Dr. Osama A. Hamed

Associate Professor, Menoufiya University, Egypt.

1. MAILING ADDRESS

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2. PERSONAL DATA

Full name	Osama Abdallah Hamed Mostafa
Place of birth	Menoufia, Egypt
Post-address	4 Masaken Haiet El-Tadrees, Ard El-Matbaa, 11331 Abbasia, Cairo, Egypt.
Marital status	Married
Current job	Associate professor, Dept. of Production Engineering & Mechanical Design, Faculty of Engineering, Menoufia University, Shebin El-Kom, Egypt.

3. EDUCATION

1. **Ph. D.**

Thesis title: "Mechanical Properties and Densification Behaviour of Sintered Nickel-Base Udimet 700 Composites".
Major: Production Engineering.
Minor: Mechanical Properties of Sintered High Temperatures Alloys.
Institute: My Ph.D. research project was funded by the Egyptian Ministry of Education for a period of four years through a co-supervision system. The first two years were devoted to establishing the necessary knowledge base at **Menoufiya University (the degree awarding institution),** under the supervision of an Egyptian faculty member. The remaining two years were spent at the **University of Aachen, RWTH, Aachen, Germany** under the supervision of Prof. Dr. Eng. E. El-Magd.

2**. M. Sc.**

Thesis title: "A study into The Spinnability of Metals".
Major: Production Engineering.
Institute: Dept. of Production Engineering and Mechanical Design, Faculty of Engineering, Menoufiya University, Egypt.

3. **B. Sc.**

Overall rate of appreciation: Excellent.
Specialization: Production Engineering and Mechanical Design.
Institute: Production Engineering and Mechanical Design Dept., Faculty of Engineering, Menoufiya University, Egypt.

4. ACADEMIC CAREER

1. Associate professor (Jan. 2006-present)	Production Engineering and Mechanical Design Dept., Faculty of Engineering, Menoufiya University, Egypt.
2. Assistant professor (1996-2005)	Production Engineering and Mechanical Design Dept., Faculty of Engineering, Menoufiya University, Egypt.
3. Assistant lecturer (1991-1996)	Production Engineering and Mechanical Design Dept., Faculty of Engineering, Menoufiya University, Egypt.
4. Teaching assistant (1982-1990)	Production Engineering and Mechanical Design Dept., Faculty of Engineering, Menoufiya University, Egypt.

5. ACADEMIC EXPERIENCE

1. Research fellowship (july/2006- Nov/2006)	Research in Powder metallurgy fabrication of highly porous Titanium and coated by bioactive ceramic for biomedical applications, (Materials Synthesis and Processing Institute (IWV 1), Research Center Jülich, 52425 Jülich, Germany)
2. Research fellowship (Sept/2001- Aug/2002)	Research in Powder metallurgy fabrication of TiNi shape memory alloys for biomaterials and industrial applications, (Materials Synthesis and Processing Institute (IWV 1), Research Center Jülich, 52425 Jülich, Germany)
3. Research fellowship (June/2000- Sept/2000)	Research in Powder metallurgy fabrication of TiNi shape memory alloys for biomaterials and industrial applications, (Materials Synthesis and Processing Institute (IWV 1), Research Center Jülich, 52425 Jülich, Germany)
4. Research fellowship (June/1998-Dec/1998)	Research in Powder metallurgy fabrication of TiNi shape memory alloys for biomaterials and industrial applications, (Materials Synthesis and Processing Institute (IWV 1), Research Center Jülich, 52425 Jülich, Germany)
5. Visiting scholarship (Sept/1993- Feb/1996)	To complete the second part of my Ph. D. thesis at the **LFW Institute**, **University of Aachen, RWTH, Aachen, Germany.**
6. Participant	9 International scientific conferences (see publications below)

6. TEACHING EXPERIENCE

Since 1984 I have been involved in teaching the following courses as a teaching assistant, Assistant Professor, and Associate Professor.

Under graduate Courses	Physical Metallurgy and Engineering Materials, Advanced material composites, Biomaterials, Biotechnology, Properties of Materials, Strength of Materials, Metal Forming Technology, Metal Cutting Technology, Theory of Machines, Engineering drawing.
Post graduate Courses	Casting Engineering, Biomaterial, Advanced material composites.
Outside Menoufiya University	(1997 – Jan. 2011) I Work as a part time in HIGHER TECHNOLOGICAL INSTITUTE, Tenth of Ramadan City; teaching the following courses: Engineering drawing, Production Engineering A, B and C, Final projects, Scientific Researches in mechanical department, Training courses for Engineers and Technicians in Tenth of Ramadan Factories (ARAB & ARMA)

7. CURRENT RESEARCH ACTIVITIES

- High Temperature Materials and Composites
- Powder Metallurgy Techniques
- Shape Memory Alloys
- Lifetime Prediction of Materials
- Biomaterials
- Porous Materials
- Bioactive ceramics

8. RESEARCH PROJECTS

The most presented publications during the last eight years are a part of the great project (Sonderforschungsbereich SFB 459) “Shape memory technology” between the Ruhr-University, Bochum, Germany and Materials Synthesis and Processing Institute (IWV 1), Research Center Jülich, 52425 Jülich, Germany. It is financially supported by the Deutsche Forschungsgemeinschaft (DFG).

9. PUBLICATIONS

Journal & Transaction Papers

1. M.M. El-Khabeery, M. Fattouh, M.N. El-sheikh, and **O.A. Hamed**, "On the Conventional Simple Spinning of Cylindrical Aluminum Cups" Int. J. of Mach. Tools Manufacturing, Vol. 31, No. 2, pp. 203-219, 1991.
2. **Osama A. Hamed**, M.A. Shady, and A.R. El-Desouky, "Creep Behaviour of A Cast 359/SiC/10p Aluminium Composite", Int. J. of Materials and Design, 22, 2001, pp. 473-479.
3. K.E. Mohamed, M.M.A. Gad, **O.A.H. Mostafa**, and A.A. El-Sayed, "Electrochemical Corrosion Behaviour of Alumina-Al 6061 and Silicon Carbide-Al 6061 Metal-matrix Composites" Arab Journal of Nuclear Sciences and Applications, 34 (2) 2001, pp. 337-347.
4. E. Schüller, **O.A. Hamed**, M. Bram, D. Sebold, H.P. Buchkremer, and D. Stöver "Hot Isostatic Pressing (HIP) of Elemental Powder Mixtures and Prealloyed Powder for TiNi Shape Memory Parts" Int. J. of Advanced Engineering Materials, 2003, 5, No. 12, pp. 918-924.
5. J. Stella, E. Schüller, C. Heßing, **O. A. Hamed**, M. Pohl, D. Stöver "Cavitation erosion of plasma-sprayed TiNi coatings" Int. Journal of Wear 260, (2006), pp. 1020-1027.
6. M.T. Elmestekawi, **Osama A. Hamed** "Processing of Porous Silicon Carbide Composite Reinforced by High Strength Carbon Fibers" ERJ, Engineering Research Journal, Faculty of Engineering, Menoufiya University, Vol. 30, No. 3, July 2007, pp 345-351.
7. **Osama A. Hamed**, A.I.Z. Farhat, A.R. El-Desouky, M.S Gabr "Development of High Carbon Low Nickel Stainless Steel Containing Different Manganese Content" ERJ, Engineering Research Journal, Faculty of Engineering, Menoufiya University, Vol. 33, No. 4, Oct., 2010, pp 377-384.
8. Ankita Yadav, Harish Kumar, Rahul Sharma, Rajni Kumari, Devender Singh, **Osama A. Hamed "**Metal oxide decorated polyaniline based multifunctional nanocomposites: An experimental and theoretical approach" Journal of Results in Engineering, Vol. 18, June 2023, PP 101161.
9. **Osama A. Hamed**, Mohammad Ehtisham Khan, Anwar Ulla Khan, Gulam Rabbani, Mohammad S. Alomar, Abdullateef H. Bashiri, and Waleed Zakri "Adherence and activation of human mesenchymal stromal cells on brushite coated porous titanium" Journal of Results in Engineering, Vol. 19, Sep. 2023, PP 101245.
10. Umar Farooq, Ahmad Kaleem Qureshi, Hadia Noor, Muhammad Farhan, Mohammad Ehtisham Khan, **Osama A. Hamed**, Abdullateef H. Bashiri and Waleed Zakri "Plant Extract-Based Fabrication of Silver Nanoparticles and Their Effective Role in Antibacterial, Anticancer, and Water Treatment Applications" *Plants* June 2023, *12*(12), PP 2337.

Conferences Papers

1. **O.A. Hamed**, H.P. Buchkremer, E. El-Magd, A.R. El-Sissy, and D. Stöver, "HIP Densification Study of Ni-Base Superalloy UDIMET 700 Reinforced with Al_2O_3 and TiB_2 Dispersions", **Proc. of the 1995 European Conf. on Advanced PM Materials, Birmingham, 23-25 Oct. 1995, pp. 273-280.**
2. Alexander M. Laptev, Hans P. Buchkremer, **Osama A. Hamed**, and D. Stöver, "Densification Kinetics of the UDIMET 700 Based Powder Composites During Hot Isostatic Pressing", **Proc. of the Int. Conf. on Advanced in Powder Metallurgy & Particulate Materials, June 16-21, Washington, D. C., USA, 1996, 5-B, pp. 247-258.**
3. A.N. Attia, A.R. El-Desouky, and **O.A. Hamed**, "Creep Behavior of Ni-Base UDIMET 700 Reinforced with TiB_2 and Al_2O_3 Composites" **Int. Conf. On Advanced Composites 1998, edts., Y. Gowayed and F. Abdel-Hady, Dec. 15-18, 1998, Hurghada, Egypt, pp. 733-744.**
4. **Osama A. Hamed**, H.P. Buchkremer. B. B. Radojevic, and D. Stöver, "Synthesis and Properties of $Ti_{50}Ni_{50}$ Shape-Memory Alloy from Elemental Powders", **Proc. of the Int. Conf. On Advances in Powder Metallurgy & Particulate Materials, June 20-24, Vancouver, Canada, 12, 1999, pp. 107-118.**
5. **Hamed O. A.** "Characterization of TiNi Shape Memory Alloy Thin Films Formed by VPS and HVOF Coatings" **MDP-8 Cairo University conference Proc. on Mechanical Design and Production, Cairo, Egypt, January 4-6, 2004, pp. 711-719.**

6. **Hamed O. A.** "Mechanical Alloying and Structural Evolutions of Equiatomic Ti-Ni System" **MDP-8 Cairo University Conference Proc. on Mechanical Design and Production, Cairo, Egypt, January 4-6, 2004, pp. 791-798.**
7. **Osama A. Hamed** "Porous TiNi Shape Memory Alloy Prepared from Elemental Powder Sintering" **Proc. of the Fifth Egyptian Syrian Conf., 13-16 October 2003, pp. 696-703.**
8. **Osama A. Hamed** "Powder Metallurgical Fabrication Processes for TiNi Shape Memory Alloys" **Proc. of the Fifth Egyptian Syrian Conf., 13-16 Oct. (2003), pp. 704-714.**
9. K.E. Mohamed, M.M.A. Gad, **O.A. Hamed**, and A.A. El-Sayed "Microstructure and corrosion behavior of powder metallurgy processed TiNi shape memory alloy" **8th Arab conf. on the peaceful uses of atomic energy, Amman, 3-7 Dec. 2006.**
10. **O.A. Hamed**, A.A. Hassan, A.R. El Desouky, S.H. Zo Alfakar "Processing-Property Correlation in Friction Stir Aluminum Welds" Proc. of the 9th International Conference on Production Engineering, Design, and Control, PEDAC"2009", 10-12 February 2009, Alexandria, Egypt.
11. A.A. Hassan, **O.A. Hamed**, A.R. El Desouky, S.H. Zo Alfakar "Application of Taguchi and Response Surface Methodologies for Friction Stir Welding Process" Proc. of the 9th International Conference on Production Engineering, Design, and Control, PEDAC"2009", 10-12 February 2009, Alexandria, Egypt.
12. M. S. EL-Wazery, A. R. EL-Desouky, **O. A. Hamed**, N. A. Mansour and A. A. Hassan, "Fabrication and Mechanical Properties of ZrO_2/Ni Functionally Graded Materials", Proc. of 2nd International Conference in Advanced Materials Research, ICAMR 2012, Chengdu, China, 7-8 January, 2012.
13. M. S. EL-Wazery, A. R. EL-Desouky, **O. A. Hamed**, A. Fathy, N. A. Mansour"Electrical and Mechanical Performance of Zirconia-Nickel Functionally Graded Materials", Accepted for publication in the 3rd International Conference on Engineering and ICT (ICEI2012), Melaka, Malaysia, 4-6 April 2012.

10. REFERENCES:

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