

## LIST OF PUBLICATIONS

### 1. Books:

- M. Eldessouki, *Synthesis and Modeling of Poly(L-lysine) Based Biomaterials*: LAP LAMBERT Academic Publishing, Germany, 2011, ISBN: 978-3846535455

### 2. Book Chapter:

- M. Eldessouki, "Nanomaterials and Textiles," in *Progress in Fibrous Material Science*, 1st ed., D. Kremenakova, J. Militky, and R. Mishra, Eds. Liberec, Czech Republic: Technical University of Liberec, 2014, pp. 57–80, ISBN: 978-8087269404, DOI: 10.13140/2.1.1687.3769

### 3. Refereed (ISI) Journals:

#### 3.1. Published Papers:

- M. Eldessouki, S. Ibrahim, and R. Farag, "Dynamic Properties of Air-Jet Yarns Compared to Rotor-Spun Yarns," (*in press*) *the Textile Research Journal*, 2015, DOI: 10.1177/0040517514563726
- M. Eldessouki, S. Ibrahim, "Chan-Vese Segmentation Model For Faster And Accurate Evaluation of Yarn Packing Density," (*in press*) *Textile Research Journal*, 2015, DOI: 10.1177/0040517514557314
- M. Eldessouki and M. Hassan, "Adaptive Neuro-Fuzzy System For Quantitative Evaluation of Woven Fabrics' Pilling Resistance," *Expert Systems with Applications*, vol. 42, no. 4, pp. 2098-2113, 2014, DOI:10.1016/j.eswa.2014.10.013
- M. Eldessouki, M. Hassan, H. A. Bukhari, and K. Qashqari, "Integrated Computer Vision and Soft Computing System For Classifying The Pilling Resistance of Knitted Fabrics," *FIBERS & TEXTILES in Eastern Europe*, vol. 22, no. 6(108), pp. 106–112, 2014
- M. Eldessouki, S. Ibrahim, and J. Militky, "A Dynamic and Robust Image Processing Based Method for Measuring Yarn Diameter and Its Variation," *Textile Research Journal*, vol. 84, no. 18, pp.1948-1960, 2014, DOI: 10.1177/0040517514530032
- M. Eldessouki, M. Hassan, K. Qashqary, and E. Shady, "The Application of Principal Component Analysis to Boost The Performance of The Automated Fabric Fault Detector And Classifier," *FIBERS & TEXTILES in Eastern Europe*, vol. 22, no. 4(106), pp. 51–57, 2014
- H. Eldeeb, M. Mohy, T. Elbagoury, K. Abosed, E. Shady, and M. Eldessouki, "An Automated Fabric Fault Detection and Classification System Based on Computer Vision and Soft Computing," *ACC JOURNAL*, vol. XIX, issue A, pp. 16-24, 2013
- M. Eldessouki, G. Buschle-Diller, and Y. Gawayed, "Poly(L-lysine) / microcrystalline cellulose biocomposites for porous scaffolds," *Polymer Composites*, pp. 1937-1944, 2011
- T. Turel, E. Shady, R. Farag, M. Eldessouki, Y. Gawayed, O. Burtovyy, and I. Luzinov, "A probabilistic model for the permeation of gases through microporous membranes," *Journal of the Textile Institute*, vol. 101, pp. 583-594, 2010

### 3.2. Pending Papers (submitted to journals)

- M. Eldessouki and Y. Gowayed, "Multi-scale Modeling of Lactide Monomer And Its Polymer With Experimental Verification," *Under review at the journal of Fibers and Polymers*
- S. Ibrahim, M. Eldessouki, "Towards the Standardization of Yarn Diameter Parameters Produced From Different Measuring Instruments", *Under review at FIBERS & TEXTILES in Eastern Europe*
- M. Eldessouki, Y. Gowayed, and G. Buschle-Diller, "A Novel Solution-based Method for Preparing Branched Poly(L-Lactide) in Different Architectures with a Study of their Effects on the Rheological Properties," *Under review at the journal of Polymer International*

### 4. Papers Published in International Conference Proceedings:

- M. Eldessouki and S. Ibrahim, "The Internal Structure Of Air-Jet Yarns As Observed By Computed Tomography," in *the 4th International Conference of Applied Arts*, Damietta, Egypt, 2015.
- M. Eldessouki and S. Ibrahim, "Computed Tomography Application For investigating The Internal Structure Of Air-Jet Yarns," in *the 20th International Conference: Structure and Structural Mechanics of Textiles*, Liberec, Czech Republic, 2014.
- M. Eldessouki, E. Shady, and Y. Gowayed, "Effect of Functionalized Carbon Nanotubes Proportions on Mechanical Properties of Epoxy Nanocomposites," in *the 8th Aachen-Dresden International Textile Conference*, Dresden, Germany, 2014
- M. Eldessouki, Y. Gowayed, and O. Acevedo, "Ab-Initio and Density Functional Theory Simulation For Lactide Monomer," in *the 6th International Conference, NanoCon 2014*, Brno, Czech Republic, 2014.
- M. Eldessouki and M. Hassan, "A Computer Vision With Soft-Computing Classifier As Integrated System For Fabric Pilling Quantitative Analysis," presented at *the 14th AUTEX World Textile Conference*, Bursa, Turkey, 2014
- M. Eldessouki, S. Ibrahim, and B. Neckář, "A Method For More Accurate Evaluation Of Yarn Packing Density," presented at *the 14th AUTEX World Textile Conference*, Bursa, Turkey, 2014
- M. Eldessouki, G. Buschle-Diller, and Y. Gowayed, "A New Solution-Based Method to Synthesize Branched poly(L-lactide)," in *The Fiber Society, Fibers for Progress*, Liberec, Czech Republic, 2014
- M. Eldessouki, E. Shady, and Y. Gowayed, "Surface Activation of Carbon Nanotubes Generating a Chemical Interaction in Epoxy Nanocomposite," in *ICCN 2014: International Conference on Composites and Nanoengineering*, Paris, France, 2014
- M. Eldessouki, S. Ibrahim, and R. Farag, "Mechanical Properties of Air-Jet Yarns Spun on Different Systems," presented at *the 2014 Beltwide Cotton Conferences*, New Orleans, LA, USA, 2014
- M. Eldessouki, S. Ibrahim, and J. Militky, "Video Processing for Dynamic Evaluation of Yarn Diameter," presented at *the 2014 Beltwide Cotton Conferences*, New Orleans, LA, USA, 2014

- S. Ibrahim, M. Eldessouki, J. Militky, and D. Kremenakova, "Analysis of Air jet yarn diameter," in *12th Asian Textile Conference*, Shanghai, China, 2013
- M. Eldessouki, S. Ibrahim, and J. Militky, "A Robust Image Processing Algorithm for Measuring Yarn Diameter," in *8th International Conference Textile Science*, Liberec, Czech Republic, 2013
- S. Ibrahim, M. Eldessouki, J. Militky, D. Kremenakova, and E. Moučková, "Comparative Study of Yarn Diameter Measured by Means of a High Speed Camera, Uster Evenness Tester, CTT, and QQM," in *8th International Conference Textile Science*, Liberec, Czech Republic, 2013
- H. Eldeeb, M. Mohy, T. Elbagoury, K. Aboseda, E. Shady, and M. Eldessouki, "An Automated Fabric Fault Detection and Classification System Based on Computer Vision and Soft Computing " in *8th International Conference Textile Science*, Liberec, Czech Republic, 2013
- M. Eldessouki, G. Buschle-Diller, and Y. Gowayed, "Polypeptide/cellulose biocomposite for tissue engineering," in *The 241st ACS National Meeting & Exposition*, Anaheim, CA - USA, 2011
- M. Eldessouki, Y. Gowayed, and G. Buschle-Diller, "Biodegradable Interpenetrating Network Structures," in *the 239th ACS National Meeting & Exposition*, San Francisco, CA - USA, 2010
- T. Turel, Y. Gowayed, M. Eldessouki, E. Shady, G. Buschle-Diller, I. Luzinov, and O. Burtovyy, "Modeling of Gas Permeability Through Microporous Membranes," in *the 17th Annual National Textiles Center Forum*, Hilton Head, SC - USA, 2009
- M. Eldessouki, Y. Gowayed, and G. Buschle-Diller, "Effect of Secondary Structure of Polypeptides on Properties of Their Nanocomposites," in *the 237th ACS National Meeting & Exposition*, Salt Lake City, UT - USA, 2009
- T. Turel, E. Shady, M. Eldessouki, G. Buschle-Diller, Y. Gowayed, A. Karaaslan, R. Farag, P. Livant, I. Luzinov, and O. Burtovyy, "Surface Modification of PET Microporous Membranes for Toxins Blocking," in *the 16th Annual National Textiles Center Forum*, Greenville, SC - USA, 2008 (the *Director's Award*)
- T. Turel, Y. Gowayed, M. Eldessouki, E. Shady, G. Buschle-Diller, I. Luzinov, and O. Burtovyy, "Gas Transmission Rate Through Microporous Membranes," in *the Fiber Society Annual Meeting and Technical Conference*, Davis, CA - USA, 2007
- T. Turel, E. Shady, Y. Gowayed, G. Buschle-Diller, A. Karaaslan, I. Luzinov, M. Eldessouki, O. Burtovyy, and R. Farag, "Efficient Biological-Chemical Protective Materials," in *the 15th Annual National Textiles Center Forum*, Hilton Head, SC - USA, 2007
- M. Hassan and M. Eldessouki, "Image Analysis Method for Pilling Evaluation," *the 2nd International Material Conference TEXCO*, Ružomberok, Slovak Republic, 2006
- R. A. El-Bealy, F. F. El-Habiby, and M. Eldessouki, "Adopting a Model to Investigate Yarn Evenness and Imperfections Through Raw Material Qualities," *the 5th International Engineering Conference*, Sharm ElSheikh, Egypt, 2006

**5. Invited Speaker:**

- M. Eldessouki, "A Glance at The Applications of Nanotechnology in Textiles," *The Arab Forum 2011 entitled "Industrial Applications of Nanotechnology"*, Hilton Dream - Dreamland, 6<sup>th</sup> of October City – Egypt, 27-29<sup>th</sup> December 2011