Eslam Said Abdelghany Ahmed

Associate Professor in Mechanical Power Engineering

Address: Kafer Elghonamy, Minia Elkamh, sharkia - Egypt
Telephone no.: 00966-50-1942587~ **Cell phone no.:** 0020-109-3117104
E-mail*: *eslam_said312002@yahoo.com
Dr.E.Said11@gmail.com
Eslam@bu.edu.sa

Google Scholar Account:	*https://scholar.google.com.eg/citations?user=CebYr_kAAAAJ&hl=ar*
Researchgate Account:	*https://www.researchgate.net/profile/E-S-Abdelghany*

Personal Information

Date of Birth: 28/7/1985
Nationality: Egyptian
Marital Status: Married
Religion: Muslim
Military status: completed

Education

Oct. 2023 — The degree of **Associate Professor** in the Department of Mechanical Power Engineering from the Permanent Scientific Committee of Professors and Assistant Professors No. 117 for Mechanical Power, Automotive and Aviation Engineering, the fourteenth session 2022-2025.

August 2015 — The degree of **PhD OF SCIENCE** in Mechanical power engineering from Cairo University
Thesis Title: Effect Of Winglet Shape On Aircraft Wing Aerodynamic Performance.
Thesis Supervision: Prof. Dr. Essam Eldin Khalil, Prof. Dr. Osama Ezzat AbdelLati and Dr. Gmal AbdEl-monim Elhariry.

August 2013 — Finished pre PhD (GPA: 3.9), Comprehensive Exam and registration for PhD degree in Cairo University, Mechanical power engineering department.

May 2012 — The degree of **MASTER OF SCIENCE** in Mechanical power engineering from Cairo University. [GPA: 3.8)
Thesis Title: Effect Of Turbine Blade Cooling On Performance Of Turbofan Engines.

Thesis Supervision: Prof. Dr. Essam Eldin Khalil, Prof. Dr. Mahmoud Ahmed Fouad and Prof. Dr. Ahmed F. Abdel Azim El-Sayed.

May 2007 **B.Sc.** Of Engineering from Institute of aviation Engineering and technology
Specialization: Aeronautical Engineering Department.
Project: Design of Intake, Fan, Compressor, Turbine, Nozzle and Gearbox of Turbofan Engine.
Project supervisor: Prof. Dr. Ahmed F. Abdel Azim El-Sayed.
Graduation project: *Distinction.*
Graduation grade: cumulative rate of appreciation: Distinction with the First class Honors with percentage 89.68%.
Last year grade: Distinction.

June 2002 High School
Talat Harb School – Minia Elkamh - sharkia -Egypt.

Training

• **June 2008**	Finished Basic Course for Aeronautical Engineers (Airframe/power plant).
• **October 2012**	A/C and Ventilation Course ➢ Load estimation ➢ A/C systems and applications ➢ Sheet metal air duct design ➢ Air outlets types and selection from catalogues ➢ Design of ventilation systems ➢ Load estimation by using computer (HAP program)
• **September 2014**	Three Training courses from Faculty and Leadership Development Center: ➢ Communication Skills ➢ Exams & Standards Evaluation Process ➢ Ethics Code of University
• **March 2016**	Two qualified and certified in Non-Destructive Testing with Guidness of American Society for Non-Destructive Testing (ASNT) Recommended Practice No. SNT-TC-1A in the following catiegories from Egyptian Welding Academy: ➢ **Testing Method:**

• **2020- 2021**	(1) VISUAL INSPECTION (2) LIQUID PENETRANT TEST ➢ **Level of qualification :** Level II (TWO) Five courses for developing the skills of faculty members from the Saudi Digital Library, Al-Baha University - Ministry of Higher Education - Kingdom of Saudi Arabia: **• A training course entitled: ISI standard classification and how to use the lists** **• A training course entitled: Research Skills in the Digital Environment: The Saudi Digital Library as a Model** **• A training course entitled: How to use the reference management and organization program** **• A training course entitled: An introductory course on the EBSCO science lists** **• Training course entitled: Optimal employment of evaluation tools in the E-Learning Management System (Blackboard)**

Practical / professional work experience

❖ Institute of aviation engineering & technology

1/9/2007 to 1/9/2012	Teacher Assistance was Teaching to students nine courses [Machine design; Machine drawing, fluid Mechanics, Gas dynamics, turbo-machinery, Heat transfer, propulsion, Theory of machine and Mechanics (statics and dynamics)].
1/9/2012 to 1/9/2015	Lecturer was Teaching to students eight courses [Machine design; Machine drawing, fluid Mechanics, Gas dynamics, turbo-machinery, Heat transfer, propulsion and Mechanics (statics and dynamics)].
1/9/2015 to 1/2/2020	Assistant professor is Teaching to students eight courses [Machine design; Machine drawing, fluid Mechanics, Gas dynamics, turbo-machinery, Heat transfer, propulsion and Mechanics (statics and dynamics)]
1/9/2015 to 1/2/2020	I'm working as Head of Mechanical Power Engineering Department.
1/9/2015 to 1/9/2017	I work as Director of the Quality Assurance Unit at the institute of aviation engineering & technology.
1/9/2015 to 1/2/2020	I'm working as a Head of the control board and questions

❖ AlBaha University - Kingdom of Saudi Arabia

1/2/2020 to Until now	Assistant professor was Teaching to students Seven courses [Gas dynamics; propulsion systems, Power plants, Machine drawing, Numerical Analysis, Special English Language, Calculus (2)]
1/2/2020 to Until now	I work as Director of the Quality Assurance Unit at the Mechanical Department – Faculty of Engineering.

❖ P.H.I for engineering & technology

1/9/2016 to 1/9/2017	Assistant professor was Teaching to students two courses [Mechanics (statics and dynamics)].[part time]

❖ The Higher Technological institute, Tenth of Ramadan city in Egypt

1/9/2016 to Until now	Assistant professor is Teaching to students three course [Engineering Economy – Technical writing and Mechanics (statics and dynamics)]. [part time]

❖ Cairo University

1/9/2015 to Until now	Assistant Professor (part time) And Participate in the supervision of scientific Thesis [Seven Thesis]

Scientific theses

• **2015- 2017 /** Participation in supervision with Prof. Essam E.Khalil Hassan and Dr. Taher Mohamed Aboudeif. Prepared by Eng. Alaa Mohamed Abdullah - Thesis submitted to the Faculty of Engineering - Cairo University as part of the requirements for obtaining a Master's degree in Mechanical Engineering – Thesis title "**Numerical investigation on the effect of gasper jets on human thermal comfort in aircraft cabins."**

• **2015- 2017** / Participation in supervision with Prof. Essam E.Khalil Hassan and Dr. Gamal El Hariri. Prepared by Eng. Adel Mamdouh Abd-El Aziz Mohamed - Thesis submitted to the Faculty of Engineering - Cairo University as part of the requirements for obtaining a Master's degree in Mechanical Engineering – Thesis title "**CFD INVESTIGATION OF THRUST VECTORING IN ROCKET NOZZLE VIA JET TAB**."

• **2015- 2018** / Participation in supervision with Prof. Essam E.Khalil Hassan and Dr. Gamal El Hariri. Prepared by Eng. Moamen Badr Farghaly - Thesis submitted to the Faculty of Engineering - Cairo University as part of the requirements for obtaining a

Master's degree in Mechanical Engineering – Thesis title "Effect **of Blade Pitch Angle on the Aerodynamic Characteristics of Horizontal Axis Wind Turbine Based on NACA4418 aerofoil**."

• **2016- 2019** / Participation in supervision with Prof. Mohamed M. Ali Hassan. Prepared by Eng. Mostafa Mohamed Abd-El Aziz Mahmoud - Thesis submitted to the Faculty of Engineering - Cairo University as part of the requirements for obtaining a Master's degree in Mechanical Engineering – Thesis title "**Effect of Nano Additives on Performance and Emission Characteristics of Diesel Engine Fuelled with Edible – Non – Edible Biodiesel Fuels.**"

• **2017- 2020** / Participation in supervision with Prof. Essam E.Khalil Hassan and Dr. Hatem Omar Haridy. Prepared by Eng. Ahmed Ashraf Mohamed- Thesis submitted to the Faculty of Engineering - Cairo University as part of the requirements for obtaining a Master's degree in Mechanical Engineering – Thesis title "**Numerical analysis of smoke spread in aircraft hangars.**"

• **2017- 2020** / Participation in supervision with Prof. Essam E.Khalil Hassan and Dr. Gamal El Hariri. Prepared by Eng. Mahmoud Mohamed Ahmeed- Thesis submitted to the Faculty of Engineering - Cairo University as part of the requirements for obtaining a Master's degree in Mechanical Engineering – Thesis title "**Numerical analysis of of flow patterns and thermal comfort inside an air-conditioned classroom.**"

Seminars Attended

1- E. S. Abdelghany, A. F. Elsayed and Khalil, E. E., "***Effect of Hole Stream Wise Angle in Flat Plate, Pressure Side (Concave) and Suction Side (Convex) on Film Cooling Effectiveness***", Proceedings AIEC, Luxor, March, (2015).

2- E. S. Abdelghany, Khalil, E. E., O. E. Abdelatif, and G. M. ElHarriry, **Winglet Cant and Sweep Angles Effect on Aircraft Wing Performance.** " Military Technical College Kobry El-Kobbah, Cairo, Egypt.17th Int. Conference on Applied Mechanics and Mechanical Engineering, April, (2016).

3- The first conference of the Center for Quality Assurance and Continuing Development at Sadat University, (2018).

Graduation Projects

- **Mechanical power department, "Truck Aerodynamic Improvement Using CFD and Wind Tunnel Measurements", Institute of aviation Engineering and technology, 2018.**
- **Aeronautical department, "Design and Manufacture of a Ducted Fan Wearable Jetpack Device", Institute of aviation Engineering and technology, 2019. [Funded from ASRT (Academy of Scientific Research and Technology)**
- **Aeronautical department, "Smart Wind Turbine with Trailing Edge Flap", Institute of aviation Engineering and technology, 2020. [Funded from ASRT (Academy of Scientific Research and Technology)**

- **Aeronautical department, "Effect of winglet parameters on horizontal wind turbine", Institute of aviation Engineering and technology, 2020. [Funded from ASRT (Academy of Scientific Research and Technology).**

- **Mechanical power department, "Design and manufacture of open wind tunnel", Al-Baha University, 2022.**

Mechanical power department, "Design and manufacture of Quad copter", Al-Baha University, 2023.

Computer skills

Microsoft applications: Word, Excel, power point, and Visio
CAD applications: AutoCAD, Uni graphics, Solid Work's program and Gambit® 2.3.16 program.
CFD Applications: ANSYS Fluent, CFX
Programming Application: Matlab

Languages

Arabic: Native language.
English: Excellent speaking and writing.

Publications

JOURNALS

(2023)	Abdelghany, E.S.; Farghaly, M.B.; Almalki, M.M.; Sarhan, H.H.; Essa, M.E.-S.M. Machine Learning and IoT Trends for Intelligent Prediction of Aircraft Wing Anti-Icing System Temperature. ***Aerospace*** 2023, ***10*****, 676.** *https://doi.org/10.3390/aerospace10080676*
(2023)	M. B. Farghaly, R. N. Alahmadi, H. H. Sarhan and E. S. Abdelghany," Experimental study of simultaneous effect of evacuated tube collectors coupled with parabolic reflectors on traditional single slope solar still efficiency, Case Studies in Thermal Engineering 2023 Vol. 49 Pages 103304, *https://doi.org/10.1016/j.csite.2023.103304*
(2023)	E.S. Abdelghany, Eid S. Mohamed, H.H. Sarhan, "Exhaust heat recovery performance analysis of a Bi-fuel engine utilizing a thermoelectric generation kit and fuel economy evaluation," Case Studies in Thermal Engineering, Volume 49, 2023, 103288, ISSN 2214-157X, *https://doi.org/10.1016/j.csite.2023.103288.*
(2023)	**Abdelghany, E.S.; Sarhan, H.H.; Alahmadi, R.; Farghaly, M.B.** Study the Effect of Winglet Height Length on the Aerodynamic Performance of Horizontal Axis Wind Turbines Using Computational Investigation. ***Energies*** 2023, ***16*****, 5138.** *https://doi.org/10.3390/en16135138*
(2023)	**E.S. Abdelghany, H.H. Sarhan, A. El Saleh, Mohamed B. Farghaly.** "High bypass turbofan engine and anti-icing system performance: Mass flow rate of Anti-icing bleed air system effect" **Case Studies in Thermal Engineering, S2214-157X (23)00233-2, 2023,** *https://doi.org/10.1016/j.csite.2023.102927.*
(2023)	***E.S. Abdelghany, H.H. Sarhan. El, B. Farghaly.*** *"Aerodynamic Performance Enhancement of a Heavy Trucks Using Experimental and Computational Investigation"* ***CFD LETTERS AUGUST 2023, Vol.15, Issu 8,*** *https://doi.org/10.37934/cfdl.15.8.7394.*
(2022)	Farghaly, Mohamed B., and E. S. Abdelghany. "Study the effect of trailing edge flap deflection on horizontal axis wind turbine performance using computational investigation." International Journal of Renewable Energy Research (IJRER) 12, no. 4 (2022): 1942-1953, *https://doi.org/10.20508/ijrer.v12i4.13433.g8617*
(2020)	**E. S. AbdelGhany,** " CFD Investigation for Effect of the Aerodynamic Truck - Cabin Profiles and Devices on the Truck Performance", Paper ID: **200903-6868-IJMME-IJENS,** Pages: **1-17,**

	June, 2020, *doi.org/10.5281/zenodo.7981968.*
(2020)	M. S. Gad and E. S. AbdelGhany, ”Improving the Combustion Characteristics and Emissions Using Nano Titanium Oxide Additive to Biodiesel", **Paper ID:** 200803-5959-IJMME-IJENS, Pages: 56-67, June, 2020, doi.org/10.5281/zenodo.7982010.
(2018)	Mohamed M.A. Hassan, M.S. Gad, Eslam. S. Abdelghany and M.M. Abdel Aziz " Effect of CNT additives on performance and exhaust emissions of a diesel engine fueled with non-edible biodiesel fuel." International Journal for Research in Applied Science & Engineering Technology (IJRASET), ISSN: 2321-9653; IC Value: 45.98; Volume 6 Issue I, January 2018, DOI: *10.22214/ijraset.2018.1119*
(2017)	A. M. Abdullah, E. E, Khalil. T. M. Abou Deif, and E. S. Abdelghany, Human thermal comfort in aircraft cabins. "International Journal of Research in Engineering and Innovation (IJREI), IJREI indexed with google scholar, Academia, Scribd, Slideshare, Bibsonomy and many more, vol. 1, issue 6, pp. 87-94, 2017.
(2016)	E. S. Abdelghany, Khalil, E. E., O. E. Abdelatif, and G. M. ElHarriry**,** "Aircraft Winglet Design and performance: Cant angle effect"**,** Journal of Robotics and Mechanical Engineering Research, vol. 1, issue 3, pp. 28-34, 2016.
(2016)	Abdelghany, E. S., O. E. Abdellatif, G. Elhariry, and E. E. Khalil. "NACA653218 Airfoil Aerodynamic Properties." Journal of Aeronautics and Aerospace Engineering 5, no. 2 (2016).
(2015)	E. S. Abdelghany, Khalil, E. E., O. E. Abdelatif, and G. M. ElHarriry**,** "CFD Investigation of Wing With Winglet up and Down Wards :Effect of Wing Aerodynamic Performance", Zagazig University Journal of Science &Technology, vol. 25, issue 7, pp. 50-62, 2015.
(2015)	**E**. S.AbdelGahny, Khalil, E. E., O. E. Abdellatif, and G. M. ElHarriry, "Effect of Winglet Cant Angle on Aircraft Wing Performance", Zagazig University Journal of Science &Technology, vol. Vol.25,, issue 7, pp. 39-49, 2015.

CONFERENCES

(2021)	Essam E. Khalil, Gamal ElHariri, Eslam Abdelghany and Mahmoud AbouSaad ,” Numerical Investigation of Flow Patterns and Thermal Comfort Inside Air-Conditioned Square Diffuser in Teaching Space", AIAA-2021- 19–21 January 2021**,** *https://doi.org/10.2514/6.2021-1983*.
(2020)	Khalil, E. E., E. AbdelGhany, A. AlSaleh, and G. m ElHarriri, "Effect of Hot Air Jet arrangement from a Piccolo Tube in Aircraft Wing Anti-Icing system,", AIAA-2020- 3401423,August 2020., August 2020, *https://doi.org/10.2514/6.2020-3952*.
(2019)	Essam Eldin Khalil, Ahmed A Morsy, Hatem K Haridy and Eslam Abdelghany Ahmed, " Numerical analysis for smoke spread in an aircraft hangar”**,** Proceedings, 6th International Conference and Exhibition on Mechanical & Aerospace Engineering, 2019 | Atlanta, USA, *https://doi.org/10.1051/e3sconf/201911101090*.
(2019)	Badr, M., E. AbdelGhany, G. ElHarriri, and E. E. Khalil, "Computations of Aerodynamic Behaviour of Small Horizontal Axis Wind Turbine with NACA4418 airfoil, ", Proceedings,AIAA_SciTec, AIAA 2019-1277, San Diego,USA, 9th January, 2019, *https://doi.org/10.2514/6.2019-1277.c1*.
(2018)	AbdelGhany, E., G. Elhariri, O. Abdellatif, and E. E. Khalil, "Air Craft Winglet Design and Performance: Cant Angle Effect"**,** ” ,Aerospace and Aeronatical Engineering Conference, Abu Dhabi, 26th February, 2018, *https://doi.org/10.2514/6.2016-4821*.
(2018)	EE Khalil, ME Hussein, E AbdelGhany, G ElHarriri "Newly Proposed Multi Stream Turbofan Engine with Built in Regenerative Heat " Proceedings, AIAA paper AIAA_2018- Joint Propulsion Conference_4614, *https://doi.org/10.2514/6.2018-4614*.
(2018)	M. H. Ahmed, E. E, Khalil, E. S. Abdelghany, G. M. ElHarriry, **A. El Saleh** "A PROPOSED TRIPLE STREAM TURBOFAN NEW ENGINE" Proceedings, AIAA paper AIAA_2018_ 2803825, *https://doi.org/10.2514/6.2018-2256*.
(2018)	A. M. Abdullah, E. E, Khalil. T. M. Abou Deif, and E. S. Abdelghany, "Optimization for the Mass Flow Rate Entering the Aircraft Cabin through Gasper Nozzles " Proceedings, AIAA paper AIAA_2018_ 2874924, *https://doi.org/10.2514/6.2018-4793*.
(2016)	E. S. Abdelghany, Khalil, E. E., O. E. Abdelatif, and G. M. ElHarriry, Winglet Cant and Sweep Angles Effect on Aircraft Wing Performance. " Military Technical College Kobry El-Kobbah, Cairo,

	Egypt.17th Int. Conference on Applied Mechanics and Mechanical Engineering, April, (2016).
(2016)	E. S. Abdelghany, Khalil, E. E., O. E. Abdelatif, and G. M. ElHarriry, (2016) Air Craft Winglet Design and Performance: Cant Angle Effect. Proceedings, AIAA paper AIAA_2016_1_2423478, *https://doi.org/10.2514/6.2016-4821*.
(2016)	E. S. Abdelghany, Khalil, E. E., O. E. Abdelatif, and G. M. ElHarriry, (2016) THE CFD VALIDATION CODE FOR RECTANGULAR WING WITH NACA653218airfoil CROSS SECTION. Proceedings, AIAA paper AIAA_2016_1_2307247, *https://doi.org/10.2514/6.2016-1368*.
(2016)	E. S. Abdelghany, Khalil, E. E., O. E. Abdelatif, and G. M. ElHarriry, (2016) COMPUTATIONAL ANALYSES OF AERODYNAMIC CHARACTERISTICS OF NACA653218airfoil. Proceedings, AIAA paper AIAA_2016_1_ 2307246, *https://doi.org/10.2514/6.2016-1367*.
(2015)	E. S. Abdelghany, A. F. Elsayed and Khalil, E. E., "Effect of Hole Stream Wise Angle in Flat Plate, Pressure Side (Concave) and Suction Side (Convex) on Film Cooling Effectiveness", Proceedings AIEC, Luxor, March, 2015.
(2013)	E. S. Abdelghany, A. F. El-sayed, M. A. Fouad and E. E. Khalil, (2013) Effect of Pressure Recovery on Triple Spool Turbofan Engine Performance. Proceedings, IECEC paper IECEC-2013-1577455.
(2013)	E. S. Abdelghany, A. F. El-sayed and E. E. Khalil, (2013) Effect of Bleed air on Performance of Turbofan Engines. Proceedings, AIAA paper AIAA_2013_1_1402930.
(2012)	E. S. Abdelghany, A. F. El-sayed, M. A. Fouad and E. E. Khalil, (2012) On the Calculations of Flat Plate film cooling Effectiveness. Proceedings, IECEC paper IECEC-2012-1283396, *https://doi.org/10.2514/6.2012-4231*.
(2012)	E. S. Abdelghany, A. F. El-sayed, M. A. Fouad and E. E. Khalil, (2012) Effect of Shaped-Hole On film cooling Effectiveness of Gas turbine Blade. Proceedings, IECEC paper IECEC-2012-1283396, *https://doi.org/10.2514/6.2012-3986*.
(2012)	E. S. Abdelghany, A. F. El-sayed, M. A. Fouad and E. E. Khalil, (2012) Effect of film cooling of HP and IP turbines on Performance of triple Spool Turbofan engines. Proceedings, IECEC paper IECEC-2012-1281114, *https://doi.org/10.2514/6.2012-3988*

References

Prof. Dr. Ahmed F. El-sayed
Professor of Aerospace and Mechanical Engineering
Zagazig University, Zagazig, Egypt
Email: dr_ahmedhelal@yahoo.com
dr_ahmedhelal@hotmail.com
cell phone: 0020-100-5384811

Prof. Dr. Mohamed Madbouli Abdelrahman
Professor of Aerospace Engineering
Cairo University, Giza, Egypt
Email: *dr_Madbouli@staff.cu.edu.eg*
Mohamed.madbouli@gmail.com
Mobile: 01223196569

Prof. Dr. Gamal Mahmoud Sayed El-Bayoumi
Professor of Aerospace Engineering
Cairo University, Giza, Egypt
Email: gelbayoumi@yahoo.com
Mobile: 0020-100-1290983

Prof. Dr. Farouk Mohamed Owis
Associated Professor of Aerospace Engineering
Cairo University, Giza, Egypt

Email: fowis@yahoo.com
Mobile: 0020-100-4089083.