

Curriculum Vitae

AHMED MONEEB ELSABBAGH, Prof. Dr._Ing., Ph.D.

Ain Shams university, Faculty of Engineering
Design & Production Engineering Department
Elsaray St., 1, 11535, Abbasiya, Cairo, Egypt



PROFILE

- Materials scientist with specialization in polymer composite materials and aluminum composites
- Licensed as material inspector for water and sanitary pipelines projects
- Profound knowledge in developing natural fiber polymer composites
- Experience in thermo-mechanical processing, thermal and rheological analysis of polymers
- Sound knowledge in metal casting, non-destructive testing, polymer processing
- Licensed as LEVEL II in ASNT as inspector for non-destructive testing
- Licensed as university and high school educator with ZHD certificate in Germany- 2017
- Very good command of Arabic, English and German

CAREER DEVELOPMENT

- 01.2023 – present: **Vice Dean** for For Education & Student Affairs, Faculty of Engineering, Ain Shams university
- 12.2022 – present: **Consultant** of technical education for the minister of higher education and scientific research
- 02.2021 – 01.2023: **Vice Dean** for Community Service and Environmental Affairs, Faculty of Engineering, Ain Shams university
- 09.2020 – present: **Secretary of Committee** for Technological Education (Supreme Council of Universities)
- 01.2021 – present: **Secretary of Committee** for Engineering Institutes (Supreme Council of Universities)
- 03.2018 – 02.2021: **Department head** of Design and production engineering department, Ain Shams university
- 07.2017 – present: **Unit head** of material engineering program- Credit hour, Ain Shams university
- 01.2017 – present : **Supervisor** of the mechanical testing laboratory, Ain Shams university
- 08.2016 – 06.2017 : **Professor** of material engineering- Design & production Dept.- Ain Shams
- 12.2006 – 11.2016: **Scientific Co-worker** at Institute of Polymer Materials and Plastics Engineering – Clausthal University of Technology, Germany
- 05.2004 – 11.2006: **Lecturer** at Faculty of Engineering – Ain Shams University – Egypt
- 03.1996-04.2004: Teaching assistant at Faculty of Engineering – Ain Shams University – Egypt

HONORARY & OTHER POSITIONS

- 01.2019 – present: **Invited member** of the supreme council committee for the engineering sector
- 08.2018 – present: **Member** of the supreme council committee for the engineering institutes
- 04.2018 – present: **Coordinator** of the new Engineering faculties MEGA Project/ Higher Education Ministry
- 05.2020– present: **Member** of the "Specialized Committee for Building, Follow-up and Receipt of Facilities and Equipment in New Public Universities", Minister of Higher Education Resolution 1943
- 05.2020 – present: **Member** of the "Permanent Technical Committee for Steel Industry at the Ministry of Industry" formed by Prime Minister Decision No. 1025
- 02.2020– present: **Coordinator** of the "Evaluation Committee of Higher Institutes for Engineering, Technology and Applied Arts" for the ninth session (2020) by decision of the Minister of Higher Education 554
- 01.2020 – present: **Director** of the steering Committee of LUBAN Workshops in Ain Shams Engineering by a decision of the Acting Dean of Ain Shams Engineering
- 08.2020- present: **Member** of promotion committees for professors and assistant professors (SCU)



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EDUCATION

- 01.2017: **Second Doctor Title** in fiber polymer composites **TU Clausthal, Germany**
- 04.2004: **Doctor of Philosophy** in simulation of Aluminum Castings, **Ain Shams University, Egypt**
- 05.1999: **Master of Science** in Casting/Rolling of metal matrix composites, **Ain Shams, Egypt**
- 07.1994: **Bachelor of Science** in mechanical design and production engineering, **Ain Shams, Egypt**

PROFESSIONAL EXPERIENCE

- **Supervision of industrial projects:** Principal investigator of **ZIM**-project with BADA AG Germany (2013-2014) and project member of FORD project financed by Fachagentur Nachwachsende Rohstoffe – **FNR** (2012-2014)
- **Supervision of academic projects:** Principal investigator of 5 **DAAD** Germany financed projects within 2009-2016, project member of **DFG** projects, Germany (2010-2011) and expert in JESOR funded project, Egypt
- **Construction and supervision of mechanical testing laboratory** in Ain Shams University: Execution of industrial contracts for Egyptian governmental and non-governmental organizations. (1997-2006) and (2017-present)
- **Inspector** for the National Authority For Potable Water and Sewage, Egypt in 1996-2006
- **Senior Inspector at CANSPECT** Canadian Corporation for inspection and consultancy – Cairo branch within 1.2001 – 11.2006 and in Germany as freelancer inspector in 2007-2010
- **Member in Ministerial** committee for water flowmeters selection on national level in 2005-2006
- **Production line engineer** for aluminum extrusion plant in Arab Aluminum Co.- Ismailia, in 1994

OTHER INFORMATION: GRANTS, AWARDS & COMMUNITIES

- Stanford list of top 2% scientists in 2021 and 2022
- ICNF prize in the international conference of natural fibre, Azoren-Portugal 2015
- State prize in innovation for young scientists – Egypt 2010
- Ain Shams scientific prize – Egypt 2011
- DAAD fellowship for young scientists for three months in RWTH Aachen, 2006
- Member in the society for the Advancement of Material and Process Engineering (SAMPE)

PROJECTS LIST

2009-2010	Functionality of Environmentally Friendly Hybrid Composites 50016808 – DAAD, Germany
2007-2011	Natural Fibres – New alternatives for the Determination of Defined Properties for Synthetic Composites 22024605 - 05NR246 – Fachagentur für Nachwachsende Rohstoffe, Germany
2011-2012	High Added Value Natural Fibre Epoxy Composites 51241598 – DAAD, Germany
2012-2014	Material and flow models for natural fiber reinforced injection molding materials for practical applications in the automotive industry; Subproject 4: Investigations of NF compounds and test specimens (NFC Simulation) 22005511 – Fachagentur für Nachwachsende Rohstoffe Germany
2013-2014	Natural Fibre Reinforced Engineering Plastics with Flame Retardant Properties 2056509SL2 – ZIM – Bundesministerium für Wirtschaft und Energie Aufgrund eines Beschlusses des deutschen Bundestages Germany
2013-2014	Preparation/ Application of Bioelastomer Cellulosic Fiber Composites 57035643 – DAAD Germany
2015	Hytensile for Hybrid Structures : Development of High Performance Metal-Plastic Hybrid Composite EFB – 8112 N FSt. 2 – Germany



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2008-2011	Investigation of the rolling behavior of cast, particle-reinforced metal matrix composites PA 837/17-1 – DFG Germany
2015 -2016	Development of processing methods for advanced Al-SiCp strips and characterization for lightweight construction in transportation applications 5128 – GEF Germany
2019-2020 (running)	Selective Laser Manufacturing of Nitinol (Ni Ti alloy) CSIR-NLC #: LHIP500 task ALC-R014, DST funded African LASER centre research collaboration program
2021-2023 (running)	Know-How Technology Transfer, Localization of Prosthetic Feet Manufacturing Processes and Production Guidelines in Egypt, Egypt RDI/P 4/1/20-2, funded by ASRT
2023-2024 (approved)	Accreditation of Material lab test in Ain Shams University acc. To EJAC
2023-2024 (approved)	

Edited Books

1. “Trends in Composite Materials and their Design”, Mohamed A. Taha, Ahmed M. El-Sabbagh and Iman M. Taha, Trans Tech Publications, Switzerland, Key Engineering Materials, Volume 425, 2010, ISBN 0-87849-301-8 / 978-0-87849-301-2
2. “FLAX AND HEMP FIBRES: A NATURAL SOLUTION FOR THE COMPOSITE INDUSTRY” by the CELC European scientific committee. Chapter 6: Production techniques for natural fibre polymer composites – Gerhard Ziegmann & Ahmed Elsabbagh, 2012, ISBN 2952627614, 9782952627610
3. “Towards the Flow Pattern Simulation of Cellulosic Fiber Thermoplastic Composites during Injection Molding: Material Characterization”, Ahmed El-Sabbagh, Amna Ramzy, Leif Steuernagel, Dieter Meiners and Gerhard Ziegmann, Chapter 7 in “: “Cellulose and Cellulose Derivatives: Synthesis, Modification, Nanostructure and Applications” edited by Ibrahim Y. Mondal, Nova Science Publishers, Inc., New York, USA, 2015 ISBN: 978-1-63483-553-4

Peer Reviewed Publications

1. “Behavior of Stir-Cast-Al-Alloy Particulate Reinforced Metal-Matrix Composites Under Successive Hot Rolling”, Mohammed A. Taha, Nahed A. El-Mahallawy, A. Moneeb El-Sabbagh, Advanced Engineering Materials, 2003, 5, No. 11, p.805-p.812,
2. “The Role of Fluid Flow in Modeling Solidification Simulation of Aluminium Plates”, Mohammed A. Taha, Nahed A. El-Mahallawy, A. M. El-Sabbagh, Scientific Bulletin of Ain Shams University- Faculty of Engineering, Vol. 38, No. 4, December 31, 2003, p.849-p.865,
3. An Experimental Study of Electron Beam Welding Feasibility of Al/Al₂O₃ Composite”, Ahmed M. El-Sabbagh, Scientific Bulletin of Ain Shams University- Faculty of Engineering, June 30, 2006,
4. “Modeling of Transient Thermal Contact Resistance out of Conjugate Gradient Method”, A. M. El-Sabbagh, C. Fieberg, E. El-Magd, R. Kneern, Mat.-wiss. u. Werkstofftech. 2007, 38, No.4. 288-293,
5. “On Secondary Phase Precipitations and their Effect on Mechanical Properties in 30% Super Duplex Stainless Steel Welding Alloy“, F. El-Sabbagh, A. El-Sabbagh, M. Taha, N. El-Mahallawy, and V. Neubert, STEEL GRIPS 5 (2007) No. 6, p. 446/451
6. “Some Experimental Data on Workability of Aluminium - Particulate Reinforced Metal Matrix Composites”, Mohamed A. Taha, Nahed A. El-Mahallawy and Ahmed M. El-Sabbagh , Journal of Materials Processing Technology 202 (2008), issue 1-3, 380–385
7. “Improvement of Fibre-Matrix-Adhesion of Natural Fibres by Chemical Treatment”, Stefan Reich, Ahmed ElSabbagh, Leif Steuernagel, Macromol. Symp. 2008, 262, 170–181



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8. "Modelling of strength and stiffness behaviour of natural fiber reinforced polypropylene composites", I. Taha, A. El-Sabbagh and G. Ziegmann, *Polymers & Polymer Composites*, Vol. 16, No. 5, 2008, 295-302
9. "Processing and modelling of the mechanical behavior of natural fiber thermoplastic composite: Flax/Polypropylene", A. Elsabbagh, L. Steuernagel and G. Ziegmann, *Polymer Composites*, Vol 30, Issue 4, April 2009, 510-519
10. "Properties and performances of various hybrid glass/natural fibre composites for curved pipes", G. Cicala, G. Cristaldi, G. Recca, G. Ziegmann, A. ElSabbagh, M. Dickert, *Materials and Design* (2009) Vol 30, Issue 7, 2538-2542
11. "Effect of fibre/matrix chemical modification on the mechanical properties & water absorption of extruded flax/polypropylene composite", A. Elsabbagh, L. Steuernagel and G. Ziegmann, *Journal of Applied Polymer Science*, Volume 111, 2009,p 2279-2289
12. "Coupled Heat and Fluid Flow Model and Experimental Verification of Aluminium Plate Die Casting", Mohammed A. Taha, Nahed A. El-Mahallawy, Ahmed M. El-Sabbagh, *Materials Science and Technology*, Volume 25, Number 5, May 2009 , pp. 670-679
13. "Prediction of Hypoeutectic Gray Iron Microstructure during Solidification and Solid Transformation Using Simple Fourier Model", Mohamed A. Taha¹, Nahed A. El-Mahallawy, Ahmed. M. El-Sabbagh, Talat El-Benawy and Hasan F. Hadla, *Key Engineering Materials* Vol. 457 (2011) pp 293-298
14. "Hot Rolling Behaviour of Stir-Cast Al 6061 and Al 6082 Alloys - SiC Fine Particulates Reinforced Composites", A. El-Sabbagh, M. Soliman, M. Taha, H. Palkowski, *Journal of Materials Processing Technology* 212 (2012) 497– 508
15. "Characterisation of flax polypropylene composites using ultrasonic longitudinal sound wave technique", A. El-Sabbagh, L. Steuernagel and G. Ziegmann, *Composites: Part B* (2012), Volume 45, issue 1 p. 1164-1172.
16. "Ultrasonic testing of natural fibre polymer composites: effect of fibre content, humidity, stress on sound speed and comparison to glass fibre polymer composites" A. El-Sabbagh, L. Steuernagel and G. Ziegmann, *Polym. Bull.*, vol. 70 issue 2 February 2013. p. 371 - 390
17. "Description of draping behaviour of woven fabrics over single curvatures by image processing and simulation techniques", Y. Abdin, I. Taha, A. El-Sabbagh, S. Ebeid, *Composites: Part B* (2012), <http://dx.doi.org/10.1016/j.compositesb.2012.06.004>
18. "Improving the impact strength properties of natural fibre thermoplastic composites", A. El-Sabbagh, L. Steuernagel, G. Ziegmann, *Journal of Biobased Materials and Bioenergy* 2012, Vol. 6, No. 4, 346-354
19. "Hot Deformation Behaviour of 6061 and 7108 Al - SiCp Composites", M. Soliman, A. El-Sabbagh, M. Taha, H. Palkowski, *Journal of Materials Engineering and Performance* , May 2013, Volume 22, Issue 5, pp 1331-1340
20. "Low combustible polypropylene/ flax/ magnesium hydroxide composites: mechanical, flame retardation characterization and recycling effect", A. El-Sabbagh, L. Steuernagel and G. Ziegmann, *Journal of Reinforced Plastics and Composites*, Volume 32 Issue 14 July 2013, 1030-1043.
21. "Characterisation of the Draping Behaviour of Jute Woven Fabrics for Applications of Natural fibre Epoxy Composites", A. El-Sabbagh, I. Taha, *Journal of Applied Polymer Science*, Volume 130, Issue 3, November 2013, 1453–1465
22. "Effect of rolling and heat treatment on tensile behaviour of wrought Al-SiCp composites prepared by stir-casting", A. El-Sabbagh, M. Soliman, M. Taha, H. Palkowski, *Journal of Materials Processing Technology* 213 (2013) 1669– 1681
23. "Rheology of Natural Fibres Thermoplastic Compounds: Flow Length and Fibre Distribution", A. Ramzy, A. El-Sabbagh, L. Steuernagel, G. Ziegmann, D. Meiners, DOI#39861 from *Journal of Applied Polymer Science*, Volume 131, Issue 3, February 5, 2014
24. "Effect of Coupling Agent on Natural Fibre in Natural Fibre/ Polypropylene Composites on Mechanical and Thermal Behaviour", A. El-Sabbagh, *Composites: Part B* 57 (2014) 126–135
25. "Rolling of cast Al-SiCp particulate metal matrix composites and strip mechanical properties" M. A. Taha, A.M. EL-Sabbagh, M. Soliman, H. Palkowski, *Mat.-wiss. u.Werkstofftech.* 2013, 44, No. 11 DOI 10.1002/mawe.201300121 1



26. "Effect of Extruder Elements on Fibre dimensions and Mechanical Properties of Bast Natural Fibre Polypropylene Composites", A. El-Sabbagh, L. Steuernagel, G. Ziegmann, D. Meiners, *Journal of Applied Polymer Science*, DOI: 10.1002/app.40435, Volume 131, Issue 12, June 15, 2014
27. "Processing Parameters and Characterisation of Flax Fibre Reinforced Engineering Plastic Composites with Flame Retardant Fillers" Ahmed El-Sabbagh, Leif Steuernagel, Gerhard Ziegmann, Dieter Meiners and Oliver Toepfer, 2014, *Composites Part B*, 62, 2014 12–18
28. "Characterisation of Natural Fibre Thermoplastic Composites using Ultrasonic Longitudinal Sound Wave", Ahmed M. El-Sabbagh, Vol.19 No.04 - The e-Journal of Nondestructive Testing – ID 15503, ISSN 1435-4934, Issue "2014-04"
29. M. L. Tawfic & A. M. Elsabbagh & G. Ziegmann, "Novel coupling agent between expanded polystyrene waste and natural fabrics", *Int J Plast Technol*, 2014, Volume 18, Issue 2, pp 321–332
30. "Optimization of flame retardant content with respect to mechanical properties of natural fiber polymer composites: Case study of Polypropylene / Flax / Aluminium trihydroxide", A. El-Sabbagh, L. Steuernagel, D. Meiners, G. Ziegmann, O. Toepfer, *Polymer Composites*, 2016, Volume 37, Issue 11, 3310–3325
31. "Processing parameters and characterisation of flax fibre reinforced engineering plastic composites with flame retardant fillers", A. El-Sabbagh, L. Steuernagel, G. Ziegmann, D. Meiners, O. Toepfer, *Fortschrittsberichte der Materialforschung und Werkstofftechnik / Bulletin of Materials Research and Engineering*, ISSN 2364-0804, Shaker Verlag mit der ISBN 978-3-8440-3403-5
32. "Hyperthermia properties of magnetic polyethylenimine core/shell nanoparticles: influence of carrier and magnetic field strength", Mohamed S. A. Darwish, Ahmed El-Sabbagh, Ivan Stibor, *J Polym Res* (2015) 22:239, DOI 10.1007/s10965-015-0882-4
33. "Analysis of super duplex stainless steel properties as an Austenite-Ferrite composite", *Materials Sciences and Applications*, Fady M. Elsabbagh, Ahmed El-Sabbagh, Rawia M. Hamouda, Mohamed A. Taha, 2015, 6, 6, 1121-1136
34. "Optimizing the flame retardant content of nature fiber thermoplastic composites", Ahmed El-Sabbagh, Leif Steuernagel, Dieter Meiners, Gerhard Ziegmann, and Oliver Toepfer, *SPE Plastics Research Online*, doi:10.2417/spepro.006007
35. "Thermal Characterization of a Series of Lignin-based Polypropylene Blends", *Journal of Thermal Analysis and Calorimetry*, Ignazio Blanco, Gianluca Cicala, Alberta Latteri, Giuseppe Saccullo, Ahmed El-Sabbagh and Gerhard Ziegmann, 2016, DOI: 10.1007/s10973-016-5596-2
36. "Natural Fibre/PA6 composites with flame retardance properties: Extrusion and Characterisation", A. El-Sabbagh, L. Steuernagel, J. Ring, *Composites Part B* 108 (2017) 325-333,
37. "Flowability and fiber content homogeneity of natural fiber polypropylene composites in injection molding", Ahmed El-Sabbagh, Amna Ramzy, Leif Steuernagel, and Dieter Meiners, *AIP Conference Proceedings* 1779, 060010 (2016); doi: 10.1063/1.4965531
38. "Development of natural fiber/engineering plastics composites with flame retardance properties", Ahmed El-Sabbagh, Leif Steuernagel, Jochen Ring, and Oliver Toepfer, *AIP Conference Proceedings* 1779, 030020 (2016); doi: 10.1063/1.4965490
39. "Green composites based on blending of Polypropylene with "liquid wood"", Gianluca Cicala, Claudio Tosto, Alberta Latteri, Angela Daniela La Rosa, Ignazio Blanco *, Ahmed El-sabbagh, Pietro Russo, Gerhard Ziegmann, *Materials* 2017, 10(9), 998; doi:10.3390/ma10090998
40. "Towards selection chart of flame retardants for natural fibre reinforced polypropylene Composites", A. El-Sabbagh, T. Attia, A. Ramzy, L. Steuernagel, G. Ziegmann, *Composites part B*, Volume 141, 15 May 2018, Pages 1-8
41. "Models of flow behaviour and fibre distribution of injected moulded polypropylene reinforced with natural fibre composites", A. El-Sabbagh, A. Ramzy, L. Steuernagel, G. Ziegmann, *Journal: Composites Part B*, accepted 28 October 2018
42. "Distribution of fillers and reinforcements in injection moulded thermoplastic composites: Case study of glass bubbles", A El-Sabbagh, T Attia and A Ramzy, 2019, *IOP Conf. Ser.: Mater. Sci. Eng.* 634 012018
43. "Towards Selection Charts for Epoxy Resin, Unsaturated Polyester Resin and Their Fibre-Fabric Composites with Flame Retardants", Noha Ramadan, Mohamed Taha, Angela Daniela La Rosa and Ahmed El-Sabbagh, *Materials* 2021, 14, 1181. <https://doi.org/10.3390/ma14051181>



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Invited Speaker

1. "Natural Fiber Polymer Composites: What is different? ", A. Moneeb El-Sabbagh, Invited speech in university of Catania for the Master students in mechanical and chemical engineering , 19.03.2019
2. Invited lecture in Roma, Italy, the 5th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC5) and 14th Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta2019), a joint conference CEEC-TAC5 & Medicta2019.

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