



Curriculum Vitae, MOHAMED H. EL-SHAZLY

Name: Mohamed Hassan Youssef El-Shazly
Date of birth: 1/5/1967
Marital status: Married
Nationality: Egyptian
Job: 1- Associate Professor of Mechanical Design
Faculty of Engineering-Cairo University-

**Currently at King Saud University (KSU)- ALMUZAHMIYAH
BRANCH**

Address: Housing and Development Bank Buildings, #12, Apt. 303
Zahraa-Al Maadi, Cairo, Egypt.
Post-Code: 11435

Mailing Address: As above

Telephone: Mobile (Ksa): 00966543534928
(Egypt) 00201006600673

Home: (+202) 25163904

E-MAIL: melshazly2@ksu.edu.sa
mohamed.elshazly@ams-sae.com
Mohamed.elshazly8@gmail.com

Education:

- B. Sc. Mechanical engineering, Cairo University, July 1990 with rate of appreciation as very good with honour degree

- M. Sc. Mechanical engineering, Cairo University, May 1994. The thesis title is '' *Computer Aided Design of Injection Moulds*''.

- Ph.D. Mechanical engineering, February 1998, through channel-scheme between Hull University, UK and Cairo University, Egypt. The thesis title is:

'' *Hard Coating for Metal Forming Tools and Injection Moulds*''

Professional:

- 1- Associate Professor of Mechanical Design and Tribology, Faculty of Engineering-Cairo University since April 2015**
- 2- Assistant Professor of Mechanical Design King Saud University (KSU)-ALMUZAHMIYAH BRANCH since September 2014**
- 3- Assistant Professor of Mechanical Design and Production Technology, British University in Egypt since January-2013 –September 2014**
- 4- Assistant Professor of Mechanical Design and Production Technology, German University in Cairo since September 2010-January 2013**
- 5- Assistant Professor of Mechanical Design and Tribology, Cairo University since February 1998.**
- 6- Ex-vice-director of Tribology and Spare Parts Center, Faculty of Engineering Cairo University 2005-2009**
- 7- Teaching of Machine Design, Engineering Drawing, fits and tolerances, Mechanical Engineering, Surface Failure and Tribology.**
- 8- Member of Tribology and Spare Parts centre, Faculty of Engineering, Cairo University since Jan. 1992 in which assisted in several design projects and spare parts manufacturing.**
- 9- Part time job with IBM Cairo Scientific Centre in the implementation of CATIA from September 1994 until september1995.**

- 10- Deposition of hard coating using Physical Vapour Deposition (PVD) in RCSE/UK.**
- 11- Characterisation of coating using SEM, Optical microscope, abrasive test, adhesive test, corrosion test, impact test, hardness test, and wear test.**
- 12- Using Finite element package such as, LUSAS, ANSYS, NASTRAN, CATIA and ABAQUS**
- 13- Developing of CAD of injection moulds using interactive modules among AutoCAD, C program and Autolisp.**
- 14- Evaluation of companies' resources**
- 15- Analysis of Wheel design for Tanta Company, Egypt using FEM**
- 16- Design, manufacturing and installation of packing machine, mechanical feeder, Air handling system, Vibratory conveyors, Shakers and belt conveyors.**
- 17- Reverse engineering for spare parts**
- 18- Modelling and analysis of drum brakes for Nasco company Egypt**
- 19- Inspection of local spare parts using CMM Brown & Sharpe and material analysis using EDX.**
- 20- Receiving, inspection, and use of Failure analysis lab, Faculty of engineering, Cairo University. In which established the lab with the following equipments:**
 - 1. EDX - Nano tester – Tribometer –Rapid-prototype - CMM**
 - 2. Form tester - Optical microscope – surface roughness tester**
 - 3. Profile projector – Hardness testers – Spring tester -**
- 21- Shaft alignment of Cement companies**
- 22- Design of large tanks according to API 650 for Al-atf and Kuraymat power stations**
- 23- Design and implementation of water intake system for Al-atf-power station and control system**

- 24- Design of pipe line for Al-atf power station**
- 25- Manufacturing of many spare parts**
- 26- Design and manufacturing of calibrations bench for NIS.**
- 27- Supervisor of installation and implementation of EL SHAKHR EL ARABI FOR MARBLE & GRANITE factory, Badr city**
- 28- Teaching of “DESIGN OF BELT CONVEYORS “ AUC**
- 29- Teaching of “Design of Injection Moulds”, GUC.**
- 30- Teaching of “ Finite element Analysis” GUC**
- 31- Teaching of “Design of jigs and fixtures” GUC**
- 32- Teaching of “Design for Manufacturing” GUC**
- 33- Teaching of “Strength of materials I” GUC**
- 34- Teaching of “Engineering Drawing” GUC**
- 32- Design of large tanks according to API 650 for Misr Sons for Developments, Loreal project.**
- 33- Bearing failure analysis of TECO Motor for Port Said East Power station.**
- 34- Design of spreader to left 275 ton diffuser- Alexandria Sugar Company.**
- 35- Pipe line design for Loreal factory 10th of Ramadan**
- 36- Stress analysis of pipe supports for Loreal 10th of Ramadan**
- 37- Design of silos for Gulsan factory 6th of October City.**
- 38- Design of steel structures for 6 silos for Gulsan Factory 6th of October city.**
- 39- Modification of 8 ton motor base using finite element analysis for Salhia Pump Station.**
- 40- Teaching of “computer aided design” BUE**
- 41- Teaching of “Engineering drawing” BUE**
- 42- Teaching of “Structure and stress analysis” BUE**
- 43- Teaching of “Stress analysis and pressure vessels design” BUE**
- 44- Teaching of “Product Design” BUE**

- 45- Teaching of “Tool design and manufacturing”**
- 46- Teaching of “Introduction to Manufacturing” KSU**
- 47- Teaching of “Calculus” KSU**
- 48- Teaching of “Linear Algebra” KSU**
- 49- Teaching of “Engineering Physics I” KSU**
- 50- Teaching of “Introduction to Manufacturing” KSU**
- 51- Teaching of “Mechanical Drawing”**

Languages: - Arabic and English fluent

Membership:

- 1. Membership in American Society of Metals (ASM) for year 1997**
- 2. Membership in Egyptian Society of Tribology**
- 3. Egyptian Syndicate of Engineering, Cairo Egypt, October 1990 till Present**
- 4. Membership of ASME from May 2011-May 2012**

Scholarship:

- Two years scholarship from the Egyptian Government to finish the PhD degree in Hull University/ UK, From September1995 till September1997.**

Training:

- 1- Three weeks training on PC-DIMS and Quindos, Brown and sharp, DEA Italy, from 21 Jan 2002 to 9 Feb. 2002**

2- Three month training in Sulzer brother limited Switzerland, from July-October 1989.

Software Skills: -

- 1- Working with CATIA in 1994**
- 2- Working with Abaqus finite element analysis**
- 3- Working with Ansys finite element Package since 1995**
- 4- Working with NASTRAN finite element Package since 1997**
- 5- Working with LUSAS finite element Package since 1991**
- 6- Working with Autocad since 1990.**
- 7- Pro-engineering and Solidworks**
- 8- Microsoft Window**
- 10- Implementation of Maintenance program**

Publications:

- 1-“Computer Aided Design of Injection Molding” 6th Cairo niversity MDP Conference, Cairo, 1996.**
- 2-“Effect of Hard Coating Properties on Substrate Stresses Under Tribological Loads.” Materials and Manufacturing Processes, V14, No. , 1999.**
- 3-“The Effect of Substrate Pretreatment on PVD TiN Coating Performance.” Materials and Manufacturing Processes, V14, No. , 1999.**
- 4-“Analysis of Segmented Die Design Approach to Improving the Performance of Coated Metal Forming” Materials and Manufacturing Processes, V14, No. , 1999.**
- 5-“Elastic Plastic Analysis of stresses and crack Prediction in Coating Layers” 5th International Conference of the Egyptian Society of Tribology, EGTRIB 5, pp. 235-250, April 10-12,1999**

- 6-“Finite Element Simulation of Metal Cutting Considering Chip Behavior and Temperature Distribution” Materials and Manufacturing Processes. 16(6). 803-814 (2001)**
- 7-“Low Rate Erosion Of Thin Tin Coating Under Different Substrate Pretreatment” Egtrib6, December 2002**
- 8-“ Frictional Behaviour Of Railway Brake Lining” Egtrib6, December 2002.**
- 9-“ Finite Element Method For Simulating Normal And Shear Stresses Along Primary And Secondary Deformation Zones In Metal Cutting” Egtrib6, December 2002**
- 10-“Design Modification of Cast iron Drum Brake” EGTRIB Tribology Journal, Volume 1, No. 1, April 2003**
- 11-“The Effect Of Laser Heat Treatment On Tribological Behaviour And Microstructure Of Ductile Cast Iron” EGTRIB Tribology Journal, Volume 2, No. 3, April 2004**
- 12-“Effect of Heat Treatment Conditions on Mechanical & Tribological Properties of High –C High –Cr Tool Steel” Egtrib 7, December 2006**
- 13- “New Seal Design for Vacuum Mixer- Dryer Agitator Running at the Boundary of Sterile Area” EGTRIB Tribology Journal volume 6 no. 4 P1 2009**
- 14- “New seal Design for clean area” EGTRIB Tribology Journal, Journal volume 6 no. 4, P12, 2009**
- 15- “Effect of Die Design Parameters on Thinning of Sheet Metal in the Deep Drawing Process” The American Journal of Mechanical Engineering , AJME Vol. 1, No. 2, 2013**
- 16- “Thinning and Spring back Prediction of Sheet Metal in the Deep Drawing Process” JMAD5698, Journal title: Materials and Design, August 2013.**

PATENTS:

1- El-Sherbiny M., Khattab A., Radwan A., Abd-Rabou M., El-Shazly, M.

"Improved design of a vibratory conveyor" Patent No. 22957, Egypt 13th of Dec., 2003.

2- El-Sherbiny M., Elshazly M., EL GEDAWY M. "SUCTION AND COMPACTION OF PRINTING SCRAP" Patent No. 23442, Egypt 07/09/2005

Research project

1	<i>Funding Agency</i>	European Commission	<i>Project ID</i>	144856-TEMPUS-2008-RS-JPGR
	<i>Project Title</i>	International Accreditation of Engineering Studies		
	<i>PI / co-PI's</i>	Prof. Dr. Milos Nedeljkovic Coordinator: Professor Dr. Ibrahim Mansour		
	<i>Duration from - to</i>	15.1.2009– 14.1.2012 extended till 14.1.2013	<i>Amount</i>	643 235 Euros
2	<i>Funding Agency</i>	RCREEE	<i>Project ID</i>	
	<i>Project Title</i>	A Hybrid System, a Solar Concentrated Linear Fresnel PV/Thermal Collector and a 1 kW Wind Turbine for Energy Cogeneration		

	<i>PI / co-PI's</i>	Dr. Tarek Khalil		
	<i>Duration from - to</i>	-	<i>Amount</i>	40000 Euros

THESIS SUPERVISION

1-Msc. “The effect of Bucco-lingual Teeth Positioning On The Stress Distribution In complete Denture And Its Supporting Stucture”, Ein Shams Univesrity 2002

2-Msc. “The Effect of Laser Heat Treatment on Tribological behavior and Microstructure of Ductile Cast Iron” Cairo University, 2005

3-Msc. “Effect of Heat Treatment Conditions on Mechanical Properties of High-c High-Cr Steel.” Cairo University, 2006

4-Msc. “Computer Aided Design of Vibratory Conveyors” Cairo University, 2006

5- PhD “New Seal Design for Vacuum Mixer–Dryer Agitator Running at the Boundary of Sterile Area for Pharmaceutical Applications” Cairo University, 2009.

6- Msc. “Structural Design of Satellite’s Frame” Cairo University, 2010

7-Msc. “Computer Aided Design Modeling and Simulation of Industrial Food Mixer” Cairo University, 2010

8- Msc. “Simulation of the Abrasive Water-Jet machining Process for a Ductile Material” Cairo university, August 2013

9- PhD “CAD/CAM Including FEA Modeling and Simulation for the Deep Drawing Process with Consideration of the Friction at the Different Interfaces” Cairo University, December2013

Bachelor Thesis

Spring-2011

- Design and Fabrication of Automatic hand break Release**
- Finite element analysis of drum brake**
- Finite element analysis of laminated composite material**
- Automatic Vehicle Accident Prevention System**
- Design and manufacturing of ventilation system for welding workshop**
- Finite element modeling of welding processes using a commercial Package to minimize welding residual stresses**

Winter-2012

Finite Element Analysis of Disc Brake

Spring-2012

Design of wear test machine
CAD of Injection mould
Automatic Scrap Collecting Vehicle
Design of painting robot using spray gun tool
Manufacturing of painting robot using spray gun tools
Design of Fire fighting robot
Manufacturing of Fire fighting robot
Deep drawing of a cylindrical cup using finite element method
Book holder for handicapped
Zero -shifting time gearbox

Winter 2012

- 1- Design and manufacturing of Automatic water tap Controlling System.**
- 2- Design and manufacturing of automatic labeling machine.**

Graduation projects at BUE

- 1-Tribological behavior of brake materials**

- 2- Finite Element Analysis of Automotive Drum brakes**
- 3- Design and manufacturing of stair climbing automatic chair**
- 4- Design and manufacturing sun tracking system**
- 5- Design and manufacturing electric car**
- 6- New Performance and Applications for Shape Memory Alloys**

References:

- 1. Prof. M. G. El-Sherbiny, Ex-Dean Faculty of Engineering Cairo University, Professor of Machine Design and Tribology, Mechanical Design and Production Department Faculty of Engineering, Cairo University, 12316 Giza, Egypt. Tel. +(202)-5730402 , Fax: +(202)-7746016.
e-mail-mgsherbiny@yahoo.com**
- 2. Prof. Mahmoud Abd Rabou, Professor of Machine Design and Tribology, Mechanical Design and Production Department Faculty of Engineering, Cairo University, 12316 Giza, Egypt. Tel. +(202)-5730402 , Fax: +(202)-7746016. Email: mahmoudabdrabou@gmail.com**
- 3. Prof. Dr. Imam Morgan, professor of mechatronics German university in Cairo. Email-: elsayed.morgan@guc.edu.eg**