

Mohamed Korrany Hassan, Ph.D.
Zaragoza University, Spain
Associate Professor
Faculty of Engineering
Minia University, Egypt
Umm-AlQura University, KSA



1- **Personal data:**

-First name: Mohamed **Father:** Korrany **Surname:** Hassan

-Date of birth: 07/08/1970

-Mailing Address:

a) In Egypt:

- Production Engineering & Design Dept.
- Faculty of Engineering
- Minia University
- El Minia-Egypt

b) In KSA

- Mechanical Engineering Dept.,
- Faculty of Engineering and Islamic Architecture
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- El-Taquwa tower,
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2- **Qualifications**

- September 2004: **PhD in Engineering** (Material Science and Engineering Metallurgy)
- Institution: Zaragoza University- Department of Material Science; C.P.S (Superior Ploy technique Centre of Engineering)
- Thesis title:
- “**Study and optimization of the mechanical deformation in superconducting composite wires and tapes**”
- October 2001: **Diploma of Advanced Studies; DEA**
- Institution: Zaragoza University- Department of Material Science; C.P.S (Superior Ploy technique Centre of Engineering), Spain
- Scientific field: Material Science and Engineering Metallurgy

- October 1992 – April1997: **M.Sc. Degree in Mechanical Engineering** (Production Engineering & Design)
- M.Sc. Thesis title: “**Concept of cumulative fatigue damage under reversed bending loading**”
- Institution Minia University; Egypt. Faculty of Engineering & Technology, Dept. of Production Engineering & Design
- A summary about this thesis is attached¹
- September 1987 – Mayo 1992 **B.Sc. Degree in Mechanical Engineering** (Production Engineering & Design)

- *Institution:* Minia University; Egypt. Faculty of Engineering & Technology, Dept. of Production Engineering & Design

3— Positions, Secondments, Scientific missions and Mandates

- *Current position: Professor in Mechanical Engineering Dept. (on leave),* Mechanical Engineering Dept., Faculty of Engineering and Islamic Architecture, Umm-AlQura University, KSA
- *Professor in Engineering Materials* Production Engineering & Design Det., Faculty of Engineering, Minia university from March 2018- till now.
- *Head of Biomedical Engineering Dept. from Sept. 2014 to Oct. 2015.*
- *Vic Dean for educational and student affairs, Faculty of Engineering, South Valley University. from March 2011 to March /2014*
- *Associate Professor in Engineering Materials and Mechanical Design Dept.*
- *Institution:* Faculty of Engineering-Qena; South Valley University- Dept. of Production Engineering & Mechanical Design.
- *May 2009- April 2010: Visiting Researcher in Strength & Fracture of Materials*
Institution: Faculty of Engineering- Okayama University- Dept. of Mechanical Engineering.
- *July 2008-April 2009: Assistance Professor in Engineering Materials and Mechanical Design Dept.*
- *Institution:* Faculty of Engineering-Qena; South Valley University- Dept. of Production Engineering & Mechanical Design.
- *October 2004- June 2008: Assistance professor in Engineering Materials and Mechanical Design Dept.*
- *Institution:* Aswan High Institute of Energy; South Valley University- Dept. of Engineering Materials & Mechanical Design.
- *October 2002- September 2004: Member of Egyptian system for Cultural and Scientific Missions in Spain*
- *Institution:* Zaragoza University- Department of Material Science; C.P.S. (Superior Ploy technique Centre of Engineering)
- *October 1998 – September 2002: Scholarship holder of A.E.C.I. (Spanish Agency for International Cooperation; www.aece.es).*
- *Institution:* Zaragoza University- Department of Material Science; C.P.S (Superior Ploy technique Centre of Engineering; www.cps.unizar.es) Spain.
- *June 1993 – September 1998 Lecturer assistance in Mechanical Engineering*
Institution: Aswan High Institute of Energy; High Ministry of Education- Dept. of Engineering Materials & Mechanical Design.

3- Research field:

- Synthesis, Characteristics and Mechanical properties of Advanced Engineering Materials (composite materials, Nano-materials, Bio-materials and Superconducting materials)
- **Current researches:**
- Fatigue damage behavior of Cu thin films used in MEMS devices
- Fatigue damage Effect on the electrical performance of MEMS Cu thin film.
- Prediction of the nominal strength of laminated composite structure using cohesive laws.
- Nano technological approaches for improving the performance of microbial fuel cell/fuel cell

4- Internships

- Intensive training course on “Credit Hours Educational System”-South Valley University, May 2006.

- Intensive training course on “**Ethics of University Carrier**”-South Valley University, February 2007.
- Intensive training course on “**Using Technology in Teaching**”-South Valley University, March 2007.
- Intensive training course on “**Effective Presentation Skills**”-South Valley University, March 2007.
- Intensive training course on “**Development of management skills**”-South Valley University, April 2007.
- Intensive training course on “**E_ Using Computers and Managing Files**”-South Valley University, July 2010.
- Intensive training course on “**Program and courses specification and curriculum maps in higher education institutes**” National Authority for Quality Assurance and Accreditation; NAQAA, -Minia University, 2013.
- Intensive training course on “**Effective Learning in Higher Education**” National Authority for Quality Assurance and Accreditation; NAQAA, -Minia University, 2013.
- Intensive training course on “**Self-study evaluation of higher education institutes**” National Authority for Quality Assurance and Accreditation; NAQAA, -Minia University, 2013.
- Intensive training course on “**External revision for higher education institutes**” National Authority for Quality Assurance and Accreditation; NAQAA, -Minia University, 2013.

5- Participation in Academic Events

- October 2013 till Sept. 2015: Associate Professor in Production Engineering Dept., Minia University.
Type of participation: Teaching the following courses:
Production engineering, production technology, Metal forming, CAD/CAM, CNC machines and Manufacture Engineering.
- July 2007 till March 2013: Associate professor and Lecturer in Mechanical Engineering Dept., Engineering materials & Design section, South Valley University
Type of participation: Teaching the following courses:
Engineering Drawing, Mechanical drawing, Engineering materials and testing, strength of materials and stress analysis, Theory of machine, Physical metallurgy.
- October 2004 till June 2007: Lecturer in high Institute of Energy/ South Valley University.
Type of participation: Teaching the following courses:
Engineering Drawing, Mechanical drawing, Production engineering, production technology, Applied and engineering mechanics, Engineering materials and testing, strength of materials and stress analysis, machine design, Theory of machine, Fabrication and Manufacture Engineering.
- October 2012 till Sept 2013: High institute of engineering and Technology, High Ministry of education, Egypt
Type of participation: Teaching the following courses as part time checked out:
Applications of computer in Industry & Management, Production engineering, workshop technology, industrial engineering and AutoCAD.
- October 2007 till Sept 2008: Faculty of Engineering (Qena), Al-Azhar University
Type of participation: Teaching the following courses as part time checked out:
Engineering Drawing and Machine design.
- October 2005 till June 2007: Labour University Aswan branch
Type of participation: Teaching the following courses as part time checked out:
Modern Manufacturing techniques, Metal forming, Material science and testing, Mechanical design and Principles of mechanical engineering

- October 1992- September 1998:
Aswan High Institute of Energy; High Ministry of Education²- Dept. of Engineering Materials and Mechanical Design.
Type of participation: Assistance lecturer in the following courses:
- Engineering Material Science, Engineering and Technical Drawing, Production Engineering, Applied and Engineering Mechanics, Strength of Materials and Stress Analysis ,Mechanical Design, Theory of Machines, Metal Forming, Mechanical Vibration and Industrial Project Management.
- Oct. 2004 till now: Supervision many of graduate project in all above institutes
- Oct. 2004 till now: Teaching the following postgraduate courses:-
Metal forming, Elasticity and plasticity, applied elasticity, Advanced engineering materials and material technology

6- Awards

- South Valley University Award in the **Scientific Excellence** for 2010.
- South Valley University Award in **Scientific Publication** of the 2010.
- South Valley University Award in **Scientific Publication** of the 2011.
- South Valley University Award in **Scientific Publication** of the 2012.
- South Valley University Award in **Scientific Publication** of the 2013.
- Minia university Award in **Scientific Publication** of the 2016.

7- Languages

- English: Speak, read and write with very good level
- Spanish: Speak, read and write with high level
- Arabic: mother language.

8- Assistance of international Congress

- European Congress of Applied Superconductivity (EUCAS): Sitges (Barcelona- Spain) EUCAS-99.
- European Congress of Applied Superconductivity (EUCAS): (EUCAS): Copenhagen (Denmark) EUCAS-2001.
- SCENT School of Applied Superconductivity, Attika (Greek), Sept. 22- October 4, 2001.
- First International Conference on Energy Engineering; ICEE-1, Dec. 29-31, 2008, Aswan-Egypt. (General Secretary of the conference).
- The Eighth International Conference on Production Engineering and Design; PEDD8, March 9-11, 2010.
- The 18th European Conference on Fracture; ECF 18, August 30- September 3, 2010, Dresden, Germany.
- The 8th International Conference on Fracture and Damage Mechanics in Nagasaki, Japan on 20-22 September 2010.
- Second International Conference on Energy Engineering; ICEE-2, Dec. 27-29, 2010, Aswan-Egypt. (General secretary of the conference)
- The 17th International conference on Metallurgy Technology and Materials, ICMTM2015, Berlin, Germany, 21-22 May 2015.
- The European conference on *Fuel Cell Technology & Applications: ECF2015 - Piero Lunghi Conference, December 16-18, 2015, Naples, Italy, paper ID:(EFC15259). (accepted paper)*

9- Scholarships

² High Institute of Energy has been joined to South Valley University since April 2006 and its name has been changed to Faculty of energy Engineering.

- Scholarship from the A.E.C.I., for PhD study, Zaragoza University (1998-2002). Funded by A.E.C.I (Agencia Española para Cooperación Internacional) and Egyptian High Ministry of Education.
- Fellowship from the Egyptian High Ministry of Education (postdoctoral) in the Mechanical Engineering Dept., Faculty of Engineering, Okayama University, Japan, 2009-2010.

10- Publications

- [1] Mohamed K. Hassan and Rafael Navarro "Variation of mechanical properties of the metallic sheath in composite Ag/BSCCO tapes during plastic conformation" *Physica C*, 372- 376 (2002) 1036- 1039.
- [2] K. A. Khalil, M. M. Dwaidar, G. T. Abdel-Jaber and M. K. Hassan "Mechanical Properties and wear resistance of 17-4 PH stainless steel compacts used as dental brackets" *Journal of Engineering Sciences, Assiut University*, Vol.33, No. 4, pp.1431-1441, July 2005.
- [3] M. M. Dewidar, K. A. Khalil, M. K. Hassan, G. T. Abdel-Jaber, D. W. Seo , and J. K. Lim "Processing and mechanical properties of porous 316L stainless steel for artificial hip joints" Proceeding of *Fracture Mechanics and applications conference*, Editors .C. Shi and Z. D. Wang, Nov. 3-4, 2005 China.
- [4] M.K.Hassan, M. M. Dwaidar and S.Z. El-Abedin "A modified method for fabrication porous silicon nitride/silicon carbide nanocomposites" *Journal of Engineering Sciences, Assiut University*, Vol. 35, No. 2, pp. 443-456, March 2007.
- [5] A. A. El-Amin and M. K. Hassan " Study of MIS Multicrystalline silicon thin film solar cell" *Journal of Engineering Sciences, Assiut University*, Vol. 36, No. 6, pp. 1399-1411, Nov. 2008.
- [6] Mohamed.K. Hassan, Khalil .A..Khalil and M. Dewedar "Synthesis and characterization of Ag/Al alloy used as cladding sheath for superconducting composite materials" Proceeding of *The first International conference of Energy Engineering; ICEE-1*, pp.124 -131 Aswan, Egypt.
- [7] Khalil Abdel-razek Khalil, Santosh Aryal, Mohamed. K. Hassan, Sug Won Kim, and Hak Yong Kim, "Mechanical properties of Hydroxyapatite Nanorods consolidated using High Frequency Induction Heat sintering" Proceeding of *the first International conference of Energy Engineering; ICEE-1*, pp. 29-33, 2008, Aswan, Egypt.
- [8] Mohamed.K. Hassan, Tashiyuki Torii, Kenichi Shimizu and Koki Ishida "Fatigue damage Effect on the electrical resistance of MEMS Cu thin film with dimensions change" accepted and presented in the *8th Conference on Production Engineering & Design for Development; PEDD8*, March 9-11, 2010, Ain Shams University, Egypt.
- [9] Mohamed.K. Hassan, Tashiyuki Torii, Kenichi Shimizu and Koki Ishidab,c "Fatigue fracture behavior of MEMS Cu thin films" accepted and presented in *18 th European Conference on Fracture, Fracture of Materials and Structures from Micro to Macro Scale- ECF 18*, August 30-September 03, 2010, Dresden, Germany.
- [10] Abu El-Ainin . H, Mohamed K. Hassan, Y. Mohammed "Effect of mold types and cooling rate on mechanical properties of Al alloy 6061 within ceramic additives" Proceeding of *the 2nd International conference of Energy Engineering; ICEE-2*, Paper MD 306 Dec. 27-29, 2010, Aswan, Egypt.
- [11] Abu El-Ainin . H, Mohamed K. Hassan, Y. Mohammed, Osama M. Erfan "Effect of ceramic additives on mechanical properties of aluminum alloy 6061" Proceeding of *the 2nd International conference of Energy Engineering; ICEE-2*, Paper MD 308 Dec. 27-29, 2010, Aswan, Egypt.
- [12] Koki Ishida, Tashiyuki Torii, Mohamed.K. Hassan and Kenichi Shimizu "Fatigue Damage Behavior depending on the Bonding Interface Layer in Copper Film Bonded to Base Metals" *Key Engineering Materials*, Vols 452-453, pp. 253-256.
- [13] Mohamed K. Hassan, Y. Mohammed, T. M. Salem , A. M. Hashem "Prediction of nominal strength of composite structure open hole specimen through cohesive laws" *International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS* Vol: 12 No: 01, 2012, pp. 01-09.
- [14] Abdalla Abdal-hay, Seok Geun Park, Do Yeon Jung, Mohamed K. Hassan, Jae Kyoo Lim" Study on the degradation behavior nanocomposites coated on magnesium alloy for bone implants" *ECCM15 – 15th European Conference on Composite Materials*, Venice, Italy, 24-28 June 2012.
- [15] Y. Mohammed, Mohamed K. Hassan, A. M. Hashem "Finite Element Computational Approach of Fracture Toughness in Composite Compact-Tension Specimen" *International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS* Vol: 12 No: 04, August 2012, pp. 57-61.
- [16] Y. Mohammed, Mohamed K. Hassan, , Osama M. Erfan Abu El-Ainin H, "Geometric Correction and stress concentration factors of Open Hole Composite plate through constant cohesive law", [SJSAM-Vo.2-Issue 1- Paper 2](#), Dec 3, 2013.
- [17] Mohammed, Y., Mohamed. K. Hassan, Abu El-Ainin H, A. M. Hashem "Research Article: Fracture Properties of Glass Fiber Composite Laminates and Size Effect" *Scholars Journal of Engineering and Technology (SJET)*, Vol.1:Issue-1(Apr-May;2013).

- [18] Y. Mohammed, Mohamed K. Hassan, Abu El-Ainin H, A. M. Hashem, "Effect of stacking sequence and geometric scaling on the brittleness number of Glass fiber composite laminate with stress raiser", *Science and Engineering of Composite Materials*, vol. 21, 2014, pp. 281-288.
- [19] Y. Mohammed, Mohamed K. Hassan, Abu El-Ainin H, A. M. Hashem, "Size Effect analysis in laminated Composite Structure using General Bilinear Fit", *Int. J. Nonlinear Sci. Numer. Simul.* Vol. 14, Issue 3-4 (Jul 2013)
- [20] Y. Mohammed, Mohamed K. Hassan, A. M. Hashem, "Analytical Model to Predict Multiaxial Laminate Fracture Toughness From 0o ply Fracture Toughness", *Polymer Engineering & Science*, vol. 54, pp. 234-238, 2014.
- [21] Y. Mohammed, Mohamed K. Hassan, H. Abu El-Ainin, A. M. Hashem, "Size effect analysis of open-hole glass fiber composite laminate using two-parameter cohesive laws", *Acta Mech.* Vol. 225, No.9, Sept. 2014.
- [22] Y. Mohammed, Mohamed K. Hassan, "Numerical Analysis of Open Hole Specimen Glass Fiber Reinforced Polymer" *Nonlinear Engineering – Modeling and Application (NLENG)*, May 2014.
- [23] Mohammed Y. Abdellah, Mohamed K. Hassan, H. M .Abu El-Ainin, "Plasticity and Formability Controlling of Cast Iron Using Thermo-Mechanical Treatment" *American Journal of Materials Engineering and Technology*, vol. 2, pp. 38-42, 2014.
- [24] Naguib G. Naguib, Mohammed K. Hassan, Mohammed Y. Abdellah, Wagih W. Marzouk, Mostafa A. Abdel-Rahman "Effect of Adding Nano-Fillers on the Mechanical Properties of Glass Fiber Reinforced Polymer", *Minia Journal of Engineering and Technology; MJET*, Vol. 2, January 2015.
- [25] Naguib G. Naguib, Mohammed K. Hassan, Mohammed Y. Abdellah, Wagih W. Marzouk, Mostafa A. Abdel-Rahman, "Evaluation of Fracture Toughness of Epoxy/Glass Fiber and its Nano Composites via the Essential Work of Fracture (EWF) Method" *Minia Journal of Engineering and Technology; MJET*, Vol. 2, January 2015.
- [26] A. M. Sheikh , M. K. Hassan, N. M. Ghazaly, F. D. Sanij, C. F. Malfatti "Evaluation of Palladium Catalysts for Ethanol Oxidation in Direct Ethanol Fuel Cells (DEFCs)" *Second international conference on "Nanotechnology and its application" ICN-II*, Loxur-Qena, Egypt, 23-26 February 2015.
- [27] MY Abdellah, MS Alsoufi, MK Hassan, HA Ghulman, AF Mohamed" **Extended Finite Element Numerical Analysis of Scale Effect in Notched Glass Fiber Reinforced Epoxy Composite**" *Archive of Mechanical Engineering* 62 (2), 2015, 217-236.
- [28] Mohammed Y. Abdellah , Mohamed K. Hassan, A. F. Mohamed, Shadi M. Munshi , A. M. Hashem " **Static Relaxation of Glass Fiber Reinforced Pipes**" *The 17th International conference on Metallurgy Technology and Materials, ICMTM2015*, Berlin, Germany, 21-22 May 2015.
- [29] Ahmed F. Mohamed, Mohammed Y. Abdellah Mohamed K Hassan , "**Relaxation and Compressive Characteristic in Composite Glass Fiber reinforced Pipes**", *International Journal of Scientific & Engineering Research* 6 (9), 1823-1827
- [30] Mohamed K. Hassan, Mohammed Y. Abdellah, Saber. K. Azabi, W.W Marzouk "**Investigation of the Mechanical Behavior of Novel Fiber Metal Laminates**" *International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS*, Vol. 15 (3), 2015, pp. 112-119.
- [31] Mohamed K. Hassan, Aymen El Ameen, Mohammad S. Alsoufi and Mohammad A AbdelKareem "Electric conductivity of Nanostructured LaGdSmO2-based Solid Oxide Fuel Cell" *Proceedings of EFC2015 European Fuel Cell Technology & Applications Conference - Piero Lunghi Conference*, December 16-18, 2015, Naples, Italy, paper ID:(EFC15259).
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- [33] Badran A. H., Hasan M. K., Ali W.Y, TRIBOLOGICAL PROPERTIES OF EPOXY COMPOSITES ,*GTRIB Journal*, VOLUME 13, No. 1, January 2016, pp. 53 – 62
- [34] Mohammed Y. Abdellah, Mohamed K. Hassan and Mohammad S. AlSoufi "**Fracture and Mechanical Characteristics Degradation of Glass Fiber Reinforced Petroleum epoxy Pipes**," *Journal for Manufacturing Science and Production*, Vol. 16, pp. 33-40, 2016.
- [35] Mohammed Y. Abdellah, Mohamad K. Hassan,T. Mandourah, Ahmad F. Mohamed "**Bearing Strength and Failure Behavior of Bolted GLARE Joints**" *International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS* Vol:16 No:02 .
- [36] P. S. Saud, Z. K. Ghouri, M. K. Hassan, N. A. Barakat, and H. Y. Kim, "Nano-designed λ -CaCO₃@rGO photo-catalyst for effective adsorption and simultaneous removal of organic pollutant," *Journal of Materials Science: Materials in Electronics*, vol. 27, pp. 9593-9598, 2016.
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- [38] Ramadan Bassiouny · Mohamed R.O. Ali · Mohamed K. Hassan "**An Idea to Enhance the Thermal Performance of HDPE Pipes used for Ground-Source Applications**" *Applied Thermal Engineering* 109:15-21 · August 2016.

- [39] Tony M. Hassan, W.W. Marzouk and **M. Korrany** "Effect of nano carbon fibers on tensile strength of epoxy composite" *Minia Journal of Engineering and Technology; MJET*, Vol. 3, January 2017.
- [40] Badran, H., M. K. Hasan, and W. Y. Ali. "Tribological Behavior of Epoxy Reinforced with Carbon Nano tubes and filled by Vegetables Oils." *KGK-KAUTSCHUK GUMMI KUNSTSTOFFE* 70.11-12 (2017): 38-42
- [41] Mohamed K. Hassn, A.A. ELAmin, Ahmed F. Mohamed, Mohammed Y. Abdellah, "Effect of a Adding Nanostructured LaGdSmO₂-B ased Electrolyte on The Electric Performance of Solid Oxide Fuel Cel," *International Journal of Scientific and Engineering Research*, Vol. 8, 2017.
- [42] A.A. ELAmin, Mohamed K. Hassn, "Fabrication of CdTe0.65P0.35/SiSolar Cell with High Efficiency Using Double Layer Antireflection" *Journal of Electerical Engineering*, Springer, Vol. 99.No.1, 2017.
- [43] Mohamed K. Hassan " Characterization of Face Sheet/Core De-Bonding Strength in Sandwiched Medium Density Fiberboard" *Material Science and Applications*, Vol.8, No. 9, August 2017.
- [44] Mohamed K. Hassan, Mohammed Y. Abdellah, Ahmed F. Mohamed, Tareq S. ElAbiadi, S. Azam, and W.W. Marzouk " Fracture Toughness of Copper/Glass-Reinforced Epoxy Laminate Composites" *American Journal of Materials Engineering and Technology*, Vol 6, No 1, 1-7, 2018.
- [45] Amr A. Ali, Mohammed Y. Abdellah, Mohamed K. Hassan, Sayed T. Mohamed' **Optimization of tensile strength of Reinforced Rubber Using Taguchi Method**' *International Journal of Scientific & Engineering Research* Volume 9, Issue 6, June-2018.
- [46] AbdallaAbdal-hay, MahmoudAgour, Yu-Kyoung Kim Min-HoLee, Mohamed K.Hassan, H.Abu El-Ainin, AbdelSalam Hamdy, SasoIvanovski" Magnesium-particle/Polyurethane Composite Layer Coating on Titanium Surfaces for Orthopedic Applications" *European journal of polymer*, available online 10/2018. <https://doi.org/10.1016/j.eurpolymj.2018.10.012>.
- [47] M. Y. Abdellah, A. F. Mohamed, and M. K. Hasan, "Characteristic Analysis: Vibration Behaviour of Composite Laminated Structures Compared to Monotonic Materials," *International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS*, vol. 19, 2019.
- [48] Mohamed K.Hassan, Talal S. Mandourah, M. Y. Abdellah, A. F. Mohamed, Ibrahim Bushnaq and S. Azim" **New Trends To Enhance The Resistance Of “Keswat Al-Kabaa” To Environemental And Human Condition By Adding Nano-Partcles Or Kvelar Fiber**"19th HAJ and Ummarah meeting, KSA 6-7 March 2019
- [49] Mohamed K.Hassan, Talal S. Mandourah, M. Y. Abdellah, A. F. Mohamed, Ibrahim Bushnaq and S. Azim" **A new proposed substance to resist ignition and fire for use in the holy sites during the Hajj and Umrah seasons**" 19th HAJ and Ummarah meeting, KSA 6-7 March 2019.
- [50] Mohammed Y. Abdellah, Ahmed F. Mohamed, Mohamed K. Hasan" **Characteristic Analysis: Vibration Behaviour of Composite Laminated Structures Compared to Monotonic Materials**" *International Journal of Mechanical & Mechatronics Engineering IJMME*
IJENS Vol:19 No:01
- [51] **Fracture toughness, vibration modal analysis and viscoelastic behavior of Kevlar, glass, and carbon fiber/epoxy composites for dental-post applications**; September 2019 *Journal of the Mechanical Behavior of Biomedical Materials* 101:103456
DOI: 10.1016/j.jmbbm.2019.103456

International books:

- [52] Mohamed K. Hassan" Study and optimization of the mechanical deformation Processes used in the fabrication of superconducting composite wires and tapes" Lambert Academic Publishing; LAP, Germany 2012, ISBN- 978-3-659-15615-

11- Participation in Scientific Project

- Institution: Instituto de Ciencia de Materiales de Aragón, ICMA- CPS, Universidad de Zaragoza. Zaragoza University
Type of participation: Assistant researcher within the Superconductivity group as participating in the Spanish project CICYT MAT1999-1028.
Title of the project: " Fabrication of Ag/Ag-BSCCO superconducting wires and tapes"
Duration: 3 years.
- Institution: South Valley University
Type of participation: Co- Principal Investigator
Title of the project: " Sustainable Utilization of Waste Water in Arid Agriculture Regions" (SUWAAR) funded by STDF.
Duration: 1.5 years
- Institution: Minia University
Type of participation: Co- Principal Investigator

Title of the project: " Nano-technological Approach for the Development and Implementation of Microbial Fuel Cell for Energy Harvesting from Wastewater" ENPI/2014/343-429. Funded by European Union.

Duration: 2 years

- Institution: Minia University

Type of participation: Co-Investigator

Title of the project: " Synthesis and characterization of nanofiber and their applications in the removal of organic waste and improving the performance of solar cells" in cooperation with Chunbuk University, South Korea

Duration: 1 years

12- Activities, committees, and community service

- Vice manager of Quality Assurance unit for Institutional Capacity, Faculty of Engineering Minia University.
- Chairmen of the Bio Medical Engineering Council, Minia University
- Member of the Faculty of Engineering Council, Minia University.
- Member of the board of directors and unit production Furniture, Minia University
- Vice dean for educational and student affairs, Faculty of Engineering-Qena, South Valley university.
- Chairman of strategic plan team, Faculty of Engineering- Qena, South Valley University
- Leading the technical committee at the federation of student, High institute of Energy, 2007-2008.
- Member of Labs and Scientific instruments committee in High institute of Energy, 2004-2008.
- Member of the Board of Directors Service Center, training and engineering consultancy, High institute of Energy, 2007-2008.
- Member of Quality Assurance unite, High institute of Energy, 2007-2008.
- Member of the executive team of the Quality Assurance unite, Faculty of Engineering-Qena, 2008 till now.
- Secretary of the Public Service Administration Center for Studies and Engineering consultancy, Faculty of Engineering-Qena, 2009.
- Secretary General of the First International Conference; ICEE-1, Aswan, Egypt December 2008.
- Secretary General of the Second International Conference; ICEE-2, Aswan, Egypt December 2010.
- Member of the scientific committee of the First and Second International Conferences; ICEE-1 and ICEE-2.
- Member of many technical committees of technical specifications for Labs and instruments, South Valley University.
- Member of many Examine and bid committees of tenders in South Valley University.
- Participate in the third environmental week organized by South Valley University, March 2010.
- Supervision 7 PhD and 4 MSc thesis (1 at Minia university and 3 at South Valley University).
- Reviewer in many international journals (Engineering fracture Mechanics, Ciancia de los Materials, Silicon, Cogent Engineering ...etc) .
- Provide consulting services for many factories and industrial plant such as, cement industry, Food industry, failure analysis ...etc

Bibliography

Dr Mohamed K.Hassan belongs to the mechanical engineering department, college of Engineering & Islamic Arch., Umm-Alqura university. His major research interest is the development of advanced functional materials such as composite, nano composite, superconducting and composites used in micro-electrical mechanical systems; MEMS which are widely used in renewable energy applications. This development is achieved by studying, analyzing and modeling the operation conditions of these composites materials. As a consequence, finding out, test and finally suggest the way to improve their performance.

Dr Mohamed K.Hassan has received his **B.Sc.** from Faculty of Engineering, El-Minia University, Egypt. In May 1992, he joined the Department of Engineering Materials& Mechanical Design in the High Institute of Energy as demonstrator. At the same time, he started to work on his Master in the department of Production Engineering and Mechanical Design, El-Mnia University. His thesis was about **concept of cumulative fatigue damage of low carbon steel under reversed bending.**

During his study, he availed himself to several research skills. Therefore, he obtained a considerable experience in different fields of Production Engineering and Mechanical Design. In 1997, he completed his Master thesis and got his **M.Sc.** Degree. Then he had obtained an appointment as assistant lecturer in the department of Engineering Materials& Mechanical Design in the High Institute of Energy. He was involved in teaching of engineering students since his joining to the department.

He got a **PhD** scholarship from Spain and obtained successfully his **DEA** and **PhD** Degrees from Zaragoza University in 2001, 2004, respectively in the field of Advanced Engineering Materials his PhD was on “**Study and optimization of the mechanical deformation in superconducting composite wires and tapes**”. Since he has come back to his institute has worked as assistant professor& researcher in the same department. He was teaching many courses in the field of Production Engineering and Mechanical Design especially in engineering materials. At the first of July 2008, he moved to the faculty of Engineering in Qena, Egypt and continued his work at the same department. Later, he moved again to the faculty of engineering, Mina university continuing my work and activities in the production engineering and design department.

He is keen to be bright energetic, talented engineer, honest, good researcher, knowledgeable and hard working person. This make him confident that he has the professional, analytical, technical tools and character attributes to succeed in academic and research groups. Finally, he is an enthusiastic person who will face every challenge to reach his target in learning.

During 20 years' "teaching, research and academic experience", he has worked with many graduate and undergraduate students, as well as post-doctoral trainees. He participated in many project researches within international groups such Applied superconductivity in Zaragoza university, Spain and Strength and fracture of materials in Okayama university, Japan. Moreover, he participated in many research projects inside Egypt funded by STDF, RDI,, etc. On the other hand, he participated in many administration and managerial tasks such as head of departments and vice dean for educational affairs. Also, he acted as chairman of strategic plan committee and vice chairman of quality assurance and accreditation unite for institutional capacity. Accordingly, he is considered highly qualified to run and judge the academic preparedness and the work capacity of any academic department and research group.

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