



### Basic Information :

**Name :** Mohamed A. Karali

**Title :** Lecturer

Dr. Eng. Mohamed A. Karali (  $\text{أ.م.د. محمد أ. كراي}$ ) 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
FUE	Teaching Staff Member	12/10/2008	Current
Faculty of Engineering and Technology, Future University, Cairo, Egypt.	Assistant Professor	01/01/2015	01/01/2017
$\text{PhD researcher and lecturer}$ 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

### Researches / Publications :

Cooling enhancement of cubical shapes electronic components array including dummy elements inside a rectangular duct
Influence of using different tapered longitudinal section manifolds in a Z shaped flat plate solar collector on flow distribution uniformity
Transient thermal behavior in brick tunnel kiln with guide vanes: Experimental study
Numerical investigations of convective heat transfer for lattice settings in brick Tunnel Kiln: CFD simulation with experimental validation
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
Performane evaluation of a vapor compression refrigeration system using R22 alternatives

**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