

## To Whom It May Concern

I have known Dr. Mahmoud Ali AbdelNaby Mousa for two years as his M.Sc. direct supervisor. At that time I was working with the department of Electronics and Communications Engineering at Zagazig University. Dr. Mahmoud graduated in 2009 with grade "Very Good with Honor" and was hired as a demonstrator in the department of Computer and Systems Engineering at Zagazig University. His graduation project was in Hospital Automation and he got an "Excellent" grade in it.

On September 2013, Dr. Mahmoud finished his M.Sc. degree under my supervision. His M.Sc. research was in the field of Optical Character Recognition (OCR) of Arabic language. In his research, he used a projection-based approach to separate lines, words, and characters in the OCR segmentation stage. In the feature extraction stage, he used scale and orientation-independent feature extraction method based on Harris-Laplace detector. The training and testing stage was carried out using k-means to cluster the extracted features to its class. Dr. Mahmoud published his work in the IEEE International Conference of Information and Communication Technology in March 2013 and the Springer International Journal on Document Analysis and Recognition in September 2015. Then Dr. Mahmoud got his Ph.D. degree in Computer Science from Faculty of Science and Engineering, University of Liverpool, UK with title "Optimisation in Multi-mode Systems" in July 2018.

During his work under my supervision, Dr. Mahmoud has proven to be very reliable, efficient, hardworking and creative. He has self-learning ability and always cares about the originality and innovation of his research. He has excellent research skills. Dr. Mahmoud has a good character and meets the highest standards of professional ethics. He honestly shares his work with the research community and truthfully presents his research outcomes. He always treats his colleagues with respect.

Dr. Mahmoud showed very good ability to work in different and difficult circumstances. He has excellent communication skills. He has a decent character and cooperative attitude that are greatly appreciated by his teachers, supervisors and colleagues.

I rank Dr. Mahmoud among the top students I have ever supervised in my professional career. Hereby, I strongly recommend him to join your university as an assistant professor.

Dr. Mohammed Sharaf Ismail Sayed,



Associate Professor

Department of Electronics and Communications Engineering

Egypt-Japan University for Science and Technology (E-JUST)

Email: mohammed.sayed@ejust.edu.eg

Mobile: +20 10 0517 1734



Reference for Dr. Mahmoud Ali Abdelnaby Mousa

July 25, 2020

Dear Colleague,

Dr. Mahmoud Ali is an assistant professor at the Department of Computers and Systems of the Faculty of Engineering – Zagazig University. I write to support his application for the hiring position at Egypt Japan University of Science and Technology E-JUST.

I have known Dr. Mahmoud Ali since he was an undergraduate student for about twelve years. He was undergraduate student with outstanding records. In 2009, he was hired by Zagazig University to work as a demonstrator at the Department of Computers and Systems of the Faculty of Engineering. In 2013, he finished his M.Sc. degree in the field of Optical Character Recognition (OCR) of Arabic language. In 2015, Dr. Mahmoud got a scholarship offered by University of Liverpool to purchase his PhD. studies in the field of energy optimization in multi-mode systems applied to Heating, Ventilation and Air-conditioning systems (HVAC). In 2018, Dr. Mahmoud got his PhD. degree in Computer Science and returned back to Egypt to re-join again as a staff member in the Faculty of Engineering at Zagazig University.

Dr. Mahmoud is one of the most active staff members involved in the teaching and research process in the Faculty of Engineering. He also involved in two projects as a faculty-participant to create academic programs for STEM education and manufacture a cubic satellite for Zagazig University ZUSAT. Dr. Mahmoud is an enthusiastic, dedicated and hard-working staff member.

In conclusion, I strongly recommend Dr. Mahmoud Ali Abdelnaby Mousa to join E-JUST staff panel.

Fathi A. Farag

Professor  
Electronics and Communications Dept.  
Faculty of Engineering  
Zagazig University  
Egypt  
Tel: (+20111)001-9121  
[fathi\\_farag@yahoo.com](mailto:fathi_farag@yahoo.com)