



Dr. Abdulaziz R Alharbi  
Saudi Arabia  
P.O. Box: 4394  
Tabuk, 71491  
Email: [dr.aralharbi@gmail.com](mailto:dr.aralharbi@gmail.com)  
Cell phone: +966562661888

Date of Birth: 4, August 1979  
Marital Status: Married

## OBJECTIVE

My objective is to integrate with the academic work in Saudi Arabia and develop that using the most advanced techniques which will create a wonderful atmosphere for students. Also, to continue the scientific research that I already started four years ago, especially in the field of nanotechnology and renewable energy.

## EDUCATION

**Doctor of Philosophy in Mechanical Engineering** May, 2016  
*Wichita State University, Wichita, KS, USA*

**Awards & Honors:** Outstanding Graduate Student, 2015/2016

**Dissertation:** “Advancements in Electrospun Nanofibers for Water Splitting and Water Treatment”

**Master of Engineering in Engineering Management** August, 2011  
*Mutah University, Alkerak, Jordan*

**Awards & Honors:** 1<sup>st</sup> on EM Master Program, 2011

**Thesis:** “Enhancement of Operation & Maintenance Works Using key Performance Indicators (KPI’S)”

**Bachelor of Science in Mechanical Engineering** June, 2003  
*King Saud University, Riyadh, Saudi Arabia*

Project: “Wind Turbine Theory and Design”

## PUBLICATIONS

1. **Alharbi, A.**, Alarifi, I., Khan, W., and Asmatulu, R. “Semiconductor Nanomaterials for Water Splitting”, *Advances in Materials Science Research*, Nova Science Publishers, Inc., 2015.
2. **Alharbi, A.R.**, Alarifi, I.M., Khan, W.S. and Asmatulu, R., “Highly Hydrophilic Electrospun Polyacrylonitrile/Polyvinylpyrrolidone Nanofibers Incorporated with Gentamicin as Filter Medium for Dam Water and Wastewater Treatment”, *Journal of Membrane and Separation Technology*, 2016, 5(2), pp.38-56.

3. **Alharbi A**, Alarifi IM, Khan WS, Asmatulu R. “Synthesis and Analysis of Electrospun SrTiO<sub>3</sub> Nanofibers with NiO Nanoparticles Shells as Photocatalysts for Water Splitting” *Macromolecular Symposia, Wiley*, 2016 Jul 1 (Vol. 365, No. 1, pp. 246-257).
4. **Alharbi, A.**, Alarifi, I.M., Khan, W.S., & Asmatulu, R. “Synthesis and Characterization of Electrospun Polyacrylonitrile/Graphene Nanofibers Embedded with SrTiO<sub>3</sub> /NiO Nanoparticles for Water Splitting.” *Journal of Nanoscience and Nanotechnology*, August, 2016.
5. **Alharbi, A.**, Alarifi, I. M., Khan, W. S., and Asmatulu, R. “Electrospun Strontium Titanate Nanofibers Incorporated with Nickel Oxide Nanoparticles for Improved Photocatalytic Activities,” *SPIE Smart Structures and Materials*, 2015, Vol. 9439, pp. 94390F-94390F.
6. **Alharbi, A.**, Alarifi, I.M., Khan, W.S., & Asmatulu, R. “Co-axial Electrospinning of Strontium Titanate Nanofibers Associated with Nickel Oxide Nanoparticles for Water Splitting,” CAMX/SAMPE Conference, Dallas, TX. October 27-29, 2015, 13 pages.
7. **Alharbi, A.**, Alarifi, I.M., & Asmatulu, R. “Comparative Studies between Different Nanofiber Photocatalysts for Water Splitting,” *SPIE Smart Structures/Non-destructive Evaluation Conference*, Las Vegas, NV, March 21-24, 2016, 10 pages.
8. **Alharbi, A.**, Alarifi, I.M., & Asmatulu, R., “Highly Hydrophilic Electrospun Polyacrylonitrile / Polyvinylpyrrolidone Nanofibers Incorporated with Gentamicin as Filter Mediums for Drinking and Wastewater Treatments,” 12<sup>th</sup> Graduate Research and Scholarly Projects (GRASP) Symposium, Wichita State University, Wichita, KS, April, 2016 (extended abstract published).
9. Asmatulu, R, **Alharbi, A.**, Alarifi, I.M., & Shinde, M. A. “Electrospun Nanofibers Incorporated with C<sub>60</sub> Nanoparticles for Solar Energy Conversions,” *Macromolecular Symposia, Wiley*, 2015. (Accepted)
10. Alarifi, I. M., **Alharbi, A.**, Khan, W. S., Swindle, A., & Asmatulu, R., “Thermal, Electrical and Surface Hydrophobic Properties of Electrospun Polyacrylonitrile Nanofibers for Structural Health Monitoring. *Materials*, 2015, 8(10), 7017-7031.
11. Shinde, M. A., Alarifi, I., **Alharbi, A.**, & Asmatulu, R. “Electrospun TiO<sub>2</sub> nanofibers incorporated with graphene nanoflakes for energy conversion,” *In SPIE Smart Structures and Materials. International Society for Optics and Photonics*, 2015, pp. 94390Z-94390Z.
12. Alarifi, I.M., **Alharbi, A.**, Khan, W., and Asmatulu, R., “Carbonized Electrospun Polyacrylonitrile Nanofibers as Highly Sensitive Sensors in Structural Health Monitoring of Composite Structures,” *Journal of Applied Polymer Science*, 2016, Vol. 133.13.
13. Asmatulu, R, Yeoh. J., Alarifi, I.M., & **Alharbi, A.**, “Effects of Edge Grinding and Sealing on Mechanical Properties of Machine Damaged Laminate Composites,” *SPIE Smart Structures/Non-destructive Evaluation Conference*, Las Vegas, NV, March 21-24, 2016, 10 pages.
14. Alarifi, I., **Alharbi, A.**, Khan, W., and Asmatulu, R. “Structural Health Monitoring of Composite Aircraft”, *Advances in Materials Science Research, Nova Science Publishers, Inc.*, 2015.
15. Alarifi, I. M., **Alharbi, A.**, Samsur, R., Potagani, A.G., & Asmatulu, R., “Synthesis, Analysis and Simulation of Carbonized Electrospun Nanofibers Infused Carbon Prepreg Composites for Improved Mechanical and Thermal Properties,” *Fibers and Polymers*, February, 2016.
16. Alarifi, I.M., **Alharbi, A.**, & Asmatulu, R., “Fabrication and Characterization of Carbonized Polyacrylonitrile Nanofibers for Composite Aircraft and Wind Turbine Manufacturing,” 12<sup>th</sup> Graduate Research and Scholarly Projects (GRASP) Symposium, Wichita State University, Wichita, KS, April, 2016 (extended abstract published).

17. Mahat, K.B., Alarifi, I.M., **Alharbi, A.**, & Asmatulu, R. "Effects of UV Light on Mechanical Properties of Carbon Fiber Reinforced PPS Thermoplastic Composites," *Macromolecular Symposia, Wiley*, 2015.
18. Alarifi, I. M., **Alharbi, A.**, Khan, W. S., & Asmatulu, R. "Electrospun carbon nanofibers for improved electrical conductivity of fiber reinforced composites," In SPIE Smart Structures and Materials. International Society for Optics and Photonics, 2015, pp. 943032-943032.
19. Alarifi, I.M., **Alharbi, A.**, Khan, W.S., Samsur, R., & Asmatulu, R. "Mechanical and Thermal Properties of Carbonized PAN Nanofibers Cohesively Attached to Surface of Carbon Fiber Reinforced Composites," *Macromolecular Symposia, Wiley*, 2015.
20. Shinde, M. A., **Alharbi, A.**, Hughes, S. M., & Asmatulu, R. "Electrospun Nanofibers Incorporated with C<sub>60</sub> Nanoparticles for Solar Energy Conversions," *CAMX/SAMPE Conference*, Dallas, TX. October 27-29, 2015, 10 pages.
21. Alarifi, I.M., **Alharbi, A.**, Khan, W.S., & Asmatulu, R. "Thermal and Electrical Properties of Carbonized PAN Nanofibers for Improved Surface Conductivity of Carbon Fiber Composites," *CAMX/SAMPE Conference*, Dallas, TX. October 27-29, 2015, 13 pages.
22. Alarifi, I. M., **Alharbi, A.**, Alsaiari, O., & Asmatulu, R. "Training the Engineering Students on Nanofiber-Based SHM Systems," *American Society for Engineering Education (ASEE)*, 2015.

|                        |
|------------------------|
| <b>WORK EXPERIENCE</b> |
|------------------------|

|   |                       |
|---|-----------------------|
| <b>General Manager's Consultant and Total Quality Manger</b><br>Employer: <i>General Directorate of Water in Tabuk Region</i> | May, 2016 - Still     |
| <b>General Supervisor and Total Quality Manger</b><br>Employer: <i>General Directorate of Water in Tabuk Region</i>           | Mar, 2009 – Jan, 2012 |
| <b>General supervisor of S.T.P's and Sewage Networks</b><br>Employer: <i>General Directorate of Water in Tabuk Region</i>     | Oct, 2008 – Jan, 2012 |
| <b>Sewage Treatment Plants Manger</b><br>Employer: <i>General Directorate of Water in Tabuk Region</i>                        | Mar, 2005 – Oct, 2008 |
| <b>Chief of Maintenance Department</b><br>Employer: <i>General Directorate of Water in Tabuk Region</i>                       | May, 2004 – Mar, 2005 |
| <b>Assistant Site Manger</b><br>Employer: <i>ALRIYADH CO. for Maintenance and Operation</i>                                   | Mar, 2004 – May, 2004 |

## Training

|    | Course Title   | Trainer   | Place     | Date        | Duration |
|----|--|---|-----------|-------------|----------|
| 1  | Enhancement of Operation & Maintenance of Treatment Plants For Advanced Treatment Technology and Sludge Management | Japan International Cooperation Agency          | JAPAN     | 10 Jan 2008 | 1 month  |
| 2  | Large Lift Stations Design, Pumps Assembly & Performance Test.   | ITT Water & Wastewater                          | SWEDEN    | 06 Oct 2010 | 5 days   |
| 3  | Cost Estimates of Construction Projects.   | Institute Of Public Administration<br>MOWE/AT - | Rivadh    | 23 Apr 2011 | 3 days   |
| 4  | Value Engineering Study  | Khuwaiter Value Engineering                     | Nairan    | 19 Jun 2010 | 5 days   |
| 5  | KSB Pumps  | ALKhoravef Group                                | Tabuk     | 02 May 2010 | 2 days   |
| 6  | Value Engineering ( Module-II )  | MOWE  | Rivadh    | 22 Feb 2010 | 3 days   |
| 7  | Procurement Planning   | Institute Of Public Administration              | Rivadh    | 02 Feb 2010 | 2 days   |
| 8  | Application of Performance Indicators in Maintenance Management  | Institute Of Public Administration              | Riyadh    | 14 Nov 2009 | 3 days   |
| 9  | Time Management  | Technical Training Center                       | Riyadh    | 21 Dec 2008 | 3 days   |
| 10 | CMMC Training  | Institute Of Public Administration              | Riyadh    | 07 Jun 2008 | 10 days  |
| 11 | Management of Maintenance Contracts  | Institute Of Public Administration              | Rivadh    | 31 May 2008 | 3 days   |
| 12 | Wastewater Reuse   | ITALCONSULT / MOWE                              | Rivadh    | 05 Apr 2008 | 3 days   |
| 13 | Maintenance Management   | Institute Of Public Administration              | Rivadh    | 01 Mar 2008 | 5 days   |
| 14 | Fundamentals Maintenance Management  | Technical Training Center                       | Rivadh    | 29 Dec 2007 | 5 days   |
| 15 | Computer Applications  | Technical & Vocational Training Corporation     | Tabuk     | 26 May 2007 | 3 month  |
| 16 | REENGINEERING Management   | Institute Of Public Administration              | Rivadh    | 26 May 2007 | 3 days   |
| 17 | Problems Solving and Decisions Making  | New Horizon Institute                           | Tabuk     | 15 May 2007 | 2 days   |
| 18 | Energy-Saving Techniques and Improve the Performance of Refrigerant  | Saudi Council Of Engineers                      | Riyadh    | 31 Mar 2007 | 5 days   |
| 19 | Valves Maintenance   | Technical Training Center                       | Rivadh    | 08 Apr 2006 | 10 days  |
| 20 | Operation of Wastewater Treatment Plant  | Technical Training Center                       | Rivadh    | 03 Dec 2005 | 5 days   |
| 21 | Value Engineering Training Workshop (Module 1)   | SAVE  | Al-Khobar | 24 Sep 2005 | 5 days   |

**CERTIFIED SPECIALIST And MEMBERSHIPS**

**1- *SAVE INTRNATIONAL***

**Associate Value Specialist**

Certification Number: 200612007

**2- *(SPIE) International Society for Optics and Photonics***

Membership Number: 3733949

**3- *American Water Works Association***

Membership Number: 03240811