

### **Basic Information :**

**Name :** Mohamed A. Karali  
**Title :** Lecturer



Dr. Eng. Mohamed A. Karali (د.م. محمد أحمد قرعلى) is an Assistant Professor at the Mechanical Engineering Department, Faculty of Engineering and Technology, Future University in Egypt (FUE), specializing in Mechanical Power Engineering. Dr. Karali received his Ph.D. degree from the Institute of Fluid Dynamics and Thermodynamics, Otto von Guericke University Magdeburg, Germany in 2015. He had received his Bachelor of Science and Masters in Mechanical Engineering in 2001 and 2007, respectively, from the Faculty of Engineering El-Mataria, Helwan University in Cairo, Egypt. Recently, his research area interested in image processing techniques and its applications in rotary drums studies and renewable energies.

### **Education :**

Certificate	Major	University	Year
PhD	.	Otto Von Guericke University faculty of Engineering	2015
Masters	Mechanical Power Engineering	Helwan - Egypt	2007
Bachelor	Mechanical Power Engineering	Helwan - Egypt	2001

### **Teaching Experience :**

Name Of Organization	Position	From Date	To Date
Faculty of Engineering and Technology, Future University, Cairo, Egypt.	Assistant Professor	01/01/2015	01/01/2017
Institut für Strömungstechnik und Thermodynamik ISUT, Fakultät für Verfahrens- und Systemtechnik, Otto-von-Guericke-Universität Magdeburg, Germany.	PhD researcher and lecturer	01/01/2012	01/01/2015
Faculty of Engineering and Technology, Future University, Cairo, Egypt.	Asistant lecturer	01/01/2008	01/01/2012
Faculty of Engineering - Mataria, Helwan University, Cairo, Egypt.	Researcher, tutor and trainer	01/01/2002	01/01/2007

### **Research :**

Granular transport through flighted rotary drums operated at optimum-loading: Mathematical model  
 Unloading characteristics of flights in a flighted rotary drum operated at optimum loading  
 Mathematical model to simulate the heat transfer in vitrified clay pipes kiln  
 Different camera and light positions to facilitate image analysis processing in rotary drums studies  
 Comparison of image analysis methods to determine the optimum loading of flighted rotary drums  
 Experimental analysis of a flighted rotary drum to assess the optimum loading  
 Experimental determination of the discharge characteristics of a flighted rotary drum operated at optimum loading  
 Performane evaluation of a vapor compression refrigeration system using R22 alternatives

### **Conference :**

Mathematical model to simulate the heat transfer in vitrified clay

Experimental determination of the discharge characteristics of a flighted rotary drum operated at optimum loading

**Thesis :**

Analysis study of the axial transport and heat transfer of a flighted rotary drum operated at optimum loading

**Awards :**

Award	Donor	Date
Poster first prize	Conference of 5th UK-China and 13th UK Particle Technology Forum, At Leeds University, UK.	01/01/2015
Ph.D mission studying	FUE	01/01/2012
Researcher, Helwan University	Egypt	01/01/2002