Research Techniques, Feb. 11 – 12, 2010, Vadodara, India.
12. Rathore,S.,Kaleel, H., Mallick,Z Modeling of Noise Effects on Workers Performance in Pump Manufacturing Industry,pp:253-259 Proc. All India Seminar on Ergonomics for Improved Productivity (EIP-2009), Nov21 – 22, 2009, AMU, India
13. Kaleel, H , Haleem, A.,Mallick,Z Cognitive Task Assessment in Steam Turbine Power Plant Station, pp:10-15 Proc. All India Seminar on Ergonomics for Improved Productivity (EIP-2009), Nov. 21 – 22, 2009, AMU, India
14. Mallick,Z, Bano, F., Khan, A.A.Effects of Position of Mouse on Discomfort in upper Limb,pp:106-111. Proc. All India Seminar on Ergonomics for Improved Productivity (EIP-2009), Nov. 21 – 22, 2009, AMU, India
15. Khan, I.A.,Mallick, Z., Khan, Z.A.The effect of Gender on the readability Task performance under the impact of noise and vibration in a mobile driving environment, pp:586-595. Proc. National Conference on Advances in Mechanical Engineering (AIME-2006) , 2006, New Delhi, India.
16. Mallick,Z .,Computing Efficiency with Special Reference to readability task and use of mathematical tool, pp:175-184. Proc.3rd International Conference on Research and Education in Mathematics (ICREM3) Engineering, April. 10-12, 2007, Kuala Lumpur, Malaysia.
17. Rathore, S., Mallick,Z ., Haleem, A.,Tagay, K.P.,Sharma, S.K.,Modeling of Illumination effects on Industrial Workers Performance, pp: 993-998. Proc. 2nd International Conference on Production and Industrial Engineering, 2010, Punjab, India
18. Mallick,Z ,Ergonomic Evaluation of Data Entry, text-editing and search task performance under the influence of noise pollution and illumination-The effect of gender,pp:341-350 Proc .International Engineering Convention, Jeddah, Saudi Arabia, March 10-14, 2007
19. Khan, I.A., Mallick,Z.,Khan, Z. A., Muzzamil, M.: Effect of age of the operators readability task performance in a real mobile environment in the presence of noise and vibration Proc. Of International conference on advances in Industrial Engineering

Application, 6-8 Jan,2010, Chennai, India

20. Khan, I.A., Mallick,Z.,Khan, Z. A., Muzzamil, M.:A study on the effect of gender and hand hacksaws with different designs on human performance. A study on the effect of gender and hand hacksaws with different designs on human performance.
21. Mallick,Z., Kamaruddin, S., Mokthar, M.,Badruddin, I.A.:Use of optimization tool in Ergonomics in HCI Environment. Proc. 2nd IMT-GT Regional Conference on Mathematics, Statistics, June. 13 – 15, 2006, Penag, Malaysia,
22. Mallick, Z.,Ripin, Z.M.:Proc. 2nd IMT-GT Regional Conference on Mathematics, Statistics, June. 13 – 15, 2006, Penag, Malaysia, Proc. 2nd IMT-GT Regional Conference on Mathematics, Statistics, June. 13 – 15, 2006, Penag, Malaysia,
23. Mallick, Z., Siddique, A,N., Haleem, A.:Environmental sustainability Trough Active Noise Control: A Review. Proc. International Conference on Energy and Environment-Strategies for sustainable Development (ICEE-SSD), 23-24, Jan, 2004 , New-Delhi, India
24. Mallick, Z., Siddique, A.N.:Spatial Characteristic Analysis of Instrumentation System in Hilton Recirculating Air Conditioning unit (HRAU)-An ergonomic Investigatio2nd BSME-ASME International Conference on Thermal Engineering,2-4, Jan, 2004, Dhaka, Bangladesh .