

Prof. Saqib Anwar (PhD)

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Profile

Dr. Saqib Anwar received MSc and Ph.D. degrees in manufacturing engineering from the University of Nottingham, U.K., where he gained extensive research experience by working at Rolls-Royce University Technology Centre (UTC) (2009 - 2013). He is currently a Full Professor at the Industrial Engineering Department, King Saud University, Riyadh. He has an excellent research profile with above 100 publications. His research interests include sustainable machining, additive manufacturing, nanocomposites, polymer composites for 3D-printing, finite element modeling, materials characterization, and advanced manufacturing processes. He is also keen to teach courses such as manufacturing materials and manufacturing processes.

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ResearchGate profile link: <https://www.researchgate.net/profile/Saqib-Anwar>

Google Scholar profile link: <https://scholar.google.com/citations?user=VYwSteYAAAAJ&hl=en>

Awards and honors

Excellent Researcher Award from the College of Engineering, King Saud University Apr 2019

Certificate of Outstanding Contribution in Reviewing from the International Journal of Machine Tools and Manufacture Nov 2018

The distinction in MSc from The University of Nottingham, UK Nov 2009

The gold medalist from the University of Engineering and Technology, Lahore, Pakistan, for scoring the highest marks in all four years of B.Sc. Nov 2007

Education

Ph.D, Manufacturing Engineering 2009 – 2013

The University of Nottingham, UK

Thesis title: Modelling of abrasive waterjet milled footprint

Supervisor: Prof. Dragos Axinte

M.Sc, Manufacturing Engineering and Management 2008 – 2009

The University of Nottingham, UK

Passed in distinction with an overall 72.3% percentage (*2nd highest in the department*)

B.Sc, Industrial & Manufacturing Engineering 2003 – 2007

(Gold medalist)

University of Engineering and Technology, Lahore, Pakistan

Overall percentage: 83.4% (*highest in the department*)

ISI Journals Publications List

1. Farooq, Muhammad Umar, **Saqib Anwar**, Haider Ali Bhatti, M. Saravana Kumar, Muhammad Asad Ali, and Muhammad Imam Ammarullah. "Electric Discharge Machining of Ti6Al4V ELI in Biomedical Industry: Parametric Analysis of Surface Functionalization and Tribological Characterization." *Materials* 16, no. 12 (2023): 4458.
2. Ross, Nimel Sworna, N. Srinivasan, M. Belsam Jeba Ananth, Abdullah Yahia AlFaify, **Saqib Anwar**, and Munish Kumar Gupta. "Performance assessment of different cooling conditions in improving the machining and tribological characteristics of additively manufactured AlSi10Mg alloy." *Tribology International* 186 (2023): 108631.
3. Alqahtani, Khaled N., Abdulmajeed Dabwan, Emad Hashiem Abualsauod, **Saqib Anwar**, Ali M. Al-Samhan, and Husam Kaid. "Multi-Response Optimization of Additively Manufactured Ti6Al4V Component Using Grey Relational Analysis Coupled with Entropy Weights." *Metals* 13, no. 6 (2023): 1130.
4. Ishfaq, Kashif, Muhammad Sana, Mudassar Rehman, **Saqib Anwar**, Abdullah Yahia Alfaify, and Abdul Wasy Zia. "Role of biodegradable dielectrics toward tool wear and dimensional accuracy in Cu-mixed die sinking EDM of Inconel 600 for sustainable machining." *Journal of the Brazilian Society of Mechanical Sciences and Engineering* 45, no. 4 (2023): 1-22.
5. Saleh, Mustafa, **Saqib Anwar**, Abdulrahman M. Al-Ahmari, and Abdullah Yahia AlFaify. "Prediction of Mechanical Properties for Carbon fiber/PLA Composite Lattice Structures Using Mathematical and ANFIS Models." *Polymers* 15, no. 7 (2023): 1720.
6. Alqahtani, Khaled N., Mustafa M. Nasr, **Saqib Anwar**, Ali M. Al-Samhan, Mohammed H. Alhaag, and Husam Kaid. "Integrated Intelligent Method Based on Fuzzy Logic for Optimizing Laser Microfabrication Processing of GnP_s-Improved Alumina Nanocomposites." *Micromachines* 14, no. 4 (2023): 750.
7. Dabwan, Abdulmajeed, **Saqib Anwar**, Ali M. Al-Samhan, Khaled N. Alqahtani, Mustafa M. Nasr, Husam Kaid, and Wadea Ameen. "CNC Turning of an Additively Manufactured Complex Profile Ti6Al4V Component Considering the Effect of Layer Orientations." *Processes* 11, no. 4 (2023): 1031.
8. Farooq, Muhammad Umar, **Saqib Anwar**, Rizwan Ullah, and Rodolfo Haber Guerra. "Sustainable machining of additive manufactured SS-316L underpinning low carbon manufacturing goal." *Journal of Materials Research and Technology* (2023).
9. Abdullah, Fawaz M., Abdulrahman M. Al-Ahmari, and **Saqib Anwar**. "An Integrated Fuzzy DEMATEL and Fuzzy TOPSIS Method for Analyzing Smart Manufacturing Technologies." *Processes* 11, no. 3 (2023): 906.
10. Farooq, Muhammad Umar, and **Saqib Anwar**. "Investigations on the Surface Integrity of Ti6Al4V under Modified Dielectric (s)-Based Electric Discharge Machining Using Cryogenically Treated Electrodes." *Processes* 11, no. 3 (2023): 877.
11. Nasr, Mustafa M., **Saqib Anwar**, Ali M. Al-Samhan, Khaled N. Alqahtani, Abdulmajeed Dabwan, and Mohammed H. Alhaag. "Sustainable Microfabrication Enhancement of Graphene Nanoplatelet-Reinforced Biomedical Alumina Ceramic Matrix Nanocomposites." *Nanomaterials* 13, no. 6 (2023): 1032.

12. **Anwar, Saqib**, Nauman Ahmad Khan, Sarmad Ali Khan, and Syed Farhan Raza. "One-Step High-Speed Finish Drilling of Inconel 718 Superalloy via Novel Inserts." *Processes* 11, no. 3 (2023): 752.
13. Abdullah, Fawaz M., Abdulrahman M. Al-Ahmari, and **Saqib Anwar**. "Analyzing Interdependencies among Influencing Factors in Smart Manufacturing." *Sustainability* 15, no. 4 (2023): 3864.
14. Abdullah, Fawaz M., Abdulrahman M. Al-Ahmari, and **Saqib Anwar**. "A Hybrid Fuzzy Multi-Criteria Decision-Making Model for Evaluating the Influence of Industry 4.0 Technologies on Manufacturing Strategies." *Machines* 11, no. 2 (2023): 310.
15. Farooq, M., M. Farhan, Gulzar Ahmad, M. Usman, M. Sultan, M. Saad Hanif, M. Imran, **Saqib Anwar**, Ahmed M. El-Sherbeeney, and M. Ali Shakir. "Thermal performance enhancement of nanofluids based parabolic trough solar collector (NPTSC) for sustainable environment." *Alexandria Engineering Journal* 61, no. 11 (2022): 8943-8953.
16. Saleh, Mustafa, **Saqib Anwar**, Abdulrahman M. Al-Ahmari, and Abdullah Alfaify. "Compression Performance and Failure Analysis of 3D-Printed Carbon Fiber/PLA Composite TPMS Lattice Structures." *Polymers* 14, no. 21 (2022): 4595.
17. Khan, Sarmad Ali, Muhammad Faizan Ameer, Ghulam Moeen Uddin, Muhammad Asad Ali, **Saqib Anwar**, Muhammad Umar Farooq, and Abdullah Alfaify. "An in-depth analysis of tool wear mechanisms and surface integrity during high-speed hard turning of AISI D2 steel via novel inserts." *The International Journal of Advanced Manufacturing Technology* 122, no. 9 (2022): 4013-4028.
18. Harris, Muhammad, Hammad Mohsin, Johan Potgieter, Khalid Mahmood Arif, **Saqib Anwar**, Abdullah Alfaify, and Muhammad Umar Farooq. "Hybrid deposition additive manufacturing: novel volume distribution, thermo-mechanical characterization, and image analysis." *Journal of the Brazilian Society of Mechanical Sciences and Engineering* 44, no. 9 (2022): 1-20.
19. Ishfaq, Kashif, Muhammad Asad Maqsood, **Saqib Anwar**, Abdullah Alfaify, and Abdul Wasy Zia. "Analyzing micromachining errors in EDM of Inconel 600 using various biodegradable dielectrics." *Journal of the Brazilian Society of Mechanical Sciences and Engineering* 44, no. 6 (2022): 1-12.
20. Ishfaq, Kashif, Muhammad Asad Maqsood, **Saqib Anwar**, Muhammad Harris, Abdullah Alfaify, and Abdul Wasy Zia. "EDM of Ti6Al4V under nano-graphene mixed dielectric: a detailed roughness analysis." *The International Journal of Advanced Manufacturing Technology* 120, no. 11 (2022): 7375-7388.
21. Abdullah, Fawaz M., Abdulrahman M. Al-Ahmari, and **Saqib Anwar**. "Exploring Key Decisive Factors in Manufacturing Strategies in the Adoption of Industry 4.0 by Using the Fuzzy DEMATEL Method." *Processes* 10, no. 5 (2022): 987.
22. Khan, Aqib Mashood, **Saqib Anwar**, Abdullah Alfaify, Muhammad Jamil, Shubham Sharma, Muhammad Umar Farooq, Waqas Khaliq, and Asif Iqbal. "Comparison of machinability and economic aspects in turning of Haynes-25 alloy under novel hybrid cryogenic-LN oils-on-water approach." *The International Journal of Advanced Manufacturing Technology* 120, no. 1 (2022): 427-445.
23. Abdullah, Fawaz M., Mustafa Saleh, Abdulrahman M. Al-Ahmari, and **Saqib Anwar**. "The Impact of Industry 4.0 Technologies on Manufacturing Strategies: Proposition of Technology-Integrated Selection." *IEEE Access* 10 (2022): 21574-21583.
24. Atif, M., **Saqib Anwar**, W. A. Farooq, Muhammad Ali Shar, Bassam Abuamarah, M. S. AlSalhi, V. Masilaimani, Nasser Alarifi, Ibrahim El-Khedr, and K. S. Alimgeer. "Investigation of structural,

mechanical, magnetic properties and hysteresis modelling of Dawasir meteorite." *Journal of King Saud University-Science* 34, no. 3 (2022): 101902.

25. Pervaiz, Salman, Sathish Kannan, **Saqib Anwar**, and Dehong Huo. "Machinability analysis of dry and liquid nitrogen-based cryogenic cutting of Inconel 718: experimental and FE analysis." *The International Journal of Advanced Manufacturing Technology* 118, no. 11 (2022): 3801-3818.
26. Dabwan, Abdulmajeed, **Saqib Anwar**, Ali M. Al-Samhan, Mustafa M. Nasr, and Abdullah AlFaify. "On the influence of heat treatment in suppressing the layer orientation effect in finishing of electron beam melted Ti6Al4V." *The International Journal of Advanced Manufacturing Technology* 118, no. 9 (2022): 3035-3048.
27. Ishfaq, Kashif, Muhammad Asad, Muhammad Harris, Abdullah AlFaify, **Saqib Anwar**, Luciano Lamberti, and Maria Luminata Scutaru. "EDM of Ti-6Al-4V under nano-graphene mixed dielectric: a detailed investigation on axial and radial dimensional overcuts." *Nanomaterials* 12, no. 3 (2022): 432.
28. Rehman, Ateekh Ur, Nagumothu Kishore Babu, Mahesh Kumar Talari, **Saqib Anwar**, Yusuf Usmani, and Ali M. Al-Samhan. "Dissimilar Rotary Friction Welding of Inconel 718 to F22 Using Inconel 625 Interlayer." *Applied Sciences* 11, no. 22 (2021): 10684.
29. Dabwan, Abdulmajeed, **Saqib Anwar**, Ali M. Al-Samhan, Mustafa M. Nasr, and Abdullah AlFaify. "On the influence of heat treatment in suppressing the layer orientation effect in finishing of electron beam melted Ti6Al4V." *The International Journal of Advanced Manufacturing Technology* 118, no. 9 (2022): 3035-3048.
30. Ross, Nimel Sworna, Mozammel Mia, **Saqib Anwar**, G. Manimaran, Mustafa Saleh, and Shafiq Ahmad. "A hybrid approach of cooling lubrication for sustainable and optimized machining of Ni-based industrial alloy." *Journal of Cleaner Production* 321 (2021): 128987.
31. **Anwar, Saqib**, Ateekh Ur Rehman, Yusuf Usmani, and Ali M. Al-Samhan. "Influence of Post Weld Heat Treatment on the Grain Size, and Mechanical Properties of the Alloy-800H Rotary Friction Weld Joints." *Materials* 14, no. 16 (2021): 4366.
32. Mumtaz, Hamza, M. Farhan, M. Amjad, Fahid Riaz, Ali H. Kazim, M. Sultan, M. Farooq, M., Mujtaba, M.A., Hussain, I., Imran, M. and **Anwar, S.** "Biomass waste utilization for adsorbent preparation in CO₂ capture and sustainable environment applications." *Sustainable Energy Technologies and Assessments* 46 (2021): 101288.
33. Dabwan, Abdulmajeed, **Saqib Anwar**, Ali M. Al-Samhan, Abdullah AlFaify, and Mustafa M. Nasr. "Investigations on the effect of layers' thickness and orientations in the machining of additively manufactured stainless steel 316L." *Materials* 14, no. 7 (2021): 1797.
34. Ashraf, Waqar Muhammad, Ghulam Moeen Uddin, Muhammad Farooq, Fahid Riaz, Hassan Afroze Ahmad, Ahmad Hassan Kamal, **Saqib Anwar** et al. "Construction of operational data-driven power curve of a generator by industry 4.0 data analytics." *Energies* 14, no. 5 (2021): 1227.
35. Abbas, Adel T., **Saqib Anwar**, Elshaimaa Abdelnasser, Monis Luqman, Jaber E. Abu Qudeiri, and Ahmed Elkaseer. "Effect of different cooling strategies on surface quality and power consumption in finishing end milling of stainless steel 316." *Materials* 14, no. 4 (2021): 903.
36. Badwelan, Ahmed, Ali M. Al-Samhan, **Saqib Anwar**, and Lotfi Hidri. "Novel Technique for Enhancing the Strength of Friction Stir Spot Welds through Dynamic Welding Parameters." *Metals* 11, no. 2 (2021): 280.

37. Ishfaq, Kashif, Sadaf Zahoor, Sarmad Ali Khan, Mudassar Rehman, Abdullah Alfaify, and **Saqib Anwar**. "Minimizing the corner errors (top and bottom) at optimized cutting rate and surface finish during WEDM of Al6061." *Engineering Science and Technology, an International Journal* 24, no. 4 (2021): 1027-1041.
38. Rehman, Ateekh Ur, Yusuf Usmani, Ali M. Al-Samhan, and **Saqib Anwar**. "Rotary friction welding of inconel 718 to inconel 600." *Metals* 11, no. 2 (2021): 244.
39. Rahman, M. Azizur, Md Shahnewaz Bhuiyan, Sourav Sharma, Mohammad Saeed Kamal, MM Musabbir Imtiaz, Abdullah Alfaify, Trung-Thanh Nguyen et al. "Influence of feed rate response (FRR) on chip formation in micro and macro machining of al alloy." *Metals* 11, no. 1 (2021): 159.
40. AlSalhi, M. S., V. Masilamani, Nasser Alarifi, W. Aslam Farooq, M. Atif, Shahid Ramay, Hayat Saeed Althobaiti, **Saqib Anwar**, Ibrahim Elkhedr, and Bassam A. Abuamarah. "Elemental composition and physical characteristics of the massive meteorite of the Saudi empty quarter." *Journal of King Saud University-Science* 33, no. 2 (2021): 101341.
41. Khan, Aqib Mashood, **Saqib Anwar**, Muhammad Jamil, Mustafa M. Nasr, Munish Kumar Gupta, Mustafa Saleh, Shafiq Ahmad, and Mozammel Mia. "Energy, environmental, economic, and technological analysis of Al-GnP nanofluid-and cryogenic LN2-assisted sustainable machining of Ti-6Al-4V alloy." *Metals* 11, no. 1 (2021): 88.
42. Nasr, Mustafa M., **Saqib Anwar**, Ali M. Al-Samhan, Hany S. Abdo, and Abdulmajeed Dabwan. "On the machining analysis of graphene nanoplatelets reinforced Ti6Al4V matrix nanocomposites." *Journal of Manufacturing Processes* 61 (2021): 574-589.
43. Ishfaq, Kashif, Muhammad Umar Farooq, **Saqib Anwar**, Muhammad Asad Ali, Shafiq Ahmad, and Ahmed M. El-Sherbeeney. "A comprehensive investigation of geometrical accuracy errors during WEDM of Al6061-7.5% SiC composite." *Materials and Manufacturing Processes* 36, no. 3 (2021): 362-372.
44. Ishfaq, Kashif, Muhammad Asad, **Saqib Anwar**, Catalin I. Pruncu, Mustafa Saleh, and Shafiq Ahmad. "A comprehensive analysis of the effect of graphene-based dielectric for sustainable electric discharge machining of Ti-6Al-4V." *Materials* 14, no. 1 (2020): 23.
45. M. Nasr, Mustafa, **Saqib Anwar**, Ali M. Al-Samhan, Mageed Ghaleb, and Abdulmajeed Dabwan. "Milling of Graphene Reinforced Ti6Al4V Nanocomposites: An Artificial Intelligence Based Industry 4.0 Approach." *Materials* 13, no. 24 (2020): 5707.
46. Khan, Sarmad Ali, **Saqib Anwar**, Kashif Ishfaq, Muhammad Zubair Afzal, Shafiq Ahmad, and Mustafa Saleh. "Wear performance of modified inserts in hard turning of AISI D2 steel: A concept of one-step sustainable machining." *Journal of Manufacturing Processes* 60 (2020): 457-469.
47. Ishfaq, Kashif, **Saqib Anwar**, Muhammad Asad Ali, Muhammad Huzaifa Raza, Muhammad Umar Farooq, Shafiq Ahmad, Catalin I. Pruncu, Mustafa Saleh, and Bashir Salah. "Optimization of WEDM for precise machining of novel developed Al6061-7.5% SiC squeeze-casted composite." *The International Journal of Advanced Manufacturing Technology* 111, no. 7 (2020): 2031-2049.
48. Khan, Aqib Mashood, **Saqib Anwar**, Munish Kumar Gupta, Abdullah Alfaify, Saqib Hasnain, Muhammad Jamil, Mozammel Mia, and Danil Yurievich Pimenov. "Energy-based novel quantifiable sustainability value assessment method for machining processes." *Energies* 13, no. 22 (2020): 6144.

49. Abbas, Adel T., **Saqib Anwar**, Hussien Hegab, Faycal Benyahia, Hazem Ali, and Ahmed Elkaseer. "Comparative evaluation of surface quality, tool wear, and specific cutting energy for wiper and conventional carbide inserts in hard turning of AISI 4340 alloy steel." *Materials* 13, no. 22 (2020): 5233.
50. Manimaran, G., **Saqib Anwar**, M. Azizur Rahman, Mehmet Erdi Korkmaz, Munish Kumar Gupta, Abdullah Alfaify, and Mozammel Mia. "Investigation of surface modification and tool wear on milling Nimonic 80A under hybrid lubrication." *Tribology International* 155 (2021): 106762.
51. Khan, Sarmad Ali, Sumbul Shamail, **Saqib Anwar**, Amjad Hussain, Shafiq Ahmad, and Mustafa Saleh. "Wear performance of surface treated drills in high speed drilling of AISI 304 stainless steel." *Journal of Manufacturing Processes* 58 (2020): 223-235.
52. Sattar, Abdul, Muhammad Farooq, Muhammad Amjad, Muhammad A. Saeed, Saad Nawaz, M. A. Mujtaba, **Saqib Anwar** et al. "Performance evaluation of a direct absorption collector for solar thermal energy conversion." *Energies* 13, no. 18 (2020): 4956.
53. Dabwan, Abdulmajeed, **Saqib Anwar**, Ali M. Al-Samhan, and Mustafa M. Nasr. "On the effect of electron beam melted Ti6Al4V part orientations during milling." *Metals* 10, no. 9 (2020): 1172.
54. M. Abdullah, Fawaz, **Saqib Anwar**, and Abdulrahman Al-Ahmari. "Thermomechanical simulations of residual stresses and distortion in electron beam melting with experimental validation for ti-6al-4v." *Metals* 10, no. 9 (2020): 1151.
55. Dabwan, Abdulmajeed, **Saqib Anwar**, and Ali Al-Samhan. "Effects of Milling Process Parameters on Cutting Forces and Surface Roughness when Finishing Ti6al4v Produced by Electron Beam Melting." *International Journal of Mechanical and Materials Engineering* 14, no. 8 (2020): 324-328.
56. Saleh, Mustafa, **Saqib Anwar**, Abdualziz El-Tamimi, Muneer Khan Mohammed, and Shafiq Ahmad. "Milling microchannels in Monel 400 alloy by wire EDM: an experimental analysis." *Micromachines* 11, no. 5 (2020): 469.
57. Abbas, Adel T., Neeraj Sharma, **Saqib Anwar**, Monis Luqman, Italo Tomaz, and Hussien Hegab. "Multi-response optimization in high-speed machining of Ti-6Al-4V using TOPSIS-fuzzy integrated approach." *Materials* 13, no. 5 (2020): 1104.
58. **Anwar, Saqib**, Naveed Ahmed, Salman Pervaiz, Shafiq Ahmad, Ashfaq Mohammad, and Mustafa Saleh. "On the turning of electron beam melted gamma-TiAl with coated and uncoated tools: A machinability analysis." *Journal of Materials Processing Technology* 282 (2020): 116664.
59. Dabwan, Abdulmajeed, Adham E. Ragab, Mohamed A. Saleh, **Saqib Anwar**, Atef M. Ghaleb, and Ateekh Ur Rehman. "Study of the effect of process parameters on surface profile accuracy in single-point incremental sheet forming of AA1050-H14 aluminum alloy." *Advances in Materials Science and Engineering* 2020 (2020).
60. Dabwan, Abdulmajeed, Adham E. Ragab, Mohamed A. Saleh, **Saqib Anwar**, Atef M. Ghaleb, and Ateekh Ur Rehman. "Study of the effect of process parameters on surface profile accuracy in single-point incremental sheet forming of AA1050-H14 aluminum alloy." *Advances in Materials Science and Engineering* 2020 (2020).
61. Dabwan, Abdulmajeed, Adham E. Ragab, Mohamed A. Saleh, **Saqib Anwar**, Atef M. Ghaleb, and Ateekh Ur Rehman. "Study of the effect of process parameters on surface profile accuracy in single-point incremental sheet forming of AA1050-H14 aluminum alloy." *Advances in Materials Science and Engineering* 2020 (2020).

62. Ahmed, Naveed, Shafiq Ahmad, **Saqib Anwar**, Amjad Hussain, Madiha Rafaqat, and Mazen Zaindin. "Machinability of titanium alloy through laser machining: material removal and surface roughness analysis." *The International Journal of Advanced Manufacturing Technology* 105, no. 7 (2019): 3303-3323.
63. Ahmed, Naveed, **Saqib Anwar**, Kashif Ishfaq, Madiha Rafaqat, Mustafa Saleh, and Shafiq Ahmad. "The potentiality of sinking EDM for micro-impressions on Ti-6Al-4V: keeping the geometrical errors (axial and radial) and other machining measures (tool erosion and work roughness) at minimum." *Scientific reports* 9, no. 1 (2019): 1-18.
64. Abbas, Adel T., Neeraj Sharma, **Saqib Anwar**, Faraz H. Hashmi, Muhammad Jamil, and Hussien Hegab. "Towards optimization of surface roughness and productivity aspects during high-speed machining of Ti-6Al-4V." *Materials* 12, no. 22 (2019): 3749.
65. Abdo, Basem MA, **Saqib Anwar**, and Abdualziz El-Tamimi. "Machinability study of biolox forte ceramic by milling microchannels using rotary ultrasonic machining." *Journal of Manufacturing Processes* 43 (2019): 175-191.
66. Abdo, Basem, Naveed Ahmed, Abdulaziz M. El-Tamimi, **Saqib Anwar**, Hisham Alkhalefah, and Emad Abouel Nasr. "Laser beam machining of zirconia ceramic: An investigation of micro-machining geometry and surface roughness." *Journal of Mechanical Science and Technology* 33, no. 4 (2019): 1817-1831.
67. Ahmed, Naveed, Kashif Ishfaq, Madiha Rafaqat, Salman Pervaiz, **Saqib Anwar**, and Bashir Salah. "EDM of Ti-6Al-4V: Electrode and polarity selection for minimum tool wear rate and overcut." *Materials and Manufacturing Processes* 34, no. 7 (2019): 769-778.
68. Zia, Muhammad Kashif, Salman Pervaiz, **Saqib Anwar**, and Wael A. Samad. "Reviewing sustainability interpretation of electrical discharge machining process using triple bottom line approach." *International Journal of Precision Engineering and Manufacturing-Green Technology* 6, no. 5 (2019): 931-945.
69. Abdo, Basem MA, **Saqib Anwar**, Abdulaziz M. El-Tamimi, and Emad Abouel Nasr. "Experimental analysis on the influence and optimization of μ -RUM parameters in machining alumina bioceramic." *Materials* 12, no. 4 (2019): 616.
70. Pervaiz, Salman, **Saqib Anwar**, Imran Qureshi, and Naveed Ahmed. "Recent advances in the machining of titanium alloys using minimum quantity lubrication (MQL) based techniques." *International Journal of Precision Engineering and Manufacturing-Green Technology* 6, no. 1 (2019): 133-145.
71. Abdo, Basem, Abdulaziz M. El-Tamimi, **Saqib Anwar**, Usama Umer, Abdulrahman M. Alahmari, and Mageed A. Ghaleb. "Experimental investigation and multi-objective optimization of Nd: YAG laser micro-channeling process of zirconia dental ceramic." *The International Journal of Advanced Manufacturing Technology* 98, no. 5 (2018): 2213-2230.
72. Ahmad, Iftikhar, **Saqib Anwar**, Fang Xu, and Yanqiu Zhu. "Tribological investigation of multilayer graphene reinforced alumina ceramic nanocomposites." *Journal of Tribology* 141, no. 2 (2019): 022002.
73. **Anwar, Saqib**, Naveed Ahmed, Basem M. Abdo, Salman Pervaiz, M. A. K. Chowdhury, and Abdulrahman M. Alahmari. "Electron beam melting of gamma titanium aluminide and investigating

the effect of EBM layer orientation on milling performance." *The International Journal of Advanced Manufacturing Technology* 96, no. 9 (2018): 3093-3107.

74. Ahmad, Shafiq, Moath Alatefi, Mohammad Alkahtani, **Saqib Anwar**, Mohamed Sharaf, and Mali Abdollahian. "Bibliometric analysis for process capability research." *Quality Technology & Quantitative Management* 16, no. 4 (2019): 459-477.
75. Islam, Mohammad, Yasir Khalid, Iftikhar Ahmad, Abdulhakim A. Almajid, Amine Achour, Theresa J. Dunn, Aftab Akram, and **Saqib Anwar**. "Microstructural evaluation of inductively sintered aluminum matrix nanocomposites reinforced with silicon carbide and/or graphene nanoplatelets for tribological applications." *Metallurgical and Materials Transactions A* 49, no. 7 (2018): 2963-2976.
76. Abdo, Basem MA, **Saqib Anwar**, Abdualziz M. El-Tamimi, Abdulrahman M. Alahmari, and Emad Abouel Nasr. "Laser micro-milling of bio-lox forte ceramic: An experimental analysis." *Precision Engineering* 53 (2018): 179-193.
77. **Anwar, Saqib**, Fawaz M. Abdullah, Mohammed S. Alkahtani, Shafiq Ahmad, and Moath Alatefi. "Bibliometric analysis of abrasive water jet machining research." *Journal of King Saud University-Engineering Sciences* 31, no. 3 (2019): 262-270.
78. **Anwar, Saqib**, Mustafa M. Nasr, Salman Pervaiz, Abdulrahman Al-Ahmari, Mohammed Alkahtani, and Abdulaziz El-Tamimi. "A study on the effect of main process parameters of rotary ultrasonic machining for drilling BK7 glass." *Advances in Mechanical Engineering* 10, no. 1 (2018): 1687814017752212.
79. **Anwar, Saqib**, Mustafa M. Nasr, Abdulrahman Al-Ahmari, Mohammed Alkahtani, Basem Abdo, Abdulaziz El-Tamimi, and Saied Darwish. "Rotary ultrasonic drilling of Ti6Al4V: Effects of machining parameters and tool diameter." *Advances in Mechanical Engineering* 10, no. 1 (2018): 1687814017750784.
80. Shaheen, Fozia, Muhammad Hammad Aziz, Muhammad Fakhar-e-Alam, Muhammad Atif, Mahvish Fatima, Riaz Ahmad, Atif Hanif et al. "An in vitro study of the photodynamic effectiveness of GO-ag nanocomposites against human breast Cancer cells." *Nanomaterials* 7, no. 11 (2017): 401.
81. Chowdhury, MA Karim, A. M. M. Sharif Ullah, and **Saqib Anwar**. "Drilling high precision holes in Ti6Al4V using rotary ultrasonic machining and uncertainties underlying cutting force, tool wear, and production inaccuracies." *Materials* 10, no. 9 (2017): 1069.
82. Moiduddin, K., S. Anwar, N. Ahmed, M. Ashfaq, and A. Al-Ahmari. "Computer assisted design and analysis of customized porous plate for mandibular reconstruction." *Irbm* 38, no. 2 (2017): 78-89.
83. Al-Ahmari, Abdulrahman, Emad Abouel Nasr, Khaja Moiduddin, **Saqib Anwar**, Mohammed Al Kindi, and Ali Kamrani. "A comparative study on the customized design of mandibular reconstruction plates using finite element method." *Advances in Mechanical Engineering* 7, no. 7 (2015): 1687814015593890.
84. Axinte, D. A., B. Karpuschewski, M. C. Kong, A. T. Beaucamp, S. Anwar, D. Miller, and M. Petzel. "High energy fluid jet machining (HEFJet-Mach): from scientific and technological advances to niche industrial applications." *CIRP Annals* 63, no. 2 (2014): 751-771.
85. **Anwar, Saqib**, D. A. Axinte, and A. A. Becker. "Finite element modelling of overlapping abrasive waterjet milled footprints." *Wear* 303, no. 1-2 (2013): 426-436.

86. **Anwar, Saqib**, D. A. Axinte, and A. A. Becker. "Finite element modelling of abrasive waterjet milled footprints." *Journal of Materials Processing Technology* 213, no. 2 (2013): 180-193.
87. **Anwar, Saqib**, DA A. Axinte, and A. A. Becker. "Finite element modelling of a single-particle impact during abrasive waterjet milling." *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology* 225, no. 8 (2011): 821-832.
88. Kong, M. C., **S. Anwar**, J. Billingham, and D. A. Axinte. "Mathematical modelling of abrasive waterjet footprints for arbitrarily moving jets: part I—single straight paths." *International Journal of Machine Tools and Manufacture* 53, no. 1 (2012): 58-68.

Conferences and Non-ISI journals publications

1. **S. Anwar**, "Electron beam melting of γ -TiAl and minimization of its surface roughness and cutting forces in turning," in *Proceedings of the International Conference on Industrial Engineering and Operations Management, Dubai, UAE, March 2020*, pp. 1519–1533, [Online]. Available: <http://www.ieomsociety.org/ieom2020/papers/839.pdf>.
2. **S. Anwar**, F. M. Abdullah, M. S. Alkahtani, S. Ahmad, and M. Alatefi, "Bibliometric analysis of abrasive water jet machining research," *J. King Saud Univ. - Eng. Sci.*, 2018.
3. S. Pervaiz, **S. Anwar**, S. Kannan, and A. Almarfadi, "Exploring the influence of constitutive models and associated parameters for the orthogonal machining of Ti6Al4V," in *International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT) November 28-29, Dubai, UAE, 2017*.
4. M. Nasr, **S. Anwar**, A. El-Tamimi, and S. Pervaiz, "Minimization of the hole overcut and cylindricity errors during rotary ultrasonic drilling of Ti-6Al-4V," in *International Conference on Recent Advances in Materials & Manufacturing Technologies (IMMT) November 28-29, Dubai, UAE, 2017*.
5. **S. Anwar**, F. M. Abdullah, B. Salah, S. Ahmad, and A. M. Al-Ahmari, "An Overview of Electron Beam Melting research with Bibliometric Indicators," in *Proceedings of the International Conference on Industrial Engineering and Operations Management Rabat, Morocco, April 11-13, 2017*.
6. **S. Anwar**, M. M. Nasr, M. Alkahtani, and A. Altamimi, "Predicting surface roughness and exit chipping size in BK7 glass during rotary ultrasonic machining by adaptive neuro-fuzzy inference system (ANFIS)," in *Proceedings of the International Conference on Industrial Engineering and Operations Management Rabat, Morocco, April 11-13, 2017*.

Teaching experience

Associate Professor (2nd Sept 2019 – to date)

King Saud University, Riyadh, Saudi Arabia

Working as an Associate Professor in the Industrial Engineering Department, College of Engineering.

Subjects taught: Manufacturing Materials, Manufacturing processes – I, Manufacturing processes – II, CAD/CAM.

Supervisions: Supervising two Ph.D. projects, one master project, and two BSc graduation projects.

Administration: Currently working as the head of the Lab and Purchasing Committee. Also working as an active member of the BSc program accreditation committee, scientific committee, and statistics and information committee in the Industrial Engineering Department.

Assistant Professor (Sept 2014 – 1st Sept 2019)

King Saud University, Riyadh, Saudi Arabia

Worked as an Assistant Professor in the Industrial Engineering Department, College of Engineering.

Subjects taught: Manufacturing processes – I, Manufacturing processes – II, CAD/CAM, Manufacturing Materials.

Supervisions: Supervised one Ph.D. project, three master projects, and several BSc graduation projects.

Administration: Worked as the head of the lab and purchasing committee and an active member of the ABET accreditation committee in the Industrial Engineering department.

Mentored BSc final year project (2012 – 2013)

The University of Nottingham, UK

Mentored a BSc project with Prof. Dragos Axinte in the Mechanical, Materials, and Manufacturing Engineering department on the evaluation of cutting fluid for Rolls Royce Plc.

Lab instructor (2010 – 2012)

The University of Nottingham, UK

I have worked as a Lab instructor for the module Measurement and Control in the Mechanical, Materials, and Manufacturing Engineering department for sessions 2010-2011 and 2011-2012. The main tasks were to **(i)** organize the lab manuals, **(ii)** conduct the lab with students **(iii)** mark and provide feedback on reports for students.

Tutoring ABAQUS software (2010 – 2012)

The University of Nottingham, UK

I have tutored ABAQUS, a finite element analysis software, in the Mechanical, Materials, and Manufacturing Engineering department for sessions 2010-2011 and 2011-2012. The main tasks

were **(i)** teaching students who are new to Abaqus and **(ii)** supporting MSc and BSc students who are working on finite element modeling and simulation in their final year projects.

Research experience

- **Principal investigator** in a project funded by the Ministry of Education to develop eco-friendly recyclable carbon fibers reinforced-based polymer composites for 3D printing applications. (June 2022 – Dec 2023)
- **Principal investigator** in a project funded by SASO, titled “Implementation of Minimum Quantity Lubrication (MQL) technique for machining operations in Saudi Arabia – a leap towards clean and sustainable manufacturing” (May 2023 – Nov 2023)
- **Principal investigator** in a research group grant titled “Advanced Machining and Manufacturing” from the Deanship of Scientific Research, King Saud University. (Sept 2017 – Jan 2021)
- **Co-investigator** in a National Program for Science and Technology funded project. (Sept 2019 – Aug 2022)
- **Supervising/supervised several Ph.D. and Master theses** students on various manufacturing-related topics (Sept 2018 – To date)
- Mentored two Ph.D. projects at The University of Nottingham, UK. (Aug 2013 – Oct 2013)