

# **CURRICULUM VITAE**

## **Zahid Qamar, Sayyad**

### **PERSONAL INFORMATION**

**Name** Zahid Qamar, Sayyad  
**Date of Birth** 10 December 1962  
**Specialization** Mechanical Engineering  
**Contact Information** Mechanical and Industrial Engineering Department  
College of Engineering, Sultan Qaboos University  
P.O. Box 33, Al-Khoudh 123, Sultanate of OMAN  
Phone 968-24141349 (work), 24141316 (fax), 92599727(cell)  
Email [sayyad@squ.edu.om](mailto:sayyad@squ.edu.om), [zahidqam2000@yahoo.com](mailto:zahidqam2000@yahoo.com)

### **EDUCATION AND EMPLOYMENT INFORMATION**

#### **EDUCATION**

**PhD** 2004; Mechanical Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia  
**MS** 1993; Institute for Innovation and Design in Engineering, Mechanical Engineering Department, Texas A&M University, College Station, Texas; and Stanford University, Palo Alto, California, USA  
**BE** 1985; Mechanical Engineering Department, NED University of Engineering & Technology, Karachi, Pakistan

#### **TEACHING/RESEARCH EXPERIENCE**

##### **Professor**

June 2020 to date; Mechanical and Industrial Engineering Department (MIED), Sultan Qaboos University (SQU), Oman

##### **Associate Professor**

May 2012 to May 2020; Mechanical and Industrial Engineering Department, Sultan Qaboos University (SQU), Oman

##### **Assistant Professor**

January 2005 to April 2012; Mechanical and Industrial Engineering Department, Sultan Qaboos University (SQU), Oman

##### **Visiting Consultant**

September-December 2004; Mechanical and Industrial Engineering Department, SQU, Oman

##### **Lecturer**

August 1999 to June 2004; Mechanical Engineering Department, KFUPM, Dhahran, Saudi Arabia

##### **Research Associate**

August 1996 to July 1999; Faculty of Mechanical Engineering, Ghulam Ishaq Khan Institute of Engineering Science and Technology (GIKI), Topi, Pakistan

### **Research Assistant**

August 1990 to January 1993; Institute for Innovation and Design in Engineering, Mechanical Engineering Department, Texas A&M University, College Station, Texas, USA

## **RESEARCH/INDUSTRIAL EXPERIENCE**

### **Manager, Research & Development**

July 1994 to August 1996; General Engineering Division, Karachi Shipyard & Engineering Works Ltd (KSEW), Karachi, Pakistan

**Environment:** General heavy engineering, including design/R&D, manufacturing, and commissioning of complete sugar plants, complete cement plants, power plant structures, industrial boilers and heat exchangers, petroleum/oil storage facilities, etc

### **Deputy Manager, Engineering Design**

January 1993 to July 1994; General Engineering Division, Karachi Shipyard & Engineering Works Ltd (KSEW), Karachi, Pakistan

### **Production Engineer**

June 1987 to July 1988; Hidada Ltd, Jeddah, Saudi Arabia

**Environment:** Heavy structural fabrication (for airports, aircraft hangars, industrial plants, engineering workshops, bridges, electric transmission towers, etc) and galvanizing

### **Quality Control Engineer**

May 1986 to June 1987; Hidada Ltd, Jeddah, Saudi Arabia

## **RESEARCH AREA AND PROFILE**

### **Research Interests**

Applied materials and manufacturing; Applied mechanics and design; Reliability engineering; Analytical, numerical, and stochastic modeling; Development of experimental facilities; Engineering education

### **Profiles and Citations**

Sultan Qaboos University: <https://www.squ.edu.om/engineering/Faculty-and-Staff/Department-of-Mechanical-and-Industrial-Engineering>

Google Scholar: **h-index 22, i-10 index 39**

[https://scholar.google.com/citations?hl=en&user=tlbjYLIAAAAJ&view\\_op=list\\_works](https://scholar.google.com/citations?hl=en&user=tlbjYLIAAAAJ&view_op=list_works)

Research Gate: <https://www.researchgate.net/profile/Sayyad-Qamar>

Linked-in:

<https://www.linkedin.com/in/sayyad-zahid-qamar-b84b9110/?originalSubdomain=om>

Academia: <https://squ.academia.edu/ZahidQamar>

Publons: <https://publons.com/researcher/1402895/sayyad-zahid-qamar/>

## **AWARDS AND RECOGNITION**

### **AWARDS/ACHIEVEMENTS**

1. Award for Incredible Researcher of the World, Incredible Academicians and Researchers of the World-22, Record Owner, Dec 2022
2. Award for Academic and Research Excellence, Intech Open Publishers, December 2021
3. Award for Scientific and Research Excellence, Sultan Qaboos University, May 2020

4. Award for Best Professor in Applied Materials and Manufacturing, GCC Education Leadership Awards, Abu Dhabi, March 2019
5. Award for Academic Excellence, presented by the Foreign Minister of Pakistan and the Ambassador of Pakistan to Oman, Muscat, January 2019
6. Award for Academic Excellence, presented by the Ambassador of Pakistan to Oman, Muscat, January 2018
7. Distinguished Researcher Award, College of Engineering, Sultan Qaboos University, May 2017
8. Outstanding Presentation Award for the paper “Extrusion Shape Complexity: A Research/Industry Review,” *International Conference on Mechanical Engineering and Advanced Materials* (ICME-AM 2015), 3-4 December, 2015, Kota Kinabalu, Sabah, Malaysia
9. Distinguished Researcher Award, College of Engineering, Sultan Qaboos University, May 2011
10. 2-Year merit scholarship: Board of Intermediate Education, Karachi for outstanding academic performance; 1978
11. First prize in All-Pakistan *Science Writing Competition*; 1974
12. Numerous first prizes in All-Karachi, All-Sindh, and All-Pakistan English-language Debates and Declamation Contests; 1975-1984
13. Numerous first prizes in All-Karachi, All-Sindh, and All-Pakistan Urdu-language Debates and Declamation Contests; 1975-1984
14. Best English-language Debater at university, college, and school levels; 1974-1984 12. Best Urdu-language Debater at university, college, and school levels; 1974-1984

#### **PLENARY/KEYNOTE/INVITED SPEAKER**

1. Keynote Speaker: “In-Situ Testing of Swell Packers in Saline Water and Crude Oil,” *Global Energy Meet* (GEM-2023), 06-09 March 2023, Boston, MA, USA + Online
2. Keynote Speaker: “PVC Pipes for Thermal Wells — Structural Integrity under Various Loading Conditions,” 2<sup>nd</sup> International Conference on Material Science, Engineering, and Smart Materials, 17-18 Nov 2022, Dubai, UAE
3. International Expert: “Performance Analysis of Swelling Elastomers in Petroleum Applications,” workshop/seminar (online) for International Faculty Development Program, Chandigarh University, India, 08 July 2022
4. International Expert: “Modeling and Analysis of Extrusion Process, Product and Tooling: Estimation and Prediction of Die Life,” workshop/seminar (online) for International Faculty Development Program, Chandigarh University, India, 06 July 2022
5. Plenary Speaker: “Longevity Assessment of Swell Packers in Oil and Gas Fields,” World Congress on Petrochemistry and Chemical Engineering (Petrochemistry 2022), 15-16 April 2022, Edinburgh, Scotland + Online
6. Keynote Speaker: “Effect of Shape Complexity on Extrusion Pressure — Experimental and Numerical Investigation,” 12<sup>th</sup> World Conference on Petroleum Chemistry, 22-23 November 2021, Dubai, UAE
7. Keynote Speaker: “Swell Packers and Expandable Tubulars in Petroleum Drilling — Finite Element Simulation,” 6<sup>th</sup> International Conference on Oil, Gas, and Petrochemistry (Petrochem-2021), 03 November 2021, Dubai + Online
8. Keynote Speaker: “Mechanics of Swelling — A Diffusion Based Approach: Elastomer Research at Sultan Qaboos University,” 5<sup>th</sup> *International Conference on Fossil and Renewable Energy* (F&R 2021); 01-03 March 2021, Houston, Texas, USA + online

9. Keynote Speaker: “Material Enhancement of Expansion Mandrel for Oil and Gas Wells,” *International Conference on Petrochemical Engineering and Natural Resources*, 8-9 June 2020, Dubai, UAE + Online
10. Keynote Speaker: “Integrity Assessment of Polymer Pipes in Petroleum Drilling Applications,” *2<sup>nd</sup> International Conference and Expo on Oil & Gas*, 2-3 December 2019, Dubai, UAE
11. Keynote Speaker: “Correctable Die Defects in Aluminum Extrusion,” *2<sup>nd</sup> World Congress on Mechanical and Mechatronics Engineering (WCMME-2019)*, 15-17 April 2019, Dubai, UAE
12. Keynote Speaker: “Finite Element Simulation of Elastomer Swelling in Petroleum Drilling Applications,” *3<sup>rd</sup> International Conference on Gas, Oil and Petroleum Engineering (GOPE 2019)*, 18-20 Feb 2019, San Francisco, USA
13. Keynote Speaker: “Use of Swelling Elastomers in Drilling and Development of Oil and Gas Wells; Elastomer Research at Sultan Qaboos University,” *2<sup>nd</sup> International Oil and Gas Conference*, 3-5 Dec 2018, Dubai, UAE
14. Keynote Speaker: “Engineering Education: Skill Levels and Outcome-Based Approach,” *ISERD International Conference on Education and E-Learning (ICEEL)*, 7-8 August 2018, Istanbul, Turkey
15. Keynote Speaker: “Swelling Elastomers in Petroleum Drilling Operations: Comparison of Material Models,” *International Conference on Materials Science and Graphene Technology*, 9-11 April 2018 Dubai, UAE
16. Keynote Speaker: “Tool and Die Steels in Aluminum Extrusion and Tubular Expansion Applications,” *3<sup>rd</sup> Euro Congress on Iron, Steel and Construction Engineering*, 16-17 November 2017, London, UK
17. Keynote Speaker: “Mitigation of Major Product Defects in Aluminum Extrusion,” *14<sup>th</sup> International Conference and Exhibition on Materials Science and Engineering*, 13-15 November 2017, Las Vegas, Nevada, USA
18. Keynote Speaker: “Solid Expandable Tubulars; Full-Scale Testing and Analysis,” *International Conference on Geology and Geoscience*, April 27-28, 2017, Dubai, UAE
19. Keynote Speaker: “Performance Evaluation, of Swell Packers under Actual Field Conditions,” Keynote Address, *International Conference on Oil, Gas and Petrochemistry*, April 3-5, 2017, Dubai, UAE
20. Keynote Speaker: “Product Defects in Commercial Aluminum Extrusion: Review and Analysis,” *International Conference on Advances in Materials and Processing Technologies (AMPT 2016)*, 8-11 November 2016, Kuala Lumpur, Malaysia
21. Invited Speaker: “Modeling and Analysis of Extrusion Process, Product and Tooling: Estimation and Prediction of Die Life,” *17<sup>th</sup> International Conference on Applied Mechanics and Mechanical Engineering (AMME-2016)*, 19-21 April, Military Technical College, Cairo, Egypt
22. Keynote Speaker: “Performance Analysis of Swelling Elastomers in Petroleum Applications: Elastomer Testing and Characterization at Sultan Qaboos University,” *8<sup>th</sup> International Conference on Materials Science and Engineering (IMS 8)*, 2-4 Feb 2016, American University of Sharjah, Sharjah, UAE
23. Invited Paper and Outstanding Presentation Award: “Extrusion Shape Complexity: A Research/Industry Review,” *International Conference on Mechanical Engineering and Advanced Materials (ICME-AM 2015)*, 3-4 December, 2015, Kota Kinabalu, Sabah, Malaysia

## **INVITED LECTURES/SEMINARS**

1. “Best Practices in Higher Education: An Engineer’s Perspective” seminar at International Center for Chemical and Biological Sciences (ICCBC), L.E.J. National Science Information Center, University of Karachi, Pakistan, 27 Jan 2023; hybrid (physical + online)
2. “Metal Extrusion: Process, Product, and Tooling” seminar at Faculty of Mechanical Engineering, Ghulam Ishaq Khan Institute (GIKI), Topi, Pakistan, 25 Jan 2023; hybrid (physical + online)
3. “New Pedagogical Trends in Engineering Education” seminar at Faculty of Materials and Chemical Engineering, Ghulam Ishaq Khan Institute (GIKI), Topi, Pakistan, 24 Jan 2023; hybrid (physical + online)
4. “Challenges, Opportunities, and Future Trends in Engineering Education” seminar at Comstech Secretariat, Islamabad, Pakistan, 23 Jan 2023; hybrid (physical + online)
5. “Overview of Engineering Accreditation Process — Excerpts from Personal Experience, especially for Materials and Manufacturing Courses,” workshop/seminar (online) for India-UK SPARC Webinar on Metal Additive Manufacturing and Friction Stir Processing: Present and Future, organized jointly by Department of Mechanical Engineering, Indian Institute of Technology Patna, Patna (India), Department of Mechanical and Aerospace Engineering, IIT Hyderabad (India), and School of Materials, University of Manchester, United Kingdom; 6-7 Sept 2022
6. “Designing Course Outcomes Using Bloom's Taxonomy,” workshop conducted for faculty and staff, Pakistan School Seeb, Aug-2019
7. “Performance Analysis of Swelling Elastomers in Petroleum Applications,” workshop/seminar (online) for International Faculty Development Program, Chandigarh University, India, 08 July 2022
8. “Modeling and Analysis of Extrusion Process, Product and Tooling: Estimation and Prediction of Die Life,” workshop/seminar (online) for International Faculty Development Program, Chandigarh University, India, 06 July 2022
9. “Steam Injection Wells: Performance Assessment of PVC Pipes under Tensile Loading,” seminar (online) for Advanced Metallic Systems Centre for Doctoral Training, Dublin City University, Dublin, Ireland, May 2021
10. “Modern Engineering Materials,” seminar for faculty and final-year students of Middle East College (online), Muscat, Nov-2020
11. “Outcome Based Education Using Bloom's Taxonomy,” workshop conducted for faculty and staff, Pakistan School Muscat, Nov-2019
12. “Qualities of a Good Teacher,” seminar for faculty and staff, Pakistan School Musanah/Muladdah, Nov-2019
13. “Experimental, Numerical, and Analytical Investigation of Swell Packers: Elastomer Research at Sultan Qaboos University,” College of Petroleum and Geosciences, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia, Aug 2019
14. “Best Practices in Higher Education — An Engineer’s Perspective,” Mechanical Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia, Aug 2019
15. “How to be a Good Teacher?” seminar for faculty and staff, Pakistan School Muscat, Darsait, Sep-2018
16. “SET Test Rig and Elastomer Research at SQU,” December 2008, NED University, Karachi
17. “Looking at the Softer Side of Science,” (in Urdu) January 1999, GIK Institute

18. "A Literary Excursion into Science," (in Urdu) March 1994, Literary Science Society, Pakistan Association of Scientists and Scientific Professions, Karachi

### **AWARDS FOR SUPERVISED THESIS/SENIOR DESIGN PROJECTS**

1. Student project funded by the Research Council Oman (TRC) under their FURAP program: "Design and Construction of Fatigue Test Facility for Petroleum Casings and Connections"; Fall 2014-Spring 2015; Supervisor
2. 4<sup>th</sup> position in Design Competition supported by MIE Department Industrial Advisory Board, 2015. Award given to BEng student team for their Senior Design Project "Design and Construction of Fatigue Test Facility for Petroleum Casings and Connections"; Supervisor
3. 1<sup>st</sup> position (Regional) and 1<sup>st</sup> position (National) Society of Petroleum Engineers Postgraduate Category Award, 2011. Award given to MSc student Omar S. Al-Abri for research conducted on "Analytical and Numerical Solution for Large Plastic Deformation of Solid Expandable Tubular". (Selected for international competition held during 31 October - 02 November 2011 in Colorado, USA); Co-supervisor
4. 2<sup>nd</sup> position (International), 1<sup>st</sup> position (Regional) and 1<sup>st</sup> position (National) Society of Petroleum Engineers Undergraduate Category Award, 2010. Award given to BEng student team for their Senior Design Project "Design of Cone and Launcher System for SET Applications in Well Drilling", which I co-supervised.
5. 1<sup>st</sup> position at the Design Project Competition in 1<sup>st</sup> GCC Engineering Students Gathering, 2004. Award given to BEng student team for their Senior Design Project "2nd Generation SQU Solar Car", which I co-supervised.
6. 1<sup>st</sup> position in Design Competition supported by MIE Department Industrial Advisory Board, 2007. Award given to BEng student team for their Senior Design Project "SQU 3rd Generation Solar Car: Body Design", which I co-supervised.
7. 2<sup>nd</sup> position in Design Competition supported by MIE Department Industrial Advisory Board, 2009. Award given to BEng student team for their Senior Design Project "Design of Cone and Launcher System for SET Applications in Well Drilling", which I co-supervised.
8. 3<sup>rd</sup> position in Design Competition supported by MIE Department Industrial Advisory Board, 2008. Award given to BEng student team for their Senior Design Project "Designing an Effective Elastomer Seal for SET using Finite Element Method", which I co-supervised.
9. Senior Design Project under my co-supervision "Design and Fabrication of Human Powered Submarine" was granted financial support by SQU, Qalhat LNG, and other agencies, and successfully participated in International Submarine Race; 2011

### **RECOGNITION/APPRECIATION**

1. Letter of Appreciation from the Asst Dean for Postgraduate Studies and Research, Sultan Qaboos University for review of internal grant proposal; Aug 2022
2. Letter of Appreciation from the Asst Dean for Postgraduate Studies and Research, Sultan Qaboos University for review of internal grant proposal; Sept 2021
3. Letter of Appreciation from the project focal point at PDO (Mr Arjan Vos) for successful completion of the 5-year long "Swellable Elastomer Longevity Test Rig" project; March 2017

4. Letter of Appreciation from the Head of New Technology Implementation at PDO (Mr Dawood al-Qassabi) for successful completion of the project “Investigation of Swelling Elastomers for Yibal Field” (January 2016)
5. Letter of Appreciation from the project focal point at Composite Pipe Industries CPI (Mr Prakash Kumar) for successful completion of the project “Experimental and Finite Element Analysis of GRE Pipes” (March 2015)
6. Letter of Appreciation from the Vice Chancellor of Sultan Qaboos University for efforts in the role of Coordinator of College Accreditation Committee toward ABET accreditation of all eight Engineering Programs; Dec 2014
7. Letter of Appreciation from the project focal point at PDO (Mr Saif al-Aufi) for successful completion of the project “Evaluation of Water-Swelling and Oil-Swelling Elastomers” (November 2014)
8. Letter of Appreciation from the project focal point at PDO (Mr Arjan Vos) for fabrication and commissioning of the “Swellable Elastomer Longevity Test Rig” at SQU; February 2014
9. Letter of Appreciation from the project focal point at PDO (Mr Mark van de Velden) for design and construction of the “Swellable Elastomer Longevity Test Rig” at SQU; July 2010
10. Letter of Appreciation from the project focal point at PDO (Mr Mark van de Velden) for success of the first commercial “8½-inch Pass-through Mono-diameter Expandable Clad Design and Construction,” based on the qualification tests done at SQU’s Expandable Tubular Test-Rig; June 2010
11. Letter of Appreciation from the project focal point at PDO (Mr Mark van de Velden) for design, construction, and commissioning of the Pull Test (Cone-on-Stick approach) for solid expandable tubular; April 2010
12. Letter of Appreciation from the Vice Chancellor of Sultan Qaboos University for the efforts and contributions extended toward ABET Accreditation of Engineering Programs; March 2010
13. Invited Member, Expandable Technology Forum, in recognition of research work done on Solid Expandable Tubular; 2008 - Present
14. SQU test facilities for Expandable Tubular Test-rig and Elastomer Characterization included in the video “PDO Insight 3 – Technology Edition” for worldwide distribution to oil companies; 2008

## **RESEARCH/SCHOLARLY ACHIEVEMENTS**

### **EDITORIAL EXPERIENCE; REFEREED JOURNALS**

1. Member, Editorial Board, *Materials and Manufacturing Processes*, 2016 to 2020
2. Member, Editorial Board, *Journal of Elastomers and Plastics*, 2015-to date
3. Associate Editor, *The Journal of Engineering Research*, SQU, 2012-to date
4. Member, Editorial Board, *International Journal of Business Engineering and Management Systems*, Jun-2016 to date
5. Member, Editorial Board, *American Journal of Mechanical and Industrial Engineering*, Jan-2016 to date
6. Member, Editorial Board, *Indian Journal of Engineering*, Jan-2017 to date
7. Member, Editorial Board, *Petroleum and Petrochemical Engineering*, Mar-2018 to date

8. Guest Editor, Special Issue on “Applied Mechanics and Industrial Systems,” *Materials and Manufacturing Processes*, 2017-2018; ongoing
9. Guest Editor, Special Issue on “Expandable Tubulars, Elastomers and Associated Technologies,” *The Journal of Engineering Research*, SQU, 2012
10. Guest Editor, Special Issue on “Applied Mechanics, Materials, and Manufacturing,” *Materials and Manufacturing Processes*, **27** (7), 2012
11. Guest Editor, ICAMMM-2012 Special Issue, *The Journal of Engineering Research*, SQU, **8** (2), June 2011

## **EDITORIAL EXPERIENCE: BOOKS AND ENCYCLOPEDIA**

1. Volume editor: Thermal Engineering of Steel Alloy Systems; in 13-volume series: Comprehensive Materials Processing, 2<sup>nd</sup> edition; Elsevier; ongoing project; started 2021
2. Editor of Vol-5: Renewability of Synthetic Materials; in S. Hashmi, I.A. Choudhury (editors in-chief) Reference Module in Materials Science and Materials Engineering: Encyclopedia of Renewable and Sustainable Materials, Elsevier, 2020, ISBN 9780128131961, <https://doi.org/10.1016/B978-0-12-803581-8.11574-7>
3. Editor of book Extrusion of Metals, Polymers, and Food Products, INTECH Open Science, ISBN 978-953-51-3838-9, Print ISBN 978-953-51-3837-2, February 28, 2018; DOI: 10.5772/65577
4. Editor of book Applied Mechanics, Materials and Manufacturing; Vol-2 Materials and Manufacturing, December 2010, Sultan Qaboos University Press, Muscat, Oman
5. Editor of book Applied Mechanics, Materials and Manufacturing; Vol-1 Applied Mechanics, December 2010, Sultan Qaboos University Press, Muscat, Oman

## **BOOKS AND CHAPTERS IN BOOKS**

### **Books**

1. **Qamar SZ** (volume editor): Thermal Engineering of Steel Alloy Systems; in 13-volume series: Comprehensive Materials Processing, 2<sup>nd</sup> edition, Elsevier; ongoing project; started 2021
2. **Qamar SZ**, Akhtar M, Pervez T (2021) Swelling Elastomers in Petroleum Drilling and Development — Applications, Performance Analysis, and Material Modeling. London: IntechOpen; 2021; <https://www.intechopen.com/books/10159> doi: 10.5772/intechopen.90221
3. **Qamar SZ** (section editor) Vol-5: Renewability of Synthetic Materials, in S. Hashmi, I.A. Choudhury (editors in-chief), Reference Module in Materials Science and Materials Engineering: Encyclopedia of Renewable and Sustainable Materials, Elsevier, 2020, ISBN 9780128131961, <https://doi.org/10.1016/B978-0-12-803581-8.11574-7>
4. **Qamar SZ** (editor) Extrusion of Metals, Polymers, and Food Products, (2018) INTECH Open Science, ISBN 978-953-51-3838-9, Print ISBN 978-953-51-3837-2, February 28, 2018
5. **Qamar SZ**, Sheikh AK, Arif AFM (2011) Modeling and Analysis of Aluminum Extrusion: Process, Tooling, and Defects, LAP Lambert Academic Publishing
6. **Qamar SZ**, Garbie I, Abdo J, Al-Rawahi N, Pervez T (Editors), Shikdar A (Managing Editor), Srivatsan TS (International Editor) Applied Mechanics, Materials and Manufacturing; Vol-2 Materials and Manufacturing, December 2010, Sultan Qaboos University Press, Muscat, Oman



7. Abdo J, Al-Rawahi N, Pervez T, **Qamar SZ**, Garbie I (Editors), Shikdar A (Managing Editor), Srivatsan TS (International Editor) Applied Mechanics, Materials and Manufacturing: Vol-1 Applied Mechanics, December 2010, Sultan Qaboos University Press, Muscat, Oman

## Chapters in Books

1. Chekotu JC, **Qamar SZ**, and Qamar SB (2021) “Numerical and Experimental Analysis of Profile Complexity in Aluminum Extrusion,” In Fracture, Fatigue and Wear, pp 149-157; Lecture Notes in Mechanical Engineering book series, Springer, Singapore, 2021.
2. **Qamar SZ**, Al-Kindi M (2020) “Renewability and Sustainability: Current Status and Future Prospects,” chapter in Editor(s): Saleem Hashmi, Imtiaz Ahmed Choudhury, Reference Module in Materials Science and Materials Engineering: Encyclopedia of Renewable and Sustainable Materials, Elsevier, 2020, Pages 717-730, ISBN 9780128131961, <https://doi.org/10.1016/B978-0-12-803581-8.11574-7>
3. Qamar SZ (2018) “Introduction to Extrusion; from Gear Manufacturing to Production of Cereals,” chapter in book Extrusion of Metals, Polymers, and Food Products, INTECH Open Science, ISBN 978-953-51-3838-9, Print ISBN 978-95351-3837-2, Published: February 28, 2018
4. Pervez T, **Qamar SZ**, Al-Abri OSA, Khan R (2018) “Indirect Extrusion; A Multifaceted Approach of Subsurface Tubular Expansion,” chapter in book Extrusion of Metals, Polymers, and Food Products, INTECH Open Science, ISBN 978-953-51-3838-9, Print ISBN 978-953-51-3837-2, Published: February 28, 2018
5. Arunachalam R, Kannan S, **Qamar SZ** (2017) “Techniques, Trends, and Advances in Conventional Machining Practices for Metals and Composite Materials,” chapter in book Manufacturing Techniques for Materials: Engineering and Engineered, Taylor and Francis
6. Qamar SZ, Sheikh AK, Pervez T, Arif AFM (2011) “Using Monte Carlo Simulation for Prediction of Tool Life,” chapter in book Applications of Monte Carlo Method in Science and Engineering, edited by S Mark and S Mordechai, INTECH International Publishers
7. Pervez T, Al-Hiddabi SA, **Qamar SZ** (2011) “Analytical and Computational Solution for Expandable Liner Hanger based on Nonlinear Mechanics,” chapter in book Materials for Energy Exploration, edited by Frank Columbus, NOVA Science Publishers

## REFEREED JOURNAL PAPERS

1. Khan R, Pervez T, Alfozan A, **Qamar SZ**, Mohsin S (2022) “Numerical Modeling and Simulations of Twinning-Induced Plasticity Using Crystal Plasticity Finite Element Method,” *Crystals*, 2022; **12** (7): 930
2. Akhtar M, **Qamar SZ**, Mehdi M, Pervez T, Al-Kharusi M (2022) “Novel Method for Determination of Polymer-Solvent Interaction Parameter using Mechanical Properties,” *Arabian Journal for Science and Engineering*, **47**, 11887–11897 (2022)
3. **Qamar SZ** (2021) “Numerical Investigation of Tubular Expansion and Swelling Elastomers in Oil Wells,” *Journal of Polymer Engineering*, 2021, **41** (10): 883-892
4. Pervez T, **Qamar SZ**, Akhtar M, Al Kharusi M (2021) “Design and Construction of Test Facility for Evaluation of Swell Packers in Cased and Open Holes,” *Journal of Petroleum Exploration and Production Technology*, Sept 2021; **11** (11): 4063-4073

5. **Qamar SZ**, Pervez T, Akhtar M, Al Kharusi M (2021) “Long-Term Performance Assessment of Swell Packers under Different Oilfield Conditions,” *ASME Journal of Energy Resources Technology* (JERT), June 2021; **143** (6): 063006
6. Mehdi M, Akhtar M, Abro S, **Qamar SZ**, Nauman MM, Aziz S, Khan ZU, Sufiyan M, Waseem MB, Azraf A (2019) “Electrochemical Synthesis of AgNP and Mechanical Performance of AgNP-EG Coatings on a Soft Elastomer,” *Journal of Elastomers and Plastics*, **52** (7), p 609-619
7. Qamar SZ, Chekotu JC, Qamar SB (2019) “Effect of Shape Complexity on Ram Pressure and Metal Flow in Aluminum Extrusion,” *JOM, Journal of the Minerals Metals & Materials Society (TMS)*, 71 (12), Nov 2019, p 4378-4392
8. **Qamar SZ**, Chekotu JC, Al-Maharbi M, Alam K (2019) “Shape Complexity in Metal Extrusion — Definitions, Classification, and Applications,” *Arabian Journal for Science and Engineering*, (2019) **44**:7371-7384
9. **Qamar SZ** (2018) “Engineering Education: Skill Levels and Outcome-Based Approach,” *International Journal of Management and Applied Science*, **4** (12), Dec 2018, p 25-29
10. Akhtar M, **Qamar SZ**, Muzamil M, Nadeem A (2018) “Optimum Heat Treatment of Aluminum Alloy used in Manufacturing of Automotive Piston Components,” *Materials and Manufacturing Processes*, **33** (16), p 1874-1880
11. Qamar SZ, Pervez T, Chekotu JC (2018) “Die Defects and Die Corrections in Metal Extrusion,” *Metals*, 2018, 8 (6), 380
12. Akhtar M, **Qamar SZ**, Mehdi SM, Hussain A (2018) “Diffusion-Based Swelling in Elastomers under Low and High-Salinity Brine,” *Journal of Elastomers and Plastics*, **51** (1), p 75-84
13. Akhtar M, **Qamar SZ**, Pervez T (2018) “Some Downhole Applications of Swelling Elastomers in Oil and Gas Wells,” *International Journal of Petrochemical Science & Engineering*, 2018, **3** (3), p 75-78
14. Al-Maharbi M, Al-Shabibi A, **Qamar SZ** (2018) “Manufacturing of Low Alloy Steel Sucker Rods by Continuous Process — Heat Treatment and Characterization,” *Materials and Manufacturing Processes*, **33** (16), p 1889-1893
15. Akhtar M, **Qamar SZ**, Pervez T, Al-Jahwari FK (2018) “Performance Evaluation of Swelling Elastomer Seals,” *Petroleum Science and Engineering*, **165** (2018), p 127-135
16. Alam K, **Qamar SZ** (2018) “Ultrasonically Assisted Bone Drilling — Effect of Process Parameters on Delamination,” *Materials and Manufacturing Processes*, **33** (16), p 1894-1898
17. Mehdi SM, Akhtar M, **Qamar SZ** (2017) “Electromechanical Response of Delaminating Polymer Thin Films on Rough Elastomeric Substrate,” *Journal of Elastomers and Plastics*, published online 25 Jan 2017
18. Al-Abri OS, Pervez T, **Qamar SZ**, Khan R (2016) “On the Performance Analysis of AHSS with an Application to SET Technology — FEM Simulations and Experimental Measurements,” *Thin Walled Structures*, **101** (2016), p 58-74
19. Khan R, Pervez T, **Qamar SZ** (2016) “Modeling and Simulations of Transformation and Twinning Induced Plasticity in Advanced High Strength Austenitic Steels,” Dec-2015, *Mechanics of Materials*, **95** (2016), p 83–101
20. **Qamar SZ**, Pervez T, Akhtar M (2016) “Performance Evaluation of Water-Swelling and Oil-Swelling Elastomers,” *Journal of Elastomers and Plastics*, **48** (6) 2016, p 535-545

21. Alam K, Khan M, Muhammad R, **Qamar SZ**, Silberschmidt VV (2015) "InVitro Experimental Analysis and Numerical Study of Temperature in Bone Drilling," *Technology and Health Care*, **23** (2015), p 775–783
22. Al-Abri OS, Pervez T, **Qamar SZ**, Al-Busaidi AM (2015) "Optimum Mandrel Configuration for Efficient Down-Hole Tube Expansion," *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, 137 (6), 01 December 2015
23. **Qamar SZ** (2015) "Fracture Life Prediction and Sensitivity Analysis for Hollow Extrusion Dies," *Fatigue and Fracture of Engineering Materials and Structures*, **38** (4), 2015, p 434–444
24. Al-Hiddabi SA, Pervez T, **Qamar SZ**, Al-Jahwari FK, Marketz F, Al-Houqani S, van de Velden M (2015) "Analytical Model of Elastomer Seal Performance in Oil Wells," *Applied Mathematical Modelling*, **39** (10-11), June 2015, p 2836–2848
25. **Qamar SZ** (2015) "Heat Treatment and Mechanical Testing of AISI H11 Steel," *Key Engineering Materials*, Vols 656-657 (2015), p 434-439
26. Pervez T, Al-Abri OS, Al-Hiddabi SA, **Qamar SZ** (2015) "Analytical Model for Stick-Slip Phenomenon in Solid Tubular Expansion," *Journal of Petroleum Science and Engineering*, Vol 125, 01 January 2015, p 218-233
27. **Qamar SZ**, Akhtar M, Pervez T (2015) "Swelling Behavior of Soft and Biological Materials," *Key Engineering Materials*, Vol 656-657 (2015), p 580-585
28. **Qamar SZ** (2014) "Optimum Heat Treatment of Extrusion Die Steel," *Advanced Materials Research*, **911** (2014), p 215-219
29. Khan R, Pervez T, **Qamar SZ** (2013) "Influence of Martensite Volume Fraction on Mechanical Properties of High-Mn Steel," *Journal of Minerals and Materials Characterization and Engineering*, **1** (2013), p 293-300
30. **Qamar SZ**, Akhtar M, Pervez T, Al-Kharusi MSM (2013) "Mechanical and Structural Behavior of a Swelling Elastomer under Compressive Loading," *Materials and Design*, **45** (March 2013), p 487–496
31. Akhtar M, **Qamar SZ**, Pervez T (2012) "Swelling Elastomer Applications in Oil and Gas Industry," *Journal of Trends in the Development of Machinery and Associated Technology*, **16** (1), 2012, p 71-74
32. Pervez T, **Qamar SZ**, van de Velden M (2012) "Comparison between Fresh and Exposed Swelling Elastomer," *Journal of Elastomers and Plastics*, **44** (3), May 2012, p 237–250
33. **Qamar SZ**, Pervez T, Akhtar M, Al-Kharusi MSM (2012) "Design and Manufacture of Swell Packers: Influence of Material Behavior," *Materials and Manufacturing Processes*, **27** (7), 2012, p 727-732
34. Pervez T, **Qamar SZ**, Al-Abri OS, Khan R, Al-Abri BH (2012) "Experimental and Numerical Simulation of In-Situ Tube Expansion for Deep Gas Wells," *Materials and Manufacturing Processes*, **27** (7), 2012, p 727-732
35. Akhtar M, **Qamar SZ**, Pervez T, Khan R, Al-Kharusi MSM (2012) "Elastomer Seals in Cold Expansion of Petroleum Tubulars: Comparison of Material Models," *Materials and Manufacturing Processes*, **27** (7), 2012, p 715-720
36. Pervez T, **Qamar SZ**, Al-Hiddabi SA, Al-Jahwari FK, Marketz F, Al-Houqani S, v.d. Velden M (2011) "Tubular Expansion in Irregularly Shaped Boreholes – Computer Simulation and Field Measurements," *Petroleum Science and Technology*, **29** (7), January 2011, p 735-744
32. Pervez T, **Qamar SZ** (2011) "Finite Element Analysis of Tubular Ovality in Oil Well," *Advanced Materials Research*, Vol 264-265, 2011, p 1654-1659

33. **Qamar SZ** (2010) "Shape Complexity, Metal Flow, and Dead Metal Zone in Cold Extrusion," *Materials and Manufacturing Processes*, **25** (12), December 2010, p 1454-1461
34. Al-Zebdeh K, Pervez T, **Qamar SZ** (2010) "Finite Element Simulation of Compression of Elastomeric Seals in Open Hole Liners," *Journal of Energy Resources Technology — Transactions of the ASME*, **132** (3), September 2010
35. **Qamar SZ** (2009) "Effect of Heat Treatment on Mechanical Properties of H11 Tool Steel," *Journal of Achievements in Materials and Manufacturing Engineering*, **35** (2), August 2009, p 115-120
36. **Qamar SZ**, Hiddabi SA, Pervez T, Marketz F (2009) "Mechanical Testing and Characterization of a Swelling Elastomer," *Journal of Elastomers and Plastics*, **41** (5), September 2009, p 415-431
37. **Qamar SZ** (2009) "FEM Study of Extrusion Complexity and Dead Metal Zone," *Archives of Materials Science and Engineering*, **36** (2), April 2009, p 110-117
38. Pervez T, **Qamar SZ**, Siddiqui RA, van de Velden M (2009) "Effect of Exposure on Material Response of a Swelling Elastomer," *Archives of Materials Science and Engineering*, **37** (2), June 2009, p 77-84
39. **Qamar SZ**, Sheikh AK, Arif AFM (2008) "A CVN-KIC Correlation for H13 Tool Steels," *International Journal of Materials and Product Technology*, **33** (4), p 421432
40. **Qamar SZ**, Arif AFM, Sheikh AK, Pervez T (2008) "Effect of Process Parameters on Metal Flow and Dead Metal Zone in Extrusion," *Archives of Materials Science*, **28** (1-4), 2008, p 118-123
41. Pervez T, **Qamar SZ**, Seibi AC, Al-Jahwari FK (2008) "Use of SET in Cased and Open Holes: Comparison between Aluminum and Steel," *Materials and Design*, **29** (2008), p 811-817
42. Siddiqui RA, **Qamar SZ**, Abdul-Wahab SA, Pervez T (2008) "Hydrogen Embrittlement in Low Carbon Steel," *Archives of Materials Science*, **28** (1-4), 2008, p 136-142
43. **Qamar SZ**, Sheikh AK, Arif AFM, Younas M, Pervez T (2008) "Monte Carlo Simulation of Extrusion Die Life," *Journal of Materials Processing Technology*, **202** (1-3), June 2008, p 96-106
44. **Qamar SZ**, Sheikh AK, Arif AFM, Pervez T (2007) "Defining Shape Complexity of Extrusion Dies — A Reliabilistic View," *Materials and Manufacturing Processes*, **22** (7), 2007, p 804-810
45. **Qamar SZ**, Pervez T, Siddiqui RA, Sheikh AK, Arif AFM (2007) "Sensitivity Analysis in Life prediction of Extrusion Dies," *Journal of Achievements in Materials and Manufacturing Engineering*, **25** (1), November 2007, p 49-54
46. **Qamar SZ**, Sheikh AK, Arif AFM, Pervez T, Siddiqui RA (2007) "Heat Treatment of a Hot-Work Die Steel," *Archives of Materials Science and Engineering*, **28** (8), August 2007, p 503-508
47. **Qamar SZ**, Sheikh AK, Arif AFM, Pervez T (2006) "Regression-Based CVN-KIC Models for Hot Work Tool Steels," *Materials Science and Engineering A*, **430** (1-2), August 2006, p 208-215
48. **Qamar SZ**, Arif AFM, Sheikh AK (2004) "A New Definition of Shape Complexity for Metal Extrusion," *Journal of Materials Processing Technology*, **155-156** (30), November 2004, p 1734-1739

49. Sheikh AK, Arif AFM, **Qamar SZ** (2004) “A Probabilistic Study of Failures of Solid and Hollow Dies in Hot Aluminum Extrusion,” *Journal of Materials Processing Technology*, **155-156** (30), November 2004, p 1740-1748
50. **Qamar SZ**, Arif AFM, Sheikh AK (2004) “Analysis of Product Defects in a Typical Aluminum Extrusion Facility,” *Materials and Manufacturing Processes*, **19** (3), July 2004, p 391-405
51. Arif AFM, Sheikh AK, **Qamar SZ**, and al-Fuhaid KM (2003) “A Study of Die Failure Mechanisms in Aluminum Extrusion,” *Journal of Materials Processing Technology*, **134** (3), March 2003, p 318-328
52. Arif AFM, Sheikh AK, **Qamar SZ**, al-Fuhaid KM (2001) “Variation of Pressure with Ram Speed and Die Profile in Hot Extrusion of Aluminum-6063,” *Materials and Manufacturing Processes*, **16** (5), Sept 2001, p 701-716
53. **Qamar SZ**, Kroll E (1995) “Feature-Based Product Modeling,” *NED University Journal of Engineering Research*, **1** (3), July 1995, p 17-28
54. Kroll E, **Qamar Z**, Mohammad R (1994) “High-Level Product Representation for Automatic Design Reasoning,” American Society of Mechanical Engineers, Petroleum Division (Publication) PD, 62 (1994), *Materials and Design Technology*, p 173-181

## **REFEREED INTERNATIONAL CONFERENCES**

1. **Qamar SZ**, Al-Kharusi M, Al-Abri O, Qamar SB (2023) “Sustainability in Engineering Education — Why and How,” accepted, *ASEE 2023 Annual Conference and Exposition*, American Society for Engineering Education, 25-28 June 2023, Baltimore, MD, USA
2. **Qamar SZ**, Akhtar M, Pervez T (2023) “In-Situ Testing of Swell Packers in Saline Water and Crude Oil,” Keynote Speaker, *Global Energy Meet (GEM-2023)*, 06-09 March 2023, Boston, MA, USA + Online
3. **Qamar SZ**, Pervez T (2022) “Tool Steels in Hot Extrusion and Cold Expansion Applications,” *Middle East Metallurgy, Corrosion, Coatings Conference and Showcase*, 21-23 Nov 2022, Dubai
4. **Qamar SZ**, Pervez T, Al-Jahwari F (2022) “PVC Pipes for Thermal Wells — Structural Integrity under Various Loading Conditions,” Keynote Speaker, 2<sup>nd</sup> *International Conference on Material Science, Engineering, and Smart Materials*, 17-18 Nov 2022, Dubai, UAE
5. Al-Qasmi W, **Qamar SZ**, Pervez T, Al-Jahwari FK (2022) “Influence of Multiple Corrosion Defects on Burst and Collapse Strengths of Pipelines,” *Corrosion Conference 2022 - Oman Edition*, 29-31 August 2022, Muscat, Oman
6. **Qamar SZ**, Hinai N, Qamar SB (2022) “Assessment of Critical Thinking Skills in Engineering Education,” *ASEE 2022 Annual Conference and Exposition*, American Society for Engineering Education, 26-29 Jun 2022, Minneapolis, Minnesota, USA; <https://peer.asee.org/41886>
7. **Qamar SZ**, Pervez T (2022) “Polymer Pipes for Thermally Assisted Wells — Performance under Tensile Loads,” *Proceedings of the Canadian Society for Mechanical Engineering International Congress 2022 (CSME Congress 2022)*, 5-8 June 2022, Edmonton, AB, Canada
8. Al-Abri OS, Pervez T, **Qamar SZ**, Al-Jahwari F (2022) “Macroscale Simulation of Tensile Test of Expandable Tubular Steel Using Crystal Plasticity FEM,” *Proceedings of the Canadian Society for Mechanical Engineering International Congress 2022 (CSME Congress 2022)*, 5-8 June 2022, Edmonton, AB, Canada

9. Al Jahwari F, **Qamar SZ**, Pervez T, Al Maskari N (2022) “Using CDIO Principles for Teaching of Mechanical Design Courses,” *IEEE Global Engineering Education Conference (EDUCON)*, 28-31 March 2022, Tunis, Tunisia, pp 1683-1688, doi: 10.1109/EDUCON52537.2022.9766527.
10. **Qamar SZ**, Akhtar M, Pervez T “Longevity Assessment of Swell Packers in Oil and Gas Fields,” Plenary Speaker, World Congress on Petrochemistry and Chemical Engineering (Petrochemistry 2022), 15-16 April 2022, Edinburgh, Scotland + Online
11. **Qamar SZ**, Akhtar M, Al-Jahwari F, Pervez P (2021) “Swell Packers and Expandable Tubulars in Petroleum Drilling — Finite Element Simulation,” Keynote Speaker, *6<sup>th</sup> International Conference on Oil, Gas, and Petrochemistry* (Petrochem-2021), 03 November 2021, Dubai + Online
12. **Qamar SZ**, Pervez T (2021) “Effect of Shape Complexity on Extrusion Pressure — Experimental and Numerical Investigation,” Keynote Speaker, *12<sup>th</sup> World Conference on Petroleum Chemistry* (Petrochem-2021), 22-23 November 2021, Dubai, UAE
13. Allamki A, Al Maharbi M, Arunachalam R, **Qamar SZ** (2021) “Improved Tensile Strength and Electrical Conductivity of the Electrical Conductor Aluminum Alloy 6201,” *ASME-2021 International Mechanical Engineering Congress and Exhibition (IMECE-2021)*, 01-05 November 2021
14. **Qamar SZ**, Pervez T (2021) “Fracture and Wear Resistance of Tubular Expansion Mandrel,” *9<sup>th</sup> International Conference on Fracture Fatigue and Wear (FFW 2021)*, 2-3 August 2021, Ghent, Belgium (online)
15. Chekotu JC, **Qamar SZ**, Qamar SB (2021) “Numerical and Experimental Investigation of Shape Complexity in Metal Extrusion,” *9<sup>th</sup> International Conference on Fracture Fatigue and Wear (FFW 2021)*, 2-3 August 2021, Ghent, Belgium (online)
16. **Qamar SZ**, Arunachalam R, Qamar SB (2021) “A Critical Thinking Paradigm for Materials and Manufacturing Education,” *ASEE Annual Conference and Exposition*, American Society for Engineering Education, 27-30 Jun 2021, Long Beach, California, USA
17. Alam K, **Qamar SZ**, Al-Shabibi A (2021) “An Outcome Based Approach for Applied Mechanics Courses using Bloom’s Taxonomy and ABET Criteria,” *IEEE Global Engineering Education Conference (EDUCON-2021)*, 21-23 April, Vienna, Austria, p 1001-1007
18. **Qamar SZ**, Akhtar M, Pervez P (2021) “Mechanics of Swelling: A Diffusion Based Approach: Elastomer Research at Sultan Qaboos University,” Keynote Speaker, *5<sup>th</sup> International Conference on Fossil and Renewable Energy (F&R 2021)*, 01-03 March 2021, Houston, Texas, USA
19. **Qamar SZ**, Al-Maharbi M, Chekotu JC (2020) “A Significant Learning Approach for Materials Education,” *ASEE Annual Conference & Exposition*, American Society for Engineering Education, 21-24 June 2020, Montreal, Canada
20. **Qamar SZ**, Pervez T (2020) “Material Enhancement of Expansion Mandrel for Oil and Gas Wells,” Keynote Speaker, *International Conference on Petrochemical Engineering and Natural Resources* (Online), 8-9 June 2020, Dubai, UAE
21. **Qamar SZ**, Pervez T, Al-Jahwari F (2020) “Tensile Performance Evaluation of PVC Pipes for Steam Injection Wells,” *International Gas Union Research Conference (IGRC-2020)*, 24-26 February 2020, Muscat, Oman
22. **Qamar SZ**, Al-Maharbi M (2020) “How to Increase Student Engagement? Materials Science as a Case Study,” *International Conference on Teaching and Learning in Higher Education*, 11-13 Feb 2020, Sultan Qaboos University, Muscat, Oman

23. **Qamar SZ**, Pervez T, Al-Jahwari F (2019) "Integrity Assessment of Polymer Pipes in Petroleum Drilling Applications," Keynote Speaker, *2<sup>nd</sup> International Conference and Expo on Oil & Gas*, 2-3 December 2019, Dubai, UAE
24. **Qamar SZ**, Pervez T, Al-Kindi M (2019) "Engineering Education: Challenges, Opportunities, and Future Trends," *16<sup>th</sup> IEOM Global Engineering Education: First GCC International Conference on Industrial Engineering and Operations Management* (IEOM-2019), 26-28 Nov 2019, Riyadh, Saudi Arabia
25. Pervez T, **Qamar SZ** (2019) "Effect of Expansion on Collapse and Burst Strengths of Solid Expandable Tubular," *12<sup>th</sup> International Scientific Conference on Production Engineering: Development and Modernization of Production* (RIM 2019), 18-20 Sep 2019, Sarajevo, Bosnia and Herzegovina
26. **Qamar SZ**, Pervez T, Chekotu JC (2019) "Correctable Die Defects in Aluminum Extrusion," Keynote Speaker, *2<sup>nd</sup> World Congress on Mechanical and Mechatronics Engineering* (WCMME-2019), 15-17 April 2019, Dubai, UAE
27. **Qamar SZ**, Akhtar M, Pervez T (2019) "Finite Element Simulation of Elastomer Swelling in Petroleum Drilling Applications," Keynote Speaker, *3<sup>rd</sup> International Conference on Gas, Oil and Petroleum Engineering* (GOPE 2019), 18-20 Feb 2019, San Francisco, USA
28. **Qamar SZ**, Arunachalam R, Pervez T, Al-Kindi M (2018) "Knowledge-Based Goals in Engineering Design Courses," *28<sup>th</sup> Arab Engineering Education Conference*, 11-13 December 2018, Muscat
29. Pervez T, Al-Kindi M, **Qamar SZ**, Al-Jabri KS, Waris MB (2018) "Need to Establish an Arab Accreditation Council for Engineering and Technology Education," *28<sup>th</sup> Arab Engineering Education Conference*, 11-13 December 2018, Muscat
30. **Qamar SZ** (2018) "Use of Swelling Elastomers in Drilling and Development of Oil and Gas Wells; Elastomer Research at Sultan Qaboos University," (2018) Keynote Speaker, *2<sup>nd</sup> International Oil and Gas Conference*, 3-5 Dec 2018, Dubai, UA
31. **Qamar SZ** (2018) "Engineering Education: Skill Levels and Outcome-Based Approach," Keynote Speaker, *ISERD International Conference on Education and E-Learning* (ICEEL), 7-8 August 2018, Istanbul, Turkey
32. **Qamar SZ**, Pervez T, Akhtar M (2018) "Swelling Elastomers in Petroleum Drilling Operations: Comparison of Material Models," Keynote Speaker, *International Conference on Materials Science and Graphene Technology*, 9-11 April 2018, Dubai, UAE
33. **Qamar SZ**, Pervez T (2017) "Tool and Die Steels in Aluminum Extrusion and Tubular Expansion Applications," Keynote Speaker, *3<sup>rd</sup> Euro Congress on Iron, Steel and Construction Engineering*, 16-17 November 2017, London, UK
34. **Qamar SZ**, Chekotu JC, Pervez T (2017) "Mitigation of Major Product Defects in Aluminum Extrusion," Keynote Speaker, *14<sup>th</sup> International Conference and Exhibition on Materials Science and Engineering*, 13-15 November 2017, Las Vegas, Nevada, USA
35. Khan R, Pervez T, **Qamar SZ** (2017) "Constitutive Modeling of Martensitic Transformation in Twinning Induced Plasticity Steels subjected to Thermomechanical Load," *International Conference on Martensitic Transformations* (ICOMAT 2017), 9-14 July 2017, Chicago, IL
36. **Qamar SZ** (2017) "Solid Expandable Tubulars; Full-Scale Testing and Analysis," Keynote Speaker, *International Conference on Geology and Geoscience*, April 27-28, 2017, Dubai, UAE
37. **Qamar SZ**, Pervez T (2017) "Elastomer Packers in Petroleum Drilling Operations: Changes in Swelling Response and Mechanical Properties," *International Conference on Geology and Geoscience*, April 27-28, 2017, Dubai, UAE

38. Arunachalam R, **Qamar SZ**, Al-Rawahi NZ (2017) "Engineering Design Education in an Activity-Based Learning Environment," *8<sup>th</sup> International Conference on Engineering Education (IFEE2017)*, Sharjah, UAE, April 18-20, 2017
39. **Qamar SZ** (2017) "Performance Evaluation, of Swell Packers under Actual Field Conditions," Keynote Speaker, *International Conference on Oil, Gas and Petrochemistry*, April 3-5, 2017, Dubai, UAE
40. **Qamar SZ**, Pervez T (2017) "Pre and Post-Expansion Mechanical Behavior of Petroleum Tubulars," *International Conference on Oil, Gas and Petrochemistry*, April 3-5, 2017, Dubai, UAE
41. **Qamar SZ**, Chekotu JC, Al-Maharbi M, Alam K (2016) "A Review of Profile Complexity in Metal Forming," *International Conference on Applied Mechanics and Industrial Systems (ICAMIS-Oman-2016)*, 8-10 Dec 2016, Muscat, Oman
42. Akhtar M, **Qamar SZ**, Mehdi SM, Nadeem A (2016) "Mechanics of Swelling in Elastomer with Diffusion in Low and High salinity Brine," *International Conference on Applied Mechanics and Industrial Systems (ICAMIS-Oman-2016)*, 8-10 Dec 2016, Muscat, Oman
43. Akhtar M, **Qamar SZ**, Muzamil M, Nadeem A, Saifuddin T (2016) "Effect of Heat Treatment on Mechanical and Impact Behavior of AC8H Aluminum Alloy," *International Conference on Applied Mechanics and Industrial Systems (ICAMIS-Oman-2016)*, 8-10 Dec 2016, Muscat, Oman
44. Pervez T, **Qamar SZ** (2016) "Swelling Elastomer Seal Design for Irregular Shaped Boreholes: Experimental and Simulation Studies," *International Conference on Applied Mechanics and Industrial Systems (ICAMIS-Oman-2016)*, 8-10 Dec 2016, Muscat, Oman
45. Al-Maharbi M, Al-Shabibi A, **Qamar SZ** (2016) "Characterization of Low Alloy Steel Continuous Sucker Rods Before and After Heat Treatment," *International Conference on Applied Mechanics and Industrial Systems (ICAMIS-Oman-2016)*, 8-10 Dec 2016, Muscat, Oman
46. Alam K, **Qamar SZ** (2016) "Investigation of Delamination in Conventional and Ultrasonically Assisted Bone Drilling," *International Conference on Applied Mechanics and Industrial Systems (ICAMIS-Oman-2016)*, 8-10 Dec 2016, Muscat, Oman
47. **Qamar SZ** (2016) "Testing and Analysis of Swell Packers under Different Field Conditions," Keynote Speaker, *2<sup>nd</sup> International Conference on Materials Physics and Chemistry (ICMPC 2016)*; 1-3 December, 2016, Sanya, China
48. **Qamar SZ** (2016) "Best Practices in Higher Education; an Engineer's Perspective," *4th International Conference of the College of Education*, 14-17 November 2016, Sultan Qaboos University, Muscat, Oman
49. **Qamar SZ** (2016) "Product Defects in Commercial Aluminum Extrusion: Review and Analysis," Keynote Speaker, *International Conference on Advances in Materials and Processing Technologies (AMPT 2016)*, 8-11 November 2016, Kuala Lumpur, Malaysia
50. **Qamar SZ** (2016) "Effective Engineering Education — Emerging Techniques," *International Conference on Advances in Materials and Processing Technologies (AMPT 2016)*, 8-11 November 2016, Kuala Lumpur, Malaysia
51. **Qamar SZ** (2016) "Modeling and Analysis of Extrusion Process, Product and Tooling: Estimation and Prediction of Die Life," *Invited Paper*, *17th International Conference on Applied Mechanics and Mechanical Engineering (AMME-2016)*, 19-21 April, Military Technical College, Cairo, Egypt



52. **Qamar SZ**, Arunachalam R, Al-Rawahi NZ (2016) "Teaching Product Design in Line with Bloom's Taxonomy and ABET Student Outcomes," IEEE EDUCON-2016 Global Engineering Education Conference, 10-13 April, Abu Dhabi, UAE
53. **Qamar SZ (2016)** "Swelling Elastomer Applications in Petroleum Drilling and Development," Keynote Address, International Conference on Advanced Materials, Technology, and Applications (AMTA2016), 18-20 March 2016, Changsha, China
54. **Qamar SZ (2016)** "Performance Analysis of Swelling Elastomers in Petroleum Applications: Elastomer Testing and Characterization at Sultan Qaboos University," Keynote Address, 8th International Conference on Materials Science and Engineering (IMS 8), 2-4 Feb 2016, American University of Sharjah, Sharjah, UAE
55. **Qamar SZ (2015)** "Extrusion Shape Complexity: A Research/Industry Review," Invited Paper and Best Presentation Award, International Conference on Mechanical Engineering and Advanced Materials (ICME-AM 2015), 3-4 December, 2015, Kota Kinabalu, Sabah, Malaysia
56. Pervez T, Al-Abri OS, **Qamar SZ (2015)** "Minimization of Pop-out Phenomenon Effect in Down-hole Tubular Expansion," ASME-2015 International Mechanical Engineering Congress and Exhibition (IMECE-2015), 13-19 November 2015, Houston, Texas, USA
57. **Qamar SZ**, Pervez T, Akhtar M (2015) "Behavior of Swelling Elastomers in Water, Oil, and Acid," TMS-2015 144th Annual Meeting and Exhibition, 15-19 March 2015, Orlando, USA
58. **Qamar SZ**, Pervez T (2014) "Pre and Post-Expansion Mechanical Behavior of Expandable Tubulars," Materials Science & Technology 2014 (MS&T-2014), 12-16 Oct 2014, Pittsburgh, USA; (Vol. 2, p 1439-1444). Association for Iron and Steel Technology, AISTECH.
59. **Qamar SZ**, Pervez T (2014) "Numerical Simulation of Swelling Elastomer Seals in Tubular Expansion Applications," Materials Science & Technology 2014 (MS&T2014), 12-16 Oct 2014, Pittsburgh, USA; (Vol. 3, pp. 2051-2057). Association for Iron and Steel Technology, AISTECH.
60. Arunachalam R, **Qamar SZ**, Al-Shidhani AS, Al-Musallami AS, Al-Hadrami MS (2014) "Design for Quality in the Concept Generation Phase of the Product Design Process," 58th Ilmenau Scientific Colloquium, Technische Universität Ilmenau, 8-12 Sept 2014
61. Al-Abri O, Pervez T, Khan R, **Qamar SZ (2014)** "Experimental Investigation of Mechanically Induced Martensitic Transformation in Expandable Steel," International Conference on Martensitic Transformations (ICOMAT 2014), June 06-11, 2014, Bilbao, Spain
62. **Qamar SZ**, Akhtar M, Pervez T (2014) "Optimum Heat Treatment of Extrusion Die Steel," 4th International Conference on Key Engineering Materials (ICKEM2014), 22-23 March 2014, Bali, Indonesia
63. Akhtar M, **Qamar SZ**, Pervez T, Al-Jahwari FK (2013) "FEM Simulation of Swelling Elastomer Seals in Downhole Applications," ASME-2013 International Mechanical Engineering Congress and Exhibition (IMECE-2013), 15-21 November 2013, San Diego, California
64. **Qamar SZ**, Akhtar M, Al-Kharusi MSM (2013) "Effect of Swelling Behavior on Elastomeric Materials: Experimental and Numerical Investigation," ASME-2013 International Mechanical Engineering Congress and Exhibition (IMECE-2013), 15-21 November 2013, San Diego, California
65. Al-Abri OS, Pervez T, **Qamar SZ**, Khan R (2013) "Finite Element Formulation for Prediction and Quantification of Stick-Slip Phenomenon in Down-Hole Tubular

- Expansion,” ASME-2013 International Mechanical Engineering Congress and Exhibition (IMECE-2013), 15-21 November 2013, San Diego, California
66. Al-Kharusi MSM, **Qamar SZ**, Pervez T, Akhtar M (2013) “Elastomer Seal with Frictional Contact — Analytical Solution,” ASME-2013 International Mechanical Engineering Congress and Exhibition (IMECE-2013), 15-21 November 2013, San Diego, California
  67. Khan R, Pervez T, Al-Maharbi M, **Qamar SZ** (2013) “Grain Size and Texture Measurement in Tubular Expansion,” 24th Canadian Congress of Applied Mechanics (CANCAM-2013), Saskatoon, Saskatchewan, Canada, 2-5 June 2013
  68. **Qamar SZ** (2012) “Fracture Mechanics Based Life Prediction of Hollow Extrusion Dies,” ASME-2012 International Mechanical Engineering Congress and Exhibition (IMECE-2012), Houston, Texas, 9-15 November 2012
  69. **Qamar SZ**, Pervez T, van de Velden M, Sanchez FJ (2012) “Design and Fabrication of Test Facility for Longevity Testing of Elastomer Seals,” ASME-2012 International Mechanical Engineering Congress and Exhibition (IMECE-2012), Houston, Texas, 9-15 November 2012
  70. **Qamar SZ**, Pervez T, Al-Houqani S, Velden M (2012) “Effect of Cold Work on Mechanical Properties of Expandable Tubulars,” 16th International Research/Expert Conference “Trends in the Development of Machinery and Associated Technology” (TMT-2012), 10-12 September 2012, Dubai, UAE
  71. Pervez T, Al-Abri OS, **Qamar SZ**, Al-Busaidi AM (2012) “Optimum Mandrel Configuration for Efficient Down-Hole Tube Expansion,” Paper # ESDA201282397, ASME-2012 11th Biennial Conference on Engineering Systems Design and Analysis (ESDA-2012), July 2-4, 2012, Nantes, France
  72. Khan R, Pervez T, **Qamar SZ** (2012) “Effects on Plasticity and Structural Integrity of Tube Expansion,” Paper # PVP2012-78654, ASME-2012 Pressure Vessels & Piping Division Conference (PVP-2012), July 15-19, 2012, Toronto, Ontario, Canada
  73. **Qamar SZ**, Pervez T (2011) “Effect of Heat Treatment on Mechanical Properties of Expansion Cone Material,” paper # IPTC 14784, International Petroleum Technology Conference, Bangkok, Thailand, 7-9 February 2012
  74. Pervez T, **Qamar SZ** (2011) “Post Expansion Characterization of Expandable Tubular: Progress and Challenges,” Paper # SPE/IADC 148516, SPE/IADC Middle East Drilling Technology Conference, Muscat, Oman, 24-26 October 2011
  75. Pervez T, **Qamar SZ** (2011) “Full Scale Testing of Fast Swell Packer for Shallow Aquifer Applications,” Paper # SPE/IADC 148533, SPE/IADC Middle East Drilling Technology Conference, Muscat, Oman, 24-26 October 2011
  76. **Qamar SZ**, Pervez T, Al-Moharbi AD (2011) “Fracture Prediction of Extrusion Die Modeled as Pressurized Cylinder with Internal Crack,” 15th International Research/Expert Conference “Trends in the Development of Machinery and Associated Technology” (TMT 2011), 12-18 September, 2011, Prague, Czech Republic
  77. **Qamar SZ**, Pervez T, Al-Kharusi MSM, Akhtar M (2011) “Material Characterization of Water-Swelling and Oil-Swelling Elastomers,” 15<sup>th</sup> International Research/Expert Conference “Trends in the Development of Machinery and Associated Technology” (TMT 2011), 12-18 September, 2011, Prague, Czech Republic
  78. Al-Kharusi MSM, **Qamar SZ**, Pervez T, Akhtar M (2011) “Non-Linear Model for Evaluation of Elastomer Seals Subjected to Differential Pressure,” Paper # SPE-149032, SPE/DGS Saudi Arabia Section Technical Symposium and Exhibition, 1518 May 2011, Al-Khobar, Saudi Arabia

79. Pervez T, **Qamar SZ** (2011) "Issues and Challenges in Expandables and Swellables Research," Expandable Technology Forum, 23-24 February 2011, Hamburg, Germany
80. **Qamar SZ**, Pervez T, Akhtar M, Al-Kharusi MSM (2010) "Material Behavior of Water-Swelling and Oil-Swelling Elastomers," International Conference on Applied Mechanics, Materials and Manufacturing (ICAMMM-2010), 13-15 December 2010, Muscat, Oman, p 52-58
81. Pervez T, **Qamar SZ**, Al-Abri OS, Khan R, Al-Abri B (2010) "Material Integrity of Expandable Tubular in Adverse Environment," International Conference on Applied Mechanics, Materials and Manufacturing (ICAMMM-2010), 13-15 December 2010, Muscat, Oman, p 87-92
82. Khan R, Steglisch D, Pervez T, **Qamar SZ** (2010) "Yield Behavior of Aluminum Alloy Al2024T351 under Different Loading Conditions," International Conference on Applied Mechanics, Materials and Manufacturing (ICAMMM-2010), 13-15 December 2010, Muscat, Oman, p 206-211
83. Akhtar M, **Qamar SZ**, Pervez T, Khan R, Al-Kharusi MSM (2010) "Hyperelastic Material Models for Swelling Elastomers: Experimental and Numerical Investigation," International Conference on Applied Mechanics, Materials and Manufacturing (ICAMMM-2010), 13-15 December 2010, Muscat, Oman, p 212216
84. **Qamar SZ**, Pervez T, Al-Hiddabi SA (2010) "Pre and Post-Swelling Mechanical Behavior of a Water-Swelling Elastomer," 14th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2010), Mediterranean Cruise, 11-18 September, 2010
85. Pervez T, **Qamar SZ** (2009) "Finite Element Analysis of Tubular Ovality in Oil Well," International Conference on Advances in Materials and Processing Technologies (AMPT 2009), 26-29 October, 2009, Kuala Lumpur, Malaysia
86. **Qamar SZ**, Siddiqui RA, Pervez T (2009) "Effect of Heat Treatment on Mechanical Properties of H13 Steel," 13th International Research/Expert Conference "Trends in the Development of Machinery and Associated Technology" (TMT 2009), 16-21 October, 2009, Hammamet, Tunisia
87. **Qamar SZ** (2009) "Effect of Heat Treatment on Mechanical Properties of H11 Tool Steel," 17th International Scientific Conference on Achievements in Mechanical and Materials Engineering (AMME-2009), World Academy of Materials and Manufacturing Engineering, 14-17 June 2009, Gdansk, Poland
88. Pervez T, **Qamar SZ**, Siddiqui RA, van de Velden M (2009) "Effect of Exposure on Material Response of a Swelling Elastomer," 17th International Scientific Conference on Achievements in Mechanical and Materials Engineering (AMME2009), World Academy of Materials and Manufacturing Engineering, 14-17 June 2009, Gdansk, Poland
89. **Qamar SZ** (2009) "FEM Study of Extrusion Complexity and Dead Metal Zone," 17th International Scientific Conference on Achievements in Mechanical and Materials Engineering (AMME-2009), World Academy of Materials and Manufacturing Engineering, 14-17 June 2009, Gdansk, Poland
90. Pervez T, **Qamar SZ** (2009) "Solid Expandable Tubular and Swelling Elastomer Research at Sultan Qaboos University," Expandable Technology Forum, 13-14 January 2009, Abu Dhabi, UAE
91. **Qamar SZ**, Arif AFM, Sheikh AK, Pervez T (2008) "Effect of Process Parameters on Metal Flow and Dead Metal Zone in Extrusion," 12th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2008), Istanbul, Turkey, 26-30 September, 2008

92. **Qamar SZ**, Siddiqui RA, Pervez T (2008) "Improvement of Die Design and Prevention of Die Failure in Metal Extrusion," 12th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2008), Istanbul, Turkey, 26-30 September, 2008
93. **Qamar SZ**, Arif AFM, Sheikh AK, Pervez T (2008) "Effect of Shape Complexity on Metal Flow and Dead Metal Zone in Extrusion," 12th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2008), Istanbul, Turkey, 26-30 September, 2008
94. Siddiqui RA, Abdul-Wahab SA, Pervez T, **Qamar SZ** (2008) "Hydrogen Embrittlement in Low Carbon Steel," 12th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2008), Istanbul, Turkey, 26-30 September, 2008
95. Pervez T, Siddiqui RA, **Qamar SZ**, Al-Jahwari F (2007) "Finite Element Analysis of Plastic Yielding in an Anisotropic Plate with a Hole using Refined Plate Theory," 11th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2007), Hammamet, Tunisia, 05-09 September, 2007
96. Siddiqui RA, **Qamar SZ**, Pervez T, Abdul-Wahab SA (2007) "Hydrogen Embrittlement in 6063 Aluminum Alloy," 11th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2007), Hammamet, Tunisia, 05-09 September, 2007
97. **Qamar SZ**, Sheikh AK, Arif AFM, Pervez T, Siddiqui RA (2007) "Heat Treatment of a Hot-Work Die Steel," 15th International Scientific Conference on Advances in Materials and Manufacturing Engineering (AMME 2007), World Academy of Materials and Manufacturing Engineering, May 2007, Zakopane, Poland
98. **Qamar SZ**, Pervez T, Siddiqui RA, Sheikh AK, Arif AFM (2007) "Sensitivity Analysis in Life prediction of Extrusion Dies," 15th International Scientific Conference on Advances in Materials and Manufacturing Engineering (AMME 2007), World Academy of Materials and Manufacturing Engineering, May 2007, Zakopane, Poland
99. Pervez T, Seibi AC, Al-Hiddabi SA, Al-Jahwari FK, **Qamar SZ**, Marketz F (2007) "Solid Tubular Expansion in Horizontal Wells," SPE Paper # 105704, 15th SPE Middle East Oil & Gas Show and Conference, Bahrain, 11-14 March, 2007
100. **Qamar SZ**, Arif AFM, Sheikh AK, Younas M, Pervez T, Siddiqui RA (2006) "Simulation of Fatigue and Wear Life of Extrusion Dies," 10th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2006), 11-15 September 2006, Barcelona – Lloret de Mar, Spain
101. Pervez T, Al-Jahwari FK, Al-Hiddabi SA, **Qamar SZ**, Siddiqui RA (2006) "Finite Element Analysis of an Adhesive Bonded Taper-Taper Joint for a Laminated Composite Plate," 10th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2006), 11-15 September 2006, Barcelona – Lloret de Mar, Spain
102. Siddiqui RA, **Qamar SZ**, Pervez T, Abdul-Wahab SA (2006) "Effect of Heat Treatment and Surface Finish on Fatigue Fracture Characteristics of 0.45% Carbon Steel," 10th International Research/Expert Conference on "Trends in the Development of Machinery and Associated Technology" (TMT 2006), 11-15 September 2006, Barcelona – Lloret de Mar, Spain
103. **Qamar SZ**, Arif AFM, Sheikh AFM, Pervez T (2005) "Fracture Toughness of Extrusion Die Materials at Different Tempering and Operating Temperatures," 2nd

- International Conference on Advances in Production and Processing of Aluminum (APPA-2005), 5-7 December 2005, Bahrain
104. Pervez T, **Qamar SZ**, Seibi AC, Al-Jahwari FK (2005) "A Comparative Study of using Aluminum and Steel as Liner Hangers in Well Drilling," 2nd International Conference on Advances in Production and Processing of Aluminum (APPA-2005), 5-7 December 2005, Bahrain
  105. Raza K, Sheikh AK, **Qamar SZ**, Arif AFM (2005) "Extrusion Product Quality Analysis using some SPC Tools," 2nd International Conference on Advances in Production and Processing of Aluminum (APPA-2005), 5-7 December 2005, Bahrain
  106. Arif AFM, Inam M, Raza K, Sheikh AK, **Qamar SZ** (2005) "A Review of some Surface Finish Defects in Aluminum Extrusion," 2nd International Conference on Advances in Production and Processing of Aluminum (APPA-2005), 5-7 December 2005, Bahrain
  107. Siddiqui RA, Pervez T, Abdul-Wahab SA, **Qamar SZ** (2005) "Fatigue Resistance Behavior of Age Hardened 6063 Aluminum Alloy in Sea Water," 2nd International Conference on Advances in Production and Processing of Aluminum (APPA-2005), 5-7 December 2005, Bahrain
  108. Arif AFM, Raza K, Sheikh AK, Inam M, **Qamar SZ** (2005) "Analysis of Painting Defects during Aluminum Extrusion using SPC Tools," 1st International Conference on Modeling, Simulation and Applied Optimization, Sharjah, UAE, February 1-3, 2005
  109. Sheikh AK, **Qamar SZ**, Arif AFM (2004) "Extrusion Die Complexity — A Feature Based Characterization," 3rd International Conference and Exhibition on Design and Production of Dies and Molds, June 2004, Bursa, Turkey
  110. **Qamar SZ**, Arif AFM, Sheikh AK, Younas M (2004) "Fatigue Life Assessment of Extrusion Dies using Monte Carlo Simulation," 3rd International Conference and Exhibition on Design and Production of Dies and Molds, June 2004, Bursa, Turkey
  111. Arif AFM, Sheikh AK, **Qamar SZ** (2004) "An Investigation into Metal Flow and Dead Metal Zone in Extrusion," 3rd International Conference on Advanced Manufacturing Technology (ICAMT 2004), 11-13 May 2004, Kuala Lumpur, Malaysia
  112. **Qamar SZ**, Sheikh AK, Arif AFM (2004) "Forecasting Extrusion Die Failures using a New Definition of Profile Complexity," 3rd International Conference on Advanced Manufacturing Technology (ICAMT 2004), 11-13 May 2004, Kuala Lumpur, Malaysia
  113. Sheikh AK, Arif AFM, **Qamar SZ** (2003) "Predicting Fracture Toughness Values of Hot Work Tool Steels at Elevated Temperatures," 8th International Symposium on Advanced Materials (ISAM-2003), 8-11 September 2003, Islamabad, Pakistan
  114. **Qamar SZ**, Arif AFM, Sheikh AK (2003) "Extrusion Product Defects: A Statistical Study," 8th International Symposium on Advanced Materials (ISAM-2003), 8-11 September 2003, Islamabad, Pakistan
  115. **Qamar SZ**, Arif AFM, Sheikh AK (2003) "An Investigation of Shape Complexity in Metal Extrusion," International Conference on Advances in Materials and Processing Technologies (AMPT 2003), 8-11 July 2003, Dublin, Ireland
  116. Sheikh AK, Arif AFM, **Qamar SZ** (2003) "Die Life Probability and Reliability in Hot Aluminum Extrusion," International Conference on Advances in Materials and Processing Technologies (AMPT 2003), 8-11 July 2003, Dublin, Ireland
  117. Sheikh AK, Arif AFM, **Qamar SZ** (2002) "Determination of Fracture Toughness of Tool Steels," 6th Saudi Engineering Conference, September 2002, Dhahran, Saudi Arabia

118. Arif AFM, Sheikh AK, **Qamar SZ**, Raza MK, Al-Fuhaid KM (Sep 2002) “Product Defects in Aluminum Extrusion and Their Impact on Operational Cost,” 6th Saudi Engineering Conference, September 2002, Dhahran, Saudi Arabia
119. **Qamar SZ**, Arif AFM, Sheikh AK, Al-Fuhaid KM (2002) “Some Observations on Pressure Distribution and Die Failure Modes in Hot Extrusion,” 6th Saudi Engineering Conference, September 2002, Dhahran, Saudi Arabia
120. Arif AFM, Sheikh AK, **Qamar SZ**, Al-Fuhaid KM (2001) “Modes of Die Failure and Tool Complexity in Hot Extrusion of Al-6063,” 16th International Conference on Production Research (ICPR-16), July-August 2001, Prague, Czech Republic
121. Arif AFM, Sheikh AK, **Qamar SZ**, Al-Fuhaid KM (2001) “Effect of Ram Speed and Tool Complexity on the Extrusion of Al-6063,” International Conference on Aluminum Production and Processing (APPA-2001), February 2001, Bahrain
122. **Qamar SZ** (1996) “Using Mating Conditions in a Feature-Based Environment for Representation of Mechanical Assemblies,” 36th International Convention of the Institution of Engineers Pakistan, May 1996, Karachi, Pakistan
123. **Qamar SZ** (1996) “A Natural Environment and Representation for Product Design,” 39th International Convention of the Institution of Engineers Bangladesh, January 1996, Chittagong, Bangladesh
124. Kroll E, **Qamar Z**, Mohammad R (1994) “High-Level Product Representation for Automatic Design Reasoning,” ASME Energy-Sources Technology Conference, New Orleans, Louisiana, USA, 23-26 January 1994

## **TECHNICAL REPORTS**

1. Pervez T, **Qamar SZ** (Mar 2020) “Final Report: Compressive and Collapse Evaluation of Sun-Degraded PVC Pipes along with PVC Material Properties,” for Petroleum Development Oman (PDO)
2. Pervez T, **Qamar SZ** (Feb 2020) “Pre-Final Report: Compressive and Collapse Evaluation of Sun-Degraded PVC Pipes along with PVC Material Properties,” for Petroleum Development Oman (PDO)
3. **Qamar SZ**, Pervez T (May 2018) “Final Report-2: Tensile-Compressive and Collapse Evaluation of PVC Pipes — *Tension Testing*,” for Petroleum Development Oman (PDO)
4. **Qamar SZ**, Pervez T (Mar 2018) “Final Report-1: Tensile-Compressive and Collapse Evaluation of PVC Pipes — *Compression Testing*,” for Petroleum Development Oman (PDO)
5. Pervez T, **Qamar SZ**, (Dec 2017) “Interim Report-2: Tensile-Compressive and Collapse Evaluation of PVC Pipes — *Collapse Testing*,” for Petroleum Development Oman (PDO)
6. **Qamar SZ**, Pervez T (Sep 2017) “Interim Report-1: Tensile-Compressive and Collapse Evaluation of PVC Pipes — *Background, Pre-Test Setup, Initial Design*,” for Petroleum Development Oman (PDO)
7. **Qamar SZ**, Pervez T (Aug 2016) “Final Report: Longevity Test Rig for Swellable Elastomers: Design, Fabrication, Commissioning, and 5-Year Testing,” for Petroleum Development Oman (PDO)
8. **Qamar SZ**, Pervez T (Dec 2015) “Investigation of Swelling Elastomers for Yibal Field,” for Petroleum Development Oman (PDO)
9. **Qamar SZ**, Pervez T (Feb 2015) “Final Report: Axial Tensile and Hoop Testing of GRE Pipes,” for Composite Pipe Industries (CPI) and Industrial Innovation Center (IIC)

10. **Qamar SZ**, Pervez T (Oct 2014) “Effect of Acid Induction on Water-Swelling and Oil-Swelling Elastomers,” Petroleum Development Oman (PDO)
11. **Qamar SZ**, Pervez T (September 2014) “Evaluation of Water-Swelling and OilSwelling Elastomers,” for Petroleum Development Oman (PDO)
12. Al-Kindi M, **Qamar SZ**, Pervez T (August 2014) “Probabilistic Approach for UWD Budget Incorporating Risk Analysis – Phase 2,” for Petroleum Development Oman (PDO)
13. Al-Kindi M, **Qamar SZ**, Pervez T (June 2014) “Probabilistic Approach for UWD Budget Incorporating Risk Analysis – Phase 1,” for Petroleum Development Oman (PDO)
14. **Qamar SZ**, Pervez T (March 2013) “Axial Tensile and Hoop Testing of GRE Pipes,” for Composite Pipe Industries (CPI) and Industrial Innovation Center (IIC)
15. **Qamar SZ**, Pervez T, Trautwein SE (December 2011) “Longevity Test Rig for Swellable Elastomers: Design, Fabrication, and Initial Testing,” for Petroleum Development Oman (PDO)
16. Pervez T, **Qamar SZ**, Al-Abri OS, Khan R, Al-Jahwari FK, Trautwein SE (July 2010) “Testing and Finite Element Analysis of Expandable Tubulars for 8½-inch Pass Thru Deep Gas Wells,” for Petroleum Development Oman (PDO)
17. **Qamar SZ**, Pervez T, Akhtar M, Al-Kharusi MSM (July 2010) “Tensile Testing of Elastomers #1343 and #1350,” for Maersk Oil Qatar
18. **Qamar SZ**, Pervez T, Akhtar M, Al-Kharusi MSM (July 2010) “Testing and Characterization of Easywell Water-Swelling and Oil-Swelling Elastomers,” for Maersk Oil Qatar
19. **Qamar SZ**, Pervez T, Al-Kharusi MSM, Akhtar M (June 2010) “Longevity Test Rig for Swellable Elastomers – Design and Fabrication,” for Petroleum Development Oman (PDO)
20. **Qamar SZ**, Pervez T, Al-Kharusi MSM, Akhtar M (June 2010) “Material Characterization of Water-Swelling and Oil-Swelling Elastomers,” for Maersk Oil Qatar
21. Pervez T, **Qamar SZ**, Al-Hiddabi SA, Al-Jahwari FK, Trautwein SE (November 2009) “Low Cost Expandable Solution,” for Petroleum Development Oman (PDO)
20. Pervez T, **Qamar SZ**, Al-Hiddabi SA, Iftikhar M (November 2009) “Research Database for Solid Expandable Tubular,” for Petroleum Development Oman (PDO)
21. Pervez T, **Qamar SZ**, Trautwein SE (June 2009) “Fast-Swell Testing of Elastomers for Shallow Aquifer Applications,” for Petroleum Development Oman (PDO)
22. **Qamar SZ**, Pervez T, Hiddabi SA (February 2009) “Characterization of Swelling Elastomers: Short-Term Test #2,” for Petroleum Development Oman (PDO)
23. **Qamar SZ**, Pervez T, Hiddabi SA (January 2009) “Characterization of Swelling Elastomers: Long-Term Test #2,” for Petroleum Development Oman (PDO)
24. **Qamar SZ**, Pervez T, Hiddabi SA (September 2008) “Characterization of Swelling Elastomers: Long-Term Test #1,” for Petroleum Development Oman (PDO)
25. **Qamar SZ**, Pervez T, Hiddabi SA (August 2008) “Characterization of Swelling Elastomers: Short-Term Test #1,” for Petroleum Development Oman (PDO)
26. **Qamar SZ**, Pervez T, Hiddabi SA (January 2008) “Characterization of a Swelling Elastomer,” for Petroleum Development Oman (PDO)
27. **Qamar SZ**, Sheikh AK, Arif AFM, Pervez T, Siddiqui RA (December 2007) “Modeling and Simulation of Extrusion Pressure and Die Life for Complex Aluminum Profiles,” Internal Research Grant Program, SQU

28. **Qamar SZ**, Pervez T (September 2007) “Short-Term Characterization of a Quick-Swelling Elastomer,” Baker-Hughes and PDO
29. Pervez T, **Qamar SZ**, Hiddabi SA (September 2007) “Mechanics of Solid Tubular Expansion in Irregularly Shaped Boreholes: Ovality Problem,” PDO
30. Al-Hiddabi S, Pervez T, Al-Jahwari, FK, **Qamar SZ** (July 2006) “Analytical Solution for Swelling Elastomer Applications in Cased and Open Holes,” for PDO
31. Pervez T, Al-Hiddabi S, Al-Jahwari FK, **Qamar SZ** (March 2006) “Mechanical Profile Control: Literature Survey,” for PDO
32. Pervez T, Al-Hiddabi S, Al-Jahwari FK, Al-Suqri M, **Qamar SZ** (January 2006) “Design of SET Test Rig,” for PDO
33. Arif AFM, Sheikh AK, **Qamar SZ** (2006) “Die Life Improvement for Hot Extrusion of Aluminum Alloys,” King Abdul Aziz City for Science and Technology (KACST) Research Grants Program, KFUPM
34. Arif AFM, Sheikh AK, **Qamar SZ** (2005) “Strategies to Produce Quality Products in Aluminum Extrusion,” Applied Research Income (ARI) Grants Program, KFUPM
35. Arif AFM, Sheikh AK, **Qamar SZ** (2004) “A Die Life Enhancement Strategy for Hot Extrusion of Aluminum Alloys,” Fast Track Research Grants Program, KFUPM
36. Arif AFM, Sheikh AK, **Qamar SZ** (2003) “Prediction of Force Required in Metal Extrusion of Complex Shapes,” 2004, SABIC/Fast Track Research Grants Program, KFUPM

## **GRANT AND CONTRACT SUPPORT**

PI: Principal Investigator; CPI: Co-Principal Investigator; I: Investigator

### **Research Contracts (Externally Funded Projects)**

No.	Investigators	Funding Agency	Status	Amount (OMR/USD)	Title
1	T Pervez (PI), <b>SZ Qamar</b> (co-PI)	PDO	Completed; 2019-2020	29,100/75,000	Compressive and Collapse Evaluation of Sun-Degraded PVC Pipes along with PVC Material Properties
2	<b>SZ Qamar</b> (PI), T Pervez (co-PI)	PDO	Completed; 2016-2018	40,310/104,000	Tensile-Compressive and Collapse Evaluation of PVC Pipes
3	<b>SZ Qamar</b> (PI), T Pervez (co-PI)	PDO	Started and Completed 2015	7,752/20,000	Investigation of Swelling Elastomers for Yibal Field
4	<b>SZ Qamar</b> (PI), T Pervez (co-PI)	PDO	Started and Completed 2014	25,194/65,000	Evaluation of Water-Swelling and Oil-Swelling Elastomers
5	M Al-Kindi, (PI), <b>SZ Qamar</b> (Co-PI), T Pervez (co-I)	PDO	Completed 2012-2015	50,200/130,500	Probabilistic approach for UWD Budget incorporating Risk Analysis
6	<b>SZ Qamar</b> (PI), Pervez T (Co-PI), Abri OS	Industrial Innovation Center (IIC)	Completed 2012-2014	10,000/26,000	Experimental and Finite Element Analysis of GRE (Composite) Pipes



7	T Pervez (PI), <b>SZ Qamar</b> (Co-PI), SA Al-Hiddabi, OS Al-Abri, R Khan	The Research Council (TRC)	Started 2012-2020	237,150/616,590	Experimental and Numerical Study of Expandable Tubular Materials at Multi Levels of Materials and Mechanics (Multi-Scale Modeling)
8	T Pervez (PI), <b>SZ Qamar</b> (Co-PI)	PDO	Completed 2010-2016	94,616/246,000	Mono-diameter Expandable Solutions: Improving Understanding of Wall Thinning and Length Shortening of Expandable Tubular Under MoD Conditions for Deep Gas Exploration
9	<b>SZ Qamar</b> (PI), T Pervez (Co-PI)	PDO	Completed 2009-2016	88,462/230,000	Characterization and Longevity Testing of Swellable Elastomers
10	T Pervez (PI), <b>SZ Qamar</b> (Co-PI), SA Al-Hiddabi (I)	PDO	Started 2009	84,231/219,000	Low Cost Expandable Research for Well Drilling and Completion
11	T Pervez (PI), <b>SZ Qamar</b> (Co-PI), SA Al-Hiddabi (I)	PDO	Completed 2009	105,769/275,000	Material Characterization of Swelling Elastomer Seals for Zonal Isolation
12	T Pervez (PI), <b>SZ Qamar</b> (Co-PI), SA Al-Hiddabi (I)	PDO	Completed 2008	417,308/1,085,000	Mechanical Profile Control: Performance of Elastomer Seals in Cased and Open Holes
13	T Pervez (PI), <b>SZ Qamar</b> (Co-PI), SA Al-Hiddabi (I)	PDO	Completed 2005	461,539/1,200,000	Wellbore Tubular Expansion
14	AFM Arif (PI), AK Sheikh (Co-PI), <b>SZ Qamar</b> (I)	KACST <sup>□</sup>	Completed 2005	30,000/78,000	Die Life Improvement for Hot Extrusion of Aluminum Alloys
15	AFM Arif (PI), AK Sheikh (Co-PI), <b>SZ Qamar</b> (I)	PDO	Completed 2004	10,000/26,000	Strategies to Produce Quality Products in Aluminum Extrusion
16	AFM Arif (PI), AK Sheikh (Co-PI), <b>SZ Qamar</b> (I)	Fast Track, KFUPM	Completed 2003	7,500/19,500	A Die Life Enhancement Strategy for Hot Extrusion of Aluminum Alloys
17	AFM Arif (PI), AK Sheikh (Co-PI), <b>SZ Qamar</b> (I)	Fast Track, KFUPM	Completed 2002	7,500/19,500	Prediction of Force Required in Metal Extrusion of Complex Shapes

<sup>□</sup> King AbdulAziz City of Science and Technology, Saudi Arabia

### **Consultancies (Externally Funded Projects)**

No.	Investigators	Funding Agency	Status	Amount (OMR/USD)	Topic
1	<b>SZ Qamar</b> (PI), T Pervez (CPI)	Maersk Oil, Qatar	Completed 2010	10,769/28,000	Material Characterization of Easywell Water-Swelling and OilSwelling Elastomers
2	<b>SZ Qamar</b> (PI), T Pervez (CPI)	Maersk Oil, Qatar	Completed 2010	10,577/27,500	Material Characterization of Water-Swelling and Oil-Swelling Elastomers

3	<b>SZ Qamar</b> (PI), T Pervez (CPI)	Baker-Hughes/PDO	Completed 2008	6,539/17,000	Material Characterization of Swelling Elastomer
---	--------------------------------------	------------------	----------------	--------------	---

#### **Grants (Internally Funded Projects)**

No.	Investigators	Funding Agency	Status	Amount (OMR/USD)	Topic
1	M Al-Maharbi (PI), A Ramanathan (Co-PI), SZ Qamar (Co-PI)	SQU	Completed; 2015-2018	4,000/10,320	Solid-state recycling of Magnesium alloys through consolidation of Magnesium chips using Equal Channel Angular Extrusion
2	<b>SZ Qamar</b> (PI), T Pervez	SQU	2011-2013	3,950/10,270	Characterization and Analysis of Elastomer Seals in Petroleum Applications
3	<b>SZ Qamar</b> (PI), T Pervez (CPI), RA Siddiqui (I), Sheikh (I), AF Arif(I)	SQU	2006-2008	10,000/26,000	Modeling and Simulation of Extrusion Pressure and Die Life for Complex Aluminum Profiles

## **TEACHING AND LEARNING**

### **INSTRUCTION AND PROJECT SUPERVISION**

#### **Courses Taught at SQU**

##### **Postgraduate Courses**

Engineering Fracture Mechanics  
Advanced Engineering Math  
Advanced Engineering Materials  
Directed Studies

##### **Undergraduate Courses**

Introduction to Fracture Mechanics (elective)  
Advanced Materials Technology (elective)  
Creative Decisions and Design / Product Design  
Manufacturing Processes  
Solid Mechanics  
Materials Science  
Engineering Drawing and Computer Graphics  
Applied Math for Engineers  
Probability and Statistics for Engineers

#### **Courses Taught at KFUPM and GIKI**

CAD/CAM: Computer-Aided Design and Manufacturing  
Design of Machine Elements  
Solid Mechanics  
Engineering Drawing and Computer Graphics  
Engineering Economy  
Manufacturing Processes I  
Manufacturing Processes II  
Machine Design II

## **Supervision of MSc and PhD Students at SQU**

### **PhD**

- Mobashar Kabir; Co-Supervisor; A New Modelling Approach for Functionally Graded Plates based on RVEs having a Layered Plate Like Structure; Started 2020
- Al Yaqadhan Al Lamki; Co-Supervisor; Improved Tensile Strength and Electrical Conductivity of Aluminum Alloys for Overhead Conductor and Line Distribution; Started 2020
- Omar Al-Abri; Co-Supervisor; Thesis: Experimental Investigation and Constitutive Modeling of Expandable Tubular Material at Multi Levels of Materials and Mechanics; Completed 2016
- Maaz Akhtar; Supervisor; Thesis: Performance Evaluation and Design Improvement of Swelling Elastomer Seals in Petroleum Applications; Completed 2014
- Rashid Khan; Co-Supervisor; Thesis: Microstructure, Transformation Mechanisms and MultiScale Modeling of Expandable Tubular Steel; Completed 2013

### **MSc**

- Aadel Al Niyadi; Supervisor; Thesis: Analysis of Clad Failure in Aluminum Smelter; completed Fall 2022
- Waleed Al Qasmi; Supervisor; Thesis: Assessment of Burst and Collapse Strength of Pipelines; completed Spring 2022
- Ahmed Medhat; Co-Supervisor; Thesis: Finite Element Analysis of Composite Plates; completed Fall 2021
- Almandhar Al Naamani; Co-Supervisor; Thesis: Solid-State Recycling of Magnesium Alloys using Equal Channel Angular Pressing; completed 2021
- Jaber Al Maawali; Co-Supervisor; Thesis: Development of a Sustainable Novel Aluminum Alloy from Scrap Car Wheels through Stir-Squeeze Casting Process; Completed 2020
- Josiah Cherian Chekotu; Supervisor; Thesis: Analysis of Product and Tooling Defects in Extrusion; Completed 2018
- Mohammed SS Al-Ghafri; Co-Supervisor; Thesis: Assessment of Pipelines with Single and Multiple Corrosion Defects; Completed 2017
- Moosa Al-Kharusi; Supervisor; Thesis: Modeling, Simulation, and Testing of Water-Swelling and OilSwelling Elastomers; Completed 2012
- Omar Al-Abri; Co-Supervisor; Thesis: Dynamic Effects in Expansion of Solid Expandable Tubulars in Oilfields; Completed 2011
- Idrees Al-Siyabi; Co-Supervisor; Thesis: Parametric Investigation of Pop-Out Phenomenon in Solid Expandable Tubulars; Completed 2011
- Muhammad Al-Suqri; Co-Supervisor; Thesis: Design of Solid Expandable Tubular Test Rig; Completed 2007

## **Thesis Exams of MSc/PhD Students at SQU**

- Served as Chairman exam committee, External examiner, or Examiner for around 20 MSc/PhD thesis exams conducted during 2007-2021

## **Supervision/Co-Supervision of Final-Year Student Projects at SQU (Involved in Research Projects)**

- Tensile Performance Evaluation of PVC Pipes for steam Injection Wells - 2; started Spring-2023
- Tensile Performance Evaluation of PVC Pipes for steam Injection Wells; started Fall-2022
- Enhancement of Surface Characteristics of Extrusion Die Steel; started Fall-2021
- Design, Fabrication, and Testing of Fusion Joints for High-Strength Plastic Pipes; Completed Spring-2021
- Design, Fabrication, and Testing of Fusion Joints for High-Strength Plastic Pipes; Completed Spring-2020
- Assessment of PVC/GRE Pipes under Tensile-Compressive Loading: Design/Fabrication of Test Setup, Testing, and Analysis; Completed Spring-2019

- Tensile-Compressive Evaluation of PVC Pipes: Design, Fabrication, Testing and Analysis; Completed Spring-2018
- Reduction of Streaking and Die Line Defects in Extrusion of Hollow Profiles; Completed Spring-2017
- Design Improvement of Extrusion Tooling and Process to Eliminate Blisters and Blow Holes; Completed Spring-2016
- Design of Solid-State Recycling Process for Magnesium Alloys using Equal Channel Angular Extrusion; Completed Fall-2015
- Design and Construction of Fatigue Test Facility for Petroleum Casings and Connections; Funded by TRC FURAP program; Completed Spring-2015
- Design of Thermal Fatigue Test Facility for Petroleum Casing Connections – Phase II; Completed Spring-2014
- Modeling and Simulation of Elastomer Seal Design in Drilling Operations – Phase II; Completed Spring-2012
- Design and Fabrication of Test Facility for Determination of Bulk Properties of Elastomers; Completed Spring-2012
- Investigation of Mechanical Properties of Solid Expandable Tubulars; Completed Spring-2012
- Effect of Shape Complexity on Design Parameters of Extrusion Dies; Completed Spring-2012
- Modeling and Simulation of Elastomer Seal Design in Drilling Operations; Completed Spring 2011
- Design and Fabrication of Test Facility for Longevity Testing of Elastomer Seals; Completed Spring 2010
- Heat Treatment and Mechanical Testing of AISI D6 Cold Work Tool Steel; Completed Spring 2010
- Material Testing and Characterization of SETs; Completed Spring 2010
- Design of SET Cone and Launcher Assembly – Phase II: Mechanisms and Controls; Completed Spring 2010
- Extrusion Die Design using Fracture Mechanics; Completed Spring 2009
- Testing of Solid Expandable Tubulars (SET) and Elastomers; Completed Spring 2009
- Design of Cone and Launcher System for SET in Well Drilling; Completed Spring 2009
- Designing an Effective Elastomer Seal for Solid Expandable Tubular (SET) using FEM – Phase II; Completed Spring 2009
- Microstructure of H11 Steel after Heat Treatment and Mechanical Testing; Completed Spring 2009
- Material Characterization of Fast-Swelling Elastomers II; Completed Fall 2008
- Material Characterization of Fast-Swelling Elastomers; Completed Spring 2008
- Heat Treatment and Mechanical Testing of H11 Steel; Completed Spring 2008
- Designing an Effective Elastomer Seal for SET using FEM – Phase I; Completed Spring 2008
- Extrusion Die Design Improvement and Die Life Prediction; Completed Spring 2007
- Designing and Conducting Experiments for Material Characterization of Swelling Elastomers; Completed Fall 2006
- Design and Fabrication of Extrusion Test Rig; Completed Spring 2006
- Material Characterization of Swelling and Inert Elastomers; Completed Fall 2005

#### **Supervision/Co-Supervision of Final-Year Student Projects at SQU (Not Research Based)**

- Design of an Advanced Material System (Nanocomposite / Foam) and its Die for Automotive Applications; co-supervisor; completed Fall-2018
- Design and Fabrication of Human-Powered Submarine – Phase II: Structure; Completed Spring 2010
- Design and Fabrication of Human-Powered Submarine – Phase II: Components; Completed Spring 2010
- Hydrogen Embrittlement of Steel; Completed Spring 2010

- Design and Fabrication of Human-Powered Submarine; Completed Fall 2010
- Hydrogen Embrittlement in Quenched Low Carbon Steel; Completed Spring 2009
- Effect of Heat Treatment and Specimen Thickness on Fatigue Fracture Properties of Aluminum Alloy 6063; Completed Spring 2008
- 3<sup>rd</sup> Generation Solar Car; Completed Spring 2006
- 2<sup>nd</sup> Generation Solar Car; Completed Spring 2005

### **Supervision of Student Seminars and Reports at SQU**

1. “Corrosion in Oil & Gas Industries,” MIE Dept, SQU, Spring-2020
2. “Non-Traditional Manufacturing Techniques,” MIE Dept, SQU, Fall-2017
3. “Modern Manufacturing Techniques,” MIE Dept, SQU, Fall-2016
4. “Shape Complexity in Metal Extrusion,” MIE Dept, SQU, Spring-2016

### **Supervision of Final-Year Student Projects at other Universities**

- Reverse Engineering of Diesel Fuel Injector; 2 students
- Design of Plastic Injection Molded Parts using ProEngineer; 2 students
- Design Representation of Automotive Differential/Gear Box using Features and Mating Conditions; 2 students
- Development of Optimization Software for Mechanical Engineering Design; 2 students

### **CURRICULUM DEVELOPMENT AND TEACHING MANAGEMENT AT SQU**

1. Modernization of Mechanical Engineering curriculum, as Chair of Materials and Manufacturing focus group, and member of Applied Mechanics and Design focus group
  - a. MEIE3161 (Materials Science) changed to MEIE3162 (Materials Science and Engineering); new course data sheet
  - b. MEIE4262 (Manufacturing Processes) changed to MEIE4162; new course data sheet
  - c. MEIE4163 (Modern Materials and Manufacturing); new course; new course data sheet
  - d. MEIE4263 Materials and Manufacturing Technology; new course data sheet
  - e. MEIE5168 Introduction to Polymers; new course; new course data sheet
2. Developed course material and description for new courses
  - a. MEIE-5161: Advanced Materials Technology
  - b. MEIE-6116: Engineering Fracture Mechanics
  - c. MEIE-5165: Introduction to Fracture Mechanics
3. Edited/updated course material and description for
  - a. MEIE-6003/ENGR-6913: Advanced Math for Engineers
  - b. MEIE-3108: Product / Creative Design
  - c. MEIE-3104: Engineering Drawing and Computer Graphics
  - d. MEIE-4182: Applied Mathematics for Engineers
  - e. MEIE-4281: Probability and Statistics for Engineers
  - f. MEIE-3161: Materials Science
  - g. MEIE-3102: Solid Mechanics
  - h. MEIE-4262: Manufacturing Processes
4. Development and delivery of various courses for remote/online teaching, including video lectures and online quizzes and exams
5. Development and delivery of various courses for remote/online teaching, including video lectures and online quizzes and exams

6. Extensive participation in curriculum development of the Mechanical Engineering program (as part of ABET accreditation process)
7. Extensive participation in writing and editing of Self Study Report (SSR) of the Mechanical Engineering program (as part of ABET accreditation process)
8. Active participation in annual review of all courses in two focus groups: Applied Mechanics and Design, and Materials & Manufacturing through Course Assessment and Improvement Report (CAIR)
9. Active participation in curriculum development, course equivalencies, etc for the Agricultural Engineering program
10. Extensive use of e-mail for curriculum management in all courses taught
11. Use of WebCT (moodle) for curriculum management in various courses

### **Laboratory Development at SQU**

1. Participated in designing experiments and preparing/updating laboratory manuals for
  - a. Computer Integrated Manufacturing (CIM) Lab
  - b. Solid Mechanics Lab
  - c. Metrology Lab
  - d. Properties of Materials Lab
2. Developed new experiments and procured/commissioned new machines / equipment and software for
  - a. Computer Integrated Manufacturing (CIM) Lab
  - b. Properties of Materials Lab
  - c. Solid Mechanics Lab

### **STUDENT ADVISING AT SQU**

1. Student advisor for different cohorts, MIE Dept (40-45 students in each batch); 2005 to date
2. Active interaction with all final-year ME students as Coordinator of Final Year Projects
3. Advising of students for Mechanical Engineering Society and SQU Engineering Society about projects, lectures, events, etc

### **TEACHING ACTIVITIES OUTSIDE THE CLASSROOM**

1. Supervision of student seminars and reports, MIE Dept, SQU: Spring-2021; Spring-2020, Fall-2017, Fall-2016, Spring-2016
2. Active coordination with IIC, PDO, Shell, NAPCO, and CPI for facilitation of ME Final Year projects; SQU
3. Coordinating and conducting student visits to local industries (such as United Eng Services, Ray Precision Eng, National Aluminum Products Co, Muscat Steel, etc) for courses and projects; SQU
4. Involving students as Research Assistants in funded research projects; SQU
5. Delivering (and helping in the organization) of seminars for students; SQU
6. Coordinating and conducting student visits to local industries; KFUPM

## **UNIVERSITY AND COMMUNITY SERVICE**

### **UNIVERSITY ADMINISTRATION AND COMMITTEES; SQU**

#### **University**

1. SQU Covid Committee; 2022 to date

2. CoEng representative, Academic Quality Assurance Committee, 2012 - 2018
3. CoEng representative, Agriculture Engineering Program Steering Committee; 2007 to date

### **College of Engineering**

3. Chair, College Risk Management (HSE) Committee, 2018 to date
4. Member and Rapporteur, College Academic Promotions Committee; 2021 to date
5. Member, College Risk Management (HSE) Committee, 2017-2018
6. Member, College Board (MIE representative); 2016-2017
7. Coordinator, College Accreditation Committee (ABET), 2012-2015
8. Member, College Strategic Planning Committee; MIE representative; 2009-2011
9. Member, College Computer Committee; MIE representative; 2005-2008

### **MIE Dept**

1. Chair, Dept Accreditation Committee (DAC) for both ME and IE programs, 2017 to date
2. Chair, Dept ABET Committee (ME Program), 2021
3. Chair, Materials and Manufacturing Focus Group; 2020 to date
4. Chair, Dept Health, Safety, and Environment (HSE) Committee, 2017 to date
5. Chair, ABET SSR Committee, ME Program; 2010-2013
6. Coordinator, External Liaison Committee, 2011 to date
7. Coordinator, Department Strategic Planning Committee; 2009 to 2019
8. Coordinator, ME FYP-I (Final Year Project I); 2006-2009
9. Coordinator, ME FYP-II (Final Year Project II); 2006-2009
10. Chair, Dept Computer Committee; 2005-2008
11. Chair, Materials and Manufacturing Focus Group; 2007-2010
12. Member, Industrial Advisory Board; 2006 to date
13. Member, Department Curriculum and Accreditation Committee (DCAC); ABET; 2009 to date
14. Member, Department Conference Committee; 2009 to date
15. Member, Dept Academic Promotions Committee; 2014 to 2021
16. Member, Department Recruitment Committee; 2011 to date
17. Member, Continuous Assessment and Evaluation Committee – ME Program (CAECME), 2014 to date
18. Member, Materials and Manufacturing Focus Group; 2005 to date
19. Member, Design and Applied Mechanics Focus Group; 2005 to date
20. Member, Dept Board; 2005 to date
21. Secretary, Department Curriculum and Accreditation (DCAC) program; ABET; 2005-2006
22. Secretary, Dept Board; 2005-2006
23. Member, SSR Committee, MIE ABET program; 2005-2007
24. Member, ME Program Assessment and Evaluation Committee; 2005-2007
25. Advisor 2, Society of Mechanical Engineers; 2008 to date

### **PROFESSIONAL SERVICE**

1. Editorial Experience
  - a. Member, Editorial Board, Encyclopedia of Renewable and Sustainable Materials, Elsevier
  - b. Associate Editor, *The Journal of Engineering Research*, SQU, 2012-to date

- c. Member, Editorial Board, *Journal of Materials and Manufacturing Processes*, Jan-2016 to 2020
  - d. Member, Editorial Board, *Journal of Elastomers and Plastics*, 2015-to date
  - e. Member, Editorial Board, *American Journal of Mechanical and Industrial Engineering*, Jan-2016 to date
2. Guest Editor, journal special issues
- a. “Applied Mechanics and Industrial Systems,” special issue of *Materials and Manufacturing Processes*, 2016-17
  - a. “Applied Mechanics, Materials, and Manufacturing,” special issue of *Materials and Manufacturing Processes*, **27** (7), 2012
  - b. “Expandable Tubulars, Elastomers and Associated Technologies,” special issue of *The Journal of Engineering Research*, SQU, 2012
  - c. ICAMMM-2012, special issue of *The Journal of Engineering Research*, SQU, **8** (2), June 2011
3. Review of manuscripts for international refereed journals Add journals
- i ASME Journal of Pressure Vessel Technology
  - ii Materials and Design
  - iii Materials Science and Engineering – A
  - iv Journal of Materials Processing Technology
  - v Materials and Manufacturing Processes
  - vi Fatigue and Fracture of Engineering Materials and Structures
  - vii Journal of Elastomers and Plastics
  - viii Arabian Journal for Science and Engineering
  - ix The Journal of Engineering Research
  - x Transactions of the Canadian Society for Mechanical Engineering
  - xi Frontiers in Built Environment
  - xii Heliyon
  - xiii International Journal of Advanced Manufacturing Technology
  - xiv Materials; MDPI
4. Review of manuscripts for international refereed conferences
- a. 28<sup>th</sup> Arab Engineering Education Conference, 11-13 December 2018, Muscat
  - b. IMECE-2016, ASME International Mechanical Engineering Congress, November 2016, Arizona, USA
  - c. ICAMIS-Oman-2016, International Conference on Applied Mechanics and Industrial Systems, December 2016, Muscat, Oman
  - d. IMECE-2012, ASME International Mechanical Engineering Congress, November 2012, Houston, Texas, USA
  - e. ICAMMM-2012, International Conference on Applied Mechanics, Materials and Manufacturing, December 2010, Muscat, Oman
5. Review of research proposals for
- a. Office of the Asst Dean for Postgraduate Studies and Research, College of Eng, SQU
  - b. Mechanical Eng Dept, KFUPM, Dhahran, Saudi Arabia
  - c. The Research Council of Oman (TRC)
  - d. Deanship of Postgraduate Studies & Research, SQU



6. Member of Organizing Committee, Technical/Scientific Committee, Session Organizer, Session Chair, etc for international conferences
  - a. Session chair, Global Engineering Education VII, *16<sup>th</sup> IEOM Global Engineering Education: First GCC International Conference on Industrial Engineering and Operations Management* (IEOM-2019), 26-28 Nov 2019, Riyadh, Saudi Arabia
  - b. Session chair, Oil and Gas Production Operations, *2<sup>nd</sup> International Oil and Gas Conference*, 3-5 Dec 2018, Dubai, UAE
  - c. Member, Organizing Committee; International Conference on Applied Mechanics and Industrial Systems (ICAMIS-Oman-2016), December 2016, Muscat, Oman
  - d. Member, Technical Advisory Committee, 6th International Mechanical Engineering Congress (IMEC-2016), 15-16 July 2016, Karachi, Pakistan
  - e. Member, Technical Program Committee, 2016 Spring International Conference on Material Sciences and Technology (MST-S), 17-19 April, 2016, Suzhou, China
  - f. Session/Topic Co-Organizer, Mechanics of Soft Materials, IMECE-2015, ASME International Mechanical Engineering Congress, November 2015, Houston, Texas, USA
  - g. Member, Technical Program Committee, International Conference on Polymer Physics and Chemistry (ICPPC 2015), 18-20 December, 2015, Guilin, China
  - h. Member, Technical Committee, 4th International Conference on Key Engineering Materials (ICKEM 2014), 22-23 March, 2014, Bali, Indonesia
  - i. Member, Technical Committee, 5th International Conference on Key Engineering Materials (ICKEM 2014), 21-23 March, 2015, Singapore
  - j. Session Co-Organizer, Session 3-19-1: Sustainable Manufacturing Engineering Design-Structure Analysis and Practices, IMECE-2012, ASME International Mechanical Engineering Congress, November 2012, Houston, Texas, USA
  - k. Topic Co-Organizer, Topic 3-3: Design Innovations Methodologies and Practices, IMECE-2012, ASME International Mechanical Engineering Congress, November 2012, Houston, Texas, USA
  - l. Member, Organizing Committee; International Conference on Applied Mechanics, Materials and Manufacturing (ICAMM), December 2010, Muscat, Oman
  - m. Chair, Scientific Committee, Materials and Manufacturing Sessions; International Conference on Applied Mechanics, Materials and Manufacturing (ICAMM), SQU, December 2010
7. Coordination of professional/management workshops
  - a. Two-week training workshop on “Procurement of Goods, Works, and Consultants’ Services under World Bank Financed Projects,” sponsored by World Bank and GIK Institute, 1995
  - b. Two-week training workshop on “Procurement of Works and Consultants’ Services under World Bank Financed Projects,” sponsored by World Bank and GIK Institute, 1994
8. Member, Design Jury, Annual design competition for final-year projects sponsored by Industrial Advisory Board, MIE Dept, SQU, 2010 to date

## **SERVICE TO THE PUBLIC**

### **Seminar/Workshop Presentations**

1. “Overview of Engineering Accreditation Process — Excerpts from Personal Experience, especially for Materials and Manufacturing Courses,” workshop/seminar (online) for India-UK SPARC Webinar on Metal Additive Manufacturing and Friction Stir Processing: Present and Future, organized jointly by Department of Mechanical Engineering, Indian Institute of Technology Patna, Patna (India), Department of Mechanical and Aerospace Engineering, IIT Hyderabad (India), and School of Materials, University of Manchester, United Kingdom; 6-7 Sept 2022
2. “Designing Course Outcomes Using Bloom's Taxonomy,” workshop conducted for faculty and staff, Pakistan School Seeb, Aug-2019
3. “Performance Analysis of Swelling Elastomers in Petroleum Applications,” workshop/seminar (online) for International Faculty Development Program, Chandigarh University, India, 08 July 2022
4. “Modeling and Analysis of Extrusion Process, Product and Tooling: Estimation and Prediction of Die Life,” workshop/seminar (online) for International Faculty Development Program, Chandigarh University, India, 06 July 2022
5. “Elastomer Research at MIE Dept: Development of Experimental Facilities,” student seminar organized by the Mechanical Engineering Society, SQU, Oct 2021
6. “Steam Injection Wells: Performance Assessment of PVC Pipes under Tensile Loading,” seminar (online) for Advanced Metallic Systems Centre for Doctoral Training, Dublin City University, Dublin, Ireland, May 2021
7. “Modern Engineering Materials,” seminar for faculty and final-year students of Middle East College (online), Muscat, Nov-2020
8. “Tensile Performance Evaluation of PVC Pipes for Steam Injection Wells, seminar (online) organized by the Engineering Society, SQU, Oct-2020
9. “Some Latest Developments in Materials Science and Engineering: Swelling Elastomers and Expandable Steels,” student seminar organized by the Mechanical Engineering Society, SQU, Feb 2020
10. “Outcome Based Education Using Bloom's Taxonomy,” workshop conducted for faculty and staff, Pakistan School Muscat, Nov-2019
11. “Qualities of a Good Teacher,” seminar for faculty and staff, Pakistan School Musanah/Muladdah, Nov-2019
12. “Risk Management Committee at SQU College of Engineering,” seminar for team from Military Technical College Muscat, MIED, SQU, Sep-2019
13. “Experimental, Numerical, and Analytical Investigation of Swell Packers: Elastomer Research at Sultan Qaboos University,” College of Petroleum and Geosciences, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia, Aug 2019
14. “Best Practices in Higher Education — An Engineer’s Perspective,” Mechanical Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia, Aug 2019
15. “Hybrid Machining: Optimum Combination of Advanced Machining Processes,” seminar organized by the Independent Learning Center, SQU, Sept 2018
16. “How to be a Good Teacher?” seminar for faculty and staff, Pakistan School Muscat, Darsait, Sep-2018
17. “ABET Accreditation: Why, What, How,” Student seminar, MIE Dept, SQU, Sept 2016

18. "University Teaching and Learning: Personal Experience and Perspective," Faculty seminar, MIE Dept, SQU, Mar-2016
19. "Metalforming of Aluminum Products: Overview, Industrial Projects, Student Projects," Student seminar, MIE Dept, SQU, Feb 2016
20. "ABET Self Study Report," presentation regarding ABET accreditation for College of Agricultural and Marine Science (CAMS), April 2014, SQU
21. "Program Accreditation and ABET; An Introduction for Students and New Faculty Members," College of Eng, October 2013, SQU
22. "ABET Self Study Report (SSR); Introduction and Current Status," December 2011, Mech Eng Dept, SQU
23. "Creative Design for Engineers and Non-Engineers," presentation for Society of Mechanical Engineers (SME), June 2009, SQU
24. "SET Test Rig and Elastomer Research at SQU," December 2008, NED University, Karachi
25. "Testing and Characterization of Swelling and Inert Elastomers," presentation for Ministry of Oil and Gas, June 2008, PDO
26. "Material Characterization of Swelling Elastomers," May 2008, PDO
27. "Current Status of Elastomer Testing at SQU," April 2007, PDO
28. "Elastomer Research at SQU," presentation for Shell visitors, January 2007, SQU
29. "Extrusion of Complex Aluminum Profiles — An Overview," Student seminar series, May 2006, SQU
30. "Morphology, Analysis and Prediction of Tooling Failures in Extrusion of Complex Aluminum Profiles," October 2004, College of Engineering, SQU
31. "Modeling and Analysis of Extrusion Pressure and Die Life for Complex Aluminum Profiles," March 2004, Mechanical Engineering Department, KFUPM
32. "Process Parameters, Dies and Tooling, and Product Defects in Extrusion of Complex Aluminum Profiles," December 2003, Mechanical Engineering Department, KFUPM
33. "Product Representation for Intelligent CAD/CAM," March 2000, Mechanical Engineering Department, KFUPM
34. "Looking at the Softer Side of Science," (in Urdu) January 1999, GIK Institute
35. "Mechanical Design with Features and Mating Conditions," February 1997, GIK Institute
36. "Automated Drawing Management System," March 1996, General Engineering Division, Karachi Shipyard and Engineering Works Ltd.
37. "Karachi Shipyard and Engineering Works Ltd: Past, Present and Future," December 1995, *Annual Board Meeting*, Karachi Shipyard and Engineering Works Ltd.
38. "Mathematics for CAD/CAM," May 1995, Mathematics Department, University of Karachi, Karachi
39. "A Literary Excursion into Science," (in Urdu) March 1994, Literary Science Society, Pakistan Association of Scientists and Scientific Professions, Karachi
40. "Representing Mechanical Assemblies with Features and Mating Conditions," March 1993, Institute for Design and Innovation in Engineering, Texas A&M University
41. "An Introduction to the Feature-Based Design Approach," September 1991, Institute for Innovation and Design in Engineering, Texas A&M University

42. “A General Purpose Design Optimization Computer Program,” January 1985, NED Engineering University
43. “An Introduction to Design Optimization Techniques in Mechanical Engineering,” March 1984, NED Engineering University

### **Other Activities**

1. Chair, Academic Committee, Pakistan Schools System, Oman; Aug-2022 to date
2. Conducted/presented sessions in workshops and short courses
  - a. “3D Modeling and Analysis using ANSYS,” during 5-day Short Course on *Applications of Finite Element Analysis in Mechanical Engineering*, April 2003, KFUPM
  - b. “2D Modeling and Analysis using ANSYS,” during 5-day Short Course on *Mechanical Design and Stress Analysis*, April 2002, KFUPM
  - c. “Solid Modeling and CAD-Based Design Representation,” during 5-day Interactive Workshop on *Product Development Solutions for Designing through Manufacturing*, December 2000, GIK Institute
3. Advisor, Literary Forum, GIK Institute, 1998-99
4. President, Pakistan Club, Texas A&M University, 1991-93
5. President, Debating Society, PECHS Education Foundation Science College, Karachi, 1976-78
6. President, Literary Forum, Little Folks’ School, Karachi, 1974-76

## **OTHER INFORMATION**

### **Membership of Professional Societies**

1. American Society of Mechanical Engineers (ASME)
2. Canadian Society of Mechanical Engineers (CSME)
3. The Materials Society (TMS)
4. American Society of Metals (ASM)
5. Society of Petroleum Engineers (SPE)
6. American Society of Engineering Education (ASEE)
7. IEEE Education Society
8. World Academy of Materials and Manufacturing Engineering (AMME)
9. Oman Accreditation Council
10. Oman Society of Engineers
11. Pakistan Engineering Council (PEC)
12. Pakistan Association of Scientists and Scientific Professions (PASSP)

### **Popular Science Publications**

1. “Testing and Applications of Swelling Elastomers,” *Horizon*, SQU, 2009
2. “Solid Expandable Tubular (SET) Technology and Test Rig,” *Horizon*, SQU, 2009
3. “Unification of Forces in Physics,” (in Urdu) *The Young Engineer*, December 1983, NED University of Engineering and Technology, Karachi
4. “From Aristotle to Einstein: A Critical Look at the Evolution of Mathematical Sciences,” (in Urdu) *Science for the Young*, August 1979, Scientific Society Pakistan
5. “Landmark Muslim Contributions in Mathematics and Science,” (in Urdu) *Science for the Young*, December 1978, Scientific Society Pakistan

6. "Hope for the Future: Treasures under the Seas," (in Urdu) *Science for the Young*, June 1977, Scientific Society Pakistan
7. "From Interstellar Clouds to Black Holes: Birth and Death of a Star," (in Urdu) *Science for the Young*, January 1976, Scientific Society Pakistan

### **Professional/Educational/Management Workshops Attended**

1. Three-month online course on "Teaching Critical Thinking," Oct-Dec 2019; organized by Center of Excellence in Teaching and Learning (CETL), SQU; conducted by Mr David Paquin
2. One-day workshop on "Developing Your Teaching Philosophy Statement," 03 Nov 2019; organized by Center of Excellence in Teaching and Learning (CETL), SQU; conducted by Dr Frances Kalu, Teaching and Learning Specialist, Center for Teaching and Learning, University of Calgary, Qatar
3. One-day workshop on "Teaching Critical Thinking," 24 Oct 2019; organized by Center of Excellence in Teaching and Learning (CETL), SQU; conducted by Mr David Paquin
4. Two-day workshop on "Project Risk Management Masterclass," 19-20 Dec 2018, organized by Center for Staff Development and Risk Management Office, SQU; conducted by Dr David Hillson, the Risk Doctor Partnership
5. One-day workshop on "Engaging Students in Active Significant Learning Experiences," 10 Sep 2018; organized by Center of Excellence in Teaching and Learning (CETL), SQU; conducted by Dr Stewart Ross, Dee Fink & Associates
6. One-day workshop on "Creating Significant Learning through Integrated Course Design," 9 Sep 2018; organized by Center of Excellence in Teaching and Learning (CETL), SQU; conducted by Dr Stewart Ross, Dee Fink & Associates
7. Three-day workshop on "Introduction to CDIO Initiative," 17-19 May 2016, SQU; conducted by Dr Juha Kontio, Turku University of Applied Sciences, Finland
8. Three-day workshop on "Innovation and Entrepreneurship," 14-16 December 2015, SQU; conducted by Dr Emad Summad, Innovation and Entrepreneurship Consultant, Quartet Solutions LLC
9. Springer Author Workshop, 29-October 2015, SQU; conducted by Dr Nabil Khélifi, Publishing Editor, Springer Middle East & North Africa, and Dr Jeffrey Robens, Editorial Development Manager
10. Workshop on "Developing Assessment Tools and Rubrics," 12 Nov 2015; organized by Center of Excellence in Teaching and Learning, SQU
11. Three-day workshop "Preparing Engineers for a Globalized Economy: How to Teach Engineering Students Process Skills," 26-28 May 2015, SQU; conducted by Dr Nikos J Mourtous, Professor and Director of Aerospace Engineering, San José State University
12. Three-day ABET Annual Symposium and Program Assessment Workshops, 11-13 April 2013, Portland, Oregon, USA
13. One-day ABET Workshop "Creating a Culture of Assessment: Facilitating Change at Your Institution," 11 April 2013, Portland, Oregon, USA; conducted by Dr James Warnock, Adjunct Director, Educational Research and Assessment, ABET and Assoc Prof, Dept of Agricultural and Biological Engineering, Mississippi State University; Dr Janice Bordeaux, Program Assessment Workshop Facilitator, ABET, and Assoc Dean, George R. Brown School of Engineering, Rice University, USA
14. One-day ABET Workshop "Using Project Management to Create Your Self-Study and Prepare for the Visit," 11 April 2013, Portland, Oregon, USA; conducted by Dr James

Conrad, Assoc Prof, Electrical and Computer Engineering, University of North Carolina at Charlotte, USA

15. Two-day ABET (Accreditation Board for Engineering and Technology) Workshop on “Program Assessment,” SQU, 14-15 February 2012; conducted by Dr Ashley Kranov, ABET's Managing Director of Professional Services
16. Three-day Training on “Residual Stress Measurement and Analysis,” SINT Technology, Florence, Italy, May 2011
17. Four-week training workshop on “Equipment Procurement Management,” International Training Center of the ILO, Turin, Italy; funded by the World Bank, 1996
18. Two-week training workshop on “Procurement of Goods, Works, and Consultants’ Services under World Bank Financed Projects,” GIK Institute; funded by the World Bank, 1995
19. Five-day workshop funded by the World Bank on “Procurement of Goods and Works under World Bank Financing Conditions,” World Bank Head Office, Islamabad, Pakistan; funded by the World Bank, 1994
20. Three-day training workshop on “Physical Quantification of Environmental Impacts,” GIK Institute; funded by the Asian Development Bank, 1995
21. One-day training workshop on “Economic Evaluation of Environmental Impacts,” GIK Institute; funded by the Asian Development Bank, 1994