

## Dr. Mahmoud Mohamed Ibrahim Tash

Ph.D. Engineering/Materials Engineering

- Associate Professor, Cairo University, Faculty of Engineering, Dept. Of Mining, Petroleum and Metallurgy, Giza, Egypt.
- Assistant Professor, Prince Sattam bin Abdulaziz University, Collage of Engineering, Mechanical Engineering Department/Industrial Engineering Program, AlKharj, KSA.



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### C.V.

#### PERSONAL DATA

**Date of Birth:** July 15, 1975  
**Place of Birth:** Shobramills -Zefta- El-Gharbia, Egypt  
**Nationality:** Egyptian  
**Marital Status:** Married, Four Daughter's (Nadine, Rawan, Rodina& Talia)

#### EDUCATION

- **September 2002-July 2005: Doctor of Philosophy, Metallurgical Engineering,** Québec University, Chicoutimi (UQAC), Co-Direction with McGill University, Québec, Canada.
  - **PhD Thesis Title:** Effect of Metallurgical Parameters on the Machining Behavior of 356 and 319 Alloys (Drilling and Tapping Study).
  - **Grade:** GPA of 3.98 /4.3.
- **October 1998-Junuray 2002: Master of Science, Metallurgical Engineering,** Cairo University, Giza, Egypt.
  - **Thesis Title:** Role of Thermomechanical Treatment on the Aging and Mechanical Behavior of Al-Mg- Si 6082 alloy.
  - **Grade:** Distinction in Preparatory year, an average of 93% and a GPA of 4.0 /4.
- **September 1993-July 1998: Bachelor of Science, Metallurgical Engineering,** Cairo University, Giza, Egypt.
  - **Bachelor Grade:** Very Good with Honors Degree"- an average of 81.98%, and a GPA of 3.48 /4.0.
  - **Project Thesis:** Effect of Preaging Treatment on the Aging Characteristics of Al-Mg-Zn 7075 Alloy.
    - **Project Grade:** Distinction

## EMPLOYMENT

### **EGYPT**

- **September 2017-Present: Associate Professor**, Cairo University, Faculty of Engineering, Mining, Petroleum and Metallurgical Engineering (MPM) Dept.)
- **July 2015-Present: Got Promotion to Associate Professor**, Cairo University, Faculty of Engineering, Mining, Petroleum and Metallurgical Engineering (MPM) Dept., Giza, Egypt.
- **March 2006- June 2015: Assistant Professor**, Cairo University, Faculty of Engineering, Mining, Petroleum and Metallurgical Engineering (MPM) Dept., Giza, Egypt.
- **March 2007- November 2008: Assistant Professor (Part time)**, Tanta and Kafer Sheikh Universities, Faculty of Engineering, Mechanical Design and Production Engineering Dept., Egypt.
- **February 2002- February 2006: Senior Lecturer**, Cairo University, Faculty of Engineering, Mining, Petroleum and Metallurgical Engineering (MPM) Dept., Giza, Egypt.
- **October 1998- January 2002: Teaching Assistant**, Cairo University, Faculty of Engineering, Mining, Petroleum and Metallurgical Engineering (MPM) Dept., Giza, Egypt.

### **KSA**

- **March 2011-August 2017: Assistant Professor**, Mechanical Engineering Department, Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities ), Al Kharj, Kingdom of Saudi Arabia.(on leave from Cairo University, Faculty of Engineering, Mining, Petroleum and Metallurgical Engineering (MPM) Dept.)
- **April 2015-March 2016: Consultant** for Vice Rectorate of Development and Quality, Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities), Al Kharj, Kingdom of Saudi Arabia.
- **November 2013-March 2015: Consultant** for Vice Rectorate of Development and Quality, Deanship of Development and Quality, Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities), Al Kharj, Kingdom of Saudi Arabia.
- **October 2011- October 2013: Consultant** for Vice Rectorate of Academic Affairs, Deanship of Development and Quality, Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities), Al Kharj , Kingdom of Saudi Arabia.
- **March 2009-August 2010: Assistant Professor**, King Saud University, Faculty of Engineering at Al Kharj, Mechanical Engineering Dept., Al Kharj , Kingdom of Saudi Arabia.

### **Canada**

- **September 2002- July 2005: Ph.D Candidate and Research Assistant**, Québec University, Chicoutimi (UQAC), Co-Direction with McGill University, Québec, Canada.

## **ADMINISTRATIVE EXPERIENCE**

- **February 2018-January 2019: Quality Manager, Mechanical Testing laboratory,** Cairo University, Faculty of Engineering, Mining, Petroleum and Metallurgical Engineering (MPM) Dept.) With **Technical Experience in ISO/IEC 17025** and EGAC regulations (**Laboratory** Testing/Assessment and Surveillances) , Egyptian Accreditation Council (EGAC), Egypt.
- **December 2017- November 2018: Quality and Accreditation Unit Member,** Cairo University, Faculty of Engineering, Mining, Petroleum and Metallurgical Engineering (MPM) Dept., Giza, Egypt.
- **March 2015-March 2016: Consultant, Quality and Development Vice-Rectorate,** Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities).
  - Attending Consultants periodic meeting/Council for Vice Rectorate of Development and Quality.
  - Follow-Up the University Quality Assurance and Academic Accreditation Project work.
  - Institutional Developmental Review Project Member for Standard 4: Learning and Teaching Committee.
    - Cooperate in preparing the University and six of its academic programs for the NCAAA Developmental Review Project to meet the National Accreditation Criteria of the NCAAA
  - Institutional Developmental Review Project Self Study Report (SSR) Review Member Committee.
  - International Academic Accreditation Committee Member, Salman bin Abdulaziz University.
    - International accreditation by COE for the community college and academic programs (2013-2018).
    - International accreditation by ABET (6 years) for Mechanical, Electrical and Civil Engineering, College of Engineering at Al-Kharj, July 2015.
    - International accreditation by ASIIN for Mathematics and Physics Programs in the College of Science and Humanities Studies at Al-Kharj, November, 2015.
  - Conduct effective site visits to support and monitor the colleges/ programs and Provide consultation and necessary technical support necessary concerning the application of internal quality systems.
  - Attending TOT (40 hrs.), AUC, Egypt, July 2015.
  - Expertise in ISO 9001:2008 for Quality Management System- January 2014-March 2016. **Coordinator and Supervisor** for establishing and implementing Quality Management System at Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities).
    - The Prince Sattam bin Abdulaziz University Awarded ISO 9001:2008 with certificate No. FS629240, expiry date 26/2/2018.
- **November 2013 – March 2015: Development and Quality Deanship Consultant,** Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities).
  - Attending Consultants periodic meeting/Council for Deanship of Development and Quality.

- Attending many Quality workshops and presenting a summary talk to the Quality Units Coordinator's.
  - Sharing in preparing the action-plan and Workshops timetables for Development and Quality Deanship activities (academic year 1432/1433).
  - Preparing guidelines and broacher's for Development and Quality Deanship
  - Follow-up and monitoring (Internal Reviewer) i.e. reviewing quality work in Collage of Engineering, Engineering and Computer Science and Business Administration to ensure application of quality standards in all academic departments within these Collages.
  - Examine and give opinion about the forms/ templates and documents used in quality assurance activities of the college
  - Verify the extent to which colleges and academic programs have fulfilled the requirements of the National Commission for Academic Accreditation & Assessment (NCAAA) or any other accreditation body approved by the Deanship of Quality and Development
  - Examine the documents concerning quality activities and practices at colleges and programs.
  - Share in developing a system of external review to confirm that academic standards have been achieved
  - Aware with National Qualification Framework (NQF) in Saudi Arabia.
  - Share in preparing Deanship of Development and Quality- Strategic Plan
  - International Academic Accreditation ABET Committee Member (Collage of Engineering and Collage of Engineering and Computer Science)
    - ABET Mutual Executive & Steering Committee Member for Collage of Engineering and Collage of Engineering and Computer Science
    - Share in preparing Action and Accreditation Plan for Collage of Engineering and Collage of Engineering and Computer Science
    - Follow-up the implementation of ABET Accreditation Plan for Collage of Engineering and Collage of Engineering and Computer Science
  - Coordination with Britch Council and organizing Internal Reviewer Workshop at Riyadh (27-28 / 11/1432 H) for PSAU Faculty
  - Attending periodic Meeting for University Quality unites coordinator
- **March 2011-October 2013: Educational and Academic Affairs Vice Rectorate & Development and Quality Deanship Consultant, Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities)**
    - Institutional Initial-Evaluation Project Team Member
    - Institutional Developmental Review Project Team Member
    - Reviewing Learning and Teaching Standard Committee Member for Medical Collages, 1432H.
      - Collage of Pharmacy Site visit, 26/12/1433H
      - Collage of Medicine, Site visit, 18/1/1433H & 13/7/1432H
    - Reviewing Learning and Teaching Standard Committee Member for Engineering and Humanities Collages, 1432H. Internal Reviewer for Engineering and Humanities Collages and their Programs
      - Collage of Community, Site visit, 22/11/2011
      - Collage of Computer and Information Science, Site Visit, 10/2/1433
      - Collage of Education at Wadi AlDawaser (Male and Female), site visit, 9/1/1433H and 16/1/1433H
      - Collage of Arts and Science at Wadi AlDawaser, site visit, 10/1/1433H and 15/3/1433H
      - Collage of science and humanities studies at Aflag, site visit, 13/3/1433H
      - Collage of Engineering at Wadi AlDawaser, site visit, 16/3/1433H
      - Collage of science and humanities studies at Al Selial 14/3/1433.

- Quality Assurance and Accreditation Unit Coordinator, Collage of Engineering at Al kharj, (December 2009-September 2010)
- Quality Assurance and Accreditation Unit (QAAU) Member, Mining, Petroleum and Metallurgical Engineering Programs Quality Coordinator, Faculty of Engineering, Cairo University, Giza, Egypt (2006-2008).
- **March 2006- February 2009: Experience in ISO/IEC 17025 and EGAC regulations (Laboratory Testing/Assessment and Surveillances)- Technical Expertise, Egyptian Accreditation Council (EGAC), Egypt.**
  - Testing/Assessment and Surveillances of **Hardness Testing Laboratory, Arab British Dynamics (ABD)**, Arab Organization for Industrialization (A.O.I) Kilo 4.5 Suez Road Cairo – Egypt in accordance with ISO / IEC 17025 and EGAC regulations and requirements.
  - Testing/Assessment and Surveillances of **Physical, Mechanical and Chemical Testing Laboratories - Technical Services Department (TDS) Central Metrallurgical Research & Development Institute (CMRDI)** El Flezat St., El Tabbin Cairo – Egypt in accordance with ISO / IEC 17025 and EGAC regulations and requirements.
  - Testing/Assessment and Surveillances of **Central Laboratory & Flat Laboratories (Chemical & Mechanical ) Alexandria National Iron & Steel Co. – Dekheila – ANSDK** Alexandria-Egypt in accordance with ISO / IEC 17025 and EGAC regulations and requirements.
  - Testing/Assessment and Surveillances of **Central laboratories (Chemical and Mechanical Testing Laboratories) Arab company For special Steel-ArcoSteel** Sadat City-4<sup>th</sup> and 5<sup>th</sup> Industrial Zone Menofeia-Egypt in accordance with ISO / IEC 17025 and EGAC regulations and requirements.

## **WORKSHOPS AND OTHER ACTIVITIES**

- Stakeholder 1st Meeting in Engineering Education for Academic year 2008/2009, Faculty of Engineering-Cairo University, November, 9 2008, Egypt.
- A presentation seminar on the General Concepts and Mechanisms of Quality Assurance in Higher Education, October 9, 2008, Egypt.
- Workshop on Quality in Higher Education - King Saud University, 25-26/5,2009, KSA.
- Workshop on Development Academic Programs for Academic Accreditation- King Saud University, 31/1-1/2,2009, KSA.
- KPI's and Benchmarking Workshop- National Commission for Academic Accreditation &Assessment (NCAAA), jeddah, KSA, 20-21 /12 /2011.
- Programme and Course learning Outcomes: Bases on NQF for Medical, Science, Engineering and Humanities- Salman bin Abdulaziz University/ Britich Council/ National Commission for Academic Accreditation &Assessment (NCAAA), AlKharj, KSA, 15/11/2011.
- Internal Reviewer Training- Salman bin Abdulaziz University/ Britich Council/ National Commission for Academic Accreditation &Assessment (NCAAA), Riyadh, KSA, 25-26/10/2011.
- National Commission for Academic Accreditation &Assessment (NCAAA) systems, Riyadh, KSA, 11-12/10/2011.
- Periodical Forum for NCAAA Officials & Quality Directors of Higher Education Institutions- National Commission for Academic Accreditation &Assessment (NCAAA), Riyadh, KSA, 9/5/2011.
- Active Communication Skills, AlKharj University, AlKharj, KSA, 2-3/5/2011.
- Assessment of Learning Outcomes, AlKharj University, AlKharj ,KSA, 21-22/03/2011.

- Enhancement of Teaching Quality in Higher Education, AlKharj University, AlKharj, KSA, 5-6/03/2011.
- Institutional Self Study Reports - Salman bin Abdulaziz University, AlKharj, KSA, 11/3/2012
- Quality of Student Assessment- National Commission for Academic Accreditation & Assessment (NCAAA), Riyadh, KSA, 10-11/11/2012.
- Learning Outcomes & KPIs: Application and Integration National Commission for Academic Accreditation & Assessment (NCAAA), AlKhobar, KSA, 15-16/5/2012.
- The Quality of Administration Planning and Management – Salman bin Abdulaziz University/British Council/National Commission for Academic Accreditation & Assessment (NCAAA), Riyadh, 15-16/12/2012.
- Establishing Data Analysis and Reporting system Based on NCAAA Requirement- Salman bin Abdulaziz University/British Council/ National Commission for Academic Accreditation & Assessment (NCAAA), AlKharj, KSA, 14-15/2/2012.
- Leadership Training Workshop – Salman bin Abdulaziz University/ British Council, AlKharj , KSA, 31/ 01/2012.
- Orientation Program For New Faculty- Salman bin Abdulaziz University, AlKharj, KSA, 26-29/8/2013.
- Institutional and Program Self Study Reports- Salman bin Abdulaziz University, AlKharj, KSA, 9-10/4/2013.
- Attending Training Program (3-Days Workshop) for Quality Management System ISO 9001:2008 Internal Auditor Course. Salman bin Abdulaziz University, AlKharj, KSA, 9-10 /12/2014.
- Risk Management & Data Analysis - Salman bin Abdulaziz University/British Council/ National Commission for Academic Accreditation & Assessment (NCAAA), AlKharj, KSA, 2-3/12/2014.
- Attending TOT Trainer Of Trainee, 4 Day-Training Program (20 Contact hours), July 2015 AUC, Cairo Egypt.

## **ACADEMIC AND TEACHING EXPERIENCE**

I have taught the following courses as Assistant Professor for Mechanical Engineering Dept., College of Engineering, Prince Sattam bin Abdulaziz University, Salman bin Abdulaziz University, AlKharj University and King Saud University, Faculty of Engineering at Al Kharj, Mechanical Engineering Dept., Al Kharj , Kingdom of Saudi Arabia. Also I have taught the following courses for Mining, Petroleum and Metallurgical (MPM), Power and Electrical Machines and Petrochemical Engineering (PE) Departments, Cairo University. Also for Mechanical Engineering and Production Design Department at Tanta and Kafer Al Sheikh Universities:

- Mining, Petroleum and Metallurgical Engineering (MPM) Dept., Faculty of Engineering, Cairo University, Giza, Egypt- **September 2017- Present.**  
**Courses Taught:**
  - MET 601 Advanced Physical Metallurgy (postgraduate)
  - MET 607 Advanced Metallographic Techniques (postgraduate)
  - MET 626 Advanced Materials and Nano Technology (postgraduate)
  - MET 403 Metal Casting (undergraduate)
  - MET 455 Materials Characterization (undergraduate)
  - GEN 401 Economics of Metallurgical Industries (undergraduate)
  - MET 301 (A, B) Physical Metallurgy (undergraduate)
  - MMN 611 Nano Composite Materials (Nano Master Program Track 1) (postgraduate)

- MMN 603 Advanced Techniques for Testing and Characterization of Materials (Nano Master Program Track 1) (postgraduate)
  - MMN 617 Selective Topics in Nanomaterials Technology (Nano Master Program Track 1) (postgraduate)
  - MET 445 Advanced Materials (elective 2), (undergraduate)
  - MET 303 Theory of Elasticity and Plasticity, (undergraduate)
  - Materials Science (REMENA M.Sc. Program-Mechanical Power Dept.). (postgraduate)
  - Metallurgy (MDP 1104) (undergraduate) Mechanical Engineering and Production Design Dept., Kafer El Sheikh University, Kafer El Sheikh, Egypt- **September 2017-January 2018.**
- Mechanical Engineering Dept., College of Engineering, Prince Sattam bin Abdulaziz University (previously, Salman bin Abdulaziz and Al Kharj Universities), Al Kharg, Kingdom of Saudi Arabia- **March 2009-August 2016.**
    - Courses Taught:**
      - Materials Engineering Course (ME2510),
      - Welding Technology Course (ME4331),
      - Mechanical behavior of Materials Course (ME4511),
      - Fracture and Fatigue Course (ME 4531),
      - Graduation Project #1 – ME4970 and Graduation Project #2 – ME4990.
      - Materials Engineering Courses (ME 251 and ME2510) and
      - Manufacturing Processes Course ME3351.
- Mining, Petroleum and Metallurgical Engineering (MPM) Dept., Faculty of Engineering, Cairo University, Giza, Egypt- **October 2005- December 2008.**
    - Courses Taught:**
      - Materials Science (e-learning),
      - Advanced Materials,
      - Physical Metallurgy (postgraduate),
      - Failure Analysis and Mechanical Behavior (postgraduate),
      - Nonferrous Materials,
      - Mechanical Testing and Non Destructive Testing (NDT),
      - Metal Casting,
      - Plastic Metal Forming and Powders (postgraduate and undergraduate),
      - Welding Inspection and Qualification,
      - Heat Transfer,
      - Physical Chemistry,
      - Metallurgical Thermodynamics and Corrosion,
      - Ceramics, Refractories and Furnace Fuels and
      - Engineering Economics.
      - Electrical Materials course (Engineering Power and Electrical Machines Dept.)
      - Engineering Materials and Mechanics and Strength of Materials Course (Petrochemical Engineering (PE) Dept., Credit Hour System).
- Mechanical Engineering and Production Design Dept., Tanta and Kafer El Sheikh Universities, Tanta and Kafer El Sheikh, Egypt- **March 2006- December 2008.**
    - Courses Taught:**
      - Strength and Properties of Materials,
      - Engineering Materials,
      - Furnaces and Heat Treatments,
      - Theory of Metal Forming,
      - Technology of Metal Forming,
      - Metal Plating,

- Theory of Metal Cutting,
- Machining Technology.
- Trainers for Engineers from Alexandria National Iron & Steel Co and Trainers for Engineers from Military Production Industries-Military Production Center for Scientific Progress (2005-2008)
  - **Trainers for Engineers** from Alexandria National Iron & Steel Co., Dekheila-ANSDK in American University at Cairo (AUC)- **March 2006- February 2009.**
    - Program for one-week Refractories course, November, 2008.
  - **Trainers for Engineers** from Military Production Industries-Military Production Center for Scientific Progress- **March 2006- February 2009.**
    - Program for two weeks Engineering Materials course, April, 2008.
    - Program for two weeks Nonferrous Materials course, Mai, 2008.
    - Program for a 5-days training course on Material Selection for Corrosion, November 2005.
- **Curriculum Preparation and Updates for undergraduate and postgraduate Metallurgical Engineering Program, Faculty of Engineering, Cairo University, Giza, Egypt- March 2006- February 2009.**

## RESEARCH EXPERIENCE

### RESEARCH INTERESTS

- In-Situ MMC's fabrication and characterization
- Metal Casting and Heat Treatment of Al-Si Alloys
- Aging and Mechanical Behavior of cast and wrought Aluminum alloys
- Mechanical Behavior of Metals and Alloys
- Thermo-Mechanical Treated (TMT) of Carbon and Low Alloy Steels
- Factorial Analysis and Experimental Correlation (DOE using Minitab Software)
- Data Processing for Drilling and Tapping Processes (Using Matlab Software)

### PUBLICATIONS, CONFERENCES, SYMPOSIUM

#### Journals:

- **Mahmoud M. Tash** and Essam R. I. Mahmoud "Development of in-Situ Al-Si/CuAl<sub>2</sub> Metal Matrix Composites: Microstructure, Hardness, and Wear Behavior" Materials, **2016** Vol. 9 (6), No.442, doi:10.3390/ma9060442 www.mdpi.com/journal/materials. (ISI- Web of science, IF=2.728).
- Essam R. I. Mahmoud and **Mahmoud M. Tash** "Characterization of Aluminum-Based-Surface Matrix Composites with Iron and Iron Oxide Fabricated by Friction Stir Processing" Materials, **2016** Vol. 9 (7), No.505, doi: 10.3390/ma9070505 www.mdpi.com/journal/materials. (ISI- Web of science, IF=2.728).
- Abdel-Hamid A. Hussein, Mahmoud T. Abdu, El-Sayed M. El-Banna, Saied E. Soliman, **Mahmoud M. Tash** "Interrelation of Steel Composition, Hardening Route and Tempering Response of Medium Carbon Low-Alloy Steels" Journal of Materials Engineering and Performance ASM International, **2016** Vol.25 (4) No. 2, pp1463-1473. (ISI- Web of science, IF=1.094)
- Saleh A. Alkahtani, Emad M. Elgallad, **Mahmoud M. Tash**, Agnes M. Samuel and Fawzy H. Samuel "Effect of Rare Earth Metals on the Microstructure of Al-Si Based Alloys" Materials, **2016**, Vol. 9, No.45, doi:10.3390/ma9010045 www.mdpi.com/journal/materials. (ISI- Web of science, IF=2.728).



- **Mahmoud M. Tash** “Effect of alloying element and Hot Forging/Rolling Reduction Ratio on Hardness and Impact Toughness of Heat Treated Low Alloy Steels”, World Academy of Science, Engineering and Technology, International Scholarly and Scientific Research & Innovation 9(6) **2015**, International Science Index, Materials and Metallurgical Engineering Vol:9, No:6, 2015. International Journal of Environmental, Chemical, Ecological, Geological and Geophysical Engineering, 2015 Vol:9, No:6, pp. 608-617.
- **Mahmoud M. Tash** and Khaled M. Gadelmola “Effect of Laser Speed on Hardness and Corrosion Resistance of Similar and Dissimilar Stainless and Carbon Steels Welding” Wulfenia Journal, Vol 22, No. 4; Apr **2015** pp. 496-504. office@multidisciplinarywulfenia.org (ISI- Web of science, IF=0.267).
- **Mahmoud M. Tash** “Effect of Alloying and Thermo-Mechanical Treatment (TMT) on Hardness and Impact Toughness of Heat Treated Low Alloy Steels: Experimental Correlation” Wulfenia Journal, **2015** Vol 22, No. 4 pp. 23-34office@multidisciplinarywulfenia.org . (ISI- Web of science, IF=0.267).
- **Mahmoud M. Tash**, Khaled A. Abuhasel “Correlation between Alloying Elements, Aging Parameters, Hardness and Machinability of Aluminum-Silicon Alloys Using the Model “Design of Experiments (DOE)”, Advanced Engineering Solutions (AES.COM) Ottawa, Canada, AES TECHNICAL REVIEWS PART C: International Journal of Advances and Trends in Engineering Materials and their Applications (IJATEMA) 1 (1) **2015**, 25 – 33, ISSN 1915-5409 /1916-5366.
- **Mahmoud M. Tash** , Saleh A. Alkahtani, Khaled A. Abuhasel “Effect of Hot Rolling Reduction Ratios (Rr) and Alloying Elements (C, Ni, Cr, Mo and V) on Hardness (HV) and Impact Toughness (J) of Heat Treated Low alloy Steels, , Advanced Engineering Solutions (AES.COM) Ottawa, Canada. AES TECHNICAL REVIEWS PART C: International Journal of Advances and Trends in Engineering Materials and their Applications (IJATEMA) 1 (1) **2015**, 13 – 23, ISSN 1915-5409 / 1916-5366.
- **Mahmoud M. Tash**, Khaled A. Abuhasel, Saleh A. Alkahtani “Correlation between Alloying Elements and Aging Parameters and Hardness and Machinability of Aluminum-Silicon Alloys using Minitab Software”, Advanced Materials Research Journal (AMR) at www.scientific.net © (2015) Trans Tech Publications , Vol. 1101 (**2015**), pp 217-224. doi:10.4028/www.scientific.net/AMR.1101.217.
- **Mahmoud M. Tash**, Saleh A. Alkahtani, Khaled A. Abuhasel “Effect of Thermomechanical Treatment (TMT) on Hardness, Impact Toughness of Different Grades of Low alloy Steels”, Advanced Materials Research Journal (AMR) (**2015**) at www.scientific.net © (2015) Trans Tech Publications, Vol. 1101 (2015), pp 212-216. doi:10.4028/www.scientific.net/AMR.1101.212.
- **Mahmoud M. Tash** “Laser Welding of Similar Stainless Steels (304/304) and Dissimilar Stainless Steel (304)/Carbon Steel (A36) Alloys”, International Journal of Advanced Technology in Engineering and Science, www.ijates.com, ISSN (online):2348-7550, Volume No.03, Issue No. 03, March **2015**. pp.47-56.
- **Mahmoud M. Tash** “Effect of Hot Forging Reduction Ratio And Heat Treatment on Hardness, Impact Toughness and Microstructure of Carbon and Alloy Steels”, International Journal of Advanced Technology in Engineering and Science, www.ijates.com ,ISSN (online):2348-7550, Volume No.03, Issue No. 03, March **2015**. pp.57-66.
- **Mahmoud M. Tash** “Effect of Be, Zr and Heat Treatment on Mechanical Behavior of Cast Al-Mg-Zn-Cu Alloys (7075)”, World Academy of Science, Engineering and Technology (WASET), International Scholarly and Scientific Research & Innovation 9(1) 2015, International Journal of Chemical, Nuclear, Materials and Metallurgical Engineering Vol :9, No :1, **2015**, pp.180-188. eISSN :1307-6892.
- **Mahmoud M. Tash**, S. Alkahtani, Khaled Abuhasel “Effect of Hot Work on Hardness and Impact Toughness of Heat Treated Low Alloy Steels”, Advanced Materials Research, Vol. 1082 (2015), pp 197-201, Online available since 2014/Dec/17 at www.scientific.net

- **Mahmoud M. Tash**, Khaled Abuhasel, S. Alkahtani “Experimental Correlation between Metallurgical Parameters, Hardness and Drilling Force and Moment of Al-Si Alloys”, Advanced Materials Research, Vol. 1082 (2015), pp 79-84, Online available since 2014/Dec/17 at www.scientific.net © (2015) Trans Tech Publications, Switzerland. doi:10.4028/www.scientific.net/AMR.1082.79.
- **Mahmoud M. Tash**, S. Alkahtani “Effect of heat treatment Hardness of Al-Cu-Mg-Li-Zr , Al-Mg-Si and Al-Mg-Zn alloys- Experimental Correlation Using Factorial DOE and ANOVA Methods”, Advanced Materials Research, Vols. 881-883 (2014), pp 1317-1329, Online available since 2014/Jan/16 at www.scientific.net © (2014) Trans Tech Publications, Switzerland. doi:10.4028/www.scientific.net/AMR.881-883.1317.
- **Mahmoud M. Tash** and Saleh A. Alkahtani “Aging and Mechanical Behavior of Be-Treated 7075 Aluminum Alloys” World Academy of Science, Engineering and Technology (WASET), International Scholarly and Scientific Research & Innovation 8(3) 2014, International Journal of Chemical, Nuclear, Materials and Metallurgical Engineering Vol :8, No :3, 2014, pp.229-233.
- **Mahmoud M. Tash**, S. Alkahtani “Experimental Correlation for the effect of Metallurgical Parameters on the Hardness of 356 and 319 Aluminum Alloys Using Minitab Software”, Advanced Materials Research, Vol. 716 (2013), pp 15-24, Online available since 2013/Jul/15 at www.scientific.net © (2013) Trans Tech Publications, Switzerland. doi:10.4028/www.scientific.net/AMR.716.15.
- **Mahmoud M. Tash**, S. Alkahtani “Effect of Thermo-Mechanical Treatment (TMT) on Hardness of Heat-Treated Al-Mg-Si (6082) alloys: Experimental Correlation Using (DOE) Method”, Applied Mechanics and Materials, Vol. 376 (2013), pp 163-172, Online available since 2013/Aug/30 at www.scientific.net © (2013) Trans Tech Publications, Switzerland. doi:10.4028/www.scientific.net/AMM.376.163.
- **M. M. Tash**, F.H. Samuel, S. Alkahtani “Machinability of Heat-Treated 356 and 319 Aluminum Alloys: Methodology for Data Processing and Calculation of Drilling Force and Moment” Advanced Materials Research Vols. 396-398 (2012) pp 1008-1022 Online available since 2011/Nov/22 at www.scientific.net © (2012) Trans Tech Publications, Switzerland. doi:10.4028/www.scientific.net/AMR.396-398.1008.
- **Mahmoud M. Tash** “Effect of Thermomechanical Treatment on Mechanical Behaviour and Microstructure of Low Alloy Steel”, Applied Mechanics and Materials Vols. 184-185 (2012) pp 838-849 Online available since 2012/Jun/14 at www.scientific.net © (2012) Trans Tech Publications, Switzerland. doi:10.4028/www.scientific.net/AMM.184-185.838.
- **M.M Tash**, S. Alkahtani “Experimental Correlation between Metallurgical Parameters, Hardness and Machinability 319 Al-Si-Cu-Mg Alloys”, Advanced Materials Research, Vol. 339 (2011), pp 462-476, Online available since 2011/Sep/02 at www.scientific.net © (2011) Trans Tech Publications, Switzerland.
- **M.M Tash**, F.H. Samuel, F. Mucciardi, H.W. Doty “Effect of Metallurgical Parameters on the Hardness and Microstructural Characterization of As-Cast and Heat-Treated 356 and 319 Aluminum Alloys” Materials Science and Engineering A, Vol.443, 2007, pp.185-201. (ISI- Web of science).
- **M.M Tash**, F.H. Samuel, F. Mucciardi, H.W. Doty "Effect of Metallurgical Parameters on the Machinability of Heat-Treated 356 and 319 Aluminum Alloys" Materials Science and Engineering A, Vol.434, 2006, pp.207-217. (ISI- Web of science)

#### Conferences:

- **Mahmoud M. Tash**, and Essam R. I. Mahmoud “Development of In-Situ Al-Si/CuAl<sub>2</sub> Metal Matrix Composites: Microstructure, Hardness and Wear Behavior”. Proceedings, Montreal’2016 AES-ATEMA 28 th International Conference on Advances and Trends in

Engineering Materials and their Applications (Montreal, CANADA: Jun 20 - 24, **2016**). AES ATEMA'2016 Montreal, CANADA.

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- **M.M Tash**, S. Alkahtani “Machinability of Heat-Treated 356 and 319 Aluminum Alloys: Methodology for Data Processing and Calculation of Drilling Force and Moment”, 2011 International Conference on Chemical, Material and Metallurgical Engineering (ICCMME), Beihai, China, December 23-25, 2011 (Manuscript Number C 1700, **2011**).
- **M.M Tash**, S. Alkahtani “Experimental Correlation between Metallurgical Parameters, Hardness and Machinability 319 Al-Si-Cu-Mg Alloys”, 2011 International Conference on Materials and Products Manufacturing Technology (ICMPMT), Chengdu, China, October 28-30, 2011(Manuscript Number A2752, **2011**).
- **M.M Tash**, W. Khalifa and A. El Hashash “Effect of Metallurgical Differences between 356 and 384 Alloys on Their Mechanical Properties”, MDP 9 International Conference - January, **2008**. Giza, Egypt.
- **M.M Tash**, F.H. Samuel, F. Mucciardi, H.W. Doty “Methodology for Data Processing: Calculation of Cutting Force, Moment and Peak-to Valley Range During Drilling Processes of Heat-Treated 356 and 319 Aluminum Alloys “, Cairo University, 3 rd International Conference of Scientific Research, & Its Applications, Cairo University, 3-5 May **2007**,Giza, Egypt.
- **Mahmoud M. Tash**, attending The 10th International Conference on Mining, Petroleum and Metallurgical Engineering,, Assuit University, 6-8 March, **2007**.
- **M.M Tash**, F.H. Samuel, F. Mucciardi, H.W. Doty, S. Valtierra "Experimental Correlation between Metallurgical Parameters and Hardness of Heat-Treated 319 Alloys:

A Quantitative Study using Factorial Analysis". Paper 06-014 (02) AFS Transactions 2006©American Foundry Society, Schaumburg, IL USA. **2006**.

- **M.M Tash**, F.H. Samuel, F. Mucciardi, H.W. Doty “Correlation between Metallurgical Parameters and Machinability (Drilling Force, Moment and Heat Build-Up) of Heat-Treated 319 Alloys Using Factorial Analysis”. ArabCast Transaction **2006**, SharmEl Sheikh, Egypt.
- **Mahmoud M. Tash** “Exploring the Metallurgical Differences Between 319 and 356 alloy on High-speed Machining Characteristics”, Special conference for GM Powertrain Material Engineering Group, Detroit,US,9-11 may **2005**.
- **Mahmoud M. Tash** “Effect of Metallurgical Parameters on the Machinability of Heat-Treated 356 and 319 Aluminum Alloys”, One day conference, REGAL group, University of Laval, Quebec, Canada,**2004** (Poster).
- **Mahmoud M. Tash**, attending the Indo-Egyptian workshop on advanced materials and their processing, Management Development Center for Interprises, MDCl, Cairo, Egypt, May 6-8, **2000**.

### M.Sc. and Ph.D Thesis

- Role of Thermomechanical Treatment on the Aging and Mechanical Behavior of Al Mg-Si 6082 alloy, M.Sc. Thesis  
([http://thesis.eng.cu.edu.eg/Theses.asp?lang=en&Thesise\\_ID=1359&Direction=0](http://thesis.eng.cu.edu.eg/Theses.asp?lang=en&Thesise_ID=1359&Direction=0))
- Effect of Metallurgical Parameters on the Machining Behavior of 356 and 319 Alloys (Drilling and Tapping Study), Ph.D thesis ([http://theses1.uqac.ca/these\\_24109447.html](http://theses1.uqac.ca/these_24109447.html))

### AWARDS

- International Publications Awards, Cairo University Issue I September 2007.
- International Publications Awards, Cairo University Issue III-B October 2008.
- Cairo University-Faculty of Engineering, Student Affairs culture competition award, 1996.
- Egyptian Engineering Syndicate On Excellence Award, 1999.
- Cairo University-Faculty of Engineering (Percent after the Diamond Jubilee) Award (B.Sc.), 1999.
- Cairo University-Faculty of Engineering (Percent after the Diamond Jubilee) Award (M.Sc.), 2003.
- INSERC-GM-UQAC Scholarship, 2003-2005.
- REGAL group best project 2004.
- AEI/UQAC festival multicultural April 13-15, 2005, Quebec, Canada.
- House of Commons Certificate, organization of Canada celebration day, 1<sup>st</sup> July, 2003, Quebec, Canada.
- Postdoctoral Fellowship, University of Quebec July 2005-September 2005.

### COMMITTEES AND COMMUNITY SERVICES

#### KSA

- Development and Quality Deanship Consultant, Salman bin Abdulaziz University.
- International academic Accreditation Committee member, Salman bin Abdulaziz University.
- ABET follow-up Team University committee member, Salman bin Abdulaziz University.
- ABET follow-up Mutual committee (college of engineering and engineering and computer science college) member, Salman bin Abdulaziz University.
- Learning and teaching committee review member, Salman bin Abdulaziz University.

## EGYPT

- Assistant Professor- Metallurgical Engineering Dept., Cairo University, Giza, Egypt.
- Member of Quality Assurance and Accreditation Unit (QAAU), Cairo University, Egypt.
- Member for Scientific Conference Preparation Committee for Mining, Petroleum and Metallurgical Engineering (MPM) Dept., Cairo University.
- Technical Expertise- Egyptian Accreditation Council (EGAC), Cairo, Egypt.
- Member of Egyptian Accreditation Council (EGAC), Cairo, Egypt.
- Member of Egyptian Engineering Syndicate, Cairo, Egypt.
- Materials Consultant, Mining and Petroleum Engineering Center, Cairo University.
- Engineering Failure Analysis Consultant, Hoi/Aste Company, Egypt.

## Canada

- Member of REGAL Group, Quebec, Canada.
- Sharing in Celebration Day of Canada at Chicoutimi City (House of Commons certificates), July 2003.
- Sharing in Celebration Day of Québec at Chicoutimi City, April 2003.
- Sharing in Multicultural Celebration AEI/UQAC at Quebec University, April 2005.

## INTERNSHIPS

- July- September 1997: Training in RWTH Aachen Lehr- und Forschungsgebiet Werkstoffkunde, Germany.
- June 1996: Training in Electrolytic Cells & Foundry, Egyptian Aluminum Co.(EGYPTALUM), Nagaa Hammadi, Egypt.

## ACTIVITIES, SKILLS AND INTERESTS

- **Computer:** CFX Programming, Matlab, Minitab, Lab View, FORTRAN, SharePoint and Website Design.
- **Language:** Excellent Command of Spoken and Written English. Good Command of Spoken and Written French.

## PROFESSIONAL COURSES

- University Instructor Preparation Program (Training Course No. 99), Institute of Educational Studies and Research-Cairo University, February, 19-March, 15 2006
- Computer science and Internet Course, Information and Computer Science College, Cairo University, September 2005
- TOEFL Course by Language and Special Translation Center, Cairo University, October 2005
- Blackboard training program, IT center, University of Prince Sattam bin Abdulaziz, KSA, March 2016 (BB course delivery. Create content, groups, assignment, and test. Communications tools. Control panel. Monitoring performance)

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