

## **Mohammad Shaver**

Tel: +1-786-600-5705

Email: mshav001@fiu.edu

mohamad.shaver@gmail.com

### **Personal Information**

- Nationality: Iranian
- Date of Birth: 09/20/1982
- Place of Birth: Tehran, Iran
- Gender: Male
- Country of citizenship: Iran
- Country of residence: Florida, United States

### **Education**

Florida International University

Current Graduate Student of Department of Biomedical Engineering

Doctor of Philosophy, August 2021

Major: Biomedical Engineering

Supervisor: Dr. Joshua D. Hutcheson

Islamic Azad University, South Tehran Branch

Department of Textile Engineering

Master of Science, August 2009

Major: Textile Engineering/Textile chemistry and fibers science,

Project: Flame retardant finishing of cotton fabrics using Nano aluminum hydroxide

Supervisor: Amir Kiomarsi, PhD

Advisor: Ramin Khajavi, PhD

Islamic Azad University of Shahr-e-rey, Tehran, Iran

Department of Textile engineering

Bachelor of Science, June 2006

Major: Textile Engineering/Textile chemistry and fibers science,

Project: Dying of Polyester fabrics by the use of some herbal essences

Supervisor: Dr MaziarParvinzadeh, PhD

### **Academic workshop**

- Professional seminar and training courses and workshops of color measurement and its applications in control and reproduction of industrial dye, October 20, 2007. Institute for color and science and technology.
- First specialized training course and seminar on principal and application on Nano composite coatings. January 28, 2008. Iran Polymer and Petrochemical Institute.
- Operation and management of patent products and services. March 2012. 11<sup>th</sup> Nano Technology Iranian Student Conference. Amir Kabir University of Technology (Tehran Polytechnic).

### **Publications**

Journal

- Mazeyar Parvinzadeh, Naser Memari, Mohammad Shaver, Bashir Katozian, Saeed Ahmadi, Issa Ziadi, “Influence of Ultrasonic Waves on the Processing of Cotton with Cationic Softener”, journal of surfact and detergent, springer, 2009.
- M. Parvinzadeh, B. Katozian, M. Shaver, A.Kiumarsi. “Clay nano-adsorbent as an environmentally friendly substitute for mordants in natural dyeing of carpet piles”, Journal of Coloration Technology. Vol 130, Issue 1, pp 54-61, Feb 2014.
- M. Shaver, A. kiumarsi, R. Khajavi, “Thermal and Color characteristics of cellulosic fabrics coated with Nano aluminium hydroxide.” Journal of Color Science and Technology Vol3 , No.4, Winter 2010.

## **Conferences**

- M. Shaver, J. Hutcheson, “Cyclic Stretch Induces Caveolin-1 Release In Extracellular Vesicles From Vascular Smooth Muscle Cells” BMES 2018 Annual Meeting October Atlanta.
- J. Molina, M. Shaver, J. Hutcheson, “ Using Tunable Resistive Pulse Sensing to Identity and Quantify Extracellular Vesicles” BMES 2018 Annual Meeting October Atlanta.
- M. Hendon, M. Shaver, R. Gomez, B. Gonzalez, A. Ali, J. Bustillos, A. Agarwal, S. Ramaswamy “Towards 3D Printing Of A Bio-mimetic Hydrogel Scaffold For Tissue Engineering Heart Valve Applications” BMES 2018 Annual Meeting October Atlanta.
- B. Gonzalez, J. Bustillos, M. Shaver, A. Rodriguez, A. Cuellar, A. Agarwal, S. Ramaswamy, “Leaflet Extensions in Porcine Small Intestinal Submucosa Bio-Scaffolds for Heart Valve Regenerative Applications”, BMES 2018 Annual Meeting October Atlanta.

- A. Rodrigues, M. Shaver, B. Gonzalez, A. Cuellar, S. Ramaswamy “Fatigue Assessment of Porcine Small Intestinal Submucosa for Pediatric Heart Valve Replacement. 8<sup>th</sup> World Congress of Biomechanics, July 2018 Dublin, Ireland.
- M. Hendon, M. Shaver, R. Gomez, A. Ali, J. Bustillos, A. Agarwal, S. Ramaswamy, “Feasibility assessment for shape replication of the aortic heart valve using syringe based 3D printing” 8<sup>th</sup> World Congress of Biomechanics, July 2018 Dublin, Ireland.
- M. Shaver, A. Agarwal, S. Rengifo, S. Ramaswamy, "Feasibility of 3-D Printing for the Replication of Tri-Leaflet Heart Valve Shape", BMES 2016 Annual Meeting October Minneapolis.
- M. Shaver, A. Kiumarsi, “Study on Thermal Behavior of Cotton Fabric Treated by Nano Aluminum Hydroxide”, 2nd International Conference on Materials Heat Treatment (ICMH 2011), May 2011, Isfahan, Iran.
- M. Parvinzadeh, M. Shaver, COLORIMETRIC PROPERTIES OF ALKALI TREATED CELLULOSE FIBERS DYED WITH ACID AND METAL COMPLEX DYES, 41st IUPAC world chemistry congress, Aug 2007, Italy.
- M. Shaver, M. Parvinzadeh, “Effect of Amin copolymers on Dying of cotton Fabrics by Basic and Acid Dyes.” 1st Congress on Textile Engineering. Islamic Azad University of Shahr-e-Rey. October 2008.
- M. Shaver, A. Kiumarsi, R. Khajavi, “Coating of Cellulosic Fibres by Nano Aluminium Hydroxide Particles and Study on their Thermal Properties.” National Conference on Nano Materials and Nano Technology. Islamic Azad University of Najaf Abad. April 2009.
- M. Shaver, A. Kiumarsi, M. Parvinzadeh, “Using of Red Cabbage as a Natural Dyestuff in Dying of Wool Fibres and Study on Color Fastness.”

3rd National Congress on Hand Woven Carpet Research. Ministry of Commerce. Iran Carpet Center. Spring 2009.

- M. Shaver, A. Kiumarsi, R. Khajavi, “Flame Retardant Finishing of Cotton Fibres by Using of Nano Aluminium Hydroxide.” 3rd National Congress on Hand Woven Carpet Research. Ministry of Commerce. Iran Carpet Center. Spring 2009.

- M. Shaver, A. Kiumarsi, B. Katozian, M. Parvinzadeh. “Influence of Ultrasonic Waves on Dying of Leather by Nano Pigments.” The 1st Student Congress on Color and Science Technology. Institute for Color Science and Technology. March 2009.

- M. Shaver, A. Kiumarsi, B. Katozian, M. Parvinzadeh. “Study of Regular Methods of Dying Leather.” The 1st Student Congress on Color and Science Technology. Institute for Color Science and Technology. March 2009.

- M. Shaver, A. Kiumarsi, B. Katozian, M. Parvinzadeh. “Using of Herbal Essences as an Environmental Friendly Substitute of Carrier in Dying Polyester Fabrics with Dispersed Dye and Study on Color Fastness.” The 1st Student Congress on Color and Science Technology. Institute for Color Science and Technology. March 2009.

- M. Shaver, A. Kiumarsi, B. Katozian, M. Parvinzadeh. “Natural Dye and its Perspective in various Industries.” The 1st Student Congress on Color and Science Technology. Institute for Color Science and Technology. March 2009.

- M. Shaver, A. Kiumarsi, B. Katozian, M. Parvinzadeh. “Using of Saffron as a Natural Dyestuff in Dying of Wool Fibres and Study on Color Fastness.” The 1<sup>st</sup> Student Congress on Color and Science Technology. Institute for Color Science and Technology. March 2009.

- M. Shaver, A. kiumarsi, R. Khajavi, “Effect of Nano Aluminium Hydroxide on Flame Resistant Ability of Cellulosic Fibres.” National Congress on new trends of chemistry industry and medicine. Islamic Azad University of Shahr-e-Rey. March 2009.
- M. Shaver, M. Parvinzadeh, “Surface Modification of Polyester Fibres by Enzymatic Treatment.” National Congress on new trends of chemistry industry and medicine. Islamic Azad University of Shahr-e-Rey. March 2009.
- M. Shaver, M. Parvinzadeh, “Effect of Alkaly Treatment on Dyeability of Cotton Fibres with Acid and Metal Complex Dyes.” 3rd Iranian national congress on chemistry, Islamic Azad University of Varamin. May 2007.

### **Honors and Awards**

- 2018 Winner of Florida International University (FIU) Prize for Biomedical Research Initiative (BRI). For the proposal of “Investigation on Effect of Cyclic Stretch on Smooth Muscle Cell’s Caveolin-1 Trafficking in the Arteries”
- 2017 Winner of Florida International University (FIU) Prize for Biomedical Research Initiative (BRI). For the proposal of “Assessment of Biomimetically Bio 3D Printed PSIS-PCLA Aortic Heart Valve”
- Grant and merit from The Iranian Nano Technology Initiative Council based on the acceptance and presentation of “Flame Retardant Finishing of Cotton Fabrics using Nano Aluminium Hydroxide.” By submission of MSc dissertation to the mentioned foundation. 2008.
- Grant for the completion of the dissertation project from the Institute for Color Science and Technology of Iran (ICST).

- Grant for the project of “Study on flame retardant properties of cotton fabrics treated with aluminium hydroxide Nano particles.” From the Research Youth Club of Islamic Azad University of Tehran, South Branch.
- In the 3rd Iranian National Congress on Chemistry, Islamic Azad University of Varamin, the article “Effect of Alkaly Treatment on Dyeability of cotton Fibres with Acid and Metal complex Dyes.” was chosen among the selected articles to be orally presented in the conference. Associated with M. Parvinzadeh.
- The article “Using of Saffron as a Natural Dyestuff in Dying of Wool Fibres and Study on Color Fastness” was orally presented in the congress held by the Institute for Color Science and Technology and was praised at the top 20 among the 100 other articles submitted in the 1st Student Congress on Color and Science Technology. March 2009.
- The National Conference on Nano Materials and Nano Technology held by the Islamic Azad University of Najaf Abad chose the article “Coating of Cellulosic Fibres by Nano Aluminium Hydroxide Particles and Study on their Thermal Properties.” Among all those participated in the conference for oral presentation. Associated with A. Kiumarsi, R. Khajavi. April 2009.

## **Professional Experience**

Graduate Research Assistant (2017-current)

Position: RA in Cardiovascular Matrix Remodeling Laboratory (CMRL)

Biomedical Engineering Department

Florida International University

<https://hutchesonlab.fiu.edu/>

Graduate Research Assistant (2016)

Position: RA in Tissue Engineered Mechanics, Imaging and Materials (TEMIM)

### **Laboratory**

Biomedical Engineering Department

Florida International University

<https://hutchesonlab.fiu.edu/> (2017-current)

Biomedical Engineering Department

Florida International University

<http://www.temim.fiu.edu/> (2016-2017)

Institute for Color Science and Technology (2007-2010)

Position: Researcher in the department of organic colorant

Takmil-Baft Manufacturing Ltd (2005)

Position: Assistant Engineer in the dying, finishing and printing salons

Mahestan Carpet Co. (2012-2015)

Position: Lab Coordinator

No. 63, West Hoveyzeh Street, North Sohrevardi Avenue, Tehran. Iran.

+9821 8758767 +9821 8758768

<http://www.mahestan.com/>

### **Academic Experience**



Reviewer of the Communicational Editorial Office Journal asked to review the manuscript entitled as "Synthesis and Characterization of Cadmium Sulfide Nanoparticle Loaded Activated Carbon as a Novel Adsorbent for Efficient Removal of Reactive Orange 12" with Dr Duran as the contact author. 20 March 2012. This Journal is published by Taylor & Francis, Inc. 325 Chestnut Street, Suite 800, Philadelphia, PA 19106.

### **Patents**

ParvinzadehGashti. M, Adibzadeh. H, Katouzian. B, Shaver. M, "Use of ultrasonic waves in cotton finishing by non-ionic softeners." Invention certification number 63305. Registered with the Patent, Industrial design, and Trademark Registration Act of I.R.IRAN.

### **References**

Joshua D.Hutcheson, PhD

Assistant Professor in Florida International University

Department of Biomedical Engineering

Phone: 305-348-0157

Email: [joshua.hutcheson@fiu.edu](mailto:joshua.hutcheson@fiu.edu)