

Dr. SABAH KHAN

Professor

Office Address:

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Academic Areas of Interest

- Composites
- Nano Composites
- Plant Nano fibers
- Functionally Graded Materials
- Smart Composites
- Mechatronics
- Strength of Materials
- ❖ Machine Design
- Stress Analysis
- Tribology
- Micro-Tribology
- Green-Tribology
- Nano-Tribology

Software Support

Capability of MS Office, MS Project and Solver Suit, Auto-CAD, Pro-E/Creo, ANSYS, MATLAB, Fusion 360, Solid Works, Python, C Plus.

Academic Qualification

> 2002-2007

Doctor of Philosophy, (PhD), Department of Mechanical Engineering Faculty of Engineering, Jamia Millia Islamia, New Delhi, India.

Thesis topic: "Investigation of Tribological and Mechanical Behavior of Mineral Reinforced Aluminum Alloy and Plastics".

> 1994-1996

M. Sc. Engg. In Polymer Technology, (1st Position), First Div, Delhi College of Engineering, Delhi University, New Delhi, India. First Division with Distinction.

> 1992-1994

Post Graduate Diploma in Computer Applications, First Div, Jamia Millia Islamia, New Delhi, India. First Division with Distinction.

> 1986-1992

B. Sc. Engg. In Mechanical Engineering, Faculty of Engineering and Technology, JMI, New Delhi, India **First Division with Distinction.**

Professional Experience (National & International)

July 2018- Till date

Professor, Department of Mechanical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi, India.

July 2015- July 2018

Associate Professor, Department of Mechanical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi, India. (On Extra ordinary leave of 2 <u>years</u> from 2008-2010).

July 2002- July 2015

Assistant Professor, Department of Mechanical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi, India. (On Extra ordinary leave of 2 years from 2008-2010).

♣ Nov 2009- Sept 2010

Associate Professor, School of Engineering, AMA International University, Department of Mechatronics, Manama, Bahrain

Nov 2008- Sept 2009

Associate Professor, Department of Allied Studies, Institute of Engineering, Birla Institute of Technology, Budaiya, Bahrain.

Nov 1996- March 2002

Lecturer(Temporary), Department of Mechanical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia, Delhi, India.

Reseach Collaboration

- ✓ DTU, Delhi✓ NIT, Kurukshethara
- ✓ Shri Mata Vaishno Devi University, Katra, Jammu.

Reviewer

- ✓ Materials Research Express, IOP Science.
- ✓ Sage Publications
- ✓ IMST. Elsevier

- ✓ Tribology Letters (TRIL)
 ✓ Engineering Science and Technology. An International Journal. Elsevier
 ✓ Proceedings of the National Academy of Sciences, India, Sec.A, Physical Science.
- ✓ Cambridge University Press, (Books)

Supervision of B.Tech, M,Tech & MBA projects:

Some of the topics spanning over 22 years are:

- Fabrication and Characterization of Plant Nanofiber Polymer Composites
- Fabrication and Characterization of sheep fibre Polymer Composites
- Simulation and Fabrication of Equipment for Specially-abled Persons
- Wear Analysis of Nano Composites
- Fabrication and Characterization of Biodegradable Composites
- Fabrication of Machine Components of Aluminum Matrix
- Fabrication of biomedical composites
- Fabrication and Wear Analysis Non Circular Helical Gears
- Wear analysis of Non Circular Gears used in Textile Industry
- Wear Analysis of Nano Composites
- Economic Viability of Mineral Reinforced Aluminum Composite Flywheel Development of Aluminum Matrix Composite
- Fabrication and Characterization of Composites
- Development of Stable epoxy Natural Mineral Composite to withstand a highly basic environment
- Fabrication of Wear Testing System
- Design of Machine Components using C Language
- Mechanical Design of Machine Components
- Supply Chain management of Bahrain Pride
- Consumer Satisfaction Analysis Of Kimberly Olayan Group Saudi Arabia
- Total Quality Management of McDonalds, Bahrain

P.HD Supervision

- 1. Fabrication and Characterization of An Aluminum Manganese Oxide Composite used for an Optimization of Solar Latent heat Storage Unit (Awarded)
- 2. Analysis and Simulation of Functionally Graded Materials Based on Mechanical Behavior using FEA . (Completed)
- 3. Tribological Analysis of Particle Reinforced Aluminum Alloy Composite for Kinematic Chain Applications. (Awarded)
- 4. Wear analysis of Biodegradable Composites used for Medical **Applications**

- 5. Evaluation of Mechanical Properties of Biodegradable Composites reinforced with Plant/Animal Nano-Fibres
- 6. Evaluation of Mechanical and Tribological Properties of MWCNTs/ Ceramic Polymer Nanocomposite (Submitted)
- 7. Mechanical Component Design based on Green Tribology
- 8. Otimumisation of Thermal Energy for Building structures in different Environments(Completed)

List of Publications

Journals: National & International

- "Dry sliding wear characterization of SGM/boron carbide hybrid polymer matrix composite", Polymers and Polymer Composites, August 2020. (Sage)
- "Microstructural characterization and evaluation of mechanical properties of silicon nitride reinforced LM 25 composite", Journal of Materials Research and Technology 9(4), June 2020, pp 9129 – 9135. (Elsevier).
- 3. "A review on mechanical and Tribological characterization of boron carbide reinforced epoxy composite", Advanced Composite Materials, May 2020, DOI: 10.1080/09243046.2020.1759482. (Taylor & Francis).
- 4. "CFD analysis of biodiesel blends and combustion using Ansys Fluent", Materials Today Proceedings, January 2020, (Elsevier).
- "Evaluation of Erosive Wear Rate of Al 2 O 3 -Cu Composite". IOP Conference Series Materials Science and Engineering, December 2019. IOP Science.
- 6. "Microstructural examination of aluminium-copper functionally graded material developed by powder metallurgy route", Materials today: proceedings, **October 2019**, **(Elsevier)**.
- 7. "Mechanical and wear properties of epoxy matrix composite reinforced with varying ratios of solid glass microspheres", JPCS, July 2019, IOP science.
- 8. "Mechanical properties of natural fiber reinforced epoxy composites: A review", ScienceDirect , Procedia Computer Science, January 2019 ,(Elsevier)
- 9. "Optimization of Powder Metallurgy Processing Parameters of Al2O3/Cu Composite through Taguchi Method with Grey Relational Analysis". Journal of King Saud University, **Feb, 2019,(Elsevier).**
- 10. "Analysis of erosive wear of MWCNTs/MnO2 nanocomposite", Materials Today: Proceeding, **December 2018**, **(Elsevier)**.
- 11. "Hardness and wear analysis of Cu/Al 2 O 3 composite for application in EDM electrode", Material science & Engineering, **Feb 2018**,IOP Science, **(SCOPUS)**
- 12. Comparative Analysis for Coefficient of Friction of LM 25 Alloy and LM 25 Granite Composite at Different Sliding Speeds and Applied Pressure, IJMPERD, June 2018, (SCOPUS)

- 13. "Ergonomics And Anthropometrics Aspects Due To Adjustable Seat System Of An Engine Powered Go-Kart Vehicle". IJMPERD, June 2018, (SCOPUS)
- 14. "Evaluation Of Erosive Wear Rate Of Al2o3/Cu Composite Through Taguchi Method", Advanced Materials Manufacturing & Characterization Vol. 8 Issue 2 (2018), DOI: 10.11127/ijammc2018.09.05.
- 15. "Fabrication and Microhardness Analysis of MWCNT/MnO2 Nanocomposite", Journal of Materials, Volume 2016, Article ID 6070468, 10 pages. (SCOPUS)
- 16. "Comparative Analysis of Wear for Excavator Bucket Tooth Using Different Materials", International Journal of Science and Research (IJSR) Volume 5, Issue 5, May 2016, pp 1819 1822, ISSN: 2319-7064, DOI: NOV163824. (UGC)
- 17. "Functionally Graded Materials: A Review on Application of Finite Element Method", IJAPME, Volume-2,Issue-2, March 2016, ISSN: 2394-6202.(UGC)
- "Analysis of Wear Rate and Tribological Behavior of Aluminum Cast Alloy A356 and Granite Composite at Different Speeds", (IJEAT), Volume-5, Issue-3, February 2016, Pp 128 – 131, ISSN: 2249 –8958. (SCOPUS, UGC)
- 19. "Electronic Waste: Time to Wake Up", International Journal on Recent and Innovation Trends in Computing and Communication, ISSN: 2321-8169 Volume: 4 Issue: 2, pp 256-259, **Feb 2016**. (UGC).
- 20. "Analysis of Multi Layered Symmetric Composite Plates Using Classical and Higher Order Theories", International Journal of Trend in Research and Development, Volume 3, Jan 2016, Pp 82 -87. ISSN: 2394-9333. (UGC).
- 21. "A Review An Optimization of Macro- encapsulated Paraffin used in Solar Latent Heat Storage Unit", IJERT, Volume 5, Issue 1, Jan 2016, Pp 729 736. ISSN: 2278-0181. (UGC, ELSEVIER SSRN).
- 22. "Thermoplastic Properties of Cellular Aluminium and Ceramic Particulate/ Aluminium Composites", International Journal of Engineering Research and Applications, October, **2015**, Pp 17 27, ISSN: 2248-9622. **(UGC).**
- 23. "Design and Analysis of Helical Elliptical Gear using ANSYS", International Journal on Emerging Technologies, Volume 6(2): 152-156(**2015**), ISSN: 0975-8364. (SCOPUS)
- 24. Evaluation of Effective Thermal Properties of Aluminum Metal Matrix Composites Reinforced by Ceramic Particles IJCET, Volume 5, No4.July-August, **2015**. Pp2884-2897, ISSN: 2277-4106. (SCOPUS)

- 25. "Using Metallic Foams with Macro-encapsulated Paraffin to Enhance the Charging and DIS-charging Processes", IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) e-ISSN: 2278-1684, ISSN: 2320-334X, Volume 12, Issue 4 Ver. V (Jul. 2015), PP 09-22. (Thomson Reuters)
- 26. "An Analytical Approach for Synthesis and Mechanical Characterisation of nano-iron oxides aluminium for & composites Biological industrial Applications", International Journal of Computer & Mathematical Sciences IJCMS Volume 4, March 2015, pp 184- 189, ISSN: 2347-8527... (Thomson Reuters)
- 27. "Analysis of Tribological Applications of Functionally Graded Materials in Mobility Engineering", International Journal of Scientific and Engineering Research, March 2015, pp 1150-1160, ISSN: 2229-5518. (Thomson Reuters).
- 28. "Simulation and Analysis of Transmission Error in Helical Non Circular Gear Model", International Journal of Mechanical Engineering & Technology, Vol 6 Issue 2, Feb 2015, pp128 136, ISSN: 0976-6340. (SCOPUS)
- 29. "Total Quality Management in Research and Development Sections of Different Sectors: A Social Responsibility", International Journal of Recent and Innovation Trends in Computing and Communication, Volume 3, Issue 2, pp 616 621,Feb 2015, ISSN: 2321-8169. (Thomson Reuters).
- 30. "Effect of Sliding Surface Temperature on the Sliding Wear Behavior of Natural Mineral Reinforced Aluminum Alloy Composite", International Journal of Scientific Research, Vol 4, Issue 3, March, 2015, ISSN: 22778179. (UGC).
- 31. "A Review Paper on Tribological and Mechanical Properties Of Aluminum Metal Matrix Composites manufactured by Different Routes", ICMME, December 2014. ISBN: 97881930280. (Thomson Reuters).
- 32. "Plastic Waste Management Options in India: An Environmental Evaluation, Productivity Journal, April-March 2002, NPC, INDIA. (Indian Citation Index).

International Conferences

- Mechanical properties of epoxy hybrid composites reinforced with agave fiber and zinc powder in the "ICAAMM-2020", organized by Department of Aeronautical & Mechanical engineering, held on 24th & 25th July 2020 at MLR Institute of Technology, Hyderabad.
- 2. "Mechanical and wear properties of epoxy matrix composite reinforced with varying ratios of solid glass microspheres", NFST 2019, NIT Kurukshetra. Proceedings, (Scopus).

- 3. "Particle Size Dependence of MnO Reduction for Fabrication of AlMnOX Composite vir Stir Casting", Conference Proceedings for Engineering Sciences and Technology (CEST-2018), ISBN: 978-81-936820-6-7, DOI: 10.21467/proceedings, Garabulli and Al Khoms Engineering Faculties, Garaboulli Libya.
- 4. "Computational Combustion Analysis of Biodiesel Blends", Proceedings NANOFIM-2017, 16 -17 Nov, 2017. GBU, Gautam Buddha Nagar, Greater Noida, UP, ISBN: 978-938672418-2, pp 364-367.
- 5. "Development And morphological Characterization of Al-Almno Composite Fabricated via Stir Casting Technique", Proceedings ICEBU-16, 2nd-4th December 2016, ISBN: 978-163535676-2.
- 6. "Modelling of Functionally Graded Material Beam based on Mechanical Properties", Proceedings ICEBU-16, 2nd-4th December 2016, ISBN: 978-163535676-2.
- "Comparative Analysis of Surface Roughness for Different Machining Conditions", Conference: International Conference on Innovative Research in Engineering Science and Management, At India Habitat Centre, New Delhi, India, IHC239, Volume: IJETMAS, Special vol 4, ISSN: 2349-4476. 28th February 2016.
- "Analysis of Functionally Graded Materials Beam type Structure based on Material Properties Modelling", International conference on changing technological & managerial scenario: aspect & prospects (Gyanodaya -2015) 28th November 2015 I.E.C Greater Noida, India.
- 9. A Review of Aluminum Matrices Natural Mineral Composite for Tribological and Mechanical Properties", Proceedings NACME- 2015, Al Falah University, Dauj Faridabad, April 16, **2015**.
- 10. "Wear Behavior Analysis of Aluminum Composite Prepared by Different Routes" Proceedings NACME-2015, Al Falah University, Dauj Faridabad, April 16, **2015.**
- 11. "Study of Fabrication, Characterization, Mechanical and Electrical Properties of Carbon Nanotubes- Polyaniline Nanocomposite", An International Conference & Exhibition on "Cutting Edge", NIET, Noida,
- 12. "Effective Material Properties Modelling for FGM", AMAPE- 2015, Skyline Institute of Engineering and Technology, Greater Noida, August 20, **2015**. ISBN: 978938493553-5
- 13. "Technological Challenges in Mechanical Engineering" In sync with "MAKE IN INDIA" (CETCME-2015), 21st -22nd March 2015 Greater Noida, Uttar Pradesh, India, ISBN: 2229-5828.
- 14. "Review on Tribological and Mechanical Properties of AluminumMetal Matrix Composites Manufactured by different routes", International Conference on Mechatronics and Mechanical Engineering, ICMME-2014, 30th Nov, Warangal, pp1-9, ISSN: 97881930280-2-5.
- 15. "A Review of Metal Foams and Ceramic Nanoparticles used for Paraffin Performance Optimization in Solar latent Heat storage Unit". Conference on Advances in Nanotechnology and Renewable Energy, Proceedings Advances in Nanotechnology & Renewable Energy, NCNRE-14, 28-29th April **2014**, Jamia Millia Islamia, ISBN: 9789381 212-65-3.
- 16. "A Review of Cellular Metals and Composites for an Optimization of Solar Latent Heat Storage Unit", Presented at the National Conference of Manufacturing Technology, May 23-24, **2013**. NTTR Chandigarh.
- 17. "Quality and Performance Assessment for Government Owned Technical Institutions". ISTE, Delhi Section Convention, DTU. 5-6 September, **2013**.
- 18. "Impact of Positive Attitude In Technological Innovations" Presented in Workshop on Positive Attitude For Sustainability, AMA International University Bahrain. Feb 2010.

- 19. "Characterization of Particulate Reinforced Metal Aluminium Reinforced Matrix Composite on The Basis of Mechanical and Tribological Properties", Proceedings, ICETI2011, Sept 2011, Kenting, Taiwan.
- 20. "Fabrication of a Physically-based Tribology Model for Aluminum Alloy Matrix and Natural Mineral Reinforced Composite", Presented and published_in the Proceedings of "Advances In Mechanical Engineering" (AIME-2006) held on 20-21 January 2006 at Department of Mechanical Engineering. F/O Engg. & Tech. Jamia Millia Islamia, New Delhi-25.
- 21. "An Overview of Intelligent Processing of High Performance Materials", Proceedings of RAMP-2001, organized by University of Annamalai, September 2001 Madras, Tamil Nadu.
- 22. "Analysis of Health Hazards caused by PVC Plasticizers and in Toys and other Articles", Presented at XXV Indian Social science Congress, University of Kerala, 2002.
- 23. "Role of Women in Globalization of Higher Education", Presented in Conference on Management of Higher Education, Faculty of Education, Jamia Millia Islamia, 2003.
- 24. "Impact of Technical Emancipation on Muslim Women", Presented in Conference on Legal and Technical emancipation of Women, organized by Faculty of Engg and Tech and National Women's Commission, Jamia Millia Islamia, Feb 2004.
- 25. "Energy a Global Concern" Proceedings of Conference of Effect of Technology on Society, organized by Department of Psychology, Jamia Millia Islamia, 2003.
- 26. "Management, Recycling and reuse of Plastic waste" Proceedings of conference on Environmental Challenges in the New Millennium, organized by Faculty of Engg & Tech, Jamia Millia Islamia, and Indian Society of Environmental Management.

Invited Lectures (National & International)

S No	Topic	Venue/ Institution	Organiser	Туре
1.	Plastic Waste Disposal: Bahraini Perspective	Social Responsibilities and Scientific Attitude, 23 rd – 24 th Jan, 2009, BIT Bahrain	BIT International center, Bahrain	International
2.	Importance of Technical Education for Bahraini women	Conclave -2009, 23 rd March 2009, BIT Bahrain.	BIT International center, Bahrain	International
3.	Chaired a session on "Fuzzy Logic Applications in Mechanical Engineering"	Seminar on Neural Network & Fuzzy Logic: Application in Digital Communication" organized by AMA International University, Salmabad, Bahrain and BMES, 29th Sept 2009.	AMA International University and BMES	International
4.	Team Building; One Desire One Mission	AMAIUB's Team Building 2010, 25 th Feb 2010	Movenpick Hotel, Bahrain	International
5.	"Statistical Analysis of Roughness Parameters in Different Types of Surfaces"	11th Biennial Conference of ISIAM to commemorate th 125th Birth Year of Srinivasa Ramanujan, 25th-16th Dec 2012	Gautam Budha University, Greater Noida, UP	International
6.	Technical Education for emancipation of Women	Jamia Millia Islamia, Alumni meet, Bahrain, 4 th Jan, 2013	Bahrain Jamia Alumni Association, Jan 2013	International
7.	History of Jamia: A Retrospective	Jamia Millia Islamia, Alumni meet, Bahrain, 4 th Jan, 2014	Bahrain Jamia Alumni Association, Jan 2014	International

8.	Recent Advances in Mechanical Engineering	Faculty Development Program, "Emerging Research Trends in Mechanical Engineering, ERTME-2015" under TEQIP- II,Nov 2-7th 2015, IFTM University, Moradabad	IFTM University, Moradabad	National
9.	Robotics in Mining	National Seminar on Solar robotics,NSSR-2015,9-10 th Oct, 2015, Department of Mechanical Engg, JMI	Deptt of Mechanical Engg, F/O Engg & Technology, JMI.	National
10.	Start-up India – An Adequate amount of Fuel to go the Distance	National Conference on "Management Education and its Role in Entrepreneurship" MEED-2016. April 29. Skyline Institute of Engg & Technology, Greater Noida, UP, India	Skyline Institute of Engg & Technology, Greater Noida, UP, India	National
11.	Caterpillar Bucket Tooth Analysis	ICEBU- 1-3, December 2016. Jamia Millia Islamia, New Delhi	Deptt of Mechanical Engg, F/O Engg & Technology, JMI.	International
12.	Recent Advances in Pressure Vessels	FDP, Krishna Engineering College Gaziabad, 5 th - 9 th June 2017.		
13.	Surface Characterization of Advanced Composites using SEM	Week FDP On Advances in	TEQIP-III sponsored One Week FDP On Advances in Surface Engineering, (1-5 May 2018), DTU.	

Books Published

1)"Business Process Reengineering of an Industrial Metal Centre", KH Publishers, Jan 2013, ISBN: 978-81-82300592.

2) "Analysis of Stress and Deformation of Elliptical Gear using ANSYS", Md Moonim Lateefi, Sabah Khan, Lambert Academic Publishing, Dec 2016, ISBN: 978-3-330-02305-5.

Chapters in Books

- ❖ "Assessing the Thermal Performance of the Walls in a Building Using the Phase Change Material Methodology", Chapter 72, SpringerNature, 2020.
- "Wind Energy Potential at Different Cities of Assam Using Statistical Models", International Journal of Advance Research and Innovation, March 2018, pp 38-43, ISSN 2347-3258.
- "Review of synthesis, Characterization, Mechanical and Electrical properties of CNTs/PANI nanocomposite", IJ Advance Research and Innovation, (Feb 2017) Pp 440 – 443, ISSN 2347-3258.
- "Optimum yield parameters of MWCNT/MnO2 nanocomposite", IJ Advance Research and Innovation, June 2017, pp279-282, ISSN 2347-3258

* "Health Hazards of Manganese Oxide in Agriculture and Industrial Application Policies to Prevent Exposure", Conceptual Framework and Innovations in Agreeocology and Food Sciences, Feb-2015, pp 112-114. ISBN: 978-81-930585-1-0.

Administrative and Academic Responsibilities

- ✓ Lab In-charge CAD Lab June 2020 till date.
 ✓ Lab In-charge Material Science Lab March 2019 till date.
- ✓ Member Faculty Committee (2018-till date)
- ✓ Lab In-charge CAD Lab Feb 2013 March 2019
- ✓ In-charge Women PhD Scholars Seminar Room 2013- till date
- ✓ In-charge M. Tech Attendance (2011 -2019).
- ✓ Member Faculty Committee (2012-2015)
- ✓ Assistant Supervisor for Entrance Examination for Faculty of Engineering & Technology Centre 2015.
- ✓ In-Charge Vibrations Lab (2010 2013)
- ✓ Incharge Accredition Committee BIT International Center, Bahrain(2008-
- ✓ Subject Advisor, Department of Mechanical Engg, JMI, (1998-2004)
- ✓ In-Charge Material Science Lab (1998 -2008).
- ✓ Faculty Advisor Extra Curricular Activities (1996-2007)
- ✓ In-charge of various facilities for NAAC & NBA.

Extra-Curricular Activities

- ✓ Vice President, Jamai Engineering Alumni association, Batch of 1992.
- ✓ Founding Member Jamia Alumni association, Bahrain.
- ✓ Faculty Coordinator between Jamia Millia Islamia and AutoDesk.
- ✓ Organised a Two Day workshop in collaboration with Autobotz AVR, Technophilia on 27th-28th 2013
- ✓ Presiding Officer of Advertising and Publication Committee, BIT, Budaiya, Bahrain 2008-2009).
- ✓ Established The Jamia SAE Collegiate Club, affiliated to SAE International (1999) Coordinator, Jamia SAE Collegiate Club(1999 – 2008).
- ✓ Member Publication Board SAE-NIS.
- ✓ Organized several student events in the capacity of Coordinator SAE and Subject Advisor (1998-2008).
- ✓ Faculty advisor 1998-2007.

Memberships

- Indian Society of Technical Education (Life Member)
- Tribological Society of India (Life Member)
- ISIAM (Life Member)
- SAE (Faculty Advisor)

Courses & Orientation Programs

- 1. "Assessment and Accreditation Process of NAAC" jointly organized by NAAC & Jamia Millia Islamia on July 28, 2020.
- 2. Eight Courses by Udemy on Python and Design of Experiments. 2020.
- 3. Two Week Faculty Development Program on Mechatronics", organized by Deptt of Mechanical Engg, F/O Engg & Technology, JMI and AICTE, from 27th – 12th March 2015.
- 2. One Week Short Term Course on "Fundamentals of Engineering Tribology Application" Organized by Deptt of Mechanical Engg, IIT Delhi,

- 07th-11th Dec 2015.
- 3. One Week Short Term Course on "Make in In India" Organized by Deptt of Mechanical Engg, IIT Delhi, 14th –18th Dec 2015.
- 4. One Week Short Term Course on "Application of Renewable Energy Resources" Organized by Centre of Energy Studies, IIT Delhi, 11th –17th Dec 2013.
- 5. AICTE Sponsored Staff Development Program 2011on Recent Advances in Electrical Power & Energy Systems, Organized by Department of Electrical Engg, F/O Engg & Technology, JMI. 09-22 Dec 2011.
- 6. Four weeks orientation Program from Academic Staff College, JMI.
- 7. Completed a One week course on "Question Paper Design", Academic Staff College, JMI.
- 8. Completed a one week course on "Web Design and Development" from IIT, Delhi, 1999.