

# Curriculum Vitae

## **Prof. Dr. Samy Zein El-Abden Ibrahim**

### **Personal data**

Name	Pro. Dr. Samy Zein El-Abden Ibrahim
Religion	Muslim
Nationality	Egyptian
Marital Status	Married with three Children
Phone	01001933967 (Pohne and whatsApp)
E-mail	<a href="mailto:sami.zein@minia.edu.eg">sami.zein@minia.edu.eg</a> – samyzein1965@yahoo.com
Current Position	Professor and Head of Production Engineering and Mechanical Design Department in minia university Faculty of Engineering

### **Education:**

Ph.D. Production Engineering and Mechanical Design Department, El-Minia University 1999  
M.S. Production Engineering and Mechanical Design Department, El-minia University, 1993  
B.S. Production Engineering and Mechanical Design Department, El-minia University, 1989

### **Academic Experience:**

*Academic Appointments – The University of El-minia, Egypt*

1989-1993	Demonstrator	Production Engineering and Mechanical Design Department
1993-1999	Assistant Lecturer	Production Engineering and Mechanical Design Department
1999-2008	Assistant Professor	Production Engineering and Mechanical Design Department
2008- 2019	Associate Professor	Production Engineering and Mechanical Design Department
2020- Now	Professor	Production Engineering and Mechanical Design Department

### **Scholarship:**

- Scholarship from the Egyptian Government to study in the Germany for two years following an outstanding academic performance, 1996

### **Position in El- Minia University, Egypt**

- Production Engineering and Mechanical design Department Faculty Member
- Head of Production Engineering and Mechanical Design Department (2012-2013, 2016-2017, 2021- now)
- Member of Production Engineering and Mechanical Design Department Council
- Member of Faculty Council.
- Member of the Engineering Consulting Committee
- Supervisor of CNC lab and metal forming lab in Production Engineering and Mechanical Design Department..

### **Position in Taif University, KSA**

- Member of Mechanical Engineering Department Council
- Member of Mechanical production Engineering Program lab committee
- Supervisor of workshop.

### Scientific Thesis

- Ph D thesis " Relations between material flow , required energy and product quality in the flow turning process"
- M. Sc. Thesis " Factors influencing in shear flow spinning and its effects on the production of cylindrical thin cups"
- B.Sc. Thesis "Deep Drawing of Aluminum using conical tips"

### Teaching Experience

- Production technology
- Engineering drawing
- Mechanical drawing
- CNC
- Production engineering 1
- Production engineering 2
- Production Engineering Lab.
- Metal forming 1
- Metal forming 2
- Material properties and testing
- Metal casting
- Mechanical measurement
- Metal welding

**General specialty:** Production engineering

**Specialization`:** Manufacturing processes.

### Direction of Scientific research

- Sheet metal forming.
- Bulk metal forming.
- Tube forming.
- Rotary sheet forming.
- Forming of composite material (FML)

### 6- Publications

1. M.N.El-Sheikh, A.A.Mazen, **S.Z.El-Abden** "Combined of conventional spinning and ironing for preformed cups" Presented in 4th the in International Conference on Production Engineering and design for development (PEDD"93) , Cairo, December 27-29, 1993, pp.379-390.
2. **S.Z.El-Abden** , M.N.El-Sheikh A.A.Mazen and F.F.Abdel-Aziz "Experimental Study of tool and machine parameters in shear spinning process" Presented in the 4th in International Conference on Production Engineering and design for development (PEDD"93) , Cairo, December 27-29, 1993, pp. 365-378.
3. **S.Z.El-Abden**, M.Abdel-Rahman, G.Heerold and M.N.El-Sheikh "Experimental flow moment and product quality in the flow turning of an aluminum alloy Al-SiW1" Proceeding of 5th International Conference on production Engineering and design for development Cairo, 28-30, 1998, Ain Shams University, pp.183-190.

4. **S.Z.El-Abden**, M.Abdel-Rahman, G.Heerold and M.N.El-Sheikh "Required Energy in the flow turning of metallic cups" Proceeding of 2nd Assuit university International conference. On Mechanical Engineering Advanced Technology for industrial Production, Assuit, Egypt March, 2-4,1999,pp187-195.
5. **S.Z.El-Abden**, Abo El-Wafa, W.M. and El-ShANAWANY M.M "FRICTION AND WEAR OF EPOXY FLOORING FILLED BY RECYCLED POLYMERS", International Journal of Scientific & Engineering Research, Volume 5, Issue 9, September-2014, pp.116-121
6. M.Abdel Rahman, E.A.Mohamed, **S.Z.El-Abden** and M.N.El-Shiekh "Static and Rotary Inversion of Aluminum Tubes" 3th Assuit university conference on Mech. Engineering Advanced Tech. for Induserial Production, Assuit, Egypt, Dec. 24 – 26, 2002, Vol.1, pp. 23-31.
7. **S.Z.El-Abden**, M.Abdel-Rahman, and F.A. Mohamed "finishing of non-ferrous internal surfaces using ballizing Technique" Journal of material processing Technology 124(2002)pp144-152.
8. M.Abdel-Rahman, F.A. Mohamed and **S.Z.El-Abden** "Rotary widening of tube ends on lathe using a ball Shaped tool" sixth International conferece on production Engineering and design for development – PEDD6, Cairo, February 12-14, 2002, Ain Shams University, pp.968-982.
9. M.Abdel Rahman, E.A.Mohamed, **S.Z.El-Abden** and M.N.El-Shiekh,"An Investigation of Static and Rotary Double Sided Tube Expansion" 3th Assuit university conference on Mech. Engineering Advanced Tech. for Induserial Production, Assuit, Egypt, Dec. 26 – 28, 2002, pp. 32 – 45.
10. F.A. Mohamed, **S.Z.El-Abden**, and M.Abdel-Rahman, "A Rotary Flange Forming Process on Lathe Using aBall-Shaped Tool" Journal of material processing technology 170 (2005) pp.501-508.
11. **S. Z. El-Abden**, A Wazeer W. Y. Ali "Tribological Behaviour of Friction Materials Reinforced by Natural Fibres" Journal of the Egyption society of tribology, volume 4, NO. 3, 2006
12. **S.Z.El-Abden** "An Investigation into Convenital Multi-Stage spinning of Aluminum Cups Using Conical Roller", Bulletin of the Faculty of Engineering, Minia University, Vol.25, No.1 January, 2006, pp. 79 – 92.
13. **S.Z.El-Abden** "Rotary Squeezing of threaded Components", Bulletin of the Faculty of Engineering, Minia University, Vol. 26, No.1 January, 2007, pp. 1 – 11.
14. **S.Z. El-Abden**, and Mohieldeen Abdel-Rahman, "*DEFORMATION LIMITS AND PRODUCT QUALITY IN ROTARY FORMING AND JOINING OF ALUMIUM TUBES*", Journal of Engineering sciences Assiut University Faculty of Engineering, Vol. 45, No. 5 September 2017, pp. 613-626, (2017).
15. Ayman A. Abd-Eltwab, **S.Z. El-Abden**, Kahaled I.E. Ahmed, M.N. El-sheikh and Ragab K..Abdel-Magied "*An investigation into forming internally-spline sleeves by ball spinning*", International journal of mechanical sciences, Vol. 134, October 2017, pp. 399–410, (2017).
16. **Samy Z. El-Abden**, and Mohieldeen Abdel-Rahman "*FORMABILITY IN HOLE EXPANSION OF 2-PLY (BRASS/ALUMINUM) SHEET USING A BALL-SHAPED PUNCH*" Journal of Engineering sciences Assiut University Faculty of Engineering, Vol. 46, No. 6 November 2018, pp. 689-705, (2018).
17. Essam K. Saied, **S.Z. El-Abden**, Ayman A. Abd-Eltwab, and M. Abdel-Rahman & M.N. El-sheikh "COMBINING CONVENTIONAL SPINNING WITH WALL THICKNSS REDUCTION IN ONE PASS" , International journal of mechanical and production Engineering Research and development, Vol. 9, issue3, jun. 2019, pp. 1429-1436, (2019).

18. Samy Yousef, Mohamed Hamdy, Maksym Tatariants, Simona Tuckute, **Samy Zein El-Abden**, Linas Kliucininkas & Arunas Baltusnikas "Sustainable industrial technology for recovery of cellulose from banknote production waste and reprocessing into cellulose nanocrystals" *Resources, Conservation & Recycling*, Vol. 149, 2019, pp. 510–520, (2019).
19. **El-Abden S.Z.**, "EFFECT OF SILICA NANOPARTICLES AND MULTIWALL CARBON NANOTUBES DISPERSING LUBRICATING GREASE IN METAL FORMING", *Journal of the Egyptian Society of Tribology*, , Vol. 16, No.4, October 2019, pp. 13 - 24 ISSN 2090 - 5882.
20. **El-Abden S.Z.**, "REDUCING ABRASIVE WEAR OF CARBON STEEL BY PLASTIC DEFORMATION AFTER UPSETTING", *Journal of the Egyptian Society of Tribology*, Vol. 16, No.4, October 2019, pp. 55 - 64 ISSN 2090 - 5882.
21. Heba K., **El-Abden S.Z.**, Mazen A.A. "EFFECT OF EQUAL CHANNEL ANGULAR PRESSING (ECAP) ON MECHANICAL PROPERTIES AND WEAR BEHAVIOR" *Journal of the Egyptian Society of Tribology*, Vol. 16, No.4, October 2019, pp. 55 - 64 ISSN 2090 – 5882.
22. **Samy Zein El-Abden** and Raghda Atef "Finite Element Analysis and Experimental Investigations on Hub Forming in a Sheet by the Hole Expanding Technique" *Journal of Engineering sciences Assiut University Faculty of Engineering*, Vol.44, No. 1, pp. 44-53, January (2020).
23. Rania Ali Abdelhameed1, **Samy Zein El-Abden**, Mohieldeen Abdel-Rahman and Ibrahim M. Hassab-Allah "INVESTIGATION ON ALUMINUM TUBE NOSING IN CONICAL AND HEMISPHERICAL DIES: NUMERICAL ANALYSIS AND EXPERIMENTAL VERIFICATION", *International Journal of Mechanical and Production Engineering Research and Development*, Vol. 10, Issue 3, Jun 2020
24. Rania Ali Abdelhameed1\*, **Samy Zein El-Abden**, Mohieldeen Abdel-Rahman and Ibrahim M. Hassab-Allah "STUDY OF ALUMINUM TUBE COLD NOSING PROCESS INTO CONICAL AND HEMI-SPHERICAL DIES WITH DIFFERENT COEFFICIENTS OF FRICTION" *Journal of the Egypt Society of Tribology*, Volume 17, No. 4, pp. 55 – 69, 2020.
25. K. M. ATIA, S. Z. EL-ABDEN "M. N. EL-SHEIKH and W. W. MARZOUK "A novel technique for combining conventional and flow spinning with simultaneously burnishing processes" *International Journal of Mechanical and Production Engineering Research and Development*, volume 10 issue 2, pp. 111-126, 2020.
26. Badran A. , **El-Abden S. Z.** , Ali W. Y. and Elzayady N. "EFFECT OF DISPERSING LITHIUM GREASE BY ALUMINUM OXIDE NANOPARTICLES AND CARBON NANOTUBES", *Journal of the Egypt society of tribology*, Volume 17, NO. 4, 2020.
27. Amr A. Ali , **Samy El-Abden** , Sayed T. Mohamed "Optimization of Fracture Toughness of Reinforced Rubber Using Taguchi Method", *International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS* Vol:21 No:01, 2021.
28. **Samy Zein El-Abden** "TUBE-TO-SHEET JOINTS OF DISSIMILAR MATERIALS USING COMBINED PLASTIC DEFORMATION PROCESS IN SINGLE PASS " *Journal of Advanced Engineering and Trends (JAET)*, Minia University Faculty of Engineering, Vol. 44 , No.1 , January (2021).
29. K. M. ATIA, **S. Z. EL-ABDEN** "M. N. EL-SHEIKH and W. W. MARZOUK "An investigation into a conventional spinning process combined with flow forming with simultaneously burnishing processes" *Journal of Advanced Engineering Trends*, volume 40, No.1, pp. 97-107, January 2021.

30. A. A. Gad El-Mawla, **S. Z. El-Abden**, A. H. Badran " Wear Behavior of Al6061/TiO<sub>2</sub> Composites Synthesized by Stir Casting" Journal of Advanced Engineering Trends, volume 41, No.2, pp. 113-125, 2021.
31. Hamed Kh. M., Nabhan A., **El-Abden S.Z.** " Mechanical Characteristics of AL-1050 and Al-6061 Alloys Deformed Using Equal Channel Angular Rolling Process", Journal Materials Protection, 63 (4), 484 - 492 2022..
32. Fekri M., Nabhan A. and **El-Abden S. Z.** "CHARACTERIZATION OF EPOXY RESIN REINFORCED WITH ECO-FRIENDLY VEGETABLE OILS" Journal of the Egyption society of tribology, volume 20, NO. 3, 2023.
33. S. Shaaban, **S. Z. El-Abden** W. Y. Ali " FRICTION AND WEAR DISPLAYED BY THE SCRATCH OF EPOXY REINFORCED BY NATURAL FIBERS" Journal of the Egyption society of tribology, volume 21, NO. 2, 2024.
34. S. Shaaban, **S. Z. El-Abden** W. Y. Ali" FRICTION COEFFICIENT DISPLAYED BY SLIDING RUBBER ON EPOXY REINFORCED BY NATURAL FIBERS" Journal of the Egyption society of tribology, volume 21, NO. 2, 2024.
35. S. Shaaban, **S. Z. El-Abden** W. Y. Ali "ELECTROSTATIC CHARGE GENERATED FROM SLIDING OF RUBBER ON EPOXY FILLED BY NATURAL FIBERS" Journal of the Egyption society of tribology, volume 21, NO. 1, 2023.
36. Mohamed Sayed Owis, **Samy Zein El-Abden**, Ayman Ali Abd-Eltwab Karim Mohammed Atia Abd Elkader "Rotary Friction Welding of Aluminum Alloy Tube to Tube with Edge Using External Tool", Journal of Engineering sciences, Vol. 52, No. 5, Sept. 2024.
37. Mohamed Mustafa Mustafa, Mohamed Naguib Elsheikh, **Samy Zein El-Abden**, Yahia mahmoud Ismail, Essam K Saied Karim Mohammed Atia Abd Elkader "Tube ends forming using ballizing technique", International Journal of Engineering sciences and Applications, under publication.

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