Image analysis for gene expression based phenotype characterization in yeast cells

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List of Publications

[1] Mohamed Tleis, Paul van Heusden and Fons J. Verbeek.*YeastAnalysis*: An image analysis platform to quantify fluorescent reporter proteins in *Saccharomyces cerevisiae* cells. (Submitted).

[2] Mohamed S. Tleis and Fons J. Verbeek. "Machine Learning approach to discriminate *Saccharomyces cerevisiae* yeast cells using sophisticated image features." Journal of Integrative Bioinformatics, 12(3):276, 2015.

[3] Mohamed Tleis and Fons J. Verbeek. "Contour Expansion preceded by the Application of Hough transform and Minimal Path Algorithm". In Fifth International Conference on Image Processing Theory, Tools and Applications (IPTA). pp. 149-154. IEEE, 2015.

[4] Mohamed S. Tleis and Fons J. Verbeek. "Machine Learning approach to segment *Saccharomyces cerevisiae* yeast cells." In third International Conference on Advances in Biomedical Engineering (ICABME). pp. 278-281. IEEE, 2015.

[5] Mohamed Tleis and Fons J. Verbeek. "Extracting contours of oval-shaped objects by Hough transform and minimal path algorithms." In Sixth International Conference on Digital Image Processing, pp. 915903-5. International Society for Optics and Photonics, 2014. *(***Excellent Paper Award)**.

[6] Mohamed Tleis, Ginny Anemaet, Paul van Heusden, and Fons J. Verbeek. Image analysis platform for yeast biologists. In The 2nd International Conference on Advances in Biomedical Engineering 2013 (ICABME'13), pages 57–60, Tripoli, Lebanon, September 2013.

[7] Mohamed Tleis and Fons J. Verbeek. Yeast-Cell features extraction plugin. In ImageJ Conference 2012, Mondorf, Luxembourg, October 2012.

About the Author

Mohamed Tleis was born on December 05 1982, in Brital, a small village in the Bekaa valley in Lebanon. He studied Computer Science at the American University of Science and Technology in Beirut, and completed his Master's degree in 2007 with a thesis on Arabic Speech Recognition.

In April 2007, he started working for the IT department of the Lebanese University Central Administration as a Server and Network Administrator. During this period he followed many training programs at a Microsoft certified center. In addition, he followed many training programs in Library Cataloging systems. He also trained Librarians from all over the country on using the cataloging system.

In June 2011 he started his PhD at Leiden University in the imaging and Bioinformatics group of the Leiden Institute of Advanced Computer Science (LIACS). His PhD program was partially supported by the *EU* in an *Erasmus Mundus* Program for the Middle East region, i.e. *JoSyLeEN*, and later by *Raymond-Sackler* organisation and the *Landelijke Stitching voor Blinden en Slechtzienden* organization (*LSBS*). This research was performed under supervision of Fons Verbeek and focused on automated and accurate methods for image analysis of yeast cells.