# Dr. Muhammad Wasif, PMP

**Associate Professor / Director - QEC** 

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### **Personal Details**

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# Career Objective

To leverage my expertise in Industrial Management and Manufacturing Engineering through dedicated and impactful research. My objective is to contribute cutting-edge knowledge and innovative solutions to enhance industrial processes, ultimately fostering industry advancement. Committed to bridging the gap between theory and application, I aspire to impart this knowledge to the next generation, shaping a future workforce equipped with the latest insights and skills.

# Awards and Accomplishments

- As a Principal Investigator (PI), won National Center of Automation and Industry 4.0
   Technology grant from Planning Commission of Pakistan of worth PKR 385 million.
- **NEDUET Coordinate**, won a grant from **Eramus+** (**European Union**) of worth **Euro 718,000**, Title: Introduction of Innovative Practices and Methodologies for Effective Teaching and Industry-Academia Linkages in Pakistan and Malaysia (Getinnovative4impact).
- Won a Center for Advanced Precision Machining from Planning Commission of Pakistan of worth PKR 94 million.
- NEDAASC FYDP Funding for Smart Workstations 2.0 and IGNITE funding for the Smart Factory 1.0
- NED Best Researcher Award 2021 and 2020.
- NEDAASC Best Researcher Award 2020
- HEC-NRPU 2021 Grant of PKR. 4.73 million as the Principal Investigator (PI)
- HEC-NRPU 2021 Grant of PKR 6 million as Co-Principal Investigator (Co-PI)
- HEC-NRPU 2021 Grant of PKR 18.67 million as Co-Principal Investigator (Co-PI)
- HEC-NRPU 2020 Grant of PKR 15.67 million as Co-Principal Investigator (Co-PI)
- HEC National Best University Teacher Award 2020 (Awarded by the President of Pakistan Dr. Arif Alivi on 8<sup>th</sup> September 2021 in President House, Islamabad)
- HEC Best University Teacher Award 2020 (in 151 Academic Council of NEDUET)
- NEDAASC Best University Teacher Award 2019.
- NED PhD/Master Research Grant of Rs. 6 million.
- Best Teacher Awards 2016
- Best Research Publication Award 2016
- Research Assistantship by the Faculty of ENCS, Concordia University, Canada

PhD Scholarship through Faculty Development Programme of HEC to purse higher education in Concordia University, Montreal (Quebec), Canada – 2008
 # NEDAASC = NED Alumni Association of Southern California

# Qualification

2023 <b>PEV</b>	PEC Programme Evaluator for Outcome-based Education.
2017 QMS Auditor	IRCA Registers Lead Auditor for the ISO 9001:2015 Standards
2016 <b>PMP</b>	Certified Project Management Professional (PMP) from PMI.
2009 – 2013 <b>PhD</b>	Doctor of Philosophy with specialization in Computer-aided
	Design and Manufacturing (Mechanical Engineering) from
	Concordia University, Montreal (Canada).
2005 – 2007 <b>MEngg.</b>	Masters in Engineering in Industrial and Manufacturing
	from NED University of Engineering and Technology.
$2000 - 2003 \; \mathbf{BE}$	Bachelor in Engineering in Mechanical Engineering from NED
	University of Engineering and Technology, Karachi.

# Career & Experience

Associate Professor in Department of Industrial and Manufacturing Engineering, NED University of Engineering and Technology, Karachi since January 2022. Core responsibilities are;

- HEC Approved Supervisor for five PhDs and four Masters thesis students.
- International Panel Member (Consultant) for the evaluation of Engineering Programmes in under Washington Accord by the Institute of Engineers, Sri Lanka (IESL)
- Member Syndicate (Executive Body) of NED University of Engineering and Technology
- Managing fundings of Centers, Laboratories and NRPU projects.
- Teaching PhD, Masters (MEM and M.Engg.) and Bachelor's (BE) level courses.
- Developed several PhD, Masters, Undergraduate and Postgraduate Diploma courses.
- Acted as Examiner for PhD scholars.
- Certified OBE Programmed Evaluator from Pakistan Engineering Council (PEC).
- Member, NED University Admissions Committee.
- Corporate trainings: Project Management, CAD/CAM, Operations and Production Management, Inventory Management, Lean System.
- Consulting Industrial Projects.

# Director Quality Enhancement Cell (QEC) at NED University of Engineering and Technology since February 2023 to date. Main responsibilities are;

- Member of Strategic Planning Committee of the university.
- Member of all statutory bodies, including, Syndicate and Senate.
- Development and Review of University-wide policies such as Health and safety policy, Environment Policy, Conflict of Interest Policy, Sustainable Investment and Procurement Policies etc.

- Implementation and monitoring/control of HEC policies, such as Undergraduate, Master and PhD policies, plagiarism policy, faculty appointment criterion etc.
- Internal and External Evaluator of HECs Institutional Performance Evaluation (IPE)
- Developing and reviewing Statutes, Regulations, Quality System Procedures (QSPs) and Standard Operating Procedures (SOPs) of the university QMS
- Planning, managing and conducting Internal and Surveillance Audits (ISO 9001)
- Facilitating External Institutional Performance Evaluation (HEC-IPE) and Master/PhD Programme Evaluations in NED University and conducting Self-IPE and Programme Evaluation as Internal Auditor.
- Conducting PEC-Outcome Based Education (OBE) internal audits and reviews within the NED University.
- Administrating the Quality Enhancement Cell at the campuses and affiliated colleges.
- Managing Compliance with the requirements of Higher Education Commission (HEC) of Pakistan and Pakistan Engineering Council (PEC)
- Master Trainer for Quality Assurance in higher education, ISO 9000:2015, Academic procedures and activities, University Ranking Criterion to the Chairpersons, Head of the Departments, Faculty and Employees.

Deputy Director Quality Enhancement Cell (QEC), NED University of Engineering and Technology, Karachi since April 2016 to January 2023.

Assistant Professor in Department of Industrial and Manufacturing Engineering, NED University of Engineering and Technology, Karachi since July 2007 to January 2022.

Lecturer in Department of Industrial and Manufacturing Engineering, NED University of Engineering and Technology, Karachi from January 2006 to July 2007.

Executive and Trainee Engineer in Production and Project at Hinopak Motors Limited (Chassis Assembly Plant) Karachi.

### **Research and Industrial Projects**

#### Successfully completed following PhD Scholars' Research Project

• Co-Supervised Dr. Ali Zulqarnain in his PhD research, completed in 2023, Topic: Development of Quality Management Maturity Framework (PhD funding = Rs. 1 million)

#### Research Supervisor of following research projects

- Supervising Mr. Irshadullah (Manager SUPARCO), Topic: Experimental Investigation for the
  effects of Molds produced by Additive Manufacturing over the Quality of Fiber-Reinforced
  Composites (NRPU Research + PhD Funding = Rs. 7 million)
- Supervising Mr. Muhammad Kashif (General Manager SUPARCO), Topic: Avoiding delamination and distortion in carbon-fiber composites during the machining (NRPU Research + PhD Funding = Rs. 5.7 million)
- Co-Supervising Mr. Naseem Ahmed (General Manager SUPARCO), Topic: Investigation of the Distortion and Surface Integrity of Aluminum Aerospace Grade Alloys during High-Speed CNC Milling Machining Operations (NRPU Research+PhD Funding = Rs. 15.77 million)

- Co-Supervising Mr. Muhammad Fahad (Chief Engineer SSGC), Topic: Integrating Supply Chain Risks and Agent Based Modeling for the Robust Demand Forecast (PhD Funding = Rs. 1 million)
- Supervising Mr. Abdul Aziz (Deputy General Manager SUPARCO), course work in progress.

#### Following are the selected Masters Project Thesis supervised

- Process optimization of 3D printed molds (in-progress)
- Maturity assessment of digital project management in Pakistan (in-progress)
- Investigation of opportunities of implementing Artificial Intelligence in Manufacturing Industry (in-progress)
- Investigation of drilling holes in composite laminates through FEA (in-progress)
- Assessment of Agile Project Management Adaptability in Developing Countries
- Development of Quality 4.0 framework for the Manufacturing Industry
- Evaluation of Critical Factors for the implementation of Industry 4.0 in the Third World Countries
- Impact of supply chain technology over the delivery performance of Pakistani manufacturing industries
- Development of Quality 4.0 framework for the Manufacturing Industry
- Learning paths for organizations transitioning in Industry 4.0: An empirical study concerning Pakistani Manufacturers
- Study of various surface preparation techniques in order to achieve better surface finish on 3D printed mold for composite manufacturing.
- Analysis of Corporate Renewable PPAs (Power Purchase Agreements) Market of Pakistan and Way Forward
- Empirical risk analysis of alternative energy power project using regression analysis and Monte Carlo Simulation
- Risk assessment and analysis of domestic power plant project

#### Following are the Industrial Project supervised

- Development of Smart Workstation 1.0 and 2.0 (Indigenously developed project)
- Development of Smart Inventory Management System (Indigenously developed project)
- Development of Smart Factory (Indigenously developed project)
- Developing an integrated supply chain in Gas Meter Plant (SSGC)
- Improving quality control process of Truck Rims and Fuel Tank (Hinopak)
- Implementing Six Sigma in finishing processes (Master Thesis, Gul Ahmed)
- Gap analysis between Project Management best practices and industrial practices in Pakistan
- Improving productivity through lean system (ISL)
- Line balancing and implementation of lean in SSGC V-4 Meter Plant (SSGC).
- Implementation of QMS in auto part vendors of OEM (Ali Brothers Forging).
- Improvement of Maintenance Management System of Exploration Site (PPL).
- Optimization of milling parameters for various types of fibers reinforced composite materials (FRP) (Aerospace Research).
- Optimal parameters for the drilling of carbon fiber reinforced (FRP) composite material (Aerospace Research).

- Influence & Impact of Vendor Performance System for Automobile Supply Chain Industry. (**OEM**).
- Productivity increase by Optimization of Investment Casting Process. (Precision Engineering Complex - PEC, PIA).
- Processes /parameter optimization for deep-hole drilling using coated/un-coated HSS drills on three different materials such as MS, AL Alloy (AA-2024) & Titanium. (Aerospace Research).

### **Research Interests**

- Smart / Digital Manufacturing: Industry 4.0, Application of Artificial Intelligence, Data Analytics.
- Application of machine learning/AI for the prediction of response variables either in manufacturing or management
- Manufacturing of Composite using conventional and additive manufacturing
- Optimization and enhancement of productivity in production and service industry
- Optimization of integrated supply chains using the analytical and simulation methods
- Modeling and simulation of production and service facilities
- Project management, processes and project governance
- Risk Management System
- Computer-aided design (CAD) and computer-aided manufacturing (CAM)

# **Teaching and Trainings**

Taught and teaching following graduate, undergraduate and corporate level courses;

- Project Management (courses offered to OGDCL Trainee Management Programme by IBA).
- Mastering Project Management (Course offered in IBA for PARCO)
- Warehouse and Inventory Management Training to officers and management of K-Electric Limited. 2019.
- Agile Project Management (PGD Course)
- Training of Developing Self-Assessment Report and Assessment (QEC)
- Developing Self-Assessment Report for the Outcome-based Accreditation (QEC)
- PMP Examination Preparation in Center of Professional Excellence of NED
- Module 1 and 3 in PGD Project Management at NED Academy. (PGD Courses)
- ISO 9001:2015 Training to faculty members and employees
- Quality Assurance in Higher Education Trainings to Chairpersons and faculty
- Optimization and Forecasting Techniques (PhD Course)
- Advanced Material Processing Techniques Composite Mfg. (PhD Course)
- Advanced Optimization using MATLAB (PhD Course)
- Design of Experiments (PhD Course)
- Design and Analysis of Experiments (Masters Course)
- Strategic Planning and Decision Making (Masters Course)
- Computer-aided Design using CATA, Pro/E and AutoCAD (Undergraduate course)
- Production Management in Automobile Industries (Hino-Pak Motor Ltd.- 2014)

# **Courses/Curriculum Designed**

I have designed following PhD, Masters and Undergraduate level courses and curriculums;

- Applications of Artificial Intelligence in Manufacturing (offered in BE, M.Engg. and MEM programmes)
- Data Analytics and Dashboard/Visualization (offered in BE, M.Engg. and MEM programmes)
- Manufacturing of Composites (offered in M.Engg.)
- Post Graduate Diploma (PGD) in Project Management offered by NED Academy
- Project Management Professional Course offered by NED Academy
- Computer-aided Engineering Design (CAED) course offered in BE (IM-NED UET)
- Tool Design course offered in BE (IM-NED UET)
- Smart Manufacturing (Industry 4.0), an elective course offered in BE (IM-NED UET)
- Advances in Smart Manufacturing (elective course of M.Engg. and MEM programmes)
- Advanced Research in Smart Manufacturing (elective course in PhD-IM Deptt.)
- Advanced Optimization using MATLAB (elective course in PhD-IM Deptt.)
- Advanced Production Technologies in Industry 4.0 (elective course in PhD-IM Deptt.)
- Advanced Sustainable Manufacturing (elective course in PhD-IM Deptt.)
- Designed several courses in HEC-National Curriculum and Review Committee (NCRC) for BE/ME in Industrial Engineering and BS/MS in Supply Chain Management

### **Patents**

- 1. **Design Patent of "Plier Tool" (File No. 20937)** approved by IPO Pakistan, published in Patents' Journal No. 211119 on 19-11-2021.
- **2. Design Patent of "Smart Workstation"** (App. No. 780/2021) approved by IPO Pakistan, published in Patents' Journal No. 211115 on 15-11-2021.

### **Publications**

- 1. M. Kashif, M. Wasif, S.M. Iqbal, "Improved quality of holes in carbon composite laminates produced by the optimized drilling, drill tool parameters and modified laminates", International Journal on Interactive Design and Manufacturing (IJIDeM), accepted on 30-11-2023, DOI: 10.1007/s12008-023-01699-6 (HJRS "X" Category, JCR, Impact Factor 2.1)
- 2. Irshadullah, M. Wasif, M. Tufail, "Analysis of shrinkage and dimensional accuracy of additively manufactured tooling for the composite manufacturing", International Journal on Interactive Design and Manufacturing (IJIDeM), accepted on 13-11-2023, DOI: 10.1007/s12008-023-01640-x. (HJRS "X" Category, JCR, Impact Factor 2.1)
- **3.** Anis Fatima, **M. Wasif**, Aqeel Ahmed and Saima Yaqoob, "Effect of rake face surface of cutting tool on tool crater wear", Manufacturing Review, DOI:10.1051/mfreview/2023013. (HJRS "X" Category, **JCR**, **Impact Factor 2.9**)
- **4. M. Wasif**, M. Rababah, A. Fatima, H. Karim, "Prediction of Springback using the Machine Learning Technique in high-tensile strength sheet metal during the V-Bending Process", accepted in Journal of Mechanical and Industrial Engineering (JJMIE), Vol. 17 (4), page 481-488 (**JCR Impact Factor Journal**).
- 5. A. Zulqarnain, M. Wasif, S.A. Iqbal, "Developing a Quality 4.0 Implementation Framework and Evaluating the Maturity Levels of Industries in Developing Countries". Sustainability 2022, 14, 11298. <a href="https://doi.org/10.3390/su141811298">https://doi.org/10.3390/su141811298</a> (HJRS "W" Category, JCR, Impact Factor 3.9)

- 6. M. Rababah, F. M. AL-Oqla, M. Wasif, "Application of analytical hierarchy process for the determination of green polymeric-based composite manufacturing process", International Journal on Interactive Design and Manufacturing (IJIDeM), Vol. 16, page 943–954, 2022. <a href="https://doi.org/10.1007/s12008-022-00938-6">https://doi.org/10.1007/s12008-022-00938-6</a> (HJRS "X" Category, JCR, Impact Factor 2.1)
- H. Rehman, F. Boor, M. Wasif, S. A. Iqbal, "A Novel Method for Process Planning of Die and Mould Manufacturing using Expert System Approach", Transactions of FAMENA, Vol. 54, Issue 4, page 105-130, 2022. <a href="https://doi.org/10.21278/TOF.454027821">https://doi.org/10.21278/TOF.454027821</a> (JCR Impact Factor 1.19)
- 8. M. Wasif, Y. A. Khan, A. Zulqarnain, S. A. Iqbal, "Analysis and Optimization of Wire Electro-Discharge Machining Process Parameters for the Efficient Cutting of Aluminum 5454 Alloy", Alexandria Engineering Journal, Vol. 61, Issue 8, pages 6191-6203, 2022. https://doi.org/10.1016/j.aej.2021.11.048 (HJRS "W" Category, JCR Impact Factor 6.62)
- 9. A. Ahmed, M. Wasif, A. Fatima, L. Wang, S. A. Iqbal, "Determination of the feasible setup parameters of a workpiece to maximize the utilization of a five-axis milling machine", Frontiers of Mechanical Engineering, Vol. 15, page 298–314. 2021. <a href="https://doi.org/10.1007/s11465-020-0621-3">https://doi.org/10.1007/s11465-020-0621-3</a>. (HJRS "W" Category, JCR Impact Factor 4.06)
- S. Haroon, M. Wasif, R. Khalid, S. Khalidi, "Supply chain practitioners' perception on Sustainability: An empirical study", Sustainability, Vol. 13, Issue 17, page 9872, 2021. <a href="https://www.mdpi.com/2071-1050/13/17/9872">https://www.mdpi.com/2071-1050/13/17/9872</a>. (HJRS "W" Category, JCR, Impact Factor 3.9)
- 11. M. Wasif, A. Fatima, A. Ahmed, S. A. Iqbal, "Investigation and Optimization of Parameters for the Reduced Springback in JSC-590 sheet metals occurred during the V-bending Process" Transaction of Indian Institute of Metals, Vol. 74, page 2751–2760, 2021. <a href="https://doi.org/10.1007/s12666-021-02357-9">https://doi.org/10.1007/s12666-021-02357-9</a>. (HJRS "X" Category, JCR, Impact Factor 1.39)
- 12. A. Fatima, M. Wasif, M. O. Mumtaz, "Optimization of process parameters in turning of nuclear graded steel alloy (AISI-410) for sustainable manufacture", Journal of Engineering Research, published online, 2021. <a href="https://doi.org/10.36909/jer.11239">https://doi.org/10.36909/jer.11239</a>. (JCR Impact Factor 1.32)
- 13. M. Wasif, S. A. Iqbal, Y. A. Khan, M. Tufail, "Analysis and Multi-Objective Optimization of Wire Cut Process Parameters for Efficient Cutting of Tapered Carbon Steels Using Wire EDM", Journal of Engineering Research, published online, 2021. <a href="https://doi.org/10.36909/jer.11965">https://doi.org/10.36909/jer.11965</a>. (JCR Impact Factor 1.32)
- **14. M. Wasif**, A. Fatima, S. A. Iqbal, M. Tufail, H. Karim, "Analysis and Optimization of Springback during the V-bending of Hot-Rolled High Strength Steels (JSH440)", Journal of Engineering Research, published online, 2021. <a href="https://doi.org/10.36909/jer.11027">https://doi.org/10.36909/jer.11027</a>. (JCR Impact Factor 1.32)
- 15. S. H. Raza, R. Khalid, M. Wasif, "Impact of Critical Risks on the Major Constraints of Small Engineering Projects", Mehran University Research Journal of Engineering and Technology (ESCI Clarivate Analytics), Vol. 40, Issue 2, page 415-425, 2021. <a href="https://doi.org/10.22581/muet1982.2102.15">https://doi.org/10.22581/muet1982.2102.15</a>. (HEC "X" Category Journal, paper accepted on 26-11-2019 before the implementation of HJRS, 01-07-2020)
- **16.** R. Zubair, S. M. Hasan, **M. Wasif**, S. A. Khan, "A Conceptual Framework to Integrate New Product Development and Supply Chain Management with Organizational Business Flow in an Extended Environment", International Journal of Business Performance and Supply Chain Modelling, Vol. 12, Issue 2, page 129-146, 2021. <a href="https://doi.org/10.1504/IJBPSCM.2021.10039475">https://doi.org/10.1504/IJBPSCM.2021.10039475</a> (Scopus, Cite Score 1.4)

- 17. M.A. Khan, M. Wasif, M. Tufail, S.A. Iqbal, Irshadullah, "Impact of Process Parameters on the Surface Integrity of Fiber Reinforced Composites (FRC) during the Milling Process," Journal of Space Technology, Vol. 10, issue 1, pages 64-74, 2020. <a href="https://ist.edu.pk/jst-previous-issues-july-2020">https://ist.edu.pk/jst-previous-issues-july-2020</a>. (HEC "X" Category Journal, paper accepted on 20-05-2020 before the implementation of HJRS, 01-07-2020)
- 18. M. Wasif, S.A. Iqbal, A. Fatima, S. Yaqoob, M. Tufail, "Experimental Investigation for the Effects of Wire EDM Process Parameters over the Tapered Cross-Sectional Workpieces of Titanium Alloys (Ti6Al-4V)", Mechanical Sciences, Vol. 11, issue 1, page 221-232, 2020. https://doi.org/10.5194/ms-11-221-2020. (HJRS "X" Category, JCR Impact Factor 1.4)
- 19. M. Rababah, M. Wasif, & S.A. Iqbal, "Parametric relationship between hypoid gear teeth and accurate face-milling cutter", Advances in Manufacturing, Vol. 8, pages 537-555, 2020. <a href="https://doi.org/10.1007/s40436-019-00286-x">https://doi.org/10.1007/s40436-019-00286-x</a>. (HJRS "W" Category, JCR Impact Factor 3.83)
- **20. M. Wasif**, S.A. Iqbal, M. Tufail, H. Karim, "Experimental Analysis and Prediction of Springback in V-bending Process of High-Tensile Strength Steels", Transactions of the Indian Institute of Metals, Vol. 73, page 285-300, 2020. <a href="https://doi.org/10.1007/s12666-019-01843-5">https://doi.org/10.1007/s12666-019-01843-5</a>. (HJRS "X" Category JCR, Impact Factor 1.39)
- **21. M. Wasif**, S.A. Iqbal, A. Ahmed, M. Tufail, M. Rababah, "Optimization of simplified grinding wheel geometry for the accurate generation of end-mill cutters using the five-axis CNC grinding process", International Journal of Advanced Manufacturing Technology, Vol. 105, page 4325–4344, 2019. (HJRS "W" Category, JCR Impact Factor 3.56)
- 22. M. Rababah, M. Wasif, M. Omari, S. Mutawe, "A Novel Approach to Profile-Milling for End-Mill Flutes in 4-Axis CNC Turn-Milling Machines, Part II: Simulation and Verification", International Review of Mechanical Engineering (IREME), Vol. 13, Issue 3, page 203-211, 2019. (Scopus, Cite Score 1.3)
- 23. M. Rababah, M. Wasif, M. Omari, S. Mutawe, "A Novel Approach to Profile-Milling for End-Mill Flutes in 4-Axis CNC Turn-Milling Machines, Part I: Mathematical Modeling", International Review of Mechanical Engineering (IREME), Vol. 13, Issue 2, page 133-141, 2019. (Scopus, Cite Score 1.3)
- **24.** M. Rababah, **M. Wasif**, A. Ahmed, S. A. Iqbal, "Accurate Machine-Settings for the Face-Milling of Hypoid Gears", International Review of Mechanical Engineering (IREME), Vol. 11, No. 12, page 931-944, 2018. (Scopus, Cite Score 1.3)
- 25. Irshadullah, M. Tufail, M. Wasif, "Experimental Investigation of Cutting Parameters Effects on the Surface Roughness and Tools Wear during the Drilling of Fiber Reinforced Composite Materials", Mehran University Research Journal of Engineering and Technology (ESCI Clarivate Analytics), Vol. 38, Issue 3, page 717-728, 2019. (HEC "X" Category Journal, paper accepted on 17-08-2018 before the implementation of HJRS, 01-07-2020)
- 26. M. Wasif, Z.C. Chen, "An accurate approach to determine the cutting system for the face milling of hypoid gears", International Journal of Advanced Manufacturing Technology, Vol. 84, Issue 9-12, page 1873-1888, Springer, 2016. (HJRS "W" Category, JCR Impact Factor 3.56)
- 27. M. Wasif, Z.C. Chen, S.M. Hasan, "Determination of Cutter-Head Geometry for the Face-Milling of Hypoid Gears", International Journal of Advanced Manufacturing Technology, Vol. 86, Issue 9, page 3081-3090, Springer, 2016. (HJRS "W" Category, JCR Impact Factor 3.56)
- 28. Z.C. Chen, M. Wasif, "A Generic and Theoretical Approach to Programming and Post-Processing for Hypoid Gear Machining on Multi-Axis CNC Face-Milling Machines", International Journal of Advanced Manufacturing Technology, Vol. 81, Issue 1, page 135-148, Springer, 2015. (HJRS "W" Category, JCR Impact Factor 3.56)

- **29.** Irshadullah, **M. Wasif**, A. Fatima, M. Tufail, "Accurate additively manufactured PETG molds for the composite manufacturing", Proceeding of 1299th International Conference on Science, Engineering & Technology ICSET 2023, Istanbul, Turkey, 20<sup>th</sup> 21<sup>st</sup> March 2023.
- 30. M. Kashif, M. Wasif, A. Fatima, S. A. Iqbal, "Effect of water content on process parameter optimization for enhanced surface finish of Kevlar composite", Proceeding of 1299th International Conference on Science, Engineering & Technology ICSET 2023, Istanbul, Turkey, 20<sup>th</sup> 21<sup>st</sup> March 2023.
- **31.** S. A. Lodi, A. A. Shaikh, **M. Wasif**, F. A. Butt, "A Quality 4.0 Assurance Framework for the Higher Education Institutes", Proceeding of 8th International Conference on Higher Education Advances (HEAd'22), Valencia, Spain, 14<sup>th</sup> 17<sup>th</sup> June 2022.
- **32. M. Wasif**, A. A. Shaikh, F. A. Butt, S. Safi, "Framework towards the Digital Universities: challenges and issues", Proceeding of 3<sup>rd</sup> PNQAHE Conference on GOVERNANCE & QUALITY ASSURANCE IN HEIs, Khairpur, Pakistan, 8<sup>th</sup> 10<sup>th</sup> March 2022.
- **33.** A. Fatima, A. Kamal, **M. Wasif**, "Use of Taguchi experimental design in an offline optimization estimation of surface finish in machining", Proceeding of 6th International Conference on Energy, Environment, and Sustainable Development (EESD), Jamshoro, Pakistan, 17<sup>th</sup> 19<sup>th</sup> January 2022.
- **34.** Asif A. Shaikh, **M. Wasif**, Riaz Uddin, "Excellence in Quality Education through Implementation of Strategic Framework and SMART KPIS in Higher Education Institute", Proceedings of 174th ISERD International Conference, New York, USA, 16th -17th October 2019.
- **35.** Asif A. Shaikh, **M. Wasif**, M. A. Bhutto, Riaz Uddin, "Risk-based approach and Smart KPIs for the Quality Assurance in Higher Education Institutions", presented in 2nd International Conference on Quality Assurance at Higher Education PNQAHE, April 23-25, 2019, University of Education, Lahore.
- **36.** M. A. Bhutto, Asif A. Shaikh, **M. Wasif**, Riaz Uddin, "Implementing Quality Assurance in Universities/HEIs by Ensuring and Promoting Stakeholders' Trust", presented in INQAAHE 15th Biennial Conference 2019, March 25-28, 2019, Colombo Sri Lanka.
- **37. M. Wasif**, A. A. Shaikh, S. H. Lodi, M. A. Bhutto, Riazuddin, "Implementation of Risk Management System to Improve the Quality of Higher Education Institutes", ICHE 2018: 20th International Conference on Higher Education, June 25-26, 2018, Paris, France.
- **38.** M. Aslam Bhutto, Asif. A. Shaikh, **M. Wasif**, "Impact of Quality Enhancement Practices", 1st International Conference on Quality Assurance at Higher Education, December 18-19, 2017, Khyber Medical University, Hayatabad Peshawar.
- **39.** M. Aslam Bhutto, Asif. A. Shaikh, **M. Wasif**, Riazuddin, "Improving Quality of the Academic Programs in Universities/HEIs through Self-Assessment Mechanism" Conference on Quality Assurance QCON '17, March 2017, LUMHS, Jamshoro.
- **40. M. Wasif**, M. Rababah, S. M. Hasan, S. A. Iqbal, "Determination of Accurate Machine-Settings for the Face-Milling of Hypoid Gear", 5th International Mechanical Engineering Congress, 9-10th May, 2015, Karachi, Pakistan.
- **41.** S. M. Hasan, J. Gao, **M. Wasif** and S. A. Iqbal, "An Integrated Decision Making Framework for Automotive Product Development with the Supply Chain", 8th International Digital Enterprise Technology (DET) Conference, Stuttgart Germany, 2014.
- **42.** S. M. Hasan, **M. Wasif** and S.A. Iqbal, "A Collaborative framework for Product Development in Extended Enterprise", International Conference on Emerging Trends in Engineering and Technology (ICETET'2013), Dec. 7-8, Patong Beach, Phuket (Thailand), 2013.

- **43. M. Wasif**, Z. C. Chen, S. M. Hasan, "An Accurate Cutter-head Geometry for the CNC Face-milling of Hypoid Gears", International Conference on Emerging Trends in Engineering and Technology (ICETET'2013), Dec. 7-8, Patong Beach, Phuket (Thailand), 2013.
- **44. M. Wasif**, Z. C. Chen, "Cutter radius and blade angle selection model for the high speed face milling of hypoid gear", International conference on virtual machining process technology (VMPT 2012), May 28 to June 1, Montreal, 2012.
- **45. M. Wasif**, Z. C. Chen, "Mathematical model of the pressure and spiral angles on hypoid gear teeth machined with industrial blade", International conference on virtual machining process technology (VMPT 2012), May 28 to June 1, Montreal, 2012.

# **Software and Information Technology**

- CAD Software: AutoCAD, CATIA V5, SolidWorks.
- Statistical Analysis: Minitab and SPSS.
- Programming Languages: Turbo C++, Visual Basic, Python.
- Application Software: MS-Office, MS-Project, MS-Visio.
- Graphics: Adobe Photoshop, Freehand, CAMTASIA.
- Cloud based application: working knowledge of IBM Watson, MS-Azure.

### **Countries Visited**

 Canada, China, Switzerland, France, Spain, Qatar, UAE, Italy, Sri Lanka, Malaysia, Saudi Arabia.

### Languages

- Fluency in English and Urdu.
- Basic Knowledge of French and Arabic.

# Memberships and Affiliation

- Executive Member Pakistan Network for Quality Assurance in Higher Education (PNQAHE).
- Member NCRC-HEC of BS/MS in Supply Chain and Logistics
- Member Project Management Institute (PMI), USA.
- Member of all Statutory bodies of NED UET being the Director QEC.
- Expert member in Board of Studies of Mechanical Engineering Department, DHA Suffa University, Karachi.
- Member Board of Studies (Industrial and Manufacturing Engineering Deptt. and Polymer and Petrochemical Engineering Department)
- Reviewer for Research Grant Proposal (NRPU, Local Challenge Funds and Grand Challenge Funds) offered by Higher Education Commission of Pakistan (HEC)
- Reviewer IEEE Access
- Reviewer Journal of Mechanical Science and Technology (JMST) Springer.
- Reviewer Journal of Advanced Manufacturing Technology (JAMT) Springer.
- Reviewer Advances in Mechanical Engineering (AME) SAGE.
- Reviewer in Conference organized by Project Management Institute (PMI), USA.
- Reviewer of International Mechanical Engineering Congress of Institute of Engineers Pakistan (IEP).
- Professional Engineer Pakistan Engineering Council (PEC).