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<b>Experience</b>	29 years of teaching. National: 24 years (Mech./Industrial Engg., UET Peshawar, Pakistan) International: 5 years: 2000 to 2005 (Industrial Engineering Department, King Saud University, Riyadh, Saudi Arabia)
<b>Honor and Awards</b>	Best Teacher Award 2010-2011 (HEC)
<b>Memberships</b>	Pakistan Engineering Council (PEC) Institute of Industrial Engineers (IIE) Elected Member Governing Body of Pakistan Engineering Council Member EA&QEC, Pakistan Engineering Council Member Moderation Committee, Pakistan Engineering Council Academic Council Board of Studies Remained member of Syndicate Member of editorial boards of three national and one international journal Member Vice Chancellors Committee of Pakistan Engineering Council Member Educational Testing & Evaluation Agency (ETEA)
Graduate Students Postdocs Undergraduate Students	Supervised two PhDs Supervised a number of Masters students Presently supervising 4 Masters and 4 PhD students

<b>Honour Students</b>	
Service Activity	Member of Pakistan Engineering Council's Accreditation Team since 2006 Convener of National Curriculum Review Committee on Industrial Engineering since 2006 Resource person on Academic Planning and Management in KP
<b>Brief Statement of Research Interest</b>	Advance Manufacturing Systems (CM, FMS, CIM) Manufacturing Processes Expert Systems Information Systems Quality Control Design and Operations Analysis of Manufacturing Systems
<b>Publications</b>	<ol style="list-style-type: none"> <li>1. Analysis of production flow lines under mixed mode of failures: parts storage zone impact: Part I, 1993, A. Khan, R. Javed, I. Hussain, Journal of Engg. &amp; App. Scs., Vol. 12, No. 2, pp. 33-38.</li> <li>2. Analysis of production flow lines under mixed mode of failures: allocation of parts storage zone: Part II, 1993, A. Khan, R. Javed, I. Hussain, Journal of Engg. &amp; App. Scs., Vol. 12, No. 2, pp. 39-43.</li> <li>3. Integer linear programming formulations for the simultaneous machine loading problems, 1993, I. Hussain, R. Javed, A. Khan, Journal of Engg. &amp; App. Scs., Vol. 12, No. 2, pp. 45-50.</li> <li>4. Job shop scheduling for n/2/F// problems with simultaneous loading at first processor, 1994, I. Hussain, R. Javed, Journal of Engg. &amp; App. Scs., Vol. 13, No. 2, pp. 23-35.</li> <li>5. Flow shop scheduling with simultaneous loading on first processor, 1996, I. Hussain, M. K. Khan, R. Javed, Advanced Manufacturing Processes, Systems, and Technologies, Mechanical Engineering Publications Limited, pp. 633-642.</li> <li>6. Knowledge based methodology for selection planning and design of flexible manufacturing system, 1997, I. Hussain, M. K. Khan, International Conference on Computer Integrated</li> </ol>

Manufacturing (ICCIM), Singapore, pp. 441-450.

7. A knowledge based material handling system in flexible manufacturing, 1998, I. Hussain, M. K. Khan, Pacific Conference on Manufacturing Proceedings, Brisbane, Australia, pp. 33-39.
8. A hybrid approach to the design problem of flexible manufacturing systems, 1998, I. Hussain, M. K. Khan, Proceedings of the 14<sup>th</sup> International Conference on Computer Aided Production Engineering, Tokyo, Japan, pp. 417-422.
9. Knowledge based material handling system selection in flexible manufacturing, 1998, I. Hussain, M. K. Khan, Journal of Engg. & App. Scs., Vol. 17, No. 1, pp. 123-129.
10. Knowledge based system for selecting local area network in flexible manufacturing, 1998, I. Hussain, M. K. Khan, Journal of Engg. & App. Scs., Vol. 17, No. 1, pp. 163-169.
11. An intelligent approach for machine layout selection, 1999, I. Hussain, M. K. Khan, Advanced Manufacturing Processes, Systems, and Technologies, Professional Engineering Publications Limited, pp. 309-319.
12. An intelligent system for machine selection, 1999, I. Hussain, M. K. Khan, Advanced Manufacturing Processes, Systems, and Technologies, Professional Engineering Publications Limited, pp. 321-329.
13. Planning and design of computer integrated manufacturing systems using an expert system Shell, 2002, I. Hussain, A. M. Al-Ahmari, Proceedings of the 6<sup>th</sup> Saudi Engineering Conference, Dhahran, Vol. 4, pp. 521-534.
14. Application of quality control improvement techniques at Al Essa National Factory for air conditioners, 2002, I. Hussain, A. Hadi, S. Noor, Journal of Engg. & App. Scs., Vol. 21, No. 2, pp. 45-51.

	<p>15. Material handling equipment selection in manufacturing environment, 2003, I. Hussain, A. Hadi, S. Noor, M. N. Khan, Journal of Engg. &amp; App. Scs., Vol. 22, No. 2, pp. 1-9.</p> <p>16. Single model assembly line balancing, 2003, I. Hussain, A. Hadi, S. Noor, M. N. Khan, Journal of Engg. &amp; App. Scs., Vol. 22, No. 2, pp. 72-78.</p> <p>17. An intelligent decision support system for machines selection, 2003, S. A. Shah, M. Naeem, A. Hadi, I. Hussain, Journal of Engg. &amp; App. Scs., Vol. 22, No. 2, pp. 35-42.</p> <p>18. A comprehensive approach for cellular manufacturing system design, A. Tariq, A. Ghafoor, 2004, I. Hussain, 2<sup>nd</sup> International Industrial Engineering Conference IIEC-2004, Riyadh, Saudi Arabia.</p> <p>19. Selection of material handling equipment using a hybrid approach, M. A. El-Tamimi, I. Hussain, 2004, 2<sup>nd</sup> International Industrial Engineering Conference IIEC-2004, Riyadh, Saudi Arabia.</p> <p>20. Application of simulation and artificial neural network to the problem of scheduling of flexible manufacturing system, 2005, S. Noor, M. K. Khan, I. Hussain, I. Ullah, International Journal of INGENIUM, pp. 191-198</p> <p>21. Simulation of automated guided vehicles as material handling system in flexible manufacturing, 2006, I. Hussain, A. Tariq, N. Mohammad, Journal of Engg. &amp; App. Scs., Vol. 25, No. 1, pp. 17-25.</p> <p>22. Hybrid methodology for predicting scheduling scenarios of flexible manufacturing system, 2006, S. Noor, M. K. Khan, I. Hussain, I. Ullah, 22<sup>nd</sup> International Conference on CAD/CAM Robotics and Factories of the Future, VIT, India, pp. 884-892.</p> <p>23. Hybrid approach to the selection of material handling equipment, 2006, I. Hussain, M. K. Khan, S. Noor, 22<sup>nd</sup> International Conference on</p>
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CAD/CAM Robotics and Factories of the Future, VIT, India, pp. 965-976.

24. A hybrid genetic algorithm for machine part grouping, A. Tariq, I. Hussain, A. Ghafoor, 2006, 2<sup>nd</sup> International Conference on Emerging Technologies, Pakistan, pp. 624-629.
25. Scheduling tool for flexible manufacturing systems using hybrid genetic algorithm, S. Noor, M. K. Khan, I. Hussain, I. Ullah, 2006, 2<sup>nd</sup> International Conference on Emerging Technologies, Pakistan, pp. 554-559.
26. Design of an automated storage and retrieval system (AS/RS), 2006, I. Hussain, A. Tariq, M. M. Ahmed, Journal of Engg. & App. Scs., Vol. 25, No. 2, pp. 13-21.
27. Selection of a robot hand gripper in cellular manufacturing, 2007, I. Hussain, A. Tariq, A. Hadi, Journal of Engg. & App. Scs., Vol. 26, No. 1, pp. 99-104
28. Investigation of machines sequencing flexibility in traditional and flexible manufacturing systems (FMS) using genetic algorithm (GA), 2007, S. Noor, M. K. Khan, I. Hussain, Proceedings of the 35<sup>th</sup> International MATADOR Conference, UK, pp. 181184.
29. Performance analysis of flexible manufacturing system under various scheduling scenarios through simulation, 2007, S. Noor, M. K. Khan, I. Hussain, 23<sup>rd</sup> ISPE International Conference on CAD/CAM Robotics and Factories of the Future, Columbia, pp. 587-593.
30. Selection and design of knowledge based (KB) AGVs system for material handling, 2007, F. Rahman, I. Hussain, Y. A. Kharlamov, A. Ali, Saiful-Islam, Proceedings of the 37<sup>th</sup> International Conference on Computers and Industrial Engineering, Alexandria, Egypt, pp. 1590-1596.
31. A hybrid genetic algorithm for job shop scheduling,

2007, A. Tariq, I. Hussain, A. Ghafoor, Proceedings of the 37<sup>th</sup> International Conference on Computers and Industrial Engineering, Alexandria, Egypt, pp. 1969-1979.

32. Consideration of single machine cells in designing cellular manufacturing system using a hybrid genetic algorithm, 2007, A. Tariq, I. Hussain, A. Ghafoor, Proceedings of the 3<sup>rd</sup> International Conference on Emerging Technologies (ICET), Nov 12-13, 2007, Islamabad, Pakistan. pp 6-10.

33. Implementation of kanban system at the shop floor of a multinational company, 2008, S. Maqsood, I. Hussain, S. Noor, Journal of Engg. & App. Scs. Vol. 27, No. 1, pp. 63-67.

34. A hybrid genetic algorithm for machine-part grouping, 2009, A. Tariq, I. Hussain, A. Ghafoor, Computers & Industrial Engineering, Vol. 56, pp. 347-356.

35. GA based scheduling system for flow shop and job shop scheduling problems, 2009, S. Noor, M. K. Khan, I. Hussain, A. Khan, R. A. Akbar, S. W. Shah and M. I. Babar, Journal of Engg. & App. Scs. Vol. 28, No. 1, pp. 77-88.

36. Application of a hybrid artificial neural networks model to a scheduling policy system, 2009, S. Noor, M. K. Khan, I. Hussain, A. Khan, R. A. Akbar, S. W. Shah and M. I. Babar, Journal of Engg. & App. Scs. Vol. 28, No. 1, pp. 89-102.

37. An evolutionary algorithm for job shop scheduling, 2010, A. Tariq, I. Hussain, A. Ghafoor, S. Noor, Journal of Engg. & App. Scs. Vol. 29, No. 1, pp. 7791.

38. Internationalizing manufacturing SMEs in a developing region: an exhaustive CDA-based exploratory approach, 2010, R. J. Qureshi and I. Hussain, Journal of Engg. & App. Scs. Vol. 29, No. 2, pp. 61-78.

39. A knowledge based methodology for planning and designing of a flexible manufacturing system (FMS), 2011, M. K. Khan, I. Hussain, S. Noor, International Journal of Advanced Manufacturing Systems, Vol. 13, No. 1, pp. 95-109.
40. A novel index based heuristic for job shop scheduling, 2011, S. Maqsood, I. Hussain, M. K. Khan, and A. S. Wood, 26<sup>th</sup> International Conference on CAD/CAM, Robotics and Factories of the Future, Kuala Lumpur, Malaysia, pp. 433-440.
41. A knowledge based decision support system for tool changeover in CNCs. 2011, A. Nawaz, A. Khan, S. Noor, I. Hussain, M. I. Mazhar, M. K. Khan, 26<sup>th</sup> International conference on CAD/CAM, Robotics and Factories of the Future, Kuala Lumpur, Malaysia, Volume 2-Attachment.
42. Trim loss minimization and reel cutting at paper mill, 2012, Razaullah, S. Rehman, I. Hussain, International Journal of Engineering and Research Development, Vol.4, Issue 3, pp 13-22.
43. A comprehensive production oriented technique for cellular manufacturing system design, 2012, A. Tariq, A. Khan, I. Hussain, S. Noor, M. T. Khan, Journal of Engg. & App. Scs. Vol. 31, No. 1, pp. 6169.
44. A novel heuristic rule for job shop scheduling, 2013, Shahid Maqsood, M. Khurshid Khan, Alastair Wood, I. Hussain, International Journal of Customer Relationship Marketing and Management, Vol. 4, No. 1, pp. 28-40.
45. Assessment of construction industry from supply chain perspective – Part-I, 2013, S. B. Khattak, I. Hussain, S. A. A. Shah, M. Ullah, R. Nawaz, A. Hussain, Sarhad University International Journal of Basic and Applied Sciences, Vol. 1, No. 1, pp. 145149
46. Canonical correlation analysis of manufacturing efficiency enablers for SMEs in Pakistan, 2013, K. Habib, R. Javed, I. Hussain, The International

Journal's: Research Journal of Social Science and Management, Vol. 2, No. 10, pp. 1-14.

47. Effect of grading policy on students' CGPA – a case study of an engineering college, 2014, Altaf Hussain, Salim ur Rehman, Iftikhar Hussain, International Journal of Engineering and Research Development, Vol. 10, Issue 7, pp 01-09.
48. Process optimization of a local steel bar manufacturing firm using SPC and ANOVA, 2014, Khawar Naeem, Iftikhar Hussain, International Journal of Engineering and Research Development, Vol. 10, Issue 7, pp 10-15.
49. Problems in implementation of MRP in manufacturing of wiring harness for Honda motorbikes and its solutions, 2014, Bilal Islam, Ahmad Nawaz, Iftikhar Hussain, IEEE SONEST: Student Conference on Engineering Sciences and Technology, Hyderabad, Pakistan, pp. 114-118.
50. A comparison of a standard genetic algorithm with a hybrid genetic algorithm applied to cell formation problem, 2014, Waqas Javed, Adnan Tariq, Iftikhar Hussain, Hindawi Publishing Corporation, Advances in Mechanical Engineering, Vol. 2014, pp. 1-11.
51. Strategy formulation for diagnostics of MRP driven production line through internal benchmarking, simulation and regression analysis, 2015, M. Arshad, I. Hussain, A. Zeb, S. Maqsood, Technical Journal, UET Taxila, Vol. 20 (SI), No. II (S), pp. 96-102.
52. Evaluation of factors affecting quality of construction projects, 2015, M. Abas, S. B. Khattak, I. Hussain, S. Maqsood, I. Ahmad, Technical Journal, UET Taxila, Vol. 20 (SI), No. II (S), pp. 115-120.
53. Multi-echelon inventory control in supply chain management (SCM), 2015, K. Naeem, M. Mahmood, S. Maqsood, M. Ullah, I. Hussain, Technical Journal, UET Taxila, Vol. 20 (SI), No. II (S), pp. 135-144.
54. Sustainable development tool for Khyber



	<p>Pakhtunkhwa's dimension stone industry, 2015, M. Omair, S. Noor, I. Hussain, S. Maqsood, S. B. Khattak, R. Akhtar, I. Ul Haq, Technical Journal, UET Taxila, Vol. 20 (SI), No. II (S), pp. 166-170.</p> <p>55. Performance of the manufacturing sector of Pakistan and its competitiveness cause and remedy, 2015, S. A. A. Shah, I. Hussain, Journal of Engg. &amp; App. Scs. Vol. 33, No. 2, pp. 13-22.</p> <p>56. Optimization of steel bar manufacturing process using six sigma, 2015, K. Naeem, M. Ullah, A. Tariq, S. Maqsood, R. Akhtar, R. Nawaz, I. Hussain, Chinese Journal of Mechanical Engineering, pp. 111.</p>
<b>Research Grants and Contracts.</b>	<p>CIM project, KSU Riyadh  MHS project, KSU Riyadh  JIT project, PTC Pakistan  CONWIP production line, PTC Pakistan  Inventory Control, Concorde Adhesives, Bradford UK</p>
<b>Other Research or Creative Accomplishments</b>	
<b>Selected Professional Presentations</b>	