

CURRICULUM VITAE

1- Personal Data



Name: Mohsen Abdel-Naeim Hassan Mohamed
Birth date: 24 December, 1966
Nationality: Egyptian
Marital status: Married and have six children
Title: Professor
Affiliation: Mechanical Engineering Department, Faculty of Engineering, Assiut University
Major: Mechanical Engineering Design
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Date of issue 28/06/2010
Date of expiry 27/06/2017

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Faculty of Engineering, Assiut University
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Google scholar <https://scholar.google.com/eg/citations?user=Zyn0qjoAAAAJ&hl=en>

2- Qualifications

B.sc. Mechanical Engineering (production engineering) 1991
very good with honors degree, Minia University, Egypt.

Msc. Mechanical engineering (sheet metal forming), Jan. 1998,
Assiut University, Egypt

Ph.D. Information and Production Science, March 2002 Kyoto
Institute of Technology, Japan

3- Working Experience

<i>From April 1993 to Jan. 1998</i>	Teaching and research assistant, mechanical engineering department Assiut University, Egypt.
<i>February 1998 to October 1998</i>	Lecturer, mechanical engineering department Assiut University, Egypt.
<i>November 1998 to March 1999</i>	Research student, mechanical engineering department Kyoto Institute of Technology, Japan.
<i>From April 1999 to Feb. 2002</i>	Research and teaching assistance, mechanical engineering department, KIT Japan.
<i>From Oct. 2003 to Sept. 2005</i>	<i>Invited research scholar at the micro-engineering department, nano-metrics laboratory, Kyoto University Japan.</i>
<i>From October 2002 to Jan. 2008</i>	Assistant professor (senior lecturer), mechanical engineering department, Assiut University, Egypt.
<i>From Feb. 2008 till Sep. 2014</i>	Associate professor Mechanical Engineering Department, Assiut University, Egypt
<i>From Aug. 2010 Till Aug. 2012</i>	Visiting Associate professor Design and Manufacturing Department, Faculty of Engineering, Malaya University, Malaysia
<i>From Aug. 2012 Till Aug. 2015</i>	Associate professor Design and Manufacturing Department, Faculty of Engineering, Malaya University, Malaysia
<i>From October 2014 till present</i>	Professor, Mechanical Engineering Department, Assiut University, Egypt.

4- Teaching

I have taught the following subjects for;

Postgraduate level

Material models for modeling and simulation of manufacturing processes, Research methodology, Engineering Materials, Micro-Mechanics of Materials, elastic and inelastic behavior of materials, Engineering Plasticity, Finite element analysis for linear and nonlinear problems, Advanced engineering mathematics, Automation and control in manufacturing, Modeling and simulation of dynamic systems, Fuzzy logic modeling for control. Vector and tensor analysis, Introduction to Microelectromechanical systems.

Undergraduate level

Fundamental of Material science, Engineering Materials, Principles of metal forming, Mechanics of Materials, Mechanical behavior of materials, Die Design, Tool Engineering, , Design of machine elements, ,experimental Stress analysis, Engineering Drawing, ,

Advanced manufacturing processes, Production Engineering, Fault diagnoses in Mechanical systems. Measurements and Instrumentations, Numerical methods for engineers, Vector Mechanics, Statics & Dynamics, Mechanical Engineering Laboratories.

5- Major Research Topics

Models for Composite Materials, for Ceramics and porous materials, for piezoelectric materials, Electro-mechanical properties of engineering and biological materials, Design and simulations of micro sensors and micro actuators (MEMS), Forming and Micro-forming, Sever plastic deformation, failure and damage analysis, Laser welding, friction stir welding of dissimilar materials, Fuzzy Logic control, Effect of stress, strain and temperature on Piezoelectric properties of PT and PZT thin films, FE-modeling of heart mechanics and excitation propagation in heart muscles, Finite Element programming of manufacturing processes Using C++, smoothed particle hydrodynamics (SPH), and multi-scale analysis.

6- Professional Societies

- INSTITUTION OF MECHANICAL ENGINEERS (IMECHE), UK, CHARTERED ENGINEER (CENG.), Member, 2012, (International)
- International Association of Engineers (IAENG), Member, 2012, (International)
- Japan Society for Technology of Plasticity, Member, 1999, (International)
- Kyoto Institute of Technology, Graduate Member, 1998-2002, (University)
- Assiut University, Member, 1993, (University)
- Egyptian Engineering Syndicate, Member, 1991, (National)

7- ADMINISTRATIVE DUTIES

- Chairman of postgraduate committee at AMMP center, Department Of Engineering Design & Manufacture, Faculty Of Engineering, Malaya University.
- Evaluation committee member for FRGD and EGRS Projects, University Malaya, 21-May-13 - 31-Dec-13
- Evaluation Committee member for UMRG project, Advanced Engineering& Technology (AET) Research Cluster , University Malaya, 09-May-13 - 25-May-15

- Committee member of Central Advanced research enabler facility (CAREF), Department Of Engineering Design & Manufacture, Faculty Of Engineering, 05-Apr-12
- Committee member of Industrial PhD Program, Department Of Engineering Design & Manufacture, Faculty Of Engineering, 07-Sep-11 - 06-Sep-14.
- Member of the evaluation committee for research grant applications under the governance of the institute management and Monitoring (IPPP) Malaya University, 01 January 2015 to 31 December 2016.

8- Research Projects

- 1- From Oct. 2003 to Sept. 2005, I have been invited as a research scholar at the micro-engineering department, nano-metrics laboratory of the Kyoto University on the capacity of the “Japan International Leading Project for Bio-simulation”. My main task was focusing on design and fabrication of a micro sensor for measuring the electromechanical properties of a single heart cell. Also another task was finite element formulation and programming of the excitation propagation in heart muscles.
- 2- Co-principle investigator “National project for establishing a material science and nanotechnology centre in Assiut University, Egypt.
- 3- Numerical simulations and experimental investigations on the multi-axial fatigue and cyclic plastic response of the newly developed aluminium alloy and FGM for aerospace structures, Co-Investigator, 2012-2015, HIR
- 4- Bovine Hydroxyapatite Derived Porous Bone Graft For Biomedical Application, Co-Investigator, 2012-2015, HIR
- 5- Development of a Powder Based Target PVD Machine, Co-Investigator, 2012-2013, Geran Penyelidikan Universiti Malaya (UMRG), National
- 6- Mechanical Behaviour of Bovine Hydrxyapatite Derived Porous Bone Graft for Biomedical Applications, -, 2012-2012, Postgraduate Research Grant(PPP), National
- 7- Principle investigator, Nonlinear Fuzzy controller design for a real cart Inverted pendulum system, UM, RG118/11AET (2012/2014 completed)
- 8- DEEP DRAWING OF RECTANGULAR CUPS USING ELLIPTICAL CONICAL DIE, Principal Investigator(PI), 01/12/2013, Geran Penyelidikan Universiti Malaya (UMRG) - AET (Innovative Technology (ITRC)), 30/11/2014

- 9- Design and development of numerical and analytical methods, Principal Investigator(PI), 01/06/2013, Geran Penyelidikan Universiti Malaya (UMRG) - AET (Innovative Technology (ITRC)), 31/05/2014
- 10- Nonlinear Fuzzy Controller Design for a Real Cart Inverted Pendulum system, Principal Investigator(PI), 2011-2012, Geran Penyelidikan Universiti Malaya (UMRG), National
- 11- A Study on Low Power CO2 Laser Welding, Co-Investigator, 2011-2013, Fundamental Research Grant Scheme (FRGS), National

8- Computer Languages and Computer Skills

FORTRAN language

C++ language

Finite Element programming Using C++

MARC (general purpose FE-simulation package)

LS-DYNA (FE-simulation package)

AVS (Advanced Visualization System)

AUTOCAD-Package

MATLAB-Package

CANVAS-Package

MICROSOFT- OFFICE

9- Course development

I have shared in developing Four courses for post graduate studies

1. Numerical methods for Engineers
2. Fundamentals of Micro-fabrication Techniques
3. An Introduction to Design of Microelectromechanical Systems
4. Engineering Plasticity.

10- Supervision

Completed supervision till graduation: **9** PhD students, **12** Master's Students and **11** final year projects, Current supervision: **6** PhD students and **1** Master by research. The details are as follows;

Post graduate level

Completed supervision till graduation

Master of engineering by Mixed mode

- 1- Master's Degree, Mohammad Albahy Abdul Hamid Alfiky, MODELLING AND SIMULATION OF MAGNETRON SPUTTERING PROCESS, 2013/2014
- 2- Master's Degree, Azhar Bin Abdul Satar, Finite Element Simulation and Experimental Verification of Temper Rolling Process of Low Carbon Steel Sheet, 2012/2013
- 3- Master's Degree, Davoud Mashhadi Jafarlou, A Novel Process for Increasing Deep Drawability of Rectangular Metal Cups with Extreme Aspect Ratio: Design and Simulation, 2012/2013
- 4- Mofleh Hannuf, Modelling and simulation of Piezoelectric tactile sensor for soft-tissue stiffness detection, 2013/2014.
- 5- Master's Degree, Hassan Al-Mashaddani, Modelling and Simulation of a quad copter with PID controller, 2014.
- 6- Dalia Hussein Salman Juboori, Non-deterministic modelling and simulation of physical vapour coating process" 2015.

Master by research completed till graduation

- 1- Master's Degree, Abdalla Ibrahim Hassab-Allah, FINITE ELEMENT ANALYSIS OF HUMAN LEFT VENTRICLE MOTION AND MECHANICAL PROPERTIES, 2011/2012
- 2- Master's Degree, Belal Ahmed Abdelaziz Elsayed, Development of a nonlinear Fuzzy controller for Mechatronics Application, 2010/2011
- 3- Master Degree (Meng), Raza Moshwan, Friction Stir Welding of Aluminium alloy (AA 5052-O): Experimental and Simulation. 2013/2013.
- 4- Master's Degree, Hamza Belkamel, Two stage Bi-directional Dc/Dc converter with fuzzy logic controller. 2011/2012.
- 5- Master's Degree, Mohamed Anamul, Fuzzy Predictive model for kurf width during laser cutting process of Polymers. 2013/2014.

- 6- Master's Degree, Moayad Hani Yacoub, Development of self-tuning Fuzzy PID controller for a Quad copter, 2012/2013

PhD completed till graduation

- 1- Doctoral Degree (PhD), Reza Mahmoodian, Development of Manufacturing techniques for Self Propagation High Temperature Syntheses, 2009/2010
- 2- Doctoral Degree (PhD), Amir Raszi Ab Ghani, IMPACT RESPONSE OF ALUMINIUM SQUARE COLUMN UNDER NEWLY DEVELOPED TRIGGER MECHANISMS, 2009/2010
- 3- Doctoral Degree (PhD), Ahmed Khalaf Musa, On Fuzzy Logic and Fuzzy systems modelling for applications: in Mechanical and Civil Engineering, 2007/2008
- 4- Doctoral Degree (PhD), Labib M. A. Hezam, Deformation Characteristics in Deep Drawing of Square Cups through Conical Dies, 2006/2007.
- 5- Doctoral Degree (PhD), Nik Masmiati Nik Pa, The Effect of cutting parameters and lubrication modes on Residual Stress and surface quality in metal machining, 2010/2011.
- 6- Doctoral Degree (PhD), Nadri Sadjad, damage and fatigue Behaviours of Glass Fiber reinforced plastic laminate and bovine-derived hydroxyapatite under low-velocity impact loading, 2011/2012
- 7- Doctoral Degree (PhD), Fadi M. R. Albatsh, Development of UPFC controller for Power system supply, 2011/2012
- 8- Doctoral Degree (PhD), Moe win, Development of automatic mesocope for inspection of 3D surfaces, 2012/2013.
- 9- Davoud Jafarluo, (PhD) Study on the improvement of material mechanical properties by severe plastic deformation.

Ongoing supervision

- 1- Doctoral Degree (PhD), Basri Bin Din Kamar, Investigation of Cadmium-Free Brazing fill metals in brazing of pure copper, 2013/2014

- 2- Doctoral Degree (PhD), Harizam, Study of Laser welding of dissimilar materials, 2013/2014
- 3- Doctoral Degree (PhD), Diao Abidu, Modelling and Simulation of Laser cutting process by Modified smoothed particle hydrodynamics method, 2013/2014
- 4- Mohamed Hilman (PhD), Development of Multispectral Meso -scanning Technique for Natural Dye Detection. 8/12/2014.
- 5- Ali Hassan AbdelRazek elsayed (PhD), Modelling and simulation of two phase nano-fluids for heat transfer applications, 2015.
- 6- Mohamed Albahy Abdulhameed Elfiky (PhD), Coupled Meshless and boundary element methods for Modelling and simulation of physical vapour deposition, 2015.
- 7- Master's Degree, Abu Mohamed Saiful, Study on the heat affected zone in laser cutting of high strength steel, 2013/2014.

Undergraduate level Final year projects completed

- 1- FYP, A Modified smoothed particle hydrodynamic for self-propagating high-temperature synthesis assisted coating process, 2013/2014, 1
- 2- FYP, Simulation of Aluminum sheet Electromagnetic Forming, 2012/2013, 1
- 3- FYP, Modelling and Simulation of Co-sensing Characteristics of nano-ceramic Hap Hydroxyapatite, 2012/2013, 1
- 4- FYP "Evaluation of Elasto-Plastic Mechanical Properties of Sheet Metals ", 2011/2012, 1
- 5- FYP " Strengthening and Decoration of Sheet Metals by Plastic Deformation", 2011/2012, 1
- 6- FYP" Punch Friction test Rig for Sheet Metal Stretch Forming Processes", 2011/2012, 1

- 7- FYP " Evaluation of Friction in Metal Forming Process Using Finite Element Method", 2011/2012, 1
- 8- Industrial project "KAPCHAI WEATHER AND SAFETY SHIELDING DEVICE", 2011/2012, 8
- 9- FYP "Design and fabrication of A CNC-Elastometer ", 2008/2009, 4
- 10- FYP "Development of a spinning process for wire drawing", 2007/2008, 6
- 11- FYP "A Developed process on Spin Forming for manufacturing of Satellite dish-Antenna", 2005/2006, 4
- 12- Modelling and simulation of a quad copter with PID controller, 2014/2015, 1
- 13- Finite Element Analysis of rectangular cups with high aspect ratio, 2014/2015, 1
- 14- Modelling and Simulation of Magnetron sputtering Process by Monte Carlo Method, 2014/2015, 1

11- Examiner

1. Examiner for 8 PhD theses.
2. Examiner for 4 PhD work, Candidature Defense
3. Examiner for 16 master students by research.
4. Reviewer in 8 international journals

PhD theses

PhD "DEVELOPMENT OF MATHEMATICAL MODELS UNDER UNCERTAINTY COMMONALITY FOR MULTI-STAGE AND MULTI-PRODUCT MANUFACTURING SYSTEMS" 2011, Thesis ,

PhD "E-COLLABORATION MODEL IN MANUFACTURING PROGECT MANAGEMENT FOR ENHANCEING THE KEY PERFORMANCES" 2012, Thesis ,

PhD "Deformation Characteristics of square cross section cups through conical dies" 2009, Thesis.

PhD VIVA " Design and Development of A Vertical Micro Injection Molding Machine with Flow Visualization Capability", Thesis

PhD "INVESTIGATION OF FLOW INDUCED VIBRATION (FIV) IN AIR CONDITIONER OUTDOOR PIPLINES WITH PARAMETRIC STUDY" 2012, Thesis.

PhD " Novel Car Frontal Longitudinal Design for Crashworthiness Application" 2012, Thesis.

PhD, "Tuning Fuzzy Bang-Bang Controller for Satellite Attitude Control System", Thesis.

PhD, "Study of Thermo-physical Properties, Heat Transfer, and Frictional Loss of GNPS, NDG and RGO Nanofluids in Closed Conduit Flow", 2014, Thesis.

Candidature Defense

PhD, A Study of Brazing Sapphire and Inconel 600 for the Application of Gas Pressure Sensors, Candidature Defense, KHA090057 ,

PhD, Strategic Green Supply Chain and Gaining Competitive Advantages in Malaysian Automotive Industry, Candidature Defense, KHA100072.

PhD, Supercapacitor based On Anodic Titania Nano-tubes, Candidature Defense.

PhD, Friction Stir Welding of Plastic to Metal, Candidature Defense, KGA 100066.

Master theses

Master, Hybrid Microwave Sintering of Zinc-Base Alloy, Candidature Defense.

Master by research "A failure investigation of palm oil screw press machine shafts" 2011, Thesis.

Master "Calibration and Analysis of a Vertical Computer Numerical Control Milling Machine Using Laser Measurement System " 2010, Thesis ,

Master "Process Capability Analysis for Manufacturing of Alternator Front and Rear Brackets of Automotive Motor" 2011, Thesis.

Master" Optimization of Die Geometry During Extrusion of Aluminum" 2011, Thesis.

Master" Maximum Power Point Tracking Algorithm For Load Protection Based on Output Sensing Control" 2011, Thesis.

Master "MODELLING AND SIMULATION OF GRID CONNECTING PHOTOVOLTAIC SYSTEM" 2012, Thesis ,

Master" CONTROL OF CIRCULAR AND ELLIPTICAL SATELLITE FLYING FORMAYION SYSTEM " 2011, Thesis.

Master" STUDY OF COMPRESSUION BEHAVIOUR AND MECHANICAL PROPERTIES OF PAPER PULP PACKAGING USING FEA" 2012, Thesis.

Master " NON-LINEAR FINITE ELEMENT ANALYSIS OF CRROSION FLAW IN PIPELINE " 2012, Thesis.

Master " APPLICATION OF FUZZY DECISION FOR MEASUREMENT OF CUSTOMER SATISFACTION " 2012, Thesis .

Master "Acceptability of Flaw in Pressure Vessel under Fatigue Loadings " 2012, Thesis ,

Master "The application of Group Technology in Concurrent Engineering " 2012, Thesis ,

Master " Development of A Photovoltaic Maximum Power Tracking Control System", Thesis ,

Master, An Investigation on Conventional and Unconventional Laser cutting of Oil Palm Wood., Candidature Defense, KGA100052.

Master Eng. "Data Mining Predictive modelling using Decision Tree Technique", Thesis.

Master Engineering, Investigation of Stress Intensity Factor of a planner inclusion in a solid cylindrical bar Under Uni-Axial and Combined Load, thesis, Candidature defense (KGA 130003)

Reviewer in following international journals

No.	Journal name	Place
1	Journal of Materials Research,	USA
2	International Journal of Mechanical Sciences	Elsevier
3	The International Journal of Surface Science and Engineering,	Inderscience
4	Journal of Engineering Manufacture	Springer
5	Indian Journal of Engineering & Materials Science	India
6	Journal of Automation Technology and Control,	Japan
7	ASEAN ENGINEERING JOURNAL,	China
8	Transactions of Nonferrous Metals Society of China	China

12- Professional Training Programs

I have attended and certified for more than 12 programs on:

1. Administrative rules in academic institutions.
2. Making the world-class Rank: agents of change in university's ranking and reputation
3. E-Learning and preparation of exam paper.
4. Course and teaching evaluation
5. Writing proposal for scientific research
6. International publications
7. Ethics of scientific research
8. Strategic planning
9. Management of scientific research
10. Outcome-Based Education
11. Implementing continues quality Improvement in Engineering Education
12. World University Ranking
13. Management of large-scale university research projects.

13- Consultation

I have conducted consultation projects related to cement industries, problems related to oil extraction, sugar industry, electric motors, and huge diesel engine for electric power generation, ceramic industry; and measurements and instrumentation.

- 1- Calibration of pressure gauges and flow meters for the central water treatment station of Assiut City, Egypt, Chairman, 2010-2010, Central water treatment station of Assiut City
- 2- Fault Diagnoses and repairing of 80MW electric-diesel unit of the Arab contractors, Assiut, Egypt., Chairman, 2007-2007, Arab contractors, EGYPT
- 3- Fault diagnoses and fixing of giant rolling mills used in sugar industry in Edfu national company, Egypt., Chairman, 2008-2008, sugar industry company, Edfu, Egypt

- 4- Feasibility study and status evaluation of a Natural Ceramics Factory at the industrial region in Assiut, Egypt., Expert Advisor, 2006-2006, Natural Ceramics Factory
- 5- Feasibility study and status evaluation of a casting and foundry factory at the industrial region in, new Assiut City, Egypt., Expert Advisor, 2009-2009, Casting and foundry factory.
- 6- Design and simulation of high pressure chuck for oil well drill, PETRONAS, Malaysia.
- 7- Pricing committee for Field Emission Scanning Electron Microscope (FESEM) with Energy Dispersive X-ray Spectroscopy (EDS)., (University Malaya).
- 8- Fault diagnoses and repair engine blades for the CF6-50, CF6-80C2, V2500-A5D5, the CFM56-3/-5A/-5C/-5BP series and the CF34 engine types, Airfoil Services Sdn. Bhd. Malaysia (university of Malaya)

14- INTELLECTUAL PROPERTY RIGHTS

- 1- An Impact Energy Absorber Device, PI2014702765, Patent, **PI2014702765**, 2012, (National)
- 2- A method for Producing Titanium-Carbide-Iron-Alumina Functional Graded Material under Centrifugal Acceleration, Patent no **PI 2015700350**, 2012, (National)
- 3- An Efficient New Die Set for Drawing Rectangular Metal Cups with Extreme Aspect Ratio Patent, **PSTR100286**, 2013, (National)
- 4- A new technique for joining of dissimilar metal by application of equal channel angular pressing, Reference Number: **PI2014702304**. , Patent, 2014, (University)
- 5- Fabrication of metallic nanostructured tubes by application of severe plastic deformation (**Accepted**), Patent, UM.TNC2/UMCIC/603/869, 2015, Patent, UM, (National)
- 6- A process for manufacturing of aluminum alloy 2024 sheets with impressive plastic properties by reactive spray deposition, (**PI2015704802**) Patent UM, 2016, National.

15- Annual performance report at University of Malaya

- 1- Excellent performance in 2012 with 92% from the KPI.
- 2- Excellent performance in 2013 with 96% from the KPI
- 3- Excellent performance in 2014 with 90.56% from the KPI (very tightened KPI)

List of Publications

Papers Published in referred ISI- Journals

Material Science: mechanical properties, material models, simulation, characterization

- [1] R. Mahmoodian, M. Hamdi, **M.A. Hassan**, A. Akbari "Mechanical and Chemical characterization of a TiC/C system synthesized using a focus plasma arc" PloS one 10 (6), e0130836, (2015).
- [2] R. Mahoudian, R. Yahya, **M. A. Hassan**, M. hamdi, R Rahbari, "Nanomechanical and microstructural analysis of TiC/C nanocomposite produced by pressureless DC focus plasma arc", scientific reports.
- [3] **M.A Hassan**, BA Razak, R. Mahmoodian "Identification of Critical Load for Scratch Adhesion Strength of Nitride-Based Thin Films Using Wavelet Analysis and a Proposed Analytical Model", Surface and Coatings Technology 277, 216-221 (2015).
- [4] **M. A. Hassan**, Mohammed Elfiky , Y.Nukman¹, Reza Mahmoodian, "Monte Carlo Simulation Model for Magnetron Sputtering Deposition" Advanced Materials Research 1105, 69-73 (2015).
- [5] N. Sadjad, **M.A. Hassan**, A. R. Bushrao, "Alternative Methods to Determine the Elastoplastic Properties of Sintered Hydroxyapatite from Nanoindentation Testing, Materials & Design, Volume 67, 15 February 2015, Pages 360 368.
- [6] N. Sadjad, **M. A. Hassan**, A. R. Bushrao, An Empirical Modified Fatigue Damage Model for Impacted GFRP Laminates, Acta Astronautica, Volume 103, October–November 2014, Pages 119–128.
- [7] **M. A. Hassan**, R. Mahmoodian, M. Hamdi, "Modified smoothed particle hydrodynamics (MSPH) for the analysis of centrifugally assisted TiC-Fe-Al₂O₃ combustion synthesis", Scientific Reports, Volume: 4 Article number: 3724 (2014), DOI: 10.1038/srep03724. (ISI-Cited Publication)
- [8] R. mahmoudian, **M. A. Hassan**, M. Hamdi, Ali Dabagh, "In- situ TiC-Fe-Al₂O₃-TiAl/Ti₃Al composite coating processing using centrifugal assisted combustion synthesis" Composites Part B vol 39 (2014):279-284
- [9] **M.A. Hassan**, S. Naderia, A.R. Bushroaa, "Low-velocity impact damage of woven fabric composites: Finite element simulation and experimental verification", Materials & Design, Volume 53, January 2014, Pages 706 718
- [10] R. Mahmoodian, **M.A. Hassan**, M. Hamdi, "Study of Ti+C combustion synthesis reaction in a controlled declining temperature state" Combustion Science and Technology, Vol 186(6):737-746.
- [11] Investigation of embedded Si/C system exposed to a hybrid reaction of centrifugal-assisted thermite : R. Mahoudian, R. Yahya, **M. A. Hassan**, M. hamdi, R Rahbari, PLoS one (2015).

- [12] S. Ramesh, K.L. Aw, R. Tolouei, M. Amiriyan, C.Y.Tan, M. Hamdi, J. Puyrbolaksono, **M. A. Hassan**, W.D. Teng (2013): Sintering properties of hydroxyapatite powders prepared using different methods, *CRAMICS international* 39: 111-119.
- [13] Mahmoodian R, Rahbari RG, HamdiM, **Hassan MA** & Sparham M. 2013. The Effects of An Unexpected Ceramic Coating Phase at the Head of a Pipe on Joining and Postprocessing of a Ceramic-Lined Composite Pipe. *Journal of the Minerals, Metals and Materials Society* 65(1):80-85.
- [14] Reza Mahmoodian, **M.A. Hassan**, R.G. Rahbari, R. Yahya, M. Hamdi,(2013), A novel fabrication method for TiC Al₂O₃ Fe functional material under centrifugal acceleration, *Composites Part B: Engineering*, Volume 50, July 2013, Pages 187-192.
- [15] Nanocrystalline forsterite for biomedical applications: Synthesis, microstructure and mechanical properties, Original Research Article, *Journal of the Mechanical Behavior of Biomedical Materials*, Volume 25, September 2013, Pages 63-69 S. Ramesh, A. Yaghoubi, K.Y. Sara Lee, K.M. Christopher Chin, J. Purbolaksono, M. Hamdi, **M.A. Hassan** .
- [16] Properties of Hydroxyapatite synthesized by wet chemical, S. Ramesh, S. Azilaa, C. K. L. Jeffrey, C. Y. Tan, J. Purbolaksono, A. M. Noor, **M. A. Hassan**, I. Sopian and W. D. Teng, *Journal of Ceramics Processing Research*, Vol. 14, No. 4, pp. 448~452 (2013).
- [17] Influence of Manganese on the Sintering Properties of Tetragonal Zirconia. S. Ramesh, W.J. Kelvin Chew, C.Y. Tan, J. Purbolaksono, A. M. Noor, **M. A. Hassan**, U. Sutharsini, M. Satgunam & W.D. Teng. *Ceramics Silikat*, 57 [1] 28-32 (2013).
- [18] **M.A. Hassan**, A. Aboul-Kasem and M. A. EL-Sharief, F. Yusef(2012): Evaluation of the material constants of nitrile butadiene rubbers (NBR) with different carbon black loading(CB): FEM-simulation and experimental; *Polymer* Vol. 53 (17) Pp. 3807-3814.
- [19] Sintering and mechanical properties of MgO-doped nanocrystalline hydroxyapatite. C.Y. Tana, A. Yaghoubia, S. Ramesha, S. Adzilaa, J. Purbolaksono, **M.A. Hassan**, M.G. Kuttyb, *Ceramics International* 39 (8), 8979-8983 (2013).
- [20] A. I. M. Hassaballah, **M. A. Hassan**, N.A.Mardi and M.A.Hamdi, An Inverse Finite Element Method for Determining the Tissue Compressibility of Human Left Ventricle Wall during the Cardiac Cycle , *PLOS ONE* 8(12): e82703. doi:10.1371/journal.pone.0082703 (2013).
- [21] **M. A. Hassan**, M. Hamdi, N. Noma: The Nonlinear Elastic and Viscoelastic Passive Properties of Left ventricular Papillary Muscle of a Guinea Pig Heart, *International Journal of Mechanical behavior of biomedical materials*, Vol. 5 pp. 99-109 (2012).
- [22] A.I. M.Hassaballah, **M.A.Hassan**, N.A.Mardi and M.A.Hamdi, Modeling the effects of myocardial fiber architecture and material properties on the left ventricle mechanics during rapid filling phase, *Applied Mathematics & Information Sciences*, Vol. 8-1 (2015): 161-167.
- [23] Mechanical and Electrical Properties of Y-TZP/ZrB₂ Composite, M. Amiriyan^{1,a}, W.J. Kelvin Chew^{2,b}, S. Ramesh^{2,c}, R. Tolouei, **M.A. Hassan**, A. Hossain, I. Sopyan, S.Meenaloshini, *Advanced Materials Research* Vol. 576 (2012) pp 228-231.
- [24] Effect of Ultrasonication on Synthesis of Forsterite Ceramics: K.Y. Sara Lee, K.M. Christopher Chin, S. Ramesh, C.Y. Tan, **M.A. Hassan**, J. Purbolaksono, W.D. Teng & I. Sopyan., *Advanced*

- Materials Research, 576, 252-255 (2012) (Trans Tech Publications, Switzerland; doi:10.4028/www.scientific.net/AMR.576.252)(ISI/WoS Publication).
- [25] **M. A. Hassan**, I. Kanno and H. Kotera: Compound two dimensional thermo-elastic and thermodynamic analysis for C-axis Oriented Epitaxial Lead Titanate thin films, Vacuum, Vol.81 issue 4 pp.459-465 (2006).
- [26] Y. Ichikawa, T. Matsunaga, **M. A. Hassan**, et al.: Growth and structure of heteroepitaxial lead titanate thin films constrained by miscut strontium titanate substrates, Journal of Materials Research, JMR, Vol. 21 pp. 1261-1268 (2006).
- [27] Shuaiby M. Shuaiby, **M. A. Hassan**, M. Taha: Modeling and simulation of the action potential in human cardiac Tissues using Finite element method, Journal of Communication and computer Engineering, Vol. 2/3: pp. 21:27 (2012)
- [28] Densification behavior of Y-TZP containing zirconium diboride composites M Amiriyani, S Ramesh, R Tolouei, WJK Chew, J Purbolaksono, **M. A. Hassan**, Journal of Ceramic Processing Research 14 (3), 288-291 (2013)
- [29] **M. A. Hassan**, M. Hamdi, S. Naderi, F. Zahedi: Effect of curvature and thickness of Aluminum shell on the energy absorption in low velocity impact, Advanced Materials Research Vol. 488-489(2012) pp 40-45.
- [30] Moe Win, A. R. Bushroa, **M. A. Hassan**, N. M. Hilman,, Ari Ide-Ektessabi, "A Contrast Adjustment M. A. Method for Surface Defect Detection based on Mesoscopy" IEEE Transactions on Industrial Informatics, Vol 11(3) pp: 642-649. (2015).
- [31] Raza Moshwan, Farazila Yusof, **M. A. Hassan**. "Finite element simulation of residual stresses in friction stir welded AA 5052 aluminum alloy plates" Advanced Materials Research. (2015)
- [32] The application of equal channel angular pressing to join dissimilar metals, aluminium alloy and steel, using an Ag–Cu–Sn interlayer, DM Jafarlou, E Zalnezhad, MA Ezazi, NA Mardi, **MA Hassan** Materials & Design 87, 553-566 (2015)
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 Author(s): **Hassan MA**; Fujiwara N; Kanno I; et al. Editor(s): Laurell T; Nilsson J; Jensen K; et al.
 Conference: 8th International Conference on Miniaturized Systems for Chemistry and Life Sciences
 Location: Malmo, SWEDEN Date: SEP 26-30, 2004 Sponsor(s): VINNIVA; Crafoord Fdn; Swedish Fdn
 Strateg Res; MCPT; Micralyne; SAMSUNG; Micro Plastab; GYROS; Lung Univ; Erysave AB; ATS Med; Sil ex
 Microsyst; Johnson &Johnson; Caliper Life Sci; MicroFluid Syst Inc; Analyt Chem; Sci AAAS; Lab Chip;
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- [2] Mohamed Halim, Moe. **M. A. Hassan**, Bushrao," Microscopy Surface Defect Inspection for Titanium Coated on Aluminum Samples, IEEE, VSM2014. (minor correction)
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- [9] S. Peirovi, **M. A. Hassan**, A. F. Nejad; Y. Nukman; A. Hossain; B. S. Yilbas, "Study on the effectiveness of finite element simulation techniques for laser cutting of aluminium sheets" Optics and laser in Engineering.
- [10] Sadeem Abbas Fadhil, **Mohsen A. Hassan**, Harith I. Jaffar, Ekram A. AL-Ajaj, Elasto-Plastic properties of aluminum alloy 2024 samples prepared by reactive atomization process, JOM, springer.
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Publication analysis

I have published **94** paper. **70** articles have been published in the following international journals and **more than 85% of them were** published in **Q1** and **Q2** ISI-ranked top Journals.

No.	Journal name	Class/ rank	No. Of papers
1	Journal of Materials Processing Technology	ISI-Q1	5
2	International Journal of Machine Tools and Manufacture	ISI-Q1	4
3	Materials & Design	ISI-Q1	8
4	Composite part B	ISI-Q1	2
5	Ceramics International	ISI-Q1	3
6	Journal of Mechanical behavior of Biomedical materials	ISI-Q1	2
7	JOM: The Journal of the materials, Metals & Material Society	ISI-Q1	2
8	Scientific Reports	ISI-Q1	1
9	PLOS ONE	ISI-Q1	4
10	International Journal of Applied Mathematics and Information science	ISI-Q1	5
11	Vacuum International Journal (Vacuum)	ISI-Q1	1
12	Polymer	ISI-Q1	1
13	Engineering Failure Analysis	ISI-Q1	2
14	IEEE Transactions on Industrial informatics	ISI-Q1	1
15	The Minerals, Metals & Materials Society and ASM International	ISI-Q1	2
16	International Journal of Control, Automation and Systems	ISI-Q2	1
17	IET Power electronics	ISI-Q2	1
18	Journal of Materials Research (JMR)	ISI-Q2	2
19	Advanced science letters	ISI-Q2	1
20	Combustion Science and Technology	ISI-Q2	1
21	Acta Astronautica	SI-Q2	1
22	Journal of Ceramics processing technology	ISI-Q2	2
23	Ceramics Silikaty	ISI-Q2	1
24	Advanced Materials Research	Scopus	7
25	Advances in Materials Science and Engineering	SI-Q2	1
26	International Journal of Surface Science and Engineering	ISI-Q3	1
27	Journal of the Japan Institute of light Metals	Scopus	1
28	Journal of the Japan Society for Technology of Plasticity	scopus	1
29	Journal of Engineering Science(JES)	Regional	4
30	Frontiers of Information Technology & Electronic Engineering	ISI-Q3	1
31	Journal of Engineering Tribology	ISI-Q2	1
32	Materials and Manufacturing Processes	ISI-Q2	1
33	Procedia Engineering	Scopus	2
34	International Journal of Materials Forming and Machining Processes	ISI/scopus	1

Academic Certificates



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This is to certify that Mr. / MOHSEN ABD - ELNAIM HASSAN MOHAMMED
 has been graduated from Faculty Of Engineering
 in May 19 91 and was granted the degree of B. Sc .
 in Mechanical Engineering
 (Production and Design Department) with a general
 grade (Very Good With), with a percentage (80,3%).

Honour's Degree
 This certificate has been given to him upon his own
 request to be presented to whom it may concern .

Student Affairs

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Registrar

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Dean

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Date : 10 / 8 / 1998

Invoice No . 209562 *Adria*





ASSIUT UNIVERSITY
Faculty of Engineering
Assiut , Arab Republic of Egypt



GRADUATE STUDIES AND RESEARCH DEPARTMENT

CERTIFICATE

This is to certify that Mr. Mohsen Abdel-Naiem Hassan Mohamed
was awarded the M.Sc. Degree in Mechanical Engineering
on 25 / 1 / 1998

The title of his thesis was : "Evaluation of Friction in Cold Sheet
Metal Stretch Forming Processes"

He passed successfully the following preparatory M.Sc. courses and his... grades were:

Course	Grade
- Advanced Engineering Mathematics	Pass
- Applied Electronics and Computer	Very Good
- Advanced Topics in the Theory of Plasticity	Very Good
- Advanced Topics in Machine Design (Tribology)	Distinction
- Finite Element Analysis	Very Good
General Grade "Very Good 84.4 %"	

Assiut : 11/4 / 2002

Registrar :
Magda A. Zaki

Dean
Ahmed
Prof. Dr. Ibrahim M. S. Taha
11/4/2002





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This is to certify that

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has been registered by the Engineering Council and is hereby authorised
to use the style or title of

Chartered Engineer

Handwritten signature of the Chairman in black ink.

Chairman

Handwritten signature of the Chief Executive Officer in black ink.

Chief Executive Officer

Date of Registration 23 July 2012

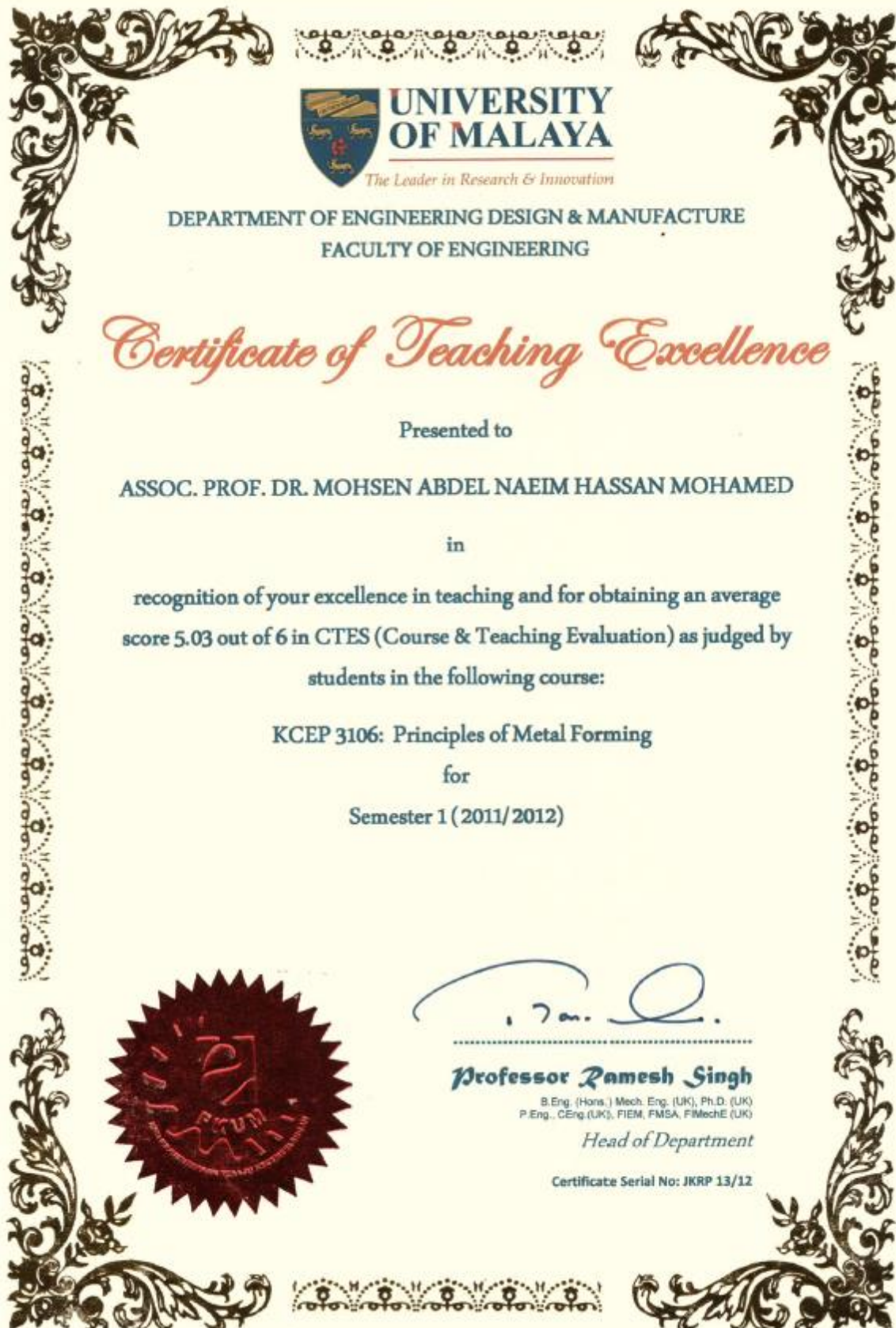
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Semester 2 (2011/2012)

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KCEC 1106 : STATICS

for

Semester 2 (2012/2013)

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