

Dr. QASIM ZEESHAN

Associate Professor
Department of Mechanical Engineering
Mimar Sinan Street
Eastern Mediterranean University
Famagusta, North Cyprus
Via Mersin 10, 99628, Turkey



Email: qasim.zeeshan@emu.edu.tr, zeeshanqasim@gmail.com
Tel: +90 392 6301361 | +90 533 8539362
Skype: [drqasimzeeshan](https://www.skype.com/user/drqasimzeeshan)
Web: staff.emu.edu.tr/qasimzeeshan/en | www.linkedin.com/in/qasim-zeeshan
ResearcherID: Q-3181-2019 | ORCID: 0000-0001-5488-8082
Researchgate: www.researchgate.net/profile/Qasim_Zeeshan2
Publons: <https://publons.com/researcher/2960389/qasim-zeeshan/>

PROFILE

- More than 10 years of Post PhD research, course development and teaching experience, teaching courses from a wide spectrum of disciplines including mechanical, aerospace & industrial engineering.
- 61 publications: 32 journal articles, including 19 (SCI, SCI-E and SSCI) papers, 5 ESCI papers, and 29 conference papers.
- Supervised 5 Masters candidates, and co-supervised 3 Masters candidates. Supervised 11 Masters of Science students in Warwick Manufacturing Group - Engineering Management Programs.
- Served as jury member for 11 PhD and 7 Masters Theses defense. Served as reviewer for international indexed journals. 26 verified reviews in Web of Science.
- Serving as advisory board member of Energy Research Center and Electrical Vehicle Development Center at EMU.
- Served as member of departmental committees including ABET Committee, Capstone Projects Committee, Curriculum Committee, Graduate Committee, and Promotions Committee.
- Over 10 years of interdisciplinary research experience for the design, analysis and development of Mechanical & Aerospace Systems; in collaboration with researchers from various faculties of engineering design. Project Management of Research & Development projects for all phases of system life cycle; Preparing project proposals, and feasibility studies for acquisition of funds, project supervision, implementation of design, manufacturing, quality and safety standards, collaboration with stakeholders, and delivery of results under pressure in fast-paced environments.

EDUCATION

- 2009 PhD in Flight Vehicle Design (Sep 2006 to Sep 2009)**
Beijing University of Aeronautics and Astronautics (BUAA), Beijing, P.R.China
- 2006 Masters in Flight Vehicle Design (Sep 2004 to Jul 2006)**
Beijing University of Aeronautics and Astronautics (BUAA), Beijing, P.R.China
- 2000 Bachelor of Engineering in Mechanical (Mar 1997 to Oct 2000)**
National University of Sciences and Technology (NUST), College of E&ME, Rawalpindi, Pakistan

RESEARCH INTERESTS

- Flight Vehicle Design
- Space Mission Design
- Meta-Heuristic Optimization Techniques
- Multidisciplinary Design Optimization
- Risk Management
- Industry 4.0
- Smart Manufacturing Systems
- Advanced Manufacturing Processes
- Machine Learning
- Composite Structures

TEACHING EXPERIENCE

Sep 2015 to date

Associate Professor, Department of Mechanical Engineering

Eastern Mediterranean University, Famagusta, North Cyprus, via Mersin 10, Turkey

Graduate Courses:

- *Applied Computational Methods for Engineers*
- *Manufacturing Systems Engineering*
- *Multidisciplinary Design Optimization*

Undergraduate Courses

- *Principles of Computer Aided Engineering*
- *Rigid Body Dynamics*
- *Dynamics of Machinery*
- *Manufacturing Technology*
- *Systems Control*
- *Reliability Engineering*
- *Mechanical Vibrations*

Feb 2013 to July 2015

Associate Professor (Adjunct), Department of Aeronautics & Astronautics

Institute of Space Technology (IST), Islamabad, Pakistan

Graduate Courses:

- *Multidisciplinary System Design Optimization **
- *Space Mission Analysis and Design **
- *Flight Dynamics*
- *Optimization Techniques in Structural Design*

Undergraduate Courses

- *Structural Dynamics*

*Taught for the first time in Pakistan

Mar 2010 to Feb 2013

Assistant Professor (Adjunct), Department of Aeronautics & Astronautics

Institute of Space Technology (IST), Islamabad, Pakistan

Graduate Courses:

- *Multidisciplinary System Design Optimization **
- *Space Mission Analysis and Design **
- *Spacecraft System Design **
- *Spacecraft Dynamics and Control*

*Taught for the first time in Pakistan

Sep 2012 to Jan 2015

Visiting Faculty Member, Department of Mechanical Engineering

International Islamic University (IIU), Islamabad, Pakistan

Courses:

Graduate Courses:

- *Advanced Numerical Analysis*
- *Engineering Design Optimization*
- *Engineering Ergonomics and Work Study*
- *Engineering Computational Analysis*
- *Production System Design and Analysis*
- *Technology Management*
- *Research Design*

Undergraduate Courses

- *Project Management*

Jun 2012 to Sep 2012

Visiting Faculty Member, School of Mechanical & Manufacturing Engineering, (SMME)

National University of Sciences and Technology (NUST), Islamabad, Pakistan

Graduate Course: *Design Optimization*

Seminar on Research Design

Feb 2013 to Jul 2013

Visiting Faculty Member, NUST Business School, (NBS)

National University of Sciences and Technology (NUST), Islamabad, Pakistan

Graduate Course: *Management Science*

Oct 2006 to Sep 2009

Teaching & Research Assistant, School of Astronautics

Beijing University of Aeronautics and Astronautics, BUAA, P.R.China

RESEARCH PUBLICATIONS

JOURNAL ARTICLES: (SCI, SCI Expanded List, SSCI)

- [1] Zeeshan Q., Rafique A.F., Kamran A., Khan, M.I., and Waheed, A. **Multidisciplinary design and optimization of expendable launch vehicle for microsatellite missions**, Aircraft Engineering and Aerospace Technology, Emerald Publishing Limited, (2021). <https://doi.org/10.1108/AEAT-01-2021-0004>
- [2] Çınar, Z.M., Zeeshan Q., Korhan, O. **A Framework for Industry 4.0 Readiness and Maturity of Smart Manufacturing Enterprises: A Case Study**. Sustainability 2021, 13, 6659. <https://doi.org/10.3390/su13126659>
- [3] Nasir, T., Kalaf, O., Asmael, M., Zeeshan, Q., Safaei, B., Hussain, G., and Motallebzadeh, A. **The experimental study of CFRP interlayer of dissimilar joint AA7075-T651/Ti-6Al-4V alloys by friction stir spot welding on mechanical and microstructural properties**. Nanotechnology Reviews, vol. 10, no. 1, 2021, pp. 401-413. (2021). <https://doi.org/10.1515/ntrev-2021-0032>
- [4] Kalaf, O., Nasir, T., Asmael, M., Safaei, B., Zeeshan, Q., Motallebzadeh, A. and Hussain, G. **Friction stir spot welding of AA5052 with additional carbon fiber-reinforced polymer composite interlayer**. Nanotechnology Reviews, vol. 10, no. 1, 2021, pp. 201-209. (2021). <https://doi.org/10.1515/ntrev-2021-0017>
- [5] Alhijazi, M., Safaei, B., Zeeshan, Q., Asmael M. **Modeling and simulation of the elastic properties of natural fiber-reinforced thermosets**. Polymer Composites, (2021). <https://doi.org/10.1002/pc.26075>
- [6] Asmael, M., Safaei, B., Zeeshan, Q. Zargar, O., Abdussalam Nuhu, A.. **Ultrasonic machining of carbon fiber-reinforced plastic composites: a review**. The International Journal of Advanced Manufacturing Technology, 113, 3079–3120 (2021). <https://doi.org/10.1007/s00170-021-06722-2>
- [7] Kalaf, O., Solyali, D., Asmael, M., Zeeshan, Q., Safaei, B. Askir, A.. **Experimental and simulation study of liquid coolant battery thermal management system for electric vehicles: A review**. International Journal of Energy Research, 45-5, 2021, 6495-6517, (2021). <https://doi.org/10.1002/er.6268>
- [8] Talebizadehsardari, P., Eyvazian, A., Musharavati, F., Zeeshan, Q., Mahani, R., Sebaey, T.. **Optimization of wire electrical discharge turning process: trade-off between production rate and fatigue life**. The International Journal of Advanced Manufacturing Technology, 112, 719–730 (2021). <https://doi.org/10.1007/s00170-020-06351-1>
- [9] Çınar, Z.M.; Abdussalam Nuhu, A.; Zeeshan, Q.; Korhan, O.; Asmael, M.; Safaei, B. **Machine Learning in Predictive Maintenance towards Sustainable Smart Manufacturing in Industry 4.0**. Sustainability 2020, 12(19), 8211, (2020). <https://doi.org/10.3390/su12198211>
- [10] Alhijazi, M., Safaei, B. Zeeshan, Q., Asmael M., Eyvazian, A., Qin, Zhaoye, **Recent Developments in Luffa Natural Fiber Composites: Review**. Sustainability 2020, 12(18), 7683 (2020). <https://doi.org/10.3390/su12187683>
- [11] Alhijazi, M., Zeeshan, Q., Qin, Zhaoye, Safaei, B. , Asmael M., **Finite element analysis of natural fibers composites: A Review**. Nanotechnology Reviews 2020; 9: 853–875 (2020). <https://doi.org/10.1515/ntrev-2020-0069>
- [12] Alhijazi, M., Zeeshan, Q., Safaei, B. , Asmael M., Qin, Zhaoye. **Recent Developments in Palm Fibers Composites: A Review**. Journal of Polymers and the Environment, 28, 3029–3054, (2020). <https://doi.org/10.1007/s10924-020-01842-4>
- [13] Kamran A., Zeeshan Q., Rafique A.F., Guozhu L, **A New Paradigm for Star Grain Design and Optimization**, Aircraft Engineering and Aerospace Technology, 87-5, 476-482, (2015). <http://dx.doi.org/10.1108/AEAT-07-2013-0141>
- [14] Kamran A., Guozhu L, Rafique A.F., Zeeshan Q., **± 3 - Sigma based Design Optimization of 3D Finocyl Grain**. Aerospace Science and Technology, 26-1, 29-37, (2013). <https://doi.org/10.1016/j.ast.2012.02.011>
- [15] Rafique A.F., LinShu H., Zeeshan Q., Kamran A., Nisar K.,. **Multidisciplinary Design and Optimization of Air Launched Satellite Launch Vehicle Using Hybrid Heuristic Search Algorithm**. Engineering Optimization, 43-3, 305 – 328, (2011), <https://doi.org/10.1080/0305215X.2010.489608>
- [16] Rafique A.F., LinShu H., Kamran A., Zeeshan Q., **Hyper Heuristic approach for Design and Optimization of Satellite Launch Vehicle**. Chinese Journal of Aeronautics, 24-2, 150 – 163, (2011). [https://doi.org/10.1016/S1000-9361\(11\)60019-8](https://doi.org/10.1016/S1000-9361(11)60019-8)
- [17] Zeeshan Q., Yunfeng D., Nisar K., Kamran A., Rafique A.F., **Multidisciplinary Design and Optimization of Multistage Ground Launched Boost Phase Interceptor using Hybrid Search Algorithm**, Chinese Journal of Aeronautics, 23-2, 170 – 178, (2010) [https://doi.org/10.1016/S1000-9361\(09\)60201-6](https://doi.org/10.1016/S1000-9361(09)60201-6)
- [18] Rafique A.F., LinShu H., Kamran A., Zeeshan Q., **Multidisciplinary Design of Air Launched Satellite Launch Vehicle: Performance Comparison of Heuristic Optimization Methods**. Acta Astronautica, 67, 7-8, 826 – 844, (2010). <https://doi.org/10.1016/j.actaastro.2010.05.016>
- [19] Nisar K., Guozhu L, Zeeshan Q., **A Hybrid Optimization Approach for SRM Finocyl Grain Design**. Chinese Journal of Aeronautics, 21-6, 481-487, (2008) [https://doi.org/10.1016/S1000-9361\(08\)60164-8](https://doi.org/10.1016/S1000-9361(08)60164-8)

JOURNAL ARTICLES: (ESCI)

- [1] Cinar Z.W., Asmael M., **Zeeshan Q.**, Safaei B., *Effect of Springback on A6061 Sheet Metal Bending: A Review*, Jurnal Kejuruteraan (Journal of Engineering) 33(1) 2021: 13-26 [https://doi.org/10.17576/jkukm-2020-33\(1\)-02](https://doi.org/10.17576/jkukm-2020-33(1)-02) , <http://www.ukm.my/jkukm/wp-content/uploads/2021/3301/02.pdf>
- [2] Glaissa M., Asmael M., **Zeeshan Q.**, *Recent Applications of Residual Stress Measurement Techniques for FSW Joints: A Review*. Jurnal Kejuruteraan (Journal of Engineering). ISSN: 0128-0198 e-ISSN: 2289-7526, August 2020 Jurnal Kejuruteraan 32(3):1-15 DOI: 10.17576/jkukm-2020-32(3)-01, <http://www.ukm.my/jkukm/wp-content/uploads/2020/3203/01.pdf>
- [3] Nasir T., Asmael M., **Zeeshan Q.**, Solyali S., *Applications of Machine Learning to Friction Stir Welding Process Optimization*. Jurnal Kejuruteraan (Journal of Engineering). ISSN: 0128-0198 e-ISSN: 2289-7526, Jurnal Kejuruteraan 32(2) 2020: 171-186 [https://doi.org/10.17576/jkukm-2020-32\(2\)-01](https://doi.org/10.17576/jkukm-2020-32(2)-01) <http://www.ukm.my/jkukm/wp-content/uploads/2020/3202/01.pdf>
- [4] Akinlabi A. H., Solyali S., Asmael M., **Zeeshan Q.**, *Smart Manufacturing for Industry 4.0 using Radio Frequency Identification (RFID) Technology*. Jurnal Kejuruteraan (Journal of Engineering). ISSN: 0128-0198 e-ISSN: 2289-7526, Jurnal Kejuruteraan 32(1) 2020: 31-38 [https://doi.org/10.17576/jkukm-2020-32\(1\)-05](https://doi.org/10.17576/jkukm-2020-32(1)-05) <http://www.ukm.my/jkukm/wp-content/uploads/2020/3201/05.pdf>
- [5] Cinar Z.W., Asmael M., **Zeeshan Q.**, *Developments in Plasma Arc Cutting (PAC) of Steel Alloys: A Review*. Jurnal Kejuruteraan (Journal of Engineering). 30(1) 2018: 7-16, [https://doi.org/10.17576/jkukm-2018-30\(1\)www.ukm.my/jkukm/wp-content/uploads/2018/06/2.pdf](https://doi.org/10.17576/jkukm-2018-30(1)www.ukm.my/jkukm/wp-content/uploads/2018/06/2.pdf)

JOURNAL ARTICLES: (International Refereed Journals)

- [1] Ghasemian, H., **Zeeshan Q.**, *Failure Mode and Effect Analysis (FMEA) of Aeronautical Gas Turbine using the Fuzzy Risk Priority Ranking (FRPR) Approach*. International Journal of Soft Computing and Engineering (IJSCE) ISSN: 2231-2307, Volume-7 Issue-1, March 2017 81. <https://www.ijscce.org/wp-content/uploads/papers/v7i1/A2955037117.pdf>
- [2] Sabir R., Abid A, Junaid H., **Zeeshan Q.**, Yousuf, *A Survey of Recent Developments in Optimization of Iso-Grid Cylinders*, Journal of Space Technology 5(1):103 - 115, (2015), ISSN 2077-3099 (Print); ISSN 2411-5029 (Online) <http://www.ist.edu.pk/jst/previous-issues/july-2015>
- [3] **Zeeshan Q.**, Yunfeng D., Kamran A., Rafique A.F., Nisar K., *Stealth Considerations for Aerodynamic Configuration Design*. Journal of Computer Aided Drafting, Design and Manufacturing, Vol 19, No. 1, 2009. (CNKI), ISSN: 1003-4951 en.cnki.com.cn/Article_en/CJFDTOTAL-CADD200901002.htm
- [4] Rafique A.F., LinShu H., **Zeeshan Q.**, *Multidisciplinary Design and Optimization of Satellite Launch Vehicle using Latin Hypercube Design of Experiments*. Journal of Computer Aided Drafting, Design & Manufacturing, Vol 19, No.1, (2009). (CNKI), ISSN:1003-4951. [caod.oriprobe.com/articles/24781596/multidisciplinary design and optimization of satellite launch vehicle .htm](http://caod.oriprobe.com/articles/24781596/multidisciplinary%20design%20and%20optimization%20of%20satellite%20launch%20vehicle.htm)
- [5] Saleem W., Yu-qing F., Hu L., **Zeeshan Q.**, *Topology Optimization for Manufacturable Configuration Design of Aircraft Tail Rib*. Journal of Computer Aided Drafting, Design and Manufacturing, Vol 19, No. 1, (2009). (CNKI), ISSN: 1003-4951. [caod.oriprobe.com/articles/24786811/topology optimization for manufacturable configuration design of air cr.htm](http://caod.oriprobe.com/articles/24786811/topology%20optimization%20for%20manufacturable%20configuration%20design%20of%20air%20cr.htm)
- [6] **Zeeshan Q.**, Momtaz M., Yunfeng D.. *Conceptual Design Architecture Modeling and Simulation for Boost Phase Ballistic Missile Defense*. Journal of Computer Aided Drafting, Design and Manufacturing, Vol 18, No. 1, (2008). (CNKI), ISSN: 1003-4951. en.cnki.com.cn/Article_en/CJFDTOTAL-CADD200801008.htm
- [7] Moatasem Momtaz, **Zeeshan Q.**, Yunfeng D.. *GPS Navigation Using Adaptive Kalman Filter for Maneuvering Vehicle*. Journal of Computer Aided Drafting, Design and Manufacturing, Vol 18, No. 1, (2008). (CNKI), ISSN: 1003-4951. [caod.oriprobe.com/articles/24784213/gps navigation using adaptive kalman filter for maneuvering vehicle.htm](http://caod.oriprobe.com/articles/24784213/gps%20navigation%20using%20adaptive%20kalman%20filter%20for%20maneuvering%20vehicle.htm)
- [8] Nisar K., Guozhu L, **Zeeshan Q.**, *Finocyl Grain Design and Optimization of Propellant Mass for SRM using SQP*. . Journal of Computer Aided Drafting, Design and Manufacturing, Vol 18, No. 1, (2008). (CNKI), ISSN: 1003-4951 [http://caod.oriprobe.com/articles/24980901/finocyl grain design and optimization using sequential quadratic programming.htm](http://caod.oriprobe.com/articles/24980901/finocyl%20grain%20design%20and%20optimization%20using%20sequential%20quadratic%20programming.htm)

CONFERENCE PAPERS:

- [1] Cinar Z.M., **Zeeshan Q.**, (2020), *Design and Optimization of Automated Storage and Retrieval Systems*, GJCIE 2020, Global Joint Conference on Industrial Engineering and Its Application Areas, Industrial Engineering in the World of IoT, Eastern Mediterranean University, 14 – 15 August 2020, Antalya, Turkey
- [2] Fallaha M., Korhan O., **Zeeshan Q.**, (2020), *Virtual Reality - Possibility to use VR to train future Operator 4.0*, GJCIE 2020, Global Joint Conference on Industrial Engineering and Its Application Areas, Industrial Engineering in the World of IoT, Eastern Mediterranean University, 14 – 15 August 2020, Antalya, Turkey
- [3] Alhijazi M., **Zeeshan Q.**, Ghasemian H. (2020) *Failure Mode and Effect Analysis (FMEA) of Vertical Axis Wind Turbines*. In: Calisir F., Korhan O. (eds) Industrial Engineering in the Digital Disruption Era. GJCIE 2019. Lecture Notes in Management and Industrial Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-42416-9_6
- [4] Cinar Z.M., Nuhu A.A., **Zeeshan Q.**, Korhan O. (2020) *Digital Twins for Industry 4.0: A Review*. In: Calisir F., Korhan O. (eds) Industrial Engineering in the Digital Disruption Era. GJCIE 2019. Lecture Notes in Management and Industrial Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-42416-9_18
- [5] Cinar Z.M., **Zeeshan Q.**, Solyali D., Korhan O. (2020) *Simulation of Factory 4.0: A Review*. In: Calisir F., Korhan O. (eds) Industrial Engineering in the Digital Disruption Era. GJCIE 2019. Lecture Notes in Management and Industrial Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-42416-9_19.
- [6] Fallaha M., Cinar Z.M., Korhan O., **Zeeshan Q.**, (2020) *Operator 4.0 and Cognitive Ergonomics*. In: Calisir F., Korhan O. (eds) Industrial Engineering in the Digital Disruption Era. GJCIE 2019. Lecture Notes in Management and Industrial Engineering. Springer, Cham. https://doi.org/10.1007/978-3-030-42416-9_20
- [7] Rafique A.F., LinShu H., **Zeeshan Q.**, Kamran A. (2009) *Multidisciplinary Design of Air-Launched Space Launch Vehicle Using Simulated Annealing*. In: Mertsching B., Hund M., Aziz Z. (eds) KI 2009: Advances in Artificial Intelligence. KI 2009. Lecture Notes in Computer Science, vol 5803. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-04617-9_90
- [8] Rafique A.F., **Zeeshan Q.**, Kamran A., *Design of Experiments based Variation Mode & Effect Analysis for the Conceptual Design of Air Launched Satellite Launch Vehicle*, ICNPAA 2014: International Conference on Nonlinear Problems in Aviation and Aerospace, Narvik, Norway, July 15 to 18, 2014. ISBN: 978-0-7354-1276-7, <http://dx.doi.org/10.1063/1.4904657>
- [9] Karim S., Haque A, **Zeeshan Q.**, Choudhary M.A., *Wind Tunnel testing of Generic Model of Double Ellipsoidal Shaped Hull of LTA Airship*. Proceedings of 2014 11th International Bhurban Conference on Applied Sciences & Technology (IBCAST) Islamabad, Pakistan, 14th - 18th January, 2014, Islamabad, Pakistan, 2014, pp. 289-293, DOI: 10.1109/IBCAST.2014.6778158 <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6778158>
- [10] Rafique A.F., **Zeeshan Q.**, Kamran A., *Reversing the design process to aid in complex engineering problems*, MODSIM2013: 20th International Congress on Modeling and Simulation, Adelaide Convention Centre in Adelaide, South Australia, December 2013. DOI: 10.36334/MODSIM.2013.C4.RAFIQUE ISBN: 978-0-9872143-3-1, <http://www.mssanz.org.au.previewdns.com/modsim2013/C4/rafique.pdf>
- [11] Nisar K., Raza S, **Zeeshan Q.**, *Hybrid Optimization of Slotted Tube Grain for SRM*. International Bhurban Conference on Science and Technology, IBCAST, 10-13 Jan, 2011, Islamabad, Pakistan.
- [12] **Zeeshan Q.**, Yunfeng D., Rafique A F, Kamran A., Nisar K.. *Multidisciplinary Design of Multistage Interceptor using Particle Swarm Optimization*. 51st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, & Materials Conference, Orlando, Florida, USA. AIAA 2010-2849. <https://doi.org/10.2514/6.2010-2849> eISBN: 978-1-60086-960-0, <http://arc.aiaa.org/doi/book/10.2514/MSDM10>
- [13] **Zeeshan Q.**, Yunfeng D., Rafique A F, Kamran A., Nisar K.. *Multidisciplinary Robust Design and Optimization of Multistage Boost Phase Interceptor* . 51st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, & Materials Conference, Orlando, Florida, USA. AIAA 2010-2920. <https://doi.org/10.2514/6.2010-2920> eISBN: 978-1-60086-960-0, <http://arc.aiaa.org/doi/book/10.2514/MSDM10>
- [14] Kamran A., Guozhu L, **Zeeshan Q.**, Rafique A F. *Particle Swarm Optimizer for Finocyl Grain Configurations*. 51st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Orlando, Florida, USA. 2010, AIAA 2010-3083. <https://doi.org/10.2514/6.2010-3083> eISBN: 978-1-60086-960-0, <http://arc.aiaa.org/doi/book/10.2514/MSDM10>
- [15] Kamran A., Guozhu L, Rafique A F, Naz S, **Zeeshan Q.**, *Star Grain Optimization using Genetic Algorithm* . 51st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Orlando, Florida, USA. 2010, AIAA 2010-3084. <https://doi.org/10.2514/6.2010-3084> eISBN: 978-1-60086-960-0, <http://arc.aiaa.org/doi/book/10.2514/MSDM10>

- [16] Rafique A.F., LinShu H., Ying M, Kamran A., **Zeeshan Q.**, *Performance Enhancement of Air Launched Satellite Launch Vehicle using Composite Motors* .51st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, & Materials Conference, Orlando, Florida, USA. 2010. <https://doi.org/10.2514/6.2010-2986> AIAA2010-2986. eISBN: 978-1-60086-960-0, <http://arc.aiaa.org/doi/book/10.2514/MSDM10>
- [17] **Zeeshan Q.**, Yunfeng D., Ghumman S., Rafique A.F., Kamran A., *Support Vector Regression-driven Multidisciplinary Design and Optimization of Multistage Ground Based Interceptor* . AIAA Modeling and Simulation Technologies Conference Chicago, Illinois, Aug 10 - 13, 2009. <https://doi.org/10.2514/6.2009-6238> AIAA-2009-6238. eISBN: 978-1-60086-972-3, <http://arc.aiaa.org/doi/abs/10.2514/6.2009-6238>
- [18] Kamran A., Guozhu L, Godil J., Siddique Z., **Zeeshan Q.**, Rafique A.F.. *Design and Performance Optimization of Finocyl Grain* . AIAA Modeling and Simulation Technologies Conference Chicago, Illinois, Aug 10 - 13, 2009. <https://doi.org/10.2514/6.2009-6234> AIAA-2009-6234,. eISBN: 978-1-62410-161-8, <http://arc.aiaa.org/doi/book/10.2514/MMST09>
- [19] Kamran A., Guozhu L, Nisar K., **Zeeshan Q.**, Rafique A.F.. *Integrated Approach for Design and Optimization of Slotted Tube Grain Configurations* . 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, Denver, Colorado, Aug. 2-5, 2009. <https://doi.org/10.2514/6.2009-5514> AIAA-2009-5514, eISBN: 978-1-60086-972-3, <http://arc.aiaa.org/doi/book/10.2514/MJPC09>
- [20] Rafique A.F., LinShu H., **Zeeshan Q.**, Kamran A., Nisar K., Wang X. *Hybrid Optimization Method for Multidisciplinary Design of Air Launched Satellite Launch Vehicle* . 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, Denver, Colorado, Aug 2-5, 2009. <https://doi.org/10.2514/6.2009-5535> AIAA-2009-5535, eISBN: 978-1-60086-972-3, <http://arc.aiaa.org/doi/book/10.2514/MJPC09>
- [21] Rafique A.F., LinShu H., **Zeeshan Q.**, Kamran A., Nisar K., Wang X.. *Integrated System Design of Air Launched Small Space Launch Vehicle using Genetic Algorithm* . 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, Denver, Colorado, Aug 2-5, 2009. <https://doi.org/10.2514/6.2009-5506> AIAA-2009-5506. eISBN: 978-1-60086-972-3, <http://arc.aiaa.org/doi/book/10.2514/MJPC09>
- [22] **Zeeshan Q.**, Yunfeng D., Rafique A.F., Nisar K., Kamran A., *Meta-heuristic Approach for the Conceptual Design and Optimization of Multistage Interceptor*, 18th World IMACS Congress and MODSIM09 International Congress on Modelling and Simulation, Cairns, Australia, July 2009. <https://mssanz.org.au/modsim09/Z1/zeeshan.pdf>
- [23] Rafique A.F., LinShu H., **Zeeshan Q.**, Kamran A., *Multidisciplinary Design of Air Launched Satellite Launch Vehicle using Particle Swarm Optimization*, 18th World IMACS Congress and MODSIM09 International Congress on Modelling and Simulation, Cairns, Australia, July 2009, <http://www.mssanz.org.au/modsim09/A7/rafique.pdf>
- [24] Rafique A.F., **Zeeshan Q.**, LinShu H.. *Conceptual Design of a Small Satellite Launch Vehicle using Hybrid Optimization*. . International Conference on Nonlinear Problems in Aviation & Aerospace, ICNPAA, Mathematical Problems in Engineering and Aerospace Sciences. Italy, June 21- 23, 2008. ISBN: 978-1-904868-70-5, http://www.cambridgescientificpublishers.com/en-gb/dept_12.html
- [25] **Zeeshan Q.**, Yunfeng D. *Conceptual Design Trade Offs between Solid and Liquid Propulsion for Optimal Stage Configuration of Satellite Launch Vehicle*. Asian Joint Propulsion and Power Conference, Gyeongju, Korea, 6~8 March 2008. Proceedings of the Korean Society of Propulsion Engineers Conference (한국추진공학회:학술대회논문집), Pages.283-292, 2008, 1975-342X(piSSN) <https://www.koreascience.or.kr/article/CFKO200811440582612.pdf>
- [26] **Zeeshan Q.**, Yunfeng D., Nisar K. *Propulsion System Design and Optimization for Ground Based Interceptor using Genetic Algorithm*. Asian Joint Propulsion and Power Conference, Gyeongju, Korea, 6~8 March 2008. Proceedings of the Korean Society of Propulsion Engineers Conference (한국추진공학회:학술대회논문집), Pages.330-339, 2008, 1975-342X(piSSN) , <http://koreascience.or.kr/article/CFKO200811440582710.page>
- [27] **Zeeshan Q.**, Waheed A, Yelun X. *Optimal Lambert Transfer using Genetic Algorithm*. International Conference on Nonlinear Problems in Aviation and Aerospace, ICNPAA, Budapest, Hungary, June 2006., Advances in Mathematical Problems in Engineering and Aerospace Sciences. Cambridge Scientific Publishers, 821-828, 2006. ISBN-978-1-904868-56-9, http://www.cambridgescientificpublishers.com/en-gb/dept_3.html
- [28] **Zeeshan Q.**, Rafique A F, Kamran A., Raza S.. *Design and Optimization of Air Launched SLV* . 6th International Conference "Inverse Problems: Modeling and Simulation", May 21-26, 2012, Antalya, Turkey, 2012.
- [29] **Zeeshan Q.**, Qazi M, Yelun X. *Analysis of Perturbation Effect on Satellite Orbit due to Geopotential Disturbances*. International Conference on Scientific Computing, Nanjing, P.R. China, June 2005.

THESIS SUPERVISION

Doctorate of Philosophy

- [1] Zeki Murat Çinar (2021) " **A Framework for Industry 4.0 Readiness and Maturity of Smart Manufacturing Enterprises** " – Doctorate of Philosophy in Mechanical Engineering, Eastern Mediterranean University. Supervisor: Assoc. Prof. Dr. Qasim Zeeshan; Co-supervisor: Assoc. Prof. Dr. Orhan Korhan), (Under progress)
- [2] Mohamad Kamal AlHijazi (2021) " **Design and Development of Natural Fibers Composites** " - Doctorate of Philosophy in Mechanical Engineering, Eastern Mediterranean University, Supervisor: Assoc. Prof. Dr. Qasim Zeeshan; Co-supervisor: Assist. Prof. Dr. Babak Safaei), (Under progress)

Masters of Science

- [1] Abu Bakr Abdussalam Nuhu (2021) "**Investigation of Machine Learning Techniques for Fault Diagnosis in the Semiconductor Manufacturing Process**" - Master of Science in Mechanical Engineering, Eastern Mediterranean University
- [2] Muhammad Fallaha (2020) "**Operator 4.0 and Cognitive Ergonomics**" - Master of Science in Engineering Management, Eastern Mediterranean University – (Supervisor: Assoc. Prof. Dr. Orhan Korhan; Co-supervisor: Assoc. Prof. Dr. Qasim Zeeshan)
- [3] Hamed Ghasemiyan (2017) "**Failure Mode and Effect Analysis (FMEA) of Gas Turbine Power Plant System (GTPPS)**" - Master of Science in Mechanical Engineering, Eastern Mediterranean University.
- [4] Mohamad Kamal AlHijazi (2017) "**Failure Mode and Effect Analysis (FMEA) of Vertical Axis Wind Turbine**" - Master of Science in Mechanical Engineering, Eastern Mediterranean University.
- [5] Zeki Murat Çinar (2017) "**Configuration Design and Optimization of Circular Automated Storage and Retrieval System (C-AS/RS) for Automobiles**" - Master of Science in Mechanical Engineering, Eastern Mediterranean University.
- [6] Sahra Hamdollahi (2017) "**Economic Feasibility of 1kW Micro-Scale Wind Turbines for North Cyprus**" - Master of Science in Mechanical Engineering, Eastern Mediterranean University – (Supervisor: Prof. Dr. U. Atikol; co-supervisor: Assoc. Prof. Dr. Qasim Zeeshan)
- [7] Alireza Alipour (2016) "**Application of a Virtual Reality and an Ergonomics Framework for Production Time Optimization: Case study in pen production**"- Master of Science in Mechanical Engineering, Eastern Mediterranean University.
- [8] Nadir Reza (2016) "**Risk Assessment of OSH relevant Failure Modes in Process Industries by applying process FMECA**" - Masters of Science in Energetic Materials Engineering, National University of Sciences and Technology (NUST), Islamabad, Pakistan – (Supervisor: Prof. Dr. Abdul Qadeer Malik, SCME, NUST; co-supervisor: Assoc. Prof. Dr. Qasim Zeeshan)

Masters of Science – Warwick Manufacturing Group - University of Warwick

- [1] Ahmad Moussa (2020) " **Assessing Drilling Stage Risks for a Geotechnical and Foundation Company using AHP and FMEA** " - Master of Science in Engineering Business Management, WMG, Warwick
- [2] Abdelrahman Ahmed Touman (2020) " **Techno-economic Feasibility Analysis of a Solar Photovoltaic Electric Vehicle Charging Station** " - Master of Science in Engineering Business Management, WMG, Warwick
- [3] Sundus Haroon (2020) " **Understanding COVID-19 Pandemic's Impact on the Software Business Enterprises in Pakistan** " - Master of Science in Engineering Business Management, WMG, Warwick
- [4] Mohamed Elgeab (2020) " **Blockchain Awareness and Adoption Challenges in the Oil and Gas Industry in Egypt** " - Master of Science in in Supply Chain and Logistics Management, WMG, Warwick
- [5] Ossama Durrani (2020) " **Risk Assessment of Oil & Gas Construction Projects in Pakistan Using Failure Modes & Effects Analysis** " - Master of Science in Engineering Business Management, WMG, Warwick
- [6] Batuhan Can Adsoy (2020) " **Exploring Blockchain Technology Adoption among Food and Beverage Distributors in the United Kingdom** " - Master of Science in in Supply Chain and Logistics Management, WMG, Warwick
- [7] Abdurrahman Abdul Kadir (2019) " **Blockchain Technology Adoption for Agribusiness in Nigeria** " - Master of Science in Supply Chain and Logistics Management, WMG, Warwick
- [8] Ali Al Soojery (2019) " **The Role of ICT on the Growth Strategy of SMEs. A Case of Oman, Muscat** " - Master of Science in Engineering Business Management, WMG, Warwick
- [9] Ahmad Jabakji (2018) " **Investigating the Adoption of Industry 4.0 Technologies among UK Engineering Business Managers** " - Master of Science in Engineering Business Management, WMG, Warwick
- [10] Rajab Qudsi (2018) " **Risk Assessment of Real estate construction projects in North Cyprus** " - Master of Science in Supply Chain and Logistics Management, WMG, Warwick
- [11] Khubaib Najeib (2017) " **Failure Mode and Effect Analysis of the Supply Chain Risks Associated with China-Pakistan Economic Corridor** " - Master of Science in Supply Chain and Logistics Management, WMG, Warwick

THESIS JURY MEMBERSHIPS

Doctorate of Philosophy

- [1] **Noor Rahman (2020), Micromechanism of the effects of age and x rays irradiation on fracture of bone,** International Islamic University, Islamabad, Pakistan. Supervisor: Assist. Prof. Dr. Rafiullah Khan
- [2] **Muhammad Zeeshan Siddiqui (2019), Inverse identification of constitutive parameters of carbon fiber reinforced plastic plates using 2D Digital Image Correlation technique.** National University of Sciences and Technology, Karachi, Pakistan. Supervisor: Assist. Prof. Dr. Asif Mansoor
- [3] **Poorya Ghafoorpoor Yazdi (2019), Design, implementation and evaluation of a novel agent-based control system to improve performance of small and medium sized enterprises: An Industry 4.0 adoption.** Eastern Mediterranean University, Supervisor: Prof. Dr. Majid Hashemipour
- [4] **Hussein Ahmad (2019), Intelligent Control Approaches for Load Shedding in Developing Countries,** Eastern Mediterranean University, Supervisor: Prof. Dr. Ugur Atikol
- [5] **Vahid Khojastehnezhad (2019), Microstructures and mechanical properties of Al 6061 /Al₂O₃-TiB₂ hybrid nano-composite layer produced via friction stir processing using optimized process parameters.** Eastern Mediterranean University, Supervisor: Assoc. Prof. Dr. Nermian Ozada, Co-Supervisor: Assist. Prof. Dr. Mohammad Asmael
- [6] **Hamed Pourasl (2019), Theoretical and Experimental Investigation of the Material Removal Rate, Surface Roughness, and Tool Wear Ratio in Electrical Discharge Machining.** Eastern Mediterranean University, Supervisor: Assoc. Prof. Dr. Nermian Ozada, Co-Supervisor: Assist. Prof. Dr. Mohammad Asmael
- [7] **Sadegh Mazloomi (2017), Vibro- Acoustic optimization of auxetic sandwich panels.** Eastern Mediterranean University, Supervisor: Assoc. Prof. Dr. Nermian Ozada. Co-Supervisor: Assoc. Prof. Dr. Mostafa Ranjbar
- [8] **Amirsalar Khandan (2017), A Novel Silicate Ceramic-Magnetite Nanocomposite for Biomedical Application.** Eastern Mediterranean University, Supervisor: Assoc. Prof. Dr. Nermian Ozada
- [9] **Khosro Bijanrostami (2017), Investigation on Thermal Effects of Water Submerged Friction Stir Welding on Mechanical Property and Microstructure of AA6060-T6 and AA7075-T6 joints.** Eastern Mediterranean University, Supervisor: Prof. Dr. Majid Hashemipour, Co-Supervisor: Assoc. Prof. Dr. Ghulam Hussain
- [10] **Aydin Azizi (2016), Introducing a Novel Hybrid Artificial Intelligence Algorithm to Optimize Network of Industrial Applications in Modern Manufacturing.** Eastern Mediterranean University, Supervisor: Prof. Dr. Majid Hashemipour
- [11] **Amir Mirlatifi (2016), Electricity Peak Demand Forecasting for Developing Countries.** Eastern Mediterranean University, Supervisor: Prof. Dr. Ugur Atikol

Masters of Science

- [1] **Mohammed Wafi (2020), Modeling and simulation of ABS system through different types of controllers using Simulink.** Eastern Mediterranean University, Supervisor: Prof. Dr. Hasan Hacisevki
- [2] **Otonye Tekena Fubara (2020), Springback Investigation of Aluminium (AA5052-H36) Alloy Sheet Metal in Vee-Bending,** Eastern Mediterranean University, Supervisor: Assist. Prof. Dr. Mohammad Asmael
- [3] **Dekoumwine Parfait Meda (2020), Springback Investigation of Yellow Brass Alloy Sheet Metal in Vee-Bending,** Eastern Mediterranean University, Supervisor: Assist. Prof. Dr. Mohammad Asmael
- [4] **Abdulhakim Akinlabi (2020), Empirical Thermal Performance Investigation of a Compact Lithium Ion Battery Module under Forced Convection Cooling.** Eastern Mediterranean University, Supervisor: Assist. Prof. Dr. Davut Solyali
- [5] **Kayvan Khatibi (2019), The Characterization of Eutectic Al-Si Casting Alloy with Addition of Tin,** Eastern Mediterranean University, Supervisor: Assist. Prof. Dr. Mohammad Asmael
- [6] **Mustafa Ali A. Glaissa (2019), The Effect of Rotation Speed and Dwell Time on the Mechanical Properties and Microstructure of Dissimilar Aluminum-Titanium Alloys by FSSW Process.** Eastern Mediterranean University, Supervisor: Assist. Prof. Dr. Mohammad Asmael
- [7] **Tauqir Nasir (2019), Effect of Rotational Speed, Dwell Time and Pin length on properties of Microstructure of Dissimilar Aluminum sheet Metal by FSSW.** Eastern Mediterranean University, Supervisor: Assist. Prof. Dr. Mohammad Asmael

PROFESSIONAL RESEARCH EXPERIENCE

Jan 2013 to Feb 2015

General Manager (Mechanical and Aerospace)

Public Sector Research and Development Organization, Islamabad, Pakistan

Team Leader:

- Project management for all phases of project life cycle including feasibility, proposal, preliminary design and analysis, prototype development, verification, validation and operations support. Conduct of technical reviews of stakeholder requirements, and project progress reviews; preparation of contracts and evaluation of tenders; conduct tests, document results, and liaison with clients to prepare specifications, explain proposals and present reports.
- System Design and Analysis: feasibility, design, performance evaluation and performance enhancement of mechanisms and systems.
- Assignment, co-ordination and review of technical work of project teams comprising of engineers, technologists and technicians.

Senior Team Member:

- Program management, planning, monitoring and control of various research and development projects from inception to delivery.
- Risk Management of systems as per AS9100 Rev C and design modifications to mitigate system malfunctions and failures.
- Recruitment and Training of mechanical and aerospace engineers.

Dec 2005 to Nov 2012

Manager (Mechanical and Aerospace)

Public Sector Research and Development Organization, Islamabad, Pakistan

Senior Team Member:

- Project Management for all phases of project life cycle including feasibility, proposal, preliminary design and analysis, prototype development, verification, validation and operations support.
- System Design and Analysis: feasibility, design, performance evaluation and performance enhancement of mechanisms and systems.
- Investigation of failures and recommendation of workable solutions for nonconformance parts and products.
- Implementation of Quality Management System (QMS) as per AS9100 Rev B.

Nov 2000 to Nov 2005

Assistant Manager (Mechanical)

Public Sector Research and Development Organization, Islamabad, Pakistan

Team Member:

- System Design and Analysis: feasibility, design, performance evaluation and performance enhancement of mechanisms and systems.
- Configuration Management of research and development projects. Development of manufacturing and acceptance test procedures; maintenance, operational and safety standards; and schedules for timely completion of projects.

JOURNAL REFEREE

- Advances in Mechanical Engineering, SAGE Publishing, eISSN: 16878140 | ISSN: 16878140
- Aircraft Engineering and Aerospace Technology, EMERALD, ISSN: 0002-2667
- Alexandria Engineering Journal, ELSEVIER, ISSN / eISSN: 1110-0168 / 2090-2670
- Case Studies in Thermal Engineering, ELSEVIER, ISSN: 2214-157X
- Concurrency and Computing, Practice and Experience. Wiley. ISSN:1532-0634
- International Journal of Electrical Power & Energy System, ELSEVIER, ISSN: 0142-0615
- International Journal of Production Research, Taylor & Francis, Print ISSN: 0020-7543 Online ISSN: 1366-588X
- International Journal of Lightweight Materials and Manufacture, ELSEVIER, ISSN 2588-8404
- Journal of Aerospace Science and Technology, ELSEVIER, ISSN: 1270-9638
- Journal of Aerospace Technology and Management, ISSN 2175-9146
- Journal of Computer Aided Drafting, Design and Manufacturing, China Graphics Society, ISSN 1003495-1
- Journal of Engineering and Applied Sciences, University of Engineering & Technology, Peshawar, Pakistan
- Journal of Ocean Engineering and Science, ELSEVIER, ISSN: 2468-0133
- Journal of Sandwich Structures and Materials, SAGE Publishing, eISSN: 15307972 | ISSN: 10996362
- Journal of Supercomputing, ELSEVIER, Print ISSN: 0920-8542, EISSN: 1573-0484
- Polymer Composites, WILEY, ISSN:1548-0569
- Unmanned Systems, ISSN (print): 2301-3850 | ISSN (online): 2301-3869

PROFESSIONAL SERVICES

Conference Organization:

- Member of the organizing and scientific committee for the *International Bhurban Conference on Science and Technology*, IBCAST, Islamabad, Pakistan, 2011, 2012, 2013 and 2014
- Member of the technical committee for the 2nd *Power Generation Systems & Renewable Energy Technologies*, PGSRET, Islamabad, Pakistan, 2015

Session Organization:

- MODSIM2015: *21st International Congress on Modeling and Simulation*, Gold Coast Convention and Exhibition Centre, Broad beach, Queensland, Australia, 29 Nov to 4 Dec, 2015
- Modeling & Simulation in Engineering, ICNPAA 2014 World Congress: *10th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences*, Narvik University, Norway, July 15, 2014 – July 18, 2014
- ICASE 2013, *3rd International Conference on Aerospace Science and Engineering*, held at Institute of Space Technology (IST), Islamabad, Pakistan, Aug 21 – 23, 2013

Conference Reviewer:

- MODSIM2013: *20th International Congress on Modeling and Simulation*, Adelaide Convention Centre in Adelaide, South Australia, December 2013
- ICNPAA 2012 World Congress: *9th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences*, Vienna University of Technology, Austria, July 10- 14, 2012
- ICNPAA 2010 World Congress: *8th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences*, INPE (National Institute for Space Research), São José dos Campos, Brazil, June 30 - July 3, 2010

Keynote Speaker:

- ICASE 2013, *3rd International Conference on Aerospace Science and Engineering*, held at Institute of Space Technology (IST), Islamabad, Pakistan, Aug 21 – 23, 2013
- NCSS-2013: *2nd National Conference on Space Science*, WORLD SPACE WEEK 2013, Institute of Space and Planetary Astrophysics (ISPA), University of Karachi, Pakistan, October 7-8, 2013

MEMBERSHIPS

- Member, EMU **Electrical Vehicle Development Center** (2020- Present)
- Member, EMU **Energy Research Center** (2017- Present)
- Member, EMU Mechanical Engineering Dept. **Graduate Committee** (2016- Present)
- Member, EMU Mechanical Engineering Dept. **Capstone Projects Committee** (2016-2017 and 2020-Present)
- Member, EMU Mechanical Engineering Dept. **Curriculum Committee** (2016- Present)
- Member, EMU Mechanical Engineering Dept. **Promotions Committee** (2016- Present)
- Member, EMU Mechanical Engineering Dept. **ABET Committee** (2016-2020)

PROFESSIONAL MEMBERSHIPS

- American Institute of Aeronautics & Astronautics, AIAA
- American Society of Mechanical Engineers, ASME
- Pakistan Engineering Council, PEC
- Society of Mechanical Engineers of Pakistan, SMEP

AWARDS & HONORS

- 2016 to present** Approved Supervisor for Masters Students
Warwick Manufacturing Group, University of Warwick, UK
- 2009 to present** Approved Supervisor for PhD and Masters Students
Higher Education Commission (HEC), Pakistan
- 2009** Distinguished Students Scholarship for Excellent Study
Beihang University (BUAA), P.R.China
- 2006-2009** Distinguished International Student Scholarship for PhD
China Scholarship Council (CSC), P.R.China
- 1997-2000:** Performance based scholarship
National University of Sciences & Technology (NUST), Pakistan