

Hanadi A. G. Salem
Professor-Department of Mechanical Engineering
American University in Cairo

PERSONAL INFORMATION

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ACADEMIC RANKS

Sep. 2010-Present Professor, Department of Mechanical Engineering in the area of Materials & Manufacturing, SSE/AUC

June 2004-June 2010 Associate Professor, Department of Mechanical Engineering in the area of Materials & Manufacturing, SSE/AUC

Sep.1999-Aug. 2004 Assistant Professor, Department of Mechanical Engineering in the area of Materials, and Manufacturing, American University in Cairo-Egypt.

Oct. 1997-Aug. 1999 Assistant Professor, Department of Power and Production Engineering, in the area of Mechanics and Materials, Higher Technological Institute in 10th of Ramadan City-Egypt.

ACADAMIC PROFESSIONAL EXPERIANCE

July 2020 – Present Mechanical Engineering Department Chairperson

Sept. 2019-Present AUC Senate Vice Chair

Feb. 2016- Aug. 2019 AUC Senate Faculty Affairs Chair

Feb. 2019-present Founder and Director of the Additive Manufacturing Centennial Lab

Sep. 2014-2019 AUC Founding Representative, Egyptian National Nanotechnology Network (ENNN), under the auspicious of the ASRT, AUC

Spring 2009-Fall 2015 Founding Director of the Masters of Science Program in Nanotechnology School of Science and Engineering, SSE

Fall 2010-Spring 2015 Co-Founder and Steering Committee Member of PhD Graduate Program Co-Founder and steering Committee Member of PhD Graduate Program and NT specialization coordinator, SSE

Fall 2008-Spring 2014 Co-Founder and Steering Committee Member of Master' Degree Program in Biotechnology, SSE

Spring 2005-Fall 2006 Co-Founder, First Year Experience (FYE) Program, AUC

Fall 2002-Fall 2003 Co-Founder, Yousef Jameel Science and Technology Research Center (YJSTRC), AUC

Jan. 2016-Dec 2016 Associate Chair, Department of Mechanical Engineering, SSE

Nov. 2007-June 2009 Associate and Assistant Director for Research and External Funding, Yousef Jameel Science and Technology Research Center (YJSTRC), SSE

July 2017-Present Chair, University Senate Faculty Affairs Committee (FAC)

Fall 2012-Fall 2014	Chair, Department Assessment Committee, Department of Mechanical Engineering, SSE
Fall 2015-Present	Co-Chair and Steering Committee Member of the Middle States Commission for Higher Education (MSCHE), AUC
Sep. 2006-Nov. 2008	Co-Chair and Steering Committee member of the Middle States Commission for Higher Education (MSCHE),
Feb. 2016-Aug. 2016	Co-Chair, School Governance Committee, SSE
Fall 2008-present	Faculty Supervisor for 11-Laboratories, Department of Mechanical Engineering, SSE/AUC
Spring 2017	Representative, YJSTRC Director at School level, SSE
Nov. 2015-Present	Member, University Merit Award Standing Committee, AUC
Spring 2015	Member, School of Sciences and Engineering Dean's Search Committee, AUC
Fall 2016-present	Member, Senate and Senate Faculty Affairs Committee (FAC), AUC
Spring 2016-Fall 2-16	Member, University Wide Committee, AUC
Aug. 2012-June 2013	Member, Task Force for Future Planning of Yousef Jameel Science and Technology Research Center, (YJSTRC), SSE
Spring 2003- 2010	Member Advisory Committee and Research Fellow, Science and Technology Research Center (STRC), School of Science and Engineering, SSE
Spring 2014	Member, Provost Promotion and Tenure Advisory Committee, AUC
Jan 2009-Jan 2012	Member, University Steering Committee National Authority for Quality Assurance and Accreditation of Education (NAQAAE), AUC
Jan 2009-Jan 2012	Member, School Steering Committee National Authority for Quality Assurance and Accreditation of Education (NAQAAE), SSE
Fall 2012	Senate Member, and Senate Academic Affairs Committee (AAC), AUC
Fall 2003-Spring 2005	Senate Member and Senate Student Affairs Committee (SAC), AUC

OTHER RELATED EXPERIENCE:

January 4 th -25 th , 2015	Visiting Professor, Department of Materials Science, Birmingham University, Birmingham, UK
June 2010-August 2010	Visiting Professor, Mechanical and Aerospace Engineering Department, North Carolina State University (NCSU), Raleigh, NC, USA
March 2010- May 2010	Visiting Professor, Functional materials Division, Royal Institute of Technology (KTH), Stockholm, Sweden
July 2005-August 2005	Visiting Professor, Materials Science and Engineering Department, Georgia Institute of Technology, Atlanta GA, USA
June 2003-August 2003	Visiting Scholar, Department of Mechanical Engineering University of South Carolina, Columbia, SC, USA
June 2002-August 2002	Visiting Scholar, Department of Mechanical Engineering University of South Carolina, Columbia, SC, USA

EDUCATION

Ph.D. Mechanical Engineering, Texas A&M University, TX, USA, Dec. 1997

M.Sc. Materials Science and Engineering, American University in Cairo, June 1987

B.Sc. Materials Science and Engineering, American University in Cairo, June 1983

TEACHING ACTIVITIES HIGHLIGHTS:

Salem have had the honor to serve as a full time faculty member in the area of Materials and Manufacturing, Department of Mechanical Engineering at AUC. Working at AUC for the past 17-years has helped her gain an ineffable amount of experience in teaching and course and program development. In this section highlights of the teaching activities and accomplishments starting at September 1999-present are listed

Note: Salem similar to many of the MENG faculty has been teaching between 11-13 credit hours per semester throughout her years of service. Salem taught a wide spectrum of courses: **Eight undergraduate courses** ranging from 100-400 level, **six graduate 500 level MENG and NANO courses**; in addition to the **Senior Project courses** (as a coordinator and project supervisor) and **Seminar courses**. Salem average of instruction over the past years is 4.44 compared to a departmental average of 4.2.

Courses Taught:

Undergraduate Courses:

ENGR 101/1001	Introduction to Engineering
ENGR 229/2112-	Strength and Testing of Materials
MENG 327/3227	Engineering Materials
MENG 426/4226	Metals, Alloys & Composites
MENG 427/4227	Failure of Mechanical Components
MENG 428/4228	Selection of Materials and Processes for Design
MENG 433	Welding & Casting: Design, Maintenance and Inspection
MENG 429/4229/5230	Nanostructured Materials
MENG 490/4980	Senior Design I, coordinator and project supervisor
MENG 490/4981	Senior Design II, coordinator and project supervisor

Graduate Courses:

MENG 521/5221	Advanced Topics in Mechanical Behavior of Engineering Materials
MENG 522/5222	Materials in Design and Manufacturing
MENG 523/5223	Physical Metallurgy
MENG 529/5229	Failure Analysis and Prevention
NANO 531/5200	Nanomaterials Synthesis, Processing and Applications
NANO 532/5232	Nanocomposites Science and Technology
NANO 590/5980	Graduate Thesis Seminar I

RESEARCH ACTIVITIES HIGHLIGHTS

Research Interest

1. Wire Arc Additive Re-Manufacturing and Repair
2. Synthesis and characterization of composite metallic and ceramic nanopowders and nanostructured powders
3. Consolidation Behavior of Micro and Nanostructure Metallic, intermetallic Bulk materials
4. Metal and Ceramic Matrix Nanocomposites Fabrication and Characterization.
5. Self-Lubricating metal based-graphene nanocomposites
6. Bulk Nanostructure Material Fabrication Via
 - a. Spark Plasma Sintering (SPS);
 - b. Additive layer Manufacturing (ALM), wire and powder based;

- c. Sever Plastic Straining (ECAP, HPT, TMP)
 - d. Friction Stir Processing (FSP)
7. Ceramic Coatings And Thin Films Processing and Characterization.

Ongoing Research:

1. Enhanced Biogas Production via Nanoadditives and Solar Energy,
2. Low cost ALM Restoration of un-repairable Aircraft parts,
3. Enhanced Shear Rolling, Patented Fall 2016
4. Mechanically alloyed biodegradable Mg-base alloys for biomedical applications
5. Porous titanium orthopedic implant produced by selective laser melting
6. MultiChannel Spiral Twist Extrusion, Provisional Patent filed April 2017.
7. Bulk Nanostructured Nanocomposite (BNN) Mechanical Components with Ultra High Mechanical Properties Using Selective Layer Manufacturing (SLM) Technique.
8. Self-Lubricating Nanocomposite fabricated via combination of top-down and bottom-up approaches

Research Collaboration:

National Collaborations:

Cairo university, BaniSwif, Helwan, Swiss Canal, Ain Shams, GUC, BUE, Canadian, Al Mansoura, National rsearch center, CMRDI

International and Regional Collaborations:

1. Functional Materials Group, The Royal Institute of Technology (KTH), Stockholm, Sweden;
2. Department of Materials and Environmental Chemistry, Stokholm University, Stokholm, Sweden
3. Department of Metallurgy and Materials, Birmingham University, Birmingham, UK
4. Department of Mechanical and Aerospace Engineering, North Carolina State University, NC USA
5. Department of Materials Science, Georgia Institute of Technology, Colombia,GA USA
6. Department of Mechanical Engineering, University of South Carolina, SC USA
7. Department of Mechanical and Aerospace Engineering, George Washington University, Washington, DC, USA
8. Department of Mechanical and Manufacturing Engineering, Farmingdal State College.
9. Department of Engineering and Information Sciences, University of Wollongong, Australia
10. Department of Mechanical Engineering University of Alberta, Alberta, Canada
11. Computational Solid Mechanics Laboratory, Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology (KAUST), SA

Fudend Research Grants

1. AUC Educational Initiative Fund, June 2019, **US\$140K.**
2. AUC Centennial Lab Fund (PI), “*Additive Manufacturing Facility*”, February, 2019, **US\$ 51,000**
3. AUC Proof of Concept (PI), “*Wire Arc Additive Manufacturing/Repair of parts at a lower cost through Optimization of the Final Surface Finishing stage*”, February, 2019, **US\$ 15,000**
4. AUC Proof of Concept (CoPI)“*Enhanced Shear Rolling*”, December 2018, **US\$ 15,000**
5. AUC, “*Enhanced Shear Rolling*” (CoPI), **EGP500,000**
6. JESOR/ASRT Research Grand, H. G. Salem, K. Elkhodary, M. Farag, “*Low Cost ALM of Non-Repairable Aircraft Parts*” February 2016. **EGP 999,968.5**
7. Masr ElKair, Nageh Allam and Hanadi Salem, “*Enhanced Biogas Production via Nanoadditives and Solar Energy*”, March 2016. **EGP 1,200,000**
8. ASRT, *ENNN Founding Grant*, Spring 2016, **EGP180,000**
9. ASRT research grants for 3-PhD students, June 2013. **EGP300,000**
10. ASRT Research Grants for 2-MSc students, June 2013. **EGP100,000**

11. Research grant by AUC, *Additive Manufacture (AM) of Bulk Metal Matrix NanoComposites*, December, 2013. **US\$ 6,500**
12. Research and Development Grant by AUC, *Fabrication of Nanostructured Bulk ceramic and metallic materials via Spark Plasma Sintering*". **US\$ 6,500**
13. Funded research by NCSU to compliment the expenses of living and research work carried out in collaboration with Dr. Mohamed Zikry, June 1st-July 31st 2010. **US\$20,000**
14. Funded research by Functional division, Royal Institute of Technology (KTH), Stockholm to support the research work conducted at KTH, Stockholm, Sweden, March 1st-April 31st 2010. **US \$7000.**
15. Research grant by AUC, "*Carbon Nanotubes Reinforced Woven Composites*", North Carolina State University, Raleigh, NC, USA, June 1st-August 3^{0th} 2010. Grant Approved in March 2010. **US \$5000.**
16. Research grant by Carl Tryggers Foundation in Sweden "*Synthesis, Fabrication and Characterization of Nanostructured High Performance Consolidated Powders via Spark Plasma Sintering*", December 2009, Approved for funding at KTH, Spring 2010, **SEK100,000.**
17. Research and Development grant by AUC, "*Nanocomposite Powder Consolidation of High Performance Bulk Products via Severe Plastic Deformation*", spring 2009. About **US \$2,500.**
18. Research Grant by YJ-STRC, "*Development of Quasicrystalline Alloys to Function as Hydrogen Storage Material*" by Ehab Abdel-Rahman, Amr M. Shaarawi, Hanadi Salem and Taha Mattar, Feb. (2007), for 2-years. **US \$28,000**
19. Research Grant by YJ-STRC, "*Pulsed laser-induced micro-and nano-sized morphology and composition of enhanced steel surfaces*" by Ehab Abdel-Rahman, Amr M. Shaarawi, Hanadi Salem and Taha Mattar, Feb. 2007, for 3-years. **US \$10,000**
20. Research grant, by YJ-STRC, "*Synthesis and characterization of mechanically alloyed Nanocrystalline Aluminum-Nickel Alloy System Consolidated by Equal Channel Angular*", January 2007-present. **About US \$71,750.**
21. Research Grant by Alberta University "*Development and Validation of a FEM for the Behavior of AL-Alloy Nanopowders Consolidated using Severe Plastic Deformation Technique (ECAE)*" Hanadi Salem, AUC and Walied Moussa, University of Alberta, Alberta, Canada For conducting TEM training and analysis by RA, Ahmed Sadek, research fellow, STRC, 1st July- 30th August, 2007. **US \$4,000.**
22. Research Grant by Alberta University: "*Development and Validation of a FEM for the Behavior of AL-Alloy Nanopowders Consolidates*", using Severe Plastic Deformation Technique (ECAE)" to support the work of an RA, granted April 16th 2007. **US \$20,000.**
23. Training Grant by YJ-STRC, Attended an intensive training week on EBSD and EDX by the Vendor Company on site, Jan 12-19th (2006) at Cambridge and Oxford, UK. **US \$2,500**
24. Research and Development Grant by AUC: "*Synthesis and Characterization of Mechanically Alloyed Nanocrystalline Aluminum-Nickel Alloy System Consolidated by Equal Channel Angular Extrusion*" granted November 18th 2006. **US \$5,500.**
25. Research grant by YJ-STRC, "*Thermal Spraying of Nanostructured Coatings*", spring 2006-present. Equipment use fee supported by the Center.
26. Collaborative research with Dr. A. Esawi, Mechanical Engineering Dept. and Dr. Adham Ramadan, Chemistry Dept., AUC "*Polymer/Carbon-Nanotube Composites*". Since 2006. **US \$15,000**
27. Research grant by YJ-STRC, "*Production of Bulk nanocrystalline powder TiC and their use as reinforcement in metallic nanopowders*", fall 2005-August 2009. **US \$31,500.**
28. Research Grant by AUC "*Texture and Phase Analysis for Nanocrystalline and Polycrystals and Nanocomposites*" Georgia Institute of Technology Atlanta Georgia USA, granted May 18 2005. **US \$5,442.**
29. Research grant by YJ-STRC, "*Characterization of Micro and Nano-sintered Aluminum compact powders processed by Equal Channel Angular Extrusion (ECAE)*", fall 2004. Equivalent to **US \$37,780.**
30. Mini grant by AUC on "*Design Modification and Manufacturing of Forging Die for Powder consolidation*" granted March 2, (2006). **US \$500**
31. Research grant by YJSTRC, "*Effect of Heat Cycling of Porcelain on the Bond Strength between Porcelain and Base Metal Alloys Substructure, in- vitro Study*", fall 2004-spring 2005. Equipment used for free.
32. Research and Development grant by AUC on "*Design and Manufacturing of ECAE Die for Production of Nanostructured Materials*" November 2004. The grant amount was **US \$3,000.**

33. Workshop grant by YJ-STRC “*Nano-training Bootcamp*” ASME in Chicago, Illinois in June 29 2004. about **US \$3, 000**
34. Mini grant by AUC on “*Bulk Nanostructure Materials*” granted March 2004. **US \$500**
35. Participated in a proposal writing for external funding, Feb. 2003 for the establishment of a Science and Technology Research Center (STRC) for R&D in the field of Micro, and Nano sciences and technology. A grant by Mr. Yousef Jameel, spring 2003. **US \$ 8M.**
36. Research Grant by Mechanical Eng. Department, University of South Carolina (USC), USA, summer research on Friction Stir Welding of Weladalite AA2095” Summer (2002). **US \$7,000**
37. Research grant by AUC on “*Nanostructured Materials Characterization*”, at USC, Colombia SC, June 19th 2003. **US \$5,400**
38. Research grant by US-Egyptian Joint Board on Scientific & Technological Cooperation (USEJB), titled “*Combined Friction Stir Welding and Superplastic Forming Manufacturing Technologies for Structural Metals for the Transportation Industry*”, accepted for **US \$50,000** June 2001 and officially started June 14th 2002 with 2-years duration.
39. Research Development grant by AUC for data collection on “*Nanostructured Materials for Improved Ambient and Superplastic Properties*” May 2002. **US \$4000.**
40. Research grant by AUC on “*Advanced materials characterization: Friction stir welding and Superplastic forming*”, USC, Colombia SC, May (2001). **US \$5,400**
41. Research grant by AUC on “*Fracture toughness of the bond between concrete & fiber reinforced polymer overlays & Characterization of lightweight Materials*”, USC Colombia, SC, May 14, 2000. **US \$5,400**

Conference Grants:

1. Conference grant by AUC, MS&T, 2019, Annual Meeting and Exhibition, Portland, OR, October 11-14, 2019. **(US\$3500).**
2. Conference grant by AUC, MS&T, 2018, Annual Meeting and Exhibition, Columbus, OHIO, October 14-18, 2018. **(US\$3500).**
3. Conference grant by AUC, TMS 2017, Annual Meeting and Exhibition, San Diego, CA USA Feb.24-March 3, 2017, **US\$3500.**
4. Workshop grant by AUC, ENNN Workshop and Nanotechnology in Construction C, Sharm El-Sheikh, March 17-19, 2017.
5. Conference grant by ONRG for supporting the International Conference on Engineering Solutions for Sustainable Development, hosted by the Mechanical Engineering Department, April 17-18, 2010, AUC New Cairo Campus. This grant was in collaboration with Drs M. Farag and M. Arafa, Grant amount was **US \$14,000.**
6. Conference preparation grant by AUC “International Conference on Engineering Solution for Sustainable Development, 22-23rd March 2010, AUC New Cairo” by Drs. M. Farag, H. Salem and M. Arafa, May (2009), granted for **US\$3,000**
7. Conference grant by AUC TMS annual meeting Feb. 14-19, (2009), San Francisco CA, USA, **US\$2,700**
8. Conference grant by AUC: MS&T 08, Pittsburg, PA, USA, October 5-9, (2008). **US\$2,600.**
9. Grant for supporting Key Note speakers by Office of Naval Research Global (ONRG), fall (2008). **US \$10,000.**
10. Conference preparation grant by YJ-STRC at AUC: ASME 2nd Multifunctional Nanocomposites and Nanomaterials Conference and Exhibition, Sharm El-Sheik 11-13th January (2008). **US\$20,000**
11. Conference preparation grant in collaboration with Dr. Esawi and M. Farag by AUC in (June 2007): ASME 2nd Multifunctional Nanocomposites and Nanomaterials Conference and Exhibition, Sharm El-Sheik 11-13th January (2008). **US\$5,360.**
12. Conference grant in collaboration with Dr. Esawi and M. Farag to cover accommodation of all AUC participants the ASME 2nd Multifunctional Nanocomposites and Nanomaterials Conference and Exhibition, Sharm El-Sheik 11-13th January (2008). **US\$5,360.**
13. Conference Grant: “*Characterization of the Consolidation behavior of Fabricated Nanocrystalline-Nanopowders of TiC/Al-2124 Composite*”, ASME Multifunctional Nanocomposite and Nanomaterials Conference, (2006). **US\$3,000.**

14. Workshop grant by YJ-STRC “*Nano-training Bootcamp*” ASME in Chicago, Illinois in June 29 2004. about **US\$3,000**
15. Conference grant By USEJB: “*Friction Stir Welding/Superplastic Forming Technology, A new Manufacturing Route for Aluminum Alloys*” IIW International Congress on welding and Allied Processes, Cairo, Dec. 2004.
16. Conference grant by The Royal Academy of Engineering (RAE) and USEJB: “*Effect of friction Stir Welding Process Parameters on The Mechanical Properties of the as As-Welded and Post-Weld Heat treatment AA 2095*” 5th International Symposium on Friction Stir Welding, , Metz, France on 14-16 September 2004. (*Proposal was submitted to the RAE by the graduate student May 2004 and was accepted*).
17. Conference grant by USEJB: “*Combining Friction Stir Welding and Superplastic Forming Technologies for the Transportation Industry*”, LIMAT 2003 international Conference, Hawaii USA, Nov. 2-6 2003.
18. Conference by AUC: “*Influence of Warm Rolling on Structural and Mechanical Behavior Bulk-Nanostructured Al Base Alloy*”, Al-Azhar 7th International Conference, Cairo-Egypt, April 7-10 2003.
19. Conference grant by USJEB: “*Effect of Friction Stir Welding Parameters on the Structure and Superplastic Formability of AA 2095 SPF Sheet*”, TMS annual meeting San Diego, CA, March 2003.
20. Conference grant by AUC: “*Materials Selection for Power Generation Applications*”, Materials and Processes for Advanced Technology “Materials for Energy Systems” Egyptian-German Workshop, Cairo-Egypt, April 7-9 2002.
21. ICCE/9 Ninth Annual International Conference on Composites Engineering, San Diego, CA, July 1-6, (2002).
22. Conference grant by AUC: “*Effect of Friction Stir Welding on the Superplastic Behavior of Weldalite Alloys*”, Light Weight Alloys for Aerospace Applications, Pennsylvania: The Minerals Metals and Materials Society, TMS, New Orleans, Louisiana, Feb. 2001.
23. Conference grant by AUC: “*Influence of Intense Plastic Straining on Room Temperature Mechanical Properties of Al-Cu-Li Base Alloys*” Cairo University International Conference MDP7, Cairo-Egypt, Feb. 15-17, 2000.
42. Conference grant by Higher Technological Institute (HIT): “*Development of Cu-Li Alloy for Ambient and Cryogenic Temperature Applications*”, *Advanced Materials*, Conference on “The Current Technological and Industrial Research and development”, The Scientific and Technological Research Academy, Cairo-Egypt, March 17-18, 1998.
43. Conference grant by Texas A&M University: “*Superplastic Characterization of 2095 Al-Li Alloys Processed by Equal Channel Angular Extrusion*”, Superplasticity and Superplastic Forming, The Minerals Metals and Materials Society, TMS, San Antonio, TX, Feb 16-19, 1998.

Publications in Referred Journals:

1. Mohamed Shokeir, Sandy El Moghazi, Ahmed F. Omara, Ahmed Elghazaly, Mohamed M. Emara, And Hanadi G. Salem, “Influence of Graphene, SiCnp, and G/SiCnp Hybrid Fillers on the Strengthening Mechanisms of Al-Matrix”, MMTA, March 2020, in press.
2. H Salem, LN Carter, MM Attallah, H. G. Salem, “Influence of processing parameters on internal porosity and types of defects formed in Ti6Al4V lattice structure fabricated by selective laser melting”, *Materials Science and Engineering: A*, (2019), Vol. 767, 138387.
3. D. M Fouad, A Moataz, W. H. El-Garaihy, H. G. Salem, “Numerical and experimental analysis of multi-channel spiral twist extrusion processing of AA5083”, *Materials Science and Engineering: A*, (2019), Vol. 764, pp. 138216.
4. Muhammed S. Abdallah, Fatma Y. Hassaneen, Yasmin Faisal, Mohy S. Mansour, A.M. Ibrahim, Saleh Abo-Elfadl, H.G. Salem and Nageh K. Allam, “Effect of Ni-Ferrite and Ni-Co-Ferrite nanostructures on biogas production from anaerobic digestion”, *Fuel*, (2019) Vol. 254, pp. 115673.
5. D. M. Foad, W. H ElGaraihy, M. M. Z. Mohamed, M. M. Elsayed Seleman and H. G. Salem, “Influence of multi-channel spiral twist extrusion (MCSTE) processing on structural evolution,

- crystallographic texture and mechanical properties of AA1100W”, *Materials Science & Engineering A*, Vol 737, (2018), pp. 166-176.
6. H. ElGaraihy, D. M. Foad and H. G. Salem, “Multi-Channel Spiral Twist Extrusion (MCSTE): A Novel Severe Plastic Deformation Technique for Grain Refinement”, *Metallurgical & Materials Transactions A*, Vol. 49A, (July 2018), pp. 2845-2864.
 7. A ElGhazaly, Geraldine Anis, Hanadi G Salem, “Effect of graphene addition on the mechanical and tribological behavior of nanostructured AA2124 self-lubricating metal matrix composite” *Composites Part A*, Vol. 95, (2017), pp.325-33
 8. Shaheen, Basamat S; Davenport, Timothy C; Salem, Hanadi G; Haile, Sossina M; Allam, Nageh K. “Rapid and controlled electrochemical synthesis of crystalline niobium oxide microcones”, *MRS Communications*; Warrendale 5.3 (2015): 495-501.
 9. H. G. Salem, W. H. El-Garaihy, S. E. Oraby, El-Sayed M. A. Rassoul, “On the Effect of SiC Content and Processing Temperature on Relative Density and Hardness of Hot Compacted Aluminum AA6061 Composite – Mathematical Empirical and Response Surface Approach”, *Journal of Materials Science Research*, Vol. 4, No 3,(2015), p.1-14
 10. M Ragab, H. G. Salem, “Investigation of the Structural Stability of Nanostructured Al-5.7 wt.-%-Ni Mechanically Alloyed Eutectic Alloy Powders, *Light Metals* (2015), pp.347-351.
 11. I. S Fahim, N Marei, H. G. Salem, W Mamdouh, “Effect of Graphene and Fullerene Nanofillers on Controlling the Pore size and Physicochemical Properties of Chitosan Nanocomposite Mesoporous Membranes”, *JNM*, (2015), Article ID 979561, 10 pages, <http://dx.doi.org/10.1155/2015/979561>.
 12. Irene S. Fahim, H.G. Salem, W. Mamdouh, “Effect of Processing Techniques on LDPE Thin Films and Sheets”, *Journal of Materials Science Research* 4 (4), (2015), pp.1-18.
 13. Irene S. Fahim, Hanadi G. Salem, and Wael mamdouh, “Chitosan nanocomposite Mesopowous Membranes: Mechanical and Barrier Properties as a function of Temperature”, *Journal of Materials Science and Research*, Vol. 4, Issue 4, (2015), pp. 1-18.
 14. Abeer Dagher, Hanadi G Salem, Tarek M Moustafa, Eman Bellah Mettawee, Ehab Abdel-Rahman, “Hydrogen absorption characteristics of mechanically alloyed Ti–Zr–Ni and Ti–V–Ni powders”, *International Journal of Hydrogen Energy* 39 (31), (2014) p. 17740-17746
 15. MA Elhamid, MM Emara, H. G. Salem, “Influence of Mixing Technique on the Mechanical Properties and Structural Evolution of Al-NiAl Composites” *Journal of Materials Engineering and performance*, Vol. 23, Issue 10, (2014), pp 3425–3435.
 16. Mahmoud Ahmed El-Sayed, Hanadi A.G. Salem, Abdelrazek Youssef Kandeil, and W.D. Griffiths:, Determiation of the Lifetime of a Double-Oxide Film 3 in Al Castings, *MMTB*, Vol. 45 (4), (2014), pp.11398-1406.
 17. Basamat S. Shaheen, Hanadi G Salem, Mostafa A. El-Sayed, and Nageh K. Allam: “Thermal/Electrochemical Growth and Characterization of One-ZnO/TiO Hybrid Nanoelectrodes for Solar Fuel Production”, *J. Phys. Chem. C*, C117 (36), (2013), pp.18502-509.
 18. Eldesouky, A., Johnsson, M. , Svengren, H., Attallah, M.M. and Salem, H.G., "Effect of grain size reduction of AA2124 aluminum alloy powder compacted by spark plasma sintering", *Journal of Alloys and Compounds*, Volume 609, 5, (2014) Pages 215-221.
 19. ND Afify, HG Salem, A Yavari, T El Sayed, “Consolidation of nanometer-sized aluminum single crystals: Microstructure and defects evolutions”, *Computational Materials Science*, Vol. 85, (2014), pp. 306-309.
 20. ND Afify, HG Salem, A Yavari, T El Sayed, “Mechanism of the superior mechanical strength of nanometer-sized metal single crystals revealed”, *Computer Materials Science*, Vol 78, (2013), pp. 34-38.
 21. Hala Omar, Ahmed Ibrahim, Hanadi Salem, Sherif Sedky, “Effect of Pulsed Laser on the structure and morphology of Alumina-Zirconia Coatings”, *Journal of Surface Engineered Materials and Advanced Technology*, (2013), Article ID:34493, DOI:10.4236/jse.
 22. Irene S. Fahim, Wael Mamdouh, and Hanadi A. G. Salem, “A nanoscale investigation of mechanical, thermal stability and electrical conductivity properties of reinforced thermoplastic polyurethane/graphene nanocomposite”, *American Journal of Nanoscience and Nanotechnology*, Vol.1(1), (2013) pp.31-40.

23. M. El-Sayed, H. G. Salem, A.-R. Kandeil, W. D. Griffiths, "A Study of the Behaviour of Double Oxide Films in Al Alloy Melts", *Materials Science Forum*, Vol. 765, (2013), pp. 260-265.
24. M.A. Yar a, Sverker Wahlberg a, Hans Bergqvist a, H.G. Salem, Mats Johnsson , Mamoun Muhammed, "Fabrication of Nanostructured W-Y2O3 Materials by Chemical Methods", *Journal of Materials Chemistry*, Vol. 22, (2012), pp.12622-12628.
25. H.G. Salem, William M Lee, Laurence Bodelot, G Ravichandran, MA Zikry, "Quasi-static and high-strain-rate experimental microstructural investigation of a high-strength aluminum alloy", *Metallurgical and Materials Transactions A*, Vol. 43, Issue 6, (2012), pp.1895-1901.
26. Mohy Eldin, Hanadi G. Salem, "Effect of Milling Energy on the Structural Evolution and Stability of Nanostructured Al-5.7wt.% Ni Mechanically Alloyed Eutectic Alloy" *Journal of Powder Technology*, vol. 222 (2012), pp. 108–116.
27. M. El-Sayed, H. Salem, A. Kandeil and W. D. Griffiths, "Effect Of Holding Time before Solidification On Doubleoxide, Film Defects And Mechanical Properties Of, Aluminium Alloys", *Metallurgical and Materials Transactions B*, Vol 42B, Dec.(2011), pp. 1104-1109.
28. M.A. Yar a, Sverker Wahlberg a, Hans Bergqvist a, H.G. Salem , Mats Johnsson , Mamoun Muhammed, "Spark plasma sintering of tungsten–yttrium oxide composites from chemically synthesized nanopowders and microstructural characterization", *Journal of Nuclear Materials* 412 (2011) 227–232.
29. M. Mazher, H. Salem, M. Johansson, and M. Mohammed, "Chemically Produced Tungsten-La₂O₃ Nano Powders and ODS-Tungsten Metals Sintered by SPS" *Journal of Nuclear Materials*, Volume 408, Issue 2, 15 January (2011), Pages 129-135.
30. Aber Dagher, Hanadi Salem, Tarek Moustafa, Eman Bellah Mettaweeand Ehab Abdel-Rahman, "Hydrogenation of Mechanically Alloyed Ti-Zr-Ni and Ti-V-Ni Powders", *Gordon Research Conference on "Hydrogen-Metal Systems,"* July 17 - July 22, (2011), Stonehill College in Easton, MA, USA.
31. Kandil, A Amer, H Abdul Fattah, HG Salem, "Effect of TiC particulates reinforcement on mechanical properties and aging behavior of micro and nanostructured matrices of AA2124", *Meal-Heibeberg*, Vol. 65, issue 9, (2011) pp. 393.
32. Haythem Elgazzar, Ehab Abdel Rahman, Hanadi Salem and F. Nassar, "Preparation and Characterizations Of Amorphous Nanostructured SiC Thin Films by Low Energy Pulsed Laser Deposition" *Journal of Applied Surface Science*, Volume 256, Issue 7, 15 January (2010), Pages 2056-2060.
33. Amal MK Esawi, Hanadi G Salem, Hanady M Hussein, Adham R Ramadan, "Effect Of Processing Technique On The Dispersion Of Carbon Nanotubes Within Polypropylene Carbon Nanotube-Composites And Its Effect On Their Mechanical Properties", *Polymer Composites*, Vol. 31, Issue 5, (2010), pp. 772-780
34. H. G. Salem and A. W. Sadek, "Fabrication of High Performance PM Nanocrystalline Bulk AA2124", *Journal of Materials and Engineering Performance*, , Volume 19, Issue 3, April (2010), pp 356–367
35. Ahmed Ibrahim, Hanadi Salem, and Sherif Sedky: "Excimer laser Surface Treatment of Plasma Sprayed Al₂O₃+13wt.% TiO₂ Coatings" *Journal Surface and Coating Technology*. Volume 203, Issue 23, 25 August (2009), Pages 3579–3589
36. Hanadi G. Salem, S. El-Eskandarany, A. Kandil and H. Abdel Fattah: "Bulk Behavior of Ball Milled AA2124 Nanostructured Powders Reinforced With TiC"; *Journal of Nanomaterials*. Volume 2009, January (2009). Article No. 10
37. A. Sadek and H. G. Salem: "Controlling the Processing Parameters for Consolidation of Nanopowders In to Bulk Nanostructured Material" *Ceramics Transactions, Processing of Nanoparticle Structures and Composites*, (2009), pp.11 - 22 .
38. M. Mohsen, E. Gomaa, M. Sharaf, H. Salem and W. Gomaa, "Effect of deformation and physical aging on nano-scale free volumes in Polycarbonate studied by positron annihilation lifetime spectroscopy" *Journal of Nano and Biomaterials*, Vol. 2, Issue 1-5, (2009), pp. 279-288.
39. K. I. Khodary, H. G. Salem and M. A. Zikry: "Equal Channel Angular Pressing of canned 2124-Al Compacts: processing, Experiments and Modeling", *Metallurgical and Materials Transactions A*, Vol. 39A, September 2008, pp. 2184-2192.

40. Hanadi G. Salem, Mohy S. Mansour and Wafaa A. Abbas, "CW Nd: YAG Laser Cutting of Ultra Low Carbon Steel Thin Sheets Using O₂ Assist Gas" *Journal of Materials Processing and Technology*, 168 (2008), pp.438-447.
41. K. A. El-Saadouny; A. H. Khalil, H. G. Salem and Mona A. El-Agroni, "Effect of Heat Cycling of Porcelain-Fused-To-Metal and Different Surface Treatment to the metal on Bond Strength Between Porcelain and Old base Metal Alloy Substructure (In Vitro Study), *Egyptian Dental Journal*, Vol. 55, January 2009, pp. 15-26.
42. M. M Gad, H. G. Salem, A. M. Naserldin, H. Sabry and A. A. El-Sayed: "Localized Corrosion Behavior of 6% Mo Super Austenitic & 316L Stainless Steels in Low pH 3% NaCl Solution" *J. of Materials Science and Technology*, vol. 21 No. 4 (2005) p. 465-469.
43. M. Abu-Khatwa, H. G. Salem and S. El-Haggar: "Building Materials from Waste", *Canadian Metallurgical Quarterly* (2005) Vol.44, No. 3, pp.339-350.
44. Moataz M. Attallah and Hanadi G. Salem: "Friction Stir Welding Parameters: A Tool for controlling Abnormal Grain Growth during Subsequent heat treatment", *Materials Science and Engineering A*, vol. A 391 (2005), pp. 51-59.
45. Moataz M. Attallah and Hanadi G. Salem: "Influence of the Process Parameters on the Superplasticity of the Friction Stir Processed Nugget in High Strength Al-Cu-Li Alloy", *Material Science and Technology*, vol. 20, November (2004), pp. 1370-1376.
46. H. G. Salem, R. E. Goforth and K. T. Hartwig: Evaluation of The Structural and Mechanical Behavior of Bulk-Nanostructured High Strength Al-Base Alloys Processed Via ECAE" *Journal of Materials Science and Technology*, Vol. 12, No. 1 (2004) pp 45-64.
47. H. G. Salem: "Influence of Warm Rolling on Structural and mechanical Behavior of Bulk-Nanostructured Al Base Alloy", *Journal of Materials Science and Technology*, vol. 12 No 1 (2004) pp. 23-43.
48. Hanadi G. Salem, A. S. Reynolds and J. S. Lyons: "Structural Evolution and Superplastic Formability of Friction Stir Weld Evolution of Dynamically Recrystallized AA 2095 Weldments", *Journal of Materials Engineering and Performance*, vol. 13, no. 1 Feb. (2004), pp. 24-31.
49. H.G.Salem, "Materials Flow Characteristics of Friction Stir Welded Fine Structured Weldalite Thin Sheets, *Journal of Engineering and Applied Science-Cairo-Vol. 50*, issue (5), (2003), pp. 965-980.
50. Hanadi G. Salem: "Friction Stir Weld Evolution of Dynamically Recrystallized AA 2095 Weldments", *Scripta Materialia*, vol. 49, no.11, Sep. (2003), pp. 1103-1110.
51. MM Attallah, HA Salem, "Combing Friction Stir Welding and Superplastic Forming Technologies for The Transportation Industry", *LIMAT 2003*, pp. 296-304.
52. N. Hassan, M. Younan, and H. Salem: "Deformation Analysis of Superplastic Aluminum Alloy Al-8090 Using Finite Elements", *JOM*, October 2003, pp. 38-42.
53. Salem, H., Goforth, R., and Hartwig, T: "Influence of Intense Plastic Straining on Grain refinement, Precipitation, and Mechanical Properties of Al-Cu-Li base Alloys", *Metallurgical and Materials Transactions A*, vol. 34A, no. 5 May 2003, pp. 1153-61.
54. H. G. Salem and J. Lyons: "Effect of Equal Channel Angular Extrusion processing on Microstructure and Superplasticity of an Al-Li base Alloys", *J. of Materials Engineering and Performance*, V. 11 no. 4 August 2002, pp.384-391.
55. J. Lyons, D. Laub, V. Giurgiutiu, Mechael Petrou, and H. Salem: "Effect of Hygrothermal Aging on the Fracture of Composite Overlays on Concrete", *Journal of Reinforced Plastics and Composites*, vol. 21, no. 4, March 2002, pp.293-309.
56. H. G. Salem, A. Reynolds, J. Lyons: "Microstructure and Retention of Super-plasticity of Friction Stir Welded Superplastic 2095 sheet", *Scripta Mat.*, Vol. 46, No. 5, 2002, pp. 337-342.

Articles in Refereed Conferences

1. Geraldine Anis, Mostafa Youssef, Moataz Attallah, Hanadi. G. Salem" Phase Diagram And Mechanical Properties Of Heigh Entropy Alloy Fabricated By Mechanical Alloying", *Materials Science and Technology 2019 proceedings*, Portland, Oregon, USA, pp.1202-1207.
2. H.Salem, L. N. Carter, M. M. Attallah and H. G. Salem, "The Influence Of Processing Parameters On Strut Diameter And Internal Porosity In Ti6al4v Cellular Structure", 2018 MS&T Annual Conference

- and Exhibition, Additive Manufacturing of Metals: Microstructure and Materials Properties, October 2018, pp. 71-77.
3. D.M. Fouad, A. Moataz, W.H. El-Garaihy, H.G. Salem, "Multi-Objective Optimization Of Multi-Channel Spiral Twist Extrusion Process Using A Response Surface Approach And Finite Element Analysis", 2018 MS&T Annual Conference and Exhibition, Solid State Symposium, October 2018, pp. 1470-1477.
 4. L. M. Wahsh, A. E. ElShater, A. K. Mansour, F. A. Hamdy, M. A. Turky, M. O. Azzam and H. G. Salem, "Parameter Selection For Wire Arc Additive Manufacturing (WAAM) Process", 2018 MS&T Annual Conference and Exhibition, Additive Manufacturing of Metals: Microstructure and Materials Properties, October 2018, pp. 76-85.
 5. P. Morcos, KI ElKhodary, H. G. Salem, "Mechanically Alloyed Magnesium Based Nanostructured Alloy Powders for Biomedical Applications", Magnesium Technology 2017, The Minerals, Metals & Materials Series, pp 35-41.
 6. H. Salem, H. G. Salem, M. M. Attallah, "Composite Powder Consolidation Using Selective Laser Melting: Input Energy/Porosity Morphology/Balling Effect Relation" TMS 2017, Annual Meeting & Exhibition Supplemental Proceedings The Minerals, Metals & Materials Series pp 169-180.
 7. A El Ghazaly, M Shokeir, SN El Moghazi, A Fathy, MM Emara and H. G. Salem, "Nanocomposites Mechanical and Tribological Properties Using Graphene-Coated-SiC Nanoparticles (GCSiC_{NP}) for Light Weight Applications", TMS 2017, Annual Meeting & Exhibition , Proceedings of the 3rd Pan American Materials Congress, Part of the series The Minerals, Metals & Materials Series, (2017), pp 403-415.
 8. Ahmed Salem, Yasmine Zakarya, Mats Johnsson and Hanadi Salem, "Influence Of Spark Plasma Sintering On The Mechanical Behavior Of Micro And Nano Aa2124 Powders", TMS 2013 Annual Meeting and Exhibition San Antonio, TX, USA March 2-7, 2013.
 9. Ahmed Ghazaly, Bassam Shahin, and Hanadi Salem, "Mechanical and Tribological Properties Of Aa2124-Graphene Self Lubricating Nanocomposite", Light Metals 2013 Edited by: Barry Sadler TMS (The Minerals, Metals & Materials Society), 2013, USA March 2-7, (2013) p. 411-415.
 10. H. G. Salem and W. El Garaihy, "Influence of High Pressure Torsion on the Consolidation Behavior and Mechanical Properties of AA6061-SiCp Composite Powders " Randall M. German Honorary Symposium on Sintering and Powder-Based Materials, 2012 TMS Annual Meeting and Exhibition, March 11th -March 16th, Orlando FL, USA, Supplemental Proceedings, Volume 1,(2012), pp. 553-560.
 11. William Lee, Pratheek Shanthraj, Hanadi Salem, Mohammed Zikry" Computational and Experimental Investigation of the Interfacial Dynamic Compressive Behavior of High Strength Aluminum Alloys", AIP Conference Proceedings, American Institute of Physics, Ste. 1 (2012).
 12. M. El-Sayed, H. Salem, A. Kandeil, W. D. Griffiths, " Effect Of Holding Time Before Solidification On Double-Oxide Film Defects And Mechanical Properties Of Aluminium Alloys" 2011 TMS Annual Meeting and Exhibition, Feb. 27th-March 2nd, (2011), San Diego CA USA pp. 149-156.
 13. W.M. Lee, K. El-Khodary, H. Salem and M.A. Zikry: "Experimental and Microstructurally Based Computational Investigation of the High Strain-Rate Behavior of High Strength Aluminum Alloys", 2011 TMS Annual Meeting and Exhibition, Feb. 27th-March 2nd, (2011), San Diego CA USA.
 14. H. Salem, AHA Hamid , "Influence of the Dispersion Mechanism of Nanostructured Al 50 Ni 50 Intermetallic Compound In Al-Matrices On The Consolidation Behavior And Structural Stability", Minerals, Metals and Materials Society/AIME, USA, (2010).
 15. H Salem, ME Raged , "Effect of Milling Parameters on the Structural Stability of Isothermally Heat treated Nanostructured Al-2. 7 at.% Ni Mechanically Alloyed Eutectic Powders" Functional and Structural Nanomaterials: Fabrication, Properties, Applications and Implications: Synthesis of Nanomaterials III, TMS (2010).
 16. A. Sadek, H. G. Salem and M. Attallah: "Nanocrystalline Powder Consolidation in AA2124 using Uniaxial Compaction and Severe Plastic Deformation", Proceedings of Mechanical Behavior of Nanostructured Materials, TMS Annual Meeting & Exhibition, Supplement proceedings Vol. 1, Fabrication, Processing Materials and Properties, TMS, 2009, pp.495-502.

17. Ahmed Ibrahim, Hanadi Salem and C.C. Berndt: "Characterization of Nanostructured and Conventional Alumina–13wt.% Titania coatings", International Thermal Conference and Exposition, June 02 - 04, (2008), Maastricht, The Netherlands, Pub. By ASM International Materials park Ohio USA, 2008, pp. 1-6.
18. H. Salem and M. Shamma: "Effect of the Compaction Parameters and Canning material of Nanostructured Al-Powder consolidated via Intense Plastic Straining Process", ASME 2nd Multifunctional Nanocomposites and Nanomaterials International Conference and Exhibition, Sharm El-Sheikh, Jan. 11-13th (2008).
19. Sadek and H. Salem: "Construction of Consolidation Maps of Pre-ECAE Hot Compact Nanocrystalline-Micron Powders", ASME 2nd Multifunctional Nanocomposites and Nanomaterials International Conference and Exhibition, Sharm El-Sheikh, Jan. 11-13th (2008).
20. H. Salem, S. El-Eskandarany and H. Abdul Fattah: Characterization of the Consolidation behavior of Fabricated Nanocrystalline-Nanopowders of TiC/Al-2124 Composite", ASME Multifunctional Nanocomposite conference and Exhibition, September 20-22, (2006), Honolulu, Hawaii
21. Moataz M. Attallah and Hanadi G. Salem: "Influence of Friction Stir Processing on the Superplastic Behavior of the Stir Zone of Dynamically Recrystallized AA 2095", MDP VIII International Conference January 2004, Edited by: S. M. Metwalli, M. O. Mokhtar and E. A. El-Danaf, Vol. II, pp.781-789.
22. H. G. Salem: "Influence of Warm Rolling on Structural and mechanical Behavior Bulk-Nanostructured Al Base Alloy". Conf. Proc. Al-Azhar 7th International Conference, Cairo-Egypt, ed. M. Elkady, April 7-10 2003, pp. 1-15.
23. Hanadi Salem and C.C. Berndt Ahmed Ibrahim, "Characterization of Nanostructured and Conventional Alumina–13wt.% Titania coatings", International Thermal Conference and Exposition, January 2011, Conference: TMS Annual Meeting and Exhibition, 2001.
24. H. G. Salem, A. Reynolds, J. Lyon: "Effect of Friction Stir Welding on The Superplastic Behavior of Weldalite Alloys", Light Weight Alloys for Aerospace Applications, Pennsylvania: Eds. J. Kumar, E. W. Lee, W. Frazier and N. J. Kim, The Minerals Metals and Materials Society, TMS, Feb, 2001, pp.141-150.
25. H. G. Salem, and R. Goforth: "Influence of Intense Plastic Straining On Room Temperature Mechanical Properties Of Al-Cu-Li Base Alloys" Cairo University International Conference MDP7, Eds. M. F. Hassan and S. M. Megahed, Feb. 15-17, 2000, pp. 357-368.

Articles in None-refereed Conferences, Workshops and Media:

1. ElMostakbal, Dubai Future Foundation, "Egyptian Researcher develops an integrated Additive Manufacturing Automated System" March 22, 2020.
2. DMC Channel reportage on the WAAM project, January 2020.
3. Al Ahram Newspaper, "JESOUR EL TANMIA", Feb. 2nd 2017.
<http://www.ahram.org.eg/News/202177/4/579285/قضايا-واراء-جسور-التنمية.aspx>
4. El Sherouk Newspaper, titled "Egyptian Project for Aircraft Repair using 3D-Printing" was published in El-Sherouk Newspaper Issue of Tuesday October 2016,
<http://www.shorouknews.com/news/view.aspx?cdate=11102016&id=62e6089b-86d1-402e-af47-98bcd1b40593>
5. "MIT Technology Review, USA," Magazine. An interview about the kind of ongoing research at AUC, Egypt, (February 4, 2015).
6. News@AUC, "Graduation of First Nanotechnology Master's Students", From breast cancer research to micro-sensors, nanotechnology grads are pursuing PhDs in top universities worldwide, Feb. 2013, <http://schools.aucegypt.edu/newsatauc/Pages/story.aspx?eid=1051>
7. News@AUC, "Nanotechnology, Cars are safer, Glossier More Durable", September 2014.
<http://www.aucegypt.edu/news/stories/hanadi-salem-nanotech-cars-are-safer-glossier-more-durable>.
8. Hanadi G. Salem, Mohy S. Mansour and Wafaa A. Abbas, "Parametric Study on the CW Nd: YAG Laser Cutting quality of 1.25mm Ultra Low Carbon Steel Thin Sheets Using O₂ Assist Gas" (2007) AIP conference proceedings, pp. 186-196.

9. H. G. Salem, “Consolidation Behavior of Al-Mg-Cu Nanostructured Nanopowders”, 14th International conference on Composites/ Nano Engineering, ICCE-14, July 2-8, 2006, Boulder, Colorado USA.
10. M. M. Attallah and H. G. Salem: Effect of Friction Stir Welding Process Parameters on the Mechanical Properties of the As-Welded and Post-Weld Heat Treated AA2095. Proceedings of the 5th International Symposium on Friction Stir Welding, Metz, France, 14-16 September, 2004.
11. Hanadi G. Salem and Moataz M. Attallah: “Friction Stir Welding/Superplastic Forming (FSW/SPF) Technology, A New Manufacturing Route for Aluminum Alloys” IIW International Congress on Welding and Allied Processes-Cairo Nov 29th-Dec 1st, 2004 Cairo Egypt.
12. Moataz M. Attallah and Hanadi G. Salem “Effect of Friction Stir Welding Process Parameters on The Mechanical Properties of the as As-Welded and Post-Weld Heat treatment AA 2095” 5th International Symposium on Friction Stir Welding, Metz, France on 14-16 September 2004.
13. Moataz M. Attallah and Hanadi G. Salem: “Combining Friction Stir Welding and Superplastic Forming Technologies for The Transportation Industry”, LIMAT 2003 Hawaii USA Nov. 2-6 2003, Conference Proc. Ed. by W. E. Frazier, Y. D. Han, N. J. Kim, and E. W. Lee Center for Advanced Aerospace Materials, POSTECH, 2004, pp. 296-304.
14. Hanadi G. Salem, Anthony, P. Reynolds and Jed S. Lyons: “Effect of Friction Stir Welding Parameters on the Structure and Superplastic Formability of AA 2095 SPF Sheet”, TMS annual meeting San Diego, CA, March 2003, pp. 386. (Only presentation)
15. Hanadi Salem: “Influence of Warm Rolling on the Structural and Mechanical Behavior of an Equal Channel Angular Extruded Al Base Alloy”, ICCE/9 Ninth Annual International Conference on Composites Engineering Conference Proc., Ed. by David Hui, San Diego, July 1-6, 2002, pp.689.
16. Hanadi Salem, Amal Esawi, and Mahmoud Farag: “Materials Selection for Power Generation Applications”, Materials and Processes for Advanced Technology “Materials for Energy Systems” Egyptian-German Workshop, Eds. Detlev Stöver and Martin Bram, April 7-9 2002, vol. 33, pp. 273-285.
17. N. Hassan, M. Younan, and H. Salem: “Deformation Analysis of Superplastic Aluminum Alloy Al-8090 Using Finite Elements”, TMS 2002 annual meeting, Seattle, April 2002, pp. 284. (Only presentation)
18. N. Hassan, M. Younan, and H. Salem: “Limit Strain Analysis of Superplastic Materials Using Finite Elements” TMS 2002 annual meeting, Seattle, April 2002, pp. 284. (Only presentation)
19. H. G. Salem, R. E. Goforth, and K. T. Hartwig: “Superplastic Characterization of 2095 Al-Li Alloys Processed by Equal Channel Angular Extrusion”, Superplasticity And Superplastic Forming, Proc. Ed. A. K. Ghosh et al. The Minerals Metals and Materials Society, TMS, San Antonio, TX, Feb 16-19, 1998, pp. 165-196. Cited 2-times
20. Hanadi G. Salem: “Development of a Cu-Li Alloy for Ambient and Cryogenic Temperature Applications”, Advanced Materials, Conference on “The Current Technological and Industrial Research and development”, The Scientific and Technological Research Academy, Cairo-Egypt, March 17-18, 1998. (Only presentation).
21. Hanadi Salem, Amr Shaarawi and Ehab Abdel Rahman: Egyptian Italian Workshop on nanotechnology Applications, Egyptian-Italian Science year 2009 Newsletter, Feb 2009, Page 9.

Conference and Workshop Presentations

1. “Integrated Additive Manufacturing System: A Novel Technology for Manufacturing/Repair and Maintenance of Industrial Parts at Low Cost”, invited speech, International Conference on Materials Science and Engineering: ICMSE-RAC 2018, March 11-13, 2018 Borg El Arab.
2. “Wire Arc Additive Manufacturing/Repair (WAAM/R) of a Prismatic Steel Part” International Conference on Materials Science and Engineering: ICMSE-RAC 2018, March 11-13, 2018 Borg El Arab.
3. “Multi-Channel Spiral Twist Extrusion (MCSTE) - A Novel Severe Plastic Deformation Method: A Numerical and Experimental Study”, International Conference on Materials Science and Engineering: ICMSE-RAC 2018, March 11-13, 2018 Borg El Arab.
4. “Nanocomposites Mechanical and Tribological Properties Using Graphene-Coated-SiC Nanoparticles (GCSiCNP) for Light Weight Applications”, TMS 2017, Proceedings of the 3rd Pan American Materials Congress, Part of the series The Minerals, Metals & Materials Series (Oral Presentation).

5. "Composite Powder Consolidation Using Selective Laser Melting: Input Energy/Porosity Morphology/Balling Effect Relation" TMS 2017 146th Annual Meeting & Exhibition. The Minerals, Metals & Materials Series, (Poster Presentation).
6. "Mechanically Alloyed Magnesium Based Nanostructured Alloy Powders for Biomedical Applications", Magnesium Technology 2017, The Minerals, Metals & Materials Series Feb. 28, 2017, (Oral presentation by graduae student).
7. "AUC Research Activities in the field of Nanoscience and Nanotechnology", ASRT/ENNN Workshop, October 2015.
8. "Research Activities: Nanostructured Materials for High Performance Applications," Materials Science, Birmingham university, UK, Birmingham, UK, UK. January 12, 2014 - January 16, 2014 (Oral Presentation).
9. YJSTRC-Research Activities," Materials Science, Birmingham University, UK, Birmingham, UK, UK. January 12, 2014 - January 16, 2014 (Oral Presentation).
10. "Center of Excellance in Egypt", under the auspicious of the Minister for Higher Education and Research and the President of the Beni Swif University, Invited Key Note Speech June 17th, 2014 (Oral Presentation).
11. "Influence Of Spark Plasma Sintering On The Mechanical Behavior Of Micro And Nano Aa2124 Powders", TMS 2013 Annual Meeting and Exhibition San Antonio, TX, USA March 2-7, 2013 (Oral presentation).
12. "Mechanical and Tribological Properties Of AA2124-Graphene Self Lubricating Nanocomposite", Light Metals 2013 Edited by: Barry Sadler TMS (The Minerals, Metals & Materials Society), 2013, USA March 2-7, (2013) p. 411-415 (Oral Presentation).
13. "Influence of High Pressure Torsion on the Consolidation Behavior and Mechanical Properties of AA6061-SiCp Composite Powders " Randall M. German Honorary Symposium on Sintering and Powder-Based Materials, 2012 TMS Annual Meeting and Exhibition, March 11th -March 16th, Orlando FL, USA, Supplemental Proceedings, Volume 1,(2012), pp. 553-560 (Oral Presentation).
14. "Influence of the Dispersion Mechanism of Nanostrucutred Al 50 Ni 50 Intermetallic Compound In Al-Matrices On The Consolidation Behavior And Structural Stability", Minerals, Metals and Materials Society/AIME, USA, (2010) (Oral Presentation).
15. "Effect of Milling Parameters on the Structural Stability of Isothermally Heat treated Nanostrucutred Al-2. 7 at.% Ni Mechanically Alloyed Eutectic Powders" Functional and Structural Nanomaterials: Fabrication, Properties, Applications and Implications: Synthesis of Nanomaterials III, TMS (2010) (Oral Presentation).
16. "Research Activities: Nanostructured and Bulk nanocomposites for High Performance Applications," Materials Science, Royal Instiute of Technology (KTH), Stockholm, Sweden, March 2010 (Invited Seminal to Functional Materials Group).
17. YJSTRC-Research Activities," Materials Science, Royal Instiute of Technology (KTH), Stockholm, Sweden, March 2010 (Invited Seminal to Functional Materials Group).
18. "Nanocrystalline Powder Consolidation in AA2124 using Uniaxial Compaction and Severe Plastic Deformation", Mechanical Behavior of Nanostructured Materials, TMS Annual Meeting & Exhibition, poster presentation, Feb. 12-19th 2009, San Francisco, CA, USA (Oral Presentation).
19. "Parametric Study for Synthesis of Nanocrystalline Al-5.7wt% Ni Eutectic by Mechanical Alloying", The Science and Technology Research Center Workshop on Nanotechnology, AUC Annual Conference, The American University in Cairo, New Cairo, Saturday, April 4-6th, 2009. (Oral presentation by graduate student)
20. "Influence of Dispersion Strengthening Of Pure Al with Mechanically Alloyed AlNi Intermetallic Nanostructured Powder", The Science and Technology Research Center Workshop on Nanotechnology, AUC Annual Conference, The American University in Cairo, New Cairo, Saturday, April 4-6th, 2009. (Oral Presentation by graduate student)
21. "Characterizations of Nanostructure Amorphous Silicon Carbide Thin Films Grown By Pulsed Laser Deposition", The Science and Technology Research Center Workshop on Nanotechnology, AUC Annual Conference, The American University in Cairo, New Cairo, Saturday, April 4-6th, 2009. (Oral Presentation by graduate student)

22. "Fabrication and Characterization of Polypropylene Carbon Nanotube-Composites", The Science and Technology Research Center Workshop on Nanotechnology, AUC Annual Conference, The American University in Cairo, New Cairo, Saturday, April 4-6th, 2009. (presented by graduate student)
23. "Development of Quasicrystalline Alloys to Function as Hydrogen Storage Materials", The Science and Technology Research Center Workshop on Nanotechnology, AUC Annual Conference, The American University in Cairo, New Cairo, Saturday, April 4-6th, 2009. (Oral presentation by graduate student)
24. "Pulsed Laser Deposition of Silicon Carbide Thin Film" The Science and Technology Research Center Workshop on Nanotechnology The American University in Cairo, Oriental Hall, Saturday, April 12th, 2008. (presented by graduate student)
25. "Synthesis of Nanocrystalline Al- Ni_{5.7} Eutectic and Al-Ni₅₀ Intermetallic Compound alloy systems by Mechanical Alloying", The Science and Technology Research Center Workshop on Nanotechnology, Advanced Materials and Applications, The American University in Cairo, Oriental Hall, Saturday, April 12th, 2008. (Oral Presentation by graduate student)
26. "Controlling the processing parameters for consolidation of nanocrystalline micro and nanopowders into bulk nanostructured material" The Science and Technology Research Center Workshop on Nanotechnology, Advanced Materials and Applications, The American University in Cairo, Oriental Hall, Saturday, April 12th, 2008. (Oral presentation by graduate student)
27. A seminar on the Nanotechnology research in "Nanostructured and advanced Materials" to the National Committee for Advanced and New Materials, The Academy of Science, research and Technology (ASRT) March 2008 (Oral Presentation).
28. "Effect of the Compaction Parameters and Canning material of Nanostructured Al-Powder consolidated via Intense Plastic Straining Process", ASME 2nd Multifunctional Nanocomposites and Nanomaterials International Conference and Exhibition, Sharm El-Sheikh, Jan. 11-13th, 2008. (Oral presentation by graduate student)
29. "Construction of Consolidation Maps of Pre-ECAE Hot Compact Nanocrystalline-Micron Powders", ASME 2nd Multifunctional Nanocomposites and Nanomaterials International Conference and Exhibition, Sharm El-Sheikh, Jan. 11-13th, 2008. (Oral Presentation by graduate student)
30. "Environmental Media Effect On Microstructure And Surface Morphology Of Quasicrystalline Alloy" Poster Presentation, ASME 2nd Multifunctional Nanocomposites and Nanomaterials, Sharm El-sheikh 11-13, Jan 2008 (by graduate student).
31. "Construction of consolidation maps for finite element material modeling of Equal channel angular extrusion of Hot Compact Nano and Micron Powders", The Science and Technology Research Center Workshop on Nanotechnology, Advanced Materials and Applications, The American University in Cairo, Oriental Hall, Saturday, April 28th, 2007. (presented by graduate student)
32. "Effect Of The Compaction Parameters And Canning Material Of Nanostructured Al-Powder Consolidated Via Intense Plastic Straining Process" The Science and Technology Research Center Workshop on Nanotechnology, Advanced Materials and Applications, The American University in Cairo, Oriental Hall, Saturday, April 28th, 2007. (presented by graduate student)
33. " Parameters Influencing The Consolidation Behavior Of AA2124-Tic Micro And Nanocomposites", The Science and Technology Research Center Workshop on Nanotechnology, Advanced Materials and Applications, The American University in Cairo, Oriental Hall, Saturday, April 28th, 2007.
34. "Characterization of the Consolidation behavior of Fabricated Nanocrystalline-Nanopowders of TiC/Al-2124 Composite", ASME Multifunctional Nanocomposites Conference and Exhibition, September 20-22, (2006), Honolulu, Hawaii.
35. "Effect Of Friction Stir Welding Parameters On Grain Growth Of High Strength Aluminum Alloys" Egyptian-German Workshop, Welding of Aluminum Light Weight Structures, February 20th and 21st 2006, German University in Cairo.
36. "Parametric Study On The Nd:YAG Laser Cutting Quality Of 1:25 Mm Ultra Low-Carbon Sheets Using O₂-Assist Gas", 2nd International Conference, Modern Trends in Physics research, April 6-11, 2006, Cairo-Luxor.

37. Invited by the Academy of Scientific Research & Technology to make a presentation on “Suggested Research Topics in the Area of New Materials” for the preparation of the five-year plan-FP7 (2007-2013) for the European commission, March 11th 2005.
38. “A Proposal for a First-Year Experience (FYE) Week”, Communication Across The curriculum Conference, Nov. 12 2005, AUC.
39. “Influence of Friction Stir Processing on the Superplastic Behavior of the Stir Zone of Dynamically Recrystallized AA 2095”, MDP VIII International Conference, Cairo-Egypt, January 4-6 2004.
40. “Effect of friction Stir Welding Process Parameters on The Mechanical Properties of the as As-Welded and Post-Weld Heat treatment AA 2095”, 5th International Symposium on Friction Stir Welding, , Metz, France on 14-16 September 2004. (presented by graduate student)
41. “Nanotechnology and Nanostructured Materials research and Development” ENGR 590 Seminar I. invited Seminar in collaboration with Dr. Amal Esawi, AUC, fall 2003.
42. “Combining Friction Stir Welding and Superplastic Forming Technologies for The Transportation Industry”, LIMAT 2003 international Conference, Hawaii USA, Nov. 2-6 2003. (presented by graduate student)
43. “Influence of Warm Rolling on Structural and mechanical Behavior Bulk-Nanostructured Al Base Alloy”, Al-Azhar 7th International Conference, Cairo-Egypt, April 7-10 2003.
44. “Effect of Friction Stir Welding Parameters on the Structure and Superplastic Formability of AA 2095 SPF Sheet”, TMS annual meeting San Diego, CA, March 2003.
45. “Influence of Warm Rolling on the Structural and Mechanical Behavior of an Equal Channel Angular Extruded Al Base Alloy”, ICCE/9 Ninth Annual International Conference on Composites Engineering, San Diego, CA, July 1-6, 2002.
46. “Deformation Analysis of Superplastic Aluminum Alloy Al-8090 Using Finite Elements”, TMS 2002 annual meeting, Seattle, April 2002, pp. 284. (presented by graduate student)
47. “Limit Strain Analysis of Superplastic Materials Using Finite Elements” TMS 2002 annual meeting, Seattle, April 2002, pp. 284. (presented by graduate student)
48. “Materials Selection for Power Generation Applications”, Materials and Processes for Advanced Technology “Materials for Energy Systems” Egyptian-German Workshop, Cairo-Egypt, April 7-9 2002.
49. “Effect of Friction Stir Welding on The Superplastic Behavior of Weldalite Alloys”, Light Weight Alloys for Aerospace Applications, Pennsylvania: The Minerals Metals and Materials Society, TMS, New Orleans, Louisiana, Feb. 2001.
50. Invited by the Department of Mechanical Engineering, University of South Carolina to give a seminar on the “Developments in Aluminum Alloys Design and Manufacturing for Aircraft and Aerospace Applications” Columbia, SC, July 2000.
51. “Influence of Intense Plastic Straining On Room Temperature Mechanical Properties Of Al-Cu-Li Base Alloys” Cairo University International Conference MDP7, Cairo-Egypt, Feb. 15-17, 2000.
52. Invited by the Graduate Engineering Program in ENGR 590 course, to give a seminar on “Friction Stir Welding Technique in Transportation” AUC, fall 1999.
53. “Superplastic Characterization of 2095 Al-Li Alloys Processed by Equal Channel Angular Extrusion”, Superplasticity And Superplastic Forming, The Minerals Metals and Materials Society, TMS, San Antonio, TX, Feb 16-19, 1998.
54. “Development of Cu-Li Alloys for Ambient and Cryogenic Temperature Applications”, Advanced Materials, Conference on “The Current Technological and Industrial Research and development”, The Scientific and Technological Research Academy, Cairo-Egypt, March 17-18, 1998.

Patents:

1. Hanadi Salem and Asharaf Nassef, Patent ““Wire Arc Additive Manufacturing/Repair of parts at a lower cost through Optimization of the Final Surface Finishing stage”, Record ID: INV259032019-“IDF120032019”, Provisional, United States.
2. Elkhodary, K. I. E., Salem, H. A., M. A., Patent, "Shear Enhanced Rolling (SER)", AUC-114/PCT, Regular, United States. (Application: December 2016).

3. Hanadi Salem and Waleed ElGaraihi, Patent, “Multi-Channel Spiral Twist Extrusion”, AUC-124/PROV, May 1, 2017.

HONORS AND AWARDS:

1. ASRT Cairoinnovate Award one of Top 5 Awards “Deepening of Industry” November 2019. **US\$ 2K**
2. 2030 National Roadmap coordinator, Nanotechnology Applications in High Added Value Industries.
3. AUC representative in the Egyptian National Nanotechnology Network
4. Director and founder of Nanotechnology MSc program at AUC fall 2009-2015
5. Excellence in Research Award by School of Sciences and Engineering, May 2011
6. Excellence in Research and Creative Endeavors Fall 2010
7. Achievements award by School of Sciences and Engineering, May 2009
8. Awarded the exemplary mother of AUC based on students’ services and achievements at AUC, 2009.
9. Associate Director for the Yousef Jameel Science and Technology Research Center, fall 2007.
10. Awarded tenure position, Department of Mechanical Engineering American University in Cairo, June 2005.
11. Awarded membership of the National Committee for Welding Technology, the *Ministry of State for Science Research, Academy of Scientific Research & Technology*, 2005-2008.
12. A research representative of AUC for in the area of New Materials at the *Ministry of State for Science Research, Academy of Scientific Research & Technology* for the preparation of the five-year plan-FP7 (2007-2013) for the European commission.
13. Membership of the National Committee for Welding Technology, the *Ministry of State for Science Research, Academy of Scientific Research & Technology*, 2005-2008.
14. A Fulbright commission member in the interviewing panel for the AY 2004/05 Egyptian research grants in the field of Metallurgy & Physical Chemistry.
15. Outstanding Teaching Award, Higher technological Institute, 10th of Ramadan City 1998.

PROFESSIONAL ACTIVITIES HIGHLIGHTS

1. Industrial partnerships and consultancy Fund raised up to **EGP 700,000**, 2016-2018.
2. Joint Industrial partnership with **Egyptian Steel Group** (ESG), established fall 2016-Spring 2017.
3. Joint partnership with **General Electric Aviation**, established summer 2016-present.
4. ORASCOM CONSTRUCTION: **Portsaid Tunnels Under Suez Canal Project**, Materials testing Technical Report, March-April 2017.
5. Consultation Agreement with **KSA-TÜV SÜD** Middle East LLC, Fatigue test for a Flash butt welded railway sections for the **High Speed Train at Saudi Arabia**. The tests were carried out according to DIN EN 14587-2 with English version of DIN EN 14587-2:2009-08, which requires 5-Million cycles of loading per section, Sep.-2016-April 2017.
6. Consultation partnership with SALCEF, High Speed Railway Manufacturers, and Fatigue testing for Butt welded Railway sections, agreement will be effective fall 2017.
7. Joint partnership initiative with Beshay Steel Manufacturing, Sadat City, Cairo. The objective is to replace current low-alloy high-strength steels used in lightweight sections at Beshay Steel, which suffer from poor weldability, average toughness and ductility, with low-cost low-carbon steels of ferritic ultrafine grained structure to provide sections with high toughness/ductility, Dec. 2015.
8. Joint industrial project with Crystal Asfour, “Chaton polishing adhesives”, 2012-2013.
9. Joint Partnership with El Salab for Ceramic and Percaline Production Research and innovation center, didn’t materialize 200-2011.

10. Chaired and Organized A Workshop *The Italian-Egyptian Workshop on Nanotechnology Applications* as part of the activities held for the Egypt-Italy Science Year 2009, held at AUC, New Cairo-Campus on 23rd -24th February 2009.
11. Organized and Co-chaired The International Conference on *ASME 2nd Multifunctional Nanocomposites and Nanomaterials* in Sharm El Sheikh, 11-13th January 2008. The conference was classified as one of the most successful and impressing international conferences carried in the Middle East in the Nanotechnology area.
12. Organized and Co-chaired Euro-Mediterranean Workshop on Nanotechnology, Sharm El Sheikh, 11-13th January 2008.
13. A member of the scientific committee who reviewed 3- of the papers submitted for publication in the *ASME 2nd Multifunctional Nanocomposites and Nanomaterials* in Sharm El Sheikh, 11-13th January 2008.
14. Organizing Committee member of the “*The International Workshop on Computational Materials Science*”, AUC, New Cairo Campus, November 17-20, 2008.
15. Chaired a session in the “*The International Workshop on Computational Materials Science*”, November 17-20, 2008.
16. Chaired a session in the Manufacturing I session, in *The Al Azhar 10th International Conference*, 24-26 December 2008.
17. European Commission/FP7 focal point representative for Nanomaterials at the ASRT.
18. A member of the National Committee for Welding Technology, the *Ministry of State for Science Research, Academy of Scientific Research & Technology*, 2005-Present.
19. An instructor in the Fundamentals of Engineering (FE) Exam, U.S. Engineering Licensure Examination held at AUC, Egypt. Spring 2009-present.
20. Training program (6-courses) organization for EZZ Factories in Production Engineering, through the Science and Engineering Services, 2008.
21. Failure analyst for various parts and components for Oil industries such as Khalda, Halliburton, Oil Petroleum and other oil companies 2003-present.
22. Failure Analysis of side-notch gear production line of Pampers in Proctor and Gamble (P&G).
23. Consultant for NISSAN Company for product testing and inspection, since spring 07-until present.
24. The YJSTRC Laboratories establishment, which involves, state of the art characterization equipment selection, procurement, installment, etc, 2003-present.
25. European commission advisor for selection of their European experts for the FP7 workshop on Nanomaterials and Nanocomposites held in Sharm El-Sheikh 11-13 January 2008.
26. A research consultant for the *Ministry of State for Science Research, Academy of Scientific Research & Technology* to represent the American University in Cairo in the area of New Materials for the preparation of the five-year plan-FP7 (2007-2013) for the European commission.
27. A Fulbright commission member of the interviewing panel for the Egyptian research grants in the field of Metallurgy & Physical Chemistry, AY of 2002-until-2008.

Conference and Workshop Organization:

1. Organized the 1st ENNN Workshop in collaboration with ENNN Director, October 10th 2015.
2. Organized the India-Egyptian Joint Research Workshop in collaboration with ENNN Director, November, 16-17, 2015.
3. Organized and Chaired the Egyptian-Italian Workshop on Nanotechnology Applications as part of the activities held for the *Egypt-Italy Science Year 2009*. The proposal was submitted in September 24th 2008 held at AUC, New Cairo-Campus on 23rd -24th February 2009.
4. One of the Organizing committee of the “The International Workshop on Computational Materials Science”, AUC, New Cairo Campus, November 17-20, 2008.
5. Organized and co-chaired an international conference on ASME 2nd Multifunctional Nanocomposites and Nanomaterials in Sharm El Sheikh, 11-13th January 2008. The conference was classified as one of the most successful and impressing international conferences carried in the Middle East in the Nanotechnology area.

6. Chaired a session in the “The International Workshop on Computational Materials Science”, November 17-20, 2008.
7. Chaired a session in the Manufacturing I session, in *The Al Azhar 10th International Conference*, 24-26 December 2008.
8. Chaired a session in the AUC/YJ-STRC annual Conference, March 2009.
6. A member of the scientific committee who reviewed 3- of the papers submitted for publication in the *ASME 2nd Multifunctional Nanocomposites and Nanomaterials* in Sharm El Sheikh, 11-13th January 2008.
7. A member of the organizing committee who worked on “*The International Workshop on Computational Materials Science*”, November 17-20, 2008.
8. Chaired a session in the AUC/YJ-STRC annual Conference, April 2008

Short Courses to Industry:

1. EZZ Steel Making, especially tailored Training Courses for Technical Staff and Engineers, 2005-06
2. A special course was offered to PETROGET Oil Co., and ABUQUEER Co. on “Failure Analysis and Prevention”, March 2004.
3. A special course was offered to PETROGET Oil Co., and ABUQUEER Co. on “Failure Analysis and Prevention”, March 2003.
4. A special course was offered to ENPPI Engineers on “Heat Treatment in Manufacturing Engineering” Feb. 2003.
5. A special course was offered in collaboration with Drs. A. El-Butch and L. Gaafar for PETROGET Oil Co., ARMED FORCES, and SUEZ CEMENT Co., on “Reverse Engineering of Mechanical Components”, October 2002.
6. A special course was prepared and offered to ENPPI Engineers on “Heat Treatment in Manufacturing Engineering” October 2000.
7. A special course was prepared and offered for petroleum companies on “Non Destructive testing for Failure Analysis”, Engineering Services, Higher Technological Institute, November 1998.

Developed Short Courses for Industry:

1. Failure analysis and prevention in stainless steel for Oil industry
2. Material selection for mechanical components
3. Heat treatment in manufacturing engineering
4. Nondestructive testing in failure analysis

Technical reports and Proposals:

1. Hanadi Salem, K. ElKhodary, and M. Farag, “Low Cost ALM of Non-Repairable Aircraft Parts”, Semiannual submitted to ASRT report, March 2017. Nageh Allam and Hanadi Salem, “Enhanced Biogas Production via Nanoadditives and Solar Energy”, technical semiannual report Masr ElKair, submitted to March Feb. 2017.
2. KSA-TÜV SÜD Middle East LLC, out Fatigue test for a Flash butt welding of rails according to DIN EN 14587-2 with English version of DIN EN 14587-2:2009-08, which requires 5-Million cycles of loading per section, May 2017.
3. KSA (TÜV SÜD Middle East LLC, out Fatigue test for a Flash butt welding of rails according to DIN EN 14587-2 with English version of DIN EN 14587-2:2009-08, which requires 5-Million cycles of loading per section, March 2017.
4. ORASCOM CONSTRUCTION: Portsaid Tunnels Under Suez Canal Project, Materials testing Technical Report, April 2017.
5. TMS Annual Meeting and Exhibition, Conference grant report, March 2017.

6. Hanadi Salem (PI), K. ElKhodary, and M. Farag, "Low Cost ALM of Non-Repairable Aircraft Parts", Semiannual Submitted to ASRT report, November 2016.
7. Nageh Allam and Hanadi Salem (CoPi), "Enhanced Biogas Production via Nanoadditives and Solar Energy", technical semiannual report Masr ElKair, submitted (2016).
8. Salem, Hanadi Ahmed (Co-Principal), Sewilam, Hani (Principal), "Fostering Creativity, Innovation and Entrepreneurship in Science and Engineering Studies - C4SES," Sponsored by European Commission, Other, \$222,155.00. (October 2016). Not Funded
9. Salem, Hanadi Ahmed (PI), El-Morsi, Mohamed S. Farag, Mahmoud Mohamed (Co-Principal), Gaafar, Lotfi Kamal (Co-Principal), Sewilam, Hani (Co-Principal), Mohamed, Mohamed Fawzy Aly (Co-Principal), Elkhodary, Khalil Ibrahim Elsayed (Co-Principal), "Deepening of Local Manufacturing: Towards Greener and More Competitive Local Industry," Sponsored by ASRT/KTA. (2016). Ranked number 1, but for political reasons was not funded
10. Salem, Hanadi Ahmed (CoPi), AlTantawy, Farid (Principal), "Synthesis and Fabrication of Nanostructured Materials For Solar Cells And Photo Diode Applications," Sponsored by STDF, State. (June 2015). Not Funded
11. Salem, Hanadi Ahmed (PI), Elkhodary, Khalil Ibrahim Elsayed (Co-Principal), Beshay, Youssef (Co-Principal), "Expanding Egypt's Steel Industry; Ultra-fine-grained high-toughness Light Steel Sections.," Sponsored by STDF, State. (September 2015). Not Funded
12. Salem, Hanadi Ahmed (Co-PI), Ahmed, Wael Mamdouh Sayed (Principal), Fahim, irene, "ELECTROSPUN NANOFIBERS FOR PACKAGING APPLICATION," Sponsored by ASRT, State. (June 2015). Funded
13. Research grants "Designing concrete matrix composites with carbon-fiber-core and polymer-casing fibers" submitted to ASRT report, June 2013 and 2014. Funded
14. ASRT Research Grants for Electrospun Nanofibers for Packaging Applications", Technical report Submitted to ASRT, 2013 and 2014. Funded
15. Salem, Hanadi Ahmed (PI), Serry, Mohamed (Co-Principal), "Establishing An Advanced Manufacturing Technology Lab In The Mechanical Engineering Department," Sponsored by ASHA, Federal, \$995,000.00. (November 11, 2014). Not funded
16. Mohamed, Mohamed Fawzy Aly, Salem, Hanadi Ahmed (PI), Elkhodary, Khalil Ibrahim Elsayed, Ahmed, Wael Mamdouh Sayed (Co-Principal), "Designing concrete matrix composites with carbon-fiber-core and polymer-casing fibers," Sponsored by ASRT, State. (February 2013). Funded
17. Salem, Hanadi Ahmed (CoPI), Allam, Nageh Khalaf (PI), "Energy Efficient Water Desalination using Capacitive Deionization System based on High-Surface-area Carbon and Metal Oxide Nanotube Electrodes and Nanocomposite Membrane Filter," Sponsored by Application For A Joint Research Grant Under Egyptian / South African Research Partnership Programme Bilateral Agreement, State, \$44,117.00. (January 1, 2013). Not funded.
18. Conference Grant technical report, submitted spring 2013.
19. Crystal Asfour-AUC project on "Chaton polishing adhesives", Technical report submitted in collaboration with Dr. Wael Mamdouh submitted 2012.
20. Research and Development Grant by AUC, Fabrication of Nanostructured Bulk ceramic and metallic materials via Spark Plasma Sintering", technical report submitted to AUC 2012.
21. Report submitted to AUC provost of Research activities carried out at North Carolina State University, Fall 2010
22. Report submitted to AUC provost on Research activities carried out at Functional division, KTH Stockholm to support the research work conducted at KTH, Stockholm, Sweden, Fall 2010

23. Research and Development grant by AUC, “Nanocomposite Powder Consolidation of High Performance Bulk Products via Severe Plastic Deformation”, Technical report submitted fall 2010.
24. Research and Development Grant by AUC: “Synthesis and Characterization of Mechanically Alloyed Nanocrystalline Aluminum-Nickel Alloy System Consolidated by Equal Channel Angular Extrusion” technical report submitted 2009.
25. Research Grant by Alberta University: “Development and Validation of a FEM for the Behavior of AL-Alloy Nanopowders Consolidates”, using Severe Plastic Deformation Technique (ECAE)” to support the work of an RA, Technical report submitted 2008.
26. Hanadi G. Salem: “Nanostructure Materials Characterization”, Technical report on a Research grant by AUC, April 2004.
27. Hanadi G. Salem, Jed Lyons, and Anthony Reynolds: “Combined Friction Stir Welding and Superplastic Forming Manufacturing Technologies for Structural Metals for the Transportation Industry”, US-Egypt Joint Board Grant Annual Progress Report II, Feb 27 2004.
28. Hanadi G. Salem, Jed Lyons, and Anthony Reynolds: “Combined Friction Stir Welding and Superplastic Forming Manufacturing Technologies for Structural Metals for the Transportation Industry”, US-Egypt Joint Board Grant Annual Progress Report I, Feb 27 2003.
29. Hanadi G. Salem: “Nanostructured Materials Data Collection”, Technical report on a Research and Development grant by AUC, June 2003.
30. Hanadi G. Salem: “Advanced Materials Characterization; “Friction Stir Welding and Superplastic Forming”, Technical report on a Research grant by AUC, June 2002.
31. Hanadi G. Salem: “Fracture Toughness of the Bond Between Concrete & Fiber Reinforced Polymer Overlays & Characterization of Lightweight Materials”, Technical report on a Research grant by AUC, June 2001
32. Hanadi G. Salem: “Failure Analysis of a pump Discharge Flange” Technical report for Halliburton Oilfield Company, March 2001.
33. Hanadi G. Salem: “Effect of Friction Stir Welding on Superplastic Behavior of Weldalite Alloys”, Technical report on a Conference grant by AUC, January 2001.
34. Hanadi G. Salem: “Influence of intense Plastic Straining on Room Temperature Mechanical Properties of Al-Cu-Li Base Alloys”, Technical report on a Conference grant by AUC, March 2000.

Reviewer:

1. National Awards reviewer and Panel evaluator, ASRT, Fall 2018-Present
2. ASRT-Egypt-Indian Joint Research Project in NT, 2016-present
3. A Reviewer of Science and Technology Development Fund (STDF) Projects, fall 2008-present.
4. A reviewer of the Metallurgical and Materials Transactions A, March 2005-present.
5. A reviewer of the Journal of Materials Science and technology, fall 2005-present.
6. A reviewer of the Journal of Materials Engineering and Performance, May 2008-present.
7. A reviewer of the Composites B: Engineering; International Journal, August 2002-present
8. Lead Guest Editor for Special Issue in Journal of Nanomaterials Fall 2014
9. Editorial board member, international Journal of Applied Sciences, since July 2012-present
10. Key reader for the Metallurgical and Materials Transactions A, September 2006-present.
11. A Reviewer of Journal of Powder Technology, since fall 2011-present.
12. A Reviewer of US-Egypt Joint Projects (NSF), since fall 2008.

Scientific and Professional Societies:

1. Member, Egyptian National Nanotechnology Network (ENNN)
2. Member, TMS Powder Materials Organizing Committee (PMC)
3. Membership in the International Institute for Welding Engineering (IIWE)

4. Membership in the American Society for Mechanical Engineering (ASME).
5. Membership of the Materials Information Society (ASM International),
6. Membership of the Minerals, Metals, Materials Society (TMS).