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Name	Prof. Engr. Dr. Faisal Mushtaq	
Designation	Professor	
Department	Chemical Engineering	
Faculty	Faculty of Engineering and Architecture	
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Qualification

Year	Degree/Certificate	Name of the Institute/ University	Field of study
2015	Ph.D. with Distinction	Universiti Teknologi Malaysia.	Chemical Engineering
2006	Master of Engineering	NED UET Karachi, Pakistan.	Environmental Engineering
2002	Bachelor of Engineering	Dawood College of Engineering and Technology, Karachi affiliated with NED UET Karachi, Pakistan.	Chemical Engineering

Journal Publications

S. No	Title of Paper/Authors	Name of Journal, Volume (Issue), Page #	National/ International/DOI/ Indexing	Publication Year
1	Modeling and experimental validation of sublimation-condensation process in solid-vapor system <i>Ibrahim, F Mushtaq</i>	Journal of Applied and Emerging Sciences 2 (2), 173-182	National/ HEC Recognized Y Category	2011
2	Coal Fired Power Generation Potential of Balochistan <i>F Mushtaq, A Qadeer, F Mir, A Aftab</i>	Petroleum and Coal 54 (2), 132-142	International/ HEC Recognized Y Category	2012
3	Pyrolysis of Solid Palm Waste Biomass with Microwave Absorber under Microwave Irradiation <i>F Mushtaq, W Maqbool, R Mat, FN Ani</i>	Applied Mechanics and Materials, 606, 73-77	International/ DOI:10.4028/www.scientific.net/AMM.606.73 Web of Science Indexed	2014
4	The Performances of Intimately Mix and Layer Methods in Microwave Assisted Pyrolysis System <i>F Mushtaq, R Mat, FN Ani</i>	Applied Mechanics and Materials, 554, 150-154	International/ DOI:10.4028/www.scientific.net/AMM.554.150 Web of Science Indexed	2014

5	Microwave Assisted Pyrolysis of Waste Biomass Resources for Bio-Oil Production <i>F Mushtaq, ABS Channa, R Mat, FN Ani</i>	Applied Mechanics and Materials, 554, 307-311	International/ DOI:10.4028/www.scientific.net/AMM.554.307 Web of Science Indexed	2014
6	A Review on Microwave Assisted Pyrolysis of Coal and Biomass for Fuel Production <i>F Mushtaq, R Mat, FN Ani</i>	Renewable and Sustainable Energy Reviews, 39, 555-574	International/ DOI: 10.1016/j.rser.2014.07.073 Web of Science Indexed and IF=5.510	2014
7	Optimization and characterization of bio-oil produced by microwave assisted pyrolysis of oil palm shell waste biomass with microwave absorber <i>F Mushtaq, TAT Abdullah, R Mat, FN Ani</i>	Bioresource Technology, 190, 442-450	International/ DOI: 10.1016/j.biortech.2015.02.055 Web of Science Indexed and IF=4.494	2015
8	Fuel production from microwave assisted pyrolysis of coal with carbon surfaces <i>F Mushtaq, R Mat, FN Ani</i>	Energy Conversion and Management, 110, 142-153	International/ DOI: 10.1016/j.enconman.2015.12.008 Web of Science Indexed and IF=4.380	2016
9	Potential Effect of Biomass Addition with Pakistani Low Rank Coal on Emission of SO ₂ <i>M Siddique, MN Khan, F Mushtaq, E Kakar, AN Mengal, SA Soomro, AP Parkash, AS Jatoi</i>	Journal of Applied and Emerging Sciences, 6(1), 6-8	National/ HEC Recognized Y Category	2016
10	Production of Biodiesel by Transesterification Process from Waste Cooking Oil using Potassium Hydroxide as a Catalyst <i>N Alam, M Hussain, F Mushtaq, M Shahid</i>	International Journal of Chemical and Environmental Engineering, 7(4), 235-239	International	2016
11	Pyrolysis Heating Performance of Oil Palm Shell Waste Biomass with Carbon Surfaces <i>F Mushtaq, MN Malghani, MS Nasar, AN Mengal, R Mat, FN Ani</i>	Journal of Applied and Emerging Sciences, 7(1), 70-75	National/ HEC Recognized Y Category	2017
12	Preliminary Treatment of Sewage Water a Case Study of City Nala, Quetta <i>A Khan, E Kakar, SJ Mandokhail, SM Shah, F</i>	Journal of Applied and Emerging Sciences, 7(1), 100-106	National/ HEC Recognized Y Category	2017

	Mushtaq, M Siddique			
13	Experimental Evaluation of Corrosion for Aluminum Alloy in Aerated NaCl Solutions under Turbulent Hydrodynamic Conditions <i>G Kakar, F Mushtaq, SJ Mandokhail, M Siddique, AN Mengal</i>	Journal of Applied and Emerging Sciences 7 (2), 172-177	National/ HEC Recognized Y Category	2017
14	Di-Methyl Ether (DME) Prospective in Terms of Conventional Fuels in Pakistan from Gasification of Aboriginal Coal <i>AA Memon, S Sheikh, M Siddique, S Ishtiyaque, AS Jatoi, F Mushtaq</i>	Journal of Applied and Emerging Sciences 7 (2), 156-165	National/ HEC Recognized Y Category	2017
15	Analysis and Characterization of Consumer Talcum Powder Marketed in Pakistan <i>N Alam, F Mushtaq, M Hussain, S Parveen</i>	Global Journal of Engineering and Technology Review 3 (3), 01-08	International/ DOI: 10.35609/gjetr.2018.3.3(1)	2018
16	Parametric Study on Desulfurization and De-ashing of Lakhra Pakistan Coal by Froth Flootation Column Method <i>I Ullah, A Hayat, F Mushtaq, B Ullah</i>	Modern Environmental Science and Engineering 4 (12), 1205-1210	International/ DOI: 10.15341/mese(2333-2581)/12.04.2018/012	2018
17	Development of Laboratory Scale Microbial Fuel Cell for Electricity Generation from Cow Dung Manure Using Microbes <i>M Siddique, AN Mengal, SA Soomro, S Aziz, MN Khan, F Mushtaq, G Khan, AS Jatoi, A Khan</i>	Journal of Applied and Emerging Sciences 8 (2), 102-107	National/ HEC Recognized Y Category	2018
18	Desulfurization of Mach Coal of Balochistan by Leaching Process <i>F Mushtaq, Asadullah, A Khan, A Waheed, SH Sultan, G Kakar, M Amin, GK Malghani, AMR Abasi, SZU Hassan</i>	Journal of Applied and Emerging Sciences 11 (2),63-66	National/ DOI: 10.36785/BUITEMS.JAES.438 HEC Recognized Y Category	2021
19	Assessment of Thermal Behaviour of Coal and bio-char Solids <i>R Mat, F Mushtaq, F Israr, M Sheharyar, Asadullah, SH Sultan, SZU Hassan, ZA Abro, A Ali</i>	Balochistan Journal of Engineering & Applied Sciences 4 (1), 37-42	National/ HEC Recognized Y Category	2021
20	Development of FBG-based Sensor Manufactured by FDM Technology to Monitor Pressure Changes	Balochistan Journal of Engineering & Applied Sciences 4 (1), 65-68	National/ HEC Recognized Y Category	2021

	<i>C Hong, ZA Abro, AMR Abbasi, F Mushtaq, Z Abro, SZU Hassan</i>			
21	Mathematical Model to Determine the Repeat Size of Fabric Weave Design <i>SR Shahbaz, Z Fazal, Z Javed, U Javed, SZU Hassan, A Asghar, A Ali, F Mushtaq, AR Shafqat</i>	Balochistan Journal of Engineering & Applied Sciences 4 (1), 1-5	National/ HEC Recognized Y Category	2021
22	Performance Analysis of TiO ₂ -Modified Co/MgAl ₂ O ₄ Catalyst for Dry Reforming of Methane in a Fixed Bed Reactor for Syngas (H ₂ , CO) Production <i>A Mazhar, AH Khoja, AK Azad, F Mushtaq, SR Naqvi, S Shakir, M Hassan, R Liaquat, M Anwar</i>	Energies 14 (11), 3347, 1-20	International/ DOI: 10.3390/en14113347 Web of Science Indexed and IF=2.702	2021
23	Performance analysis of natural gas sweetening unit with amine solution and blends <i>F Mushtaq, N Alam, A Ullah</i>	Mehran University Research Journal of Engineering and Technology 41(2), 101-109	National/ DOI: 10.22581/muet1982.2202.09 HEC Recognized Y Category and Web of Science Indexed	2022
Conferences Paper				
S. No	Title of Paper/Authors	Name of Conference/Proceeding name, volume (Issue), Page #	National/ International	Date
1	Fossil Fuel Energy Scenario in Malaysia-Prospect of Indigenous Renewable Biomass and Coal Resources <i>F Mushtaq, W Maqbool, R Mat, FN Ani</i>	Full paper published in Clean Energy and Technology (CEAT), 2013 IEEE, 232-237	International/ DOI: 10.1109/CEAT.2013.6775632 Web of Science Indexed	2013
2	Effect of different particle size on Desulphurization of coal by <i>Pseudomonas species</i> <i>A Danial, A Ahmed, Asadullah, N Malghani, F Mushtaq, J Ahmed, M Amin, AS Ghouri</i>	Full paper published in proceedings of 6 th International Research Symposium on Engineering Advancements IRSEA 2016, SAIMT, Malabe, Sri Lanka.pp. 173-176	International	2016
3	Municipal Wastewater Treatment using Ricehusk and Kikar charcoal as activated carbon <i>Z Ibrar, Asadullah, S Hussain, M Najam, ZNaeem, Saddam, S Mohammad, A Muhammad, F Mushtaq, Waqas, A Anwer, E kakar</i>	Full paper published in proceedings of 6 th International Research Symposium on Engineering Advancements IRSEA 2016, SAIMT, Malabe, Sri Lanka. Pp. 56-59	International	2016
4	Pyrolysis Heating Performance of Oil Palm Shell Waste Biomass with	Full paper published in proceeding of 7 th International Mechanical	National	2017

	Carbon Surfaces at 2.54 Ghz Microwave Frequency <i>F Mushtaq, MNK Malghani, MS Nasar, AN Mengal, E Kakar, R Mat, FN Ani</i>	Engineering Congress on Recent Developments In Design, Energy & Alternate Fuels, The Institute of Engineers, Karachi center. Pp. 118-122		
5	Municipal Waste Water Treatment Phytoremediation with <i>Chlorella Vulgaris</i> : Effects of pH Regulation <i>A Malik, A Baseer, A Chishti, Hafeezullah, AN Mengal, F Mushtaq, MN Khan</i>	Full paper published in proceeding of 7 th International Mechanical Engineering Congress on Recent Developments In Design, Energy & Alternate Fuels, The Institute of Engineers, Karachi center. Pp. 129-133	National	2017
6	Analysis of Tensile Strength of Basalt-Carbon/Epoxy Laminated Hybrid Composite <i>AN Mengal, MNK Malghani, F Mushtaq</i>	Full paper published in proceeding of 7 th International Mechanical Engineering Congress Recent Developments In Design, Energy & Alternate Fuels, The Institute of Engineering, Karachi center. Pp. 123-128	National	2017
7	Extraction and Quantification of Chlorophyll from Microalgae <i>Chlorella sp.</i> <i>M Amin, P Chetpattananondh, MN Khan, F Mushtaq, SK Sami</i>	Full paper published in IOP Conference Series: Materials Science and Engineering 414 (1), 012025	International/ DOI: 10.1088/1757-899X/414/1/012025	2018
8	Potential Effect of Sugar Mill waste water as Substrate for Bio-Electricity Generation using Laboratory Scale Double Chamber Microbial Fuel Cell <i>M Siddique, AS Jatoi, MH Rajput, SA Soomro, S Aziz, F Mushtaq, G Khan, MA Abro, M Najam Khan, AK Shah, SK Sami</i>	Full paper published in IOP Conference Series: Materials Science and Engineering 414 (1), 012038	International/ DOI: 10.1088/1757-899X/414/1/012038 Web of Science Indexed	2018
9	Fluidized bed heat exchange capacity of Alumina, coal-char and bio-char solids <i>F Mushtaq, I Ullah, I Khan, SK Sami, W Alam, M Sadiq, Z Tariq, A Jaan</i>	Full paper published in IOP Conference Series: Materials Science and Engineering 414 (1), 012003	International/ DOI: 10.1088/1757-899X/414/1/012003 Web of Science Indexed	2018
10	Process optimization of microwave assisted co-pyrolysis of coal and oil palm shell blend with carbon surfaces <i>F Mushtaq, SK Sami, R Mat, FN Ani</i>	Full paper published in IOP Conference Series: Materials Science and Engineering 414 (1), 012016	International/ DOI: 10.1088/1757-899X/414/1/012016 Web of Science Indexed	2018
11	Effective use of Enzyme Zymase for Enhancement of Ethanol Production Couple with Parametric Effect <i>M Siddique, AS Jatoi, MH</i>	Full paper published in IOP Conference Series: Materials Science and Engineering 414 (1), 012039	International/ DOI: 10.1088/1757-899X/414/1/012039 Web of Science Indexed	2018

	<i>Rajput, MN Khan, AN Mengal, S Aziz, SA Soomro, F Mushtaq, A Shah, SK Sami</i>			
Conference Attended				
S. No	Name of Conference	National/ International	Date	
1	Clean Energy and Technology (CEAT), Langkawi, Malaysia.	International	18-20 Nov. 2013	
2	1 st International Materials, Industrial and Manufacturing Engineering Conference, MIMEC 2013, UTM, Malaysia.	International	4-6 Dec. 2013	
3	7 th International Mechanical Engineering Congress on Recent Developments In Design, Energy & Alternate Fuels, The Institute of Engineers, Karachi center.	National	24-25 th Mar. 2017	
4	1 st International Conference on Modern Trends in Science, Engineering & Technology (MTSET-2017): Roadmap for Sustainable and Collaborative Development, DUET, Karachi.	National	27-28 Apr. 2017	
5	1 st International Conference on Advances in Engineering and Technology (ICAET) at BUITEMS, Quetta.	International	2-3 Apr. 2018	
Books Authored/ Edited				
S. No	Name of book	Publisher	ISBN	
-	-	-	-	
Work Experience (Teaching and Research)				
S. No	From (year)	To (year)	Name of the Institution/ Organization	Position held
1	16 th Sept. 2004	10 th Oct. 2004	Department of Chemical Engineering, Dawood College of Engineering & Technology, Karachi, Pakistan.	Visiting Lecturer
2	11 th Oct. 2004	10 th Jan. 2005	Department of Chemical Engineering, Dawood College of Engineering & Technology, Karachi, Pakistan.	Lecturer on Contract basis
3	12 th Jan. 2005	31 st Aug. 2005	Department of Chemical Engineering, Dawood College of Engineering & Technology, Karachi, Pakistan.	Visiting Lecturer
4	1 st Sept. 2005	28 th Feb. 2006	Department of Chemical Engineering, Dawood College of Engineering & Technology, Karachi, Pakistan.	Lecturer on Contract basis
5	4 th Mar., 2006	3 rd Sept. 2006	Department of Chemical Engineering, Dawood College of Engineering & Technology, Karachi, Pakistan.	Lecturer on Contract basis
6	19 th Sept. 2006	3 rd Oct. 2007	Department of Chemical Engineering, Faculty of Engineering and Applied Sciences, BUITMS, Quetta, Pakistan.	Lecturer
7	4 th Oct. 2007	23 rd Sept. 2011	Department of Chemical Engineering, BUITEMS, Quetta, Pakistan.	Assistant Professor
8	24 th Sept. 2011	1 st Apr. 2012	Department of Chemical Engineering, BUITEMS, Quetta, Pakistan.	Incharge Chairman and

				Assistant Professor
8	2 nd Apr. 2012	1 st Nov. 2015	On study leave for PhD at Universiti Teknologi Malaysia, Malaysia.	PhD FDP Scholar and Research Fellow at UTM Malaysia
10	2 nd Nov. 2015	10 th Jan., 2016	Department of Chemical Engineering, BUITEMS, Quetta, Pakistan.	Assistant Professor
11	11 th Jan. 2016	27 th Feb. 2017	Department of Petroleum and Gas Engineering, BUITEMS, Quetta, Pakistan.	Chairperson & Assistant Professor
12	28 th Feb. 2017	5 th Feb. 2018	Department of Chemical Engineering, BUITEMS, Quetta, Pakistan.	Incharge Chairperson & Assistant Professor
13	6 th Feb. 2018	15 th Jan. 2020	Department of Chemical Engineering, BUITEMS, Quetta, Pakistan.	Chairperson & Associate Professor
14	16 th Jan. 2020	30 th Dec. 2021	Department of Chemical Engineering, BUITEMS, Quetta, Pakistan.	Associate Professor
15	31 st Dec. 2021	To date	Department of Chemical Engineering, BUITEMS, Quetta, Pakistan.	Professor
Area of specialization			Microwave pyrolysis and co-pyrolysis of biomass and coal	
Expertise			Pyrolysis, Co-pyrolysis, Gasification, Co-gasification, Plasma gasification and bio-fuel production, Char ultization	
HEC Approved supervisor			In process	
If Yes, provide HEC URL			-	
Research grants/ Projects			<p>Research Fellow: RMC-UTM Malaysia fund research project for the fiscal year 2012-2015 (Project Budget: 37,383 USD) on Microwave Assisted Pyrolysis and co-pyrolysis of coal and oil palm shell with microwave absorber (Completed)</p> <p>Principal Investigator: ORIC-BUITEMS funded Research Project for the Fiscal year 2017-18 (Project Budget: 200,000 PKR) on Biofuel Production by Pyrolysis and Co-pyrolysis of Indigenous Biomass and Coal Resources (Completed)</p> <p>Principal Investigator: ORIC-BUITEMS funded Research Project for the Fiscal year 2018-19 (Project Budget: 200,000 PKR) on Microwave Assisted Pyrolysis and Co-pyrolysis of Indigenous Coal and Waste Biomass Resources (Completed)</p> <p>Principal Investigator: Local Challenge Fund HEC-HEDP world bank funded Research Project for the Fiscal year 2022-2024 (Project Budget: 31.674 Million PKR) on Hydrothermal liquefaction of mixed types of plastics to promote the plastic circular economy and resource efficiency (In progress)</p>	
Additional Information				
<p>ORIC ID: https://orcid.org/0000-0003-3470-2839</p> <p>Google Scholar: https://scholar.google.com/citations?user=fXaD7DsAAAAJ&hl=en&oi=ao</p>				

Administrative Posts held:

- Incharge Chairman, Chemical Engineering Department, BUIITEMS, Quetta.
- Chairperson, Petroleum and Gas Engineering Department, BUIITEMS, Quetta.
- Chairperson, Chemical Engineering Department, BUIITEMS, Quetta.

Awards:

- Best Employee Award, BUIITEMS for the year 2009-2010.
- Awarded Faculty Development Program (FDP) for PhD program, BUIITEMS, Quetta.
- Awarded medal and best student award in Doctor of Philosophy (Chemical Engineering), Universiti Teknologi Malaysia, Malaysia.
- Awarded ORIC-BUIITEMS funded Research Project for the Fiscal year 2017-18 of 0.173 million PKR.
- Awarded ORIC-BUIITEMS funded Research Project for the Fiscal year 2018-19 of 0.2 million PKR.
- Awarded Local Challenge Fund HEC-HEDP world bank funded Research Project for the Fiscal year 2022-2024 of 31.674 Million PKR.

Member:

- Professional Engineer (**CHEM/4434**), Life time member of Pakistan Engineering Council, Islamabad.
- National Curriculum Review Committee (NCRC), HEC member in 2011-12.
- National Curriculum Review Committee (NCRC), HEC member in 2016-17.
- Member of Advanced Studies and Research Board (ASRB) member, BUIITEMS, Quetta in 2017-2019.
- Co-opted member of Faculty Graduate Research Committee (FGRC), BUIITEMS, Quetta in 2018-2019.

Research Contributions:

- Contributed high impact factor papers as a first author with cumulative impact factor of 14.384.
- Developed and tested novel method of carbon surfaces to control temperature and produce bio-oil with Phenol selectivity in Microwave Pyrolysis Reactor during Ph.D. research project.
- Produced high energy fuel 1-1, dimethyl Hydrazine in bio-oil from OPS waste biomass for the first time.
- Produced D-Allose in bio-oil from rice-husk waste biomass for the first time. The D-Allose has potential applications in pharmaceutical drugs, such as anti-cancer and anti-tumor drugs.

MS Thesis Supervision:

- Supervised MS Civil Engineering Research Thesis entitled “Preliminary Treatment of Sewage Water and Its Usage in Concrete” (**Graduated**)

- Supervised MS Chemical Engineering Research Thesis entitled “Production of Biochar and Pyrolysis Heating Performance of Almond Shell Waste Biomass” (**Graduated**)
- Supervised MS Chemical Engineering Research Thesis entitled “Pyrolysis and Co-pyrolysis Heating Performance and Oil Production with and without Char of Biomass and Coal” (**Graduated**)
- Supervised MS Chemical Engineering Research Thesis entitled “Improvement of Phenol Removal from Aqueous Medium by Adsorption on Organically Functionalized Pomegranates’ Leather (PEEL)” (**Graduated**)

Supervisions:

- Supervised, formulated and implemented the OBE based curriculum of BS Chemical Engineering at BUITEMS, Quetta.
- Supervised accreditation/re-accreditation visit of BS Chemical/Petroleum and Gas Engineering programs at BUITEMS, Quetta.
- Prepared and supervised Self-Assessment Report (SAR) of BS/MS Chemical Engineering program at BUITEMS, Quetta.
- Evaluated SAR of Engineering Programs at BUITEMS Quetta.
- Worked with JICA, Pakistan on BUITEMS-JICA Project for strengthening of Petroleum and Gas Department of Labs., BUITEMS. Visited Egypt-Japan University of Science and Technology (EJUST), Alexandria Governorate, Egypt for exposure visit with BUITEMS-JICA team.
- Prepared PC-1 for the strengthening of Chemical Engineering Labs at BUITEMS.
- Supervised installation, commissioning and training of equipment at Central Engineering Labs, BUITEMS, Quetta.
- Initiated and supervised Outcomes Based Education System at Chemical Engineering Department, BUITEMS.
- Managed activities of 1st International Conference on Advances in Engineering and Technology (ICAET) at BUITEMS, Quetta as a Conference Secretary.
- External Examiner/Expert/Evaluator of MEngg and PhD Seminar and Thesis at MUET, Jamshoro, Sindh.

Trainings/Workshops/Seminars Attended:

- Received training of Gas Chromatography (GC), High Performance Liquid Chromatography (HPLC), Batch Fermentation Unit, Series Reactor, and Isothermal Reactor in Chemical Engineering Laboratory, Bio-Chemical & Reaction Engineering and Instrumentation Labs at Dawood College of Engineering and Technology (DCET), Karachi.
- Participated in Seminar on Switching over towards modern fuels in Sept. 2005, Dawood College of Engineering & Technology, Karachi.
- Attended 2-days short course on Environmental Issues and Pollution Control in June 2007 organized by Pakistan Engineering Council, Brach Office Quetta, Continuing Professional Development Program (Short Course Series) at BUITEMS, City Campus, Quetta.
- Participated as Jury member in Inter departmental/intra faculty of Engineering Presentation Contest in July, 2010 organized by SPE, Petroleum and Gas Engineering Department.
- Attended 2-days training workshop on PEC Contract Documents and PICC Cost Data in Mar. 2012 at PEC Brach Office, Quetta.

- Received training on Thermodynamic and Heat Transfer Lab., Heat Conduction Unit, Water Cooling Tower, Flow Boiling Demonstration Unit, Boiling Heat Transfer Unit, Film and Drop Wise Condensation Unit, Free and Forced Convection Unit, Thermal Radiation Unit, Fluidization and Heat Transfer Unit, Mini Steam Turbine Power Plant Trainer ; Fluid Mechanics Lab., Multi Pump Tank, Pipe Loss Friction Test Unit, Gear Pump Test Set, Series and Parallel Pump Test Set, Reynold's Apparatus at BUIITEMS, Quetta.
- Attended 1-day workshop on Process Integration of Total Sites in July, 2012 at UTM, Johor Bahru, Malaysia.
- Participated in Event Organizing Committee in Independence Day Celebrations on 4th August, 2012 at Dewan Salman Iskandar organized by ISS-Pakistan at UTM, Malaysia.
- Participated in UTM International Cultural Diversity Festival-2012 in Nov. 2012 organized by Internal Student Society-Central (ISS-Central), UTM, Johor Bahru, Malaysia.
- Participated in 2-days Seminar on Fiqh, Science and Technology in Dec. 2012, organized by Faculty of Islamic Civilization, UTM, Johor Bahru, Malaysia.
- Attended 2-days short course on MATLAB, Hands-on Workshop in Mar., 2013 at UTM, Malaysia.
- Participated in Handling Lab Equipment Workshop: Gas Chromatography (GC) in Aug., 2014 at UTM, Malaysia.
- Attended 2-days training workshop on Supply Chain Management-Design and Operational Decisions for Optimum Performance on Nov. 2016, organized by BUIITEMS, Quetta (1 Credit Point).
- Attended 2-days training workshop on Outcomes Based Education (OBE) System in Jan. 2017 at BUIITEMS, Quetta (1 Credit Point).
- Attended 1-day Seminar on Intellectual Property, Patent & Trade Mark in Apr. 2017, organized by BUIITEMS, Quetta (1 Credit Point).
- Attended 1-day training workshop on Outcomes Based Education System in Oct. 2017, organized by BUIITEMS, Quetta (1 Credit Point).
- Attended 2-days training workshop on Outcomes Based Education & Self-Assessment Report in Dec. 2018, organized by BUIITEMS, Quetta (1 Credit Point).
- Attended 1-day training workshop on Outcomes Based Education System in Mar. 2019, organized by BUIITEMS, Quetta (1 Credit Point).
- Attended 4-day training for PEVs from Balochistan from 29 August-1st September 2022 at BUIITEMS, Quetta.

Trainings Conducted as Resource Person/Talk Delivered:

- Resource person for 2-days Training on Outcomes Based Education Organized by University of Engineering and Technology, Khuzdar.
- Resource person for 2-days Training Session on Professional Development of Newly Inducted Lab. Engineers in Sept. 2017 organized by BUIITEMS, Quetta.
- Resource person for One-day Training workshop on Outcome Based Education System, BUIITEMS, Quetta.
- Delivered a talk on Research Idea: A Talk on Recent Developments, Motivation and Sources of Information, FOE&A, BUIITEMS, Quetta.
- Delivered a talk on Research Idea: A Talk on Recent Developments, Motivation and Sources of

Information, Department of Chemical Engineering MUET, Jamshoro, Sindh.

Courses Instructed:

- Instructed courses BS Chemical Engineering, Petroleum and Gas Engineering and Textile Engineering programs, BUIITEMS, Quetta.
- Instructed MS Chemical Engineering courses of Research Methodology and Advanced Separation Processes, BUIITEMS, Quetta.

Interests:

- Astronomy and Space Sciences
- Connected with Daily Dawn, Pakistan in 2005 and contributed articles in Economic Business Review page entitled as Mineral Resource Development in Balochistan, Potential for Coal Fired Power Generation and Impact of Pesticide on Eco-system.