

Curriculum vitae
Prof. Dr. Taha Mattar
State prize in Advanced Technological Sciences

Prof. Mattar is the dean of TIMS, Cairo, Egypt (graduate studies State institute) since April, 2020. He is a Professor of Metallurgical and Materials science and Engineering with specialty in Steel Technology at TIMS and CMRDI, Egypt. He is currently also the Chairman of: Energy and Environment Research Center, the Center of Manufacturing Studies, Technological Incubators, Research Studies Unit; and Egyptian-Belarusian Center for Research and Studies at TIMS.

Prof. Mattar is the chair of the scientific council as well as programs and curricula development committee at TIMS for the six scientific departments namely: Basic sciences, energy and environment, industrial engineering, mining and metallurgy, mechanical engineering and electrical engineering. Prof. Mattar is also the Chair of accreditation committee at TIMS.

Prof. Taha Mattar has PhD, MSc and BSc in Chemistry, Helwan University, Egypt and MSc in Economics, University of Rome Tor Vergata, Italy. He is the winner of Egyptian State Prize in Advanced Technological Sciences (2002). He has 129 published scientific articles in international peer journals and conferences with 59 international, regional and national scientific and applied funded research projects.

In February 2009, Prof. Mattar appointed as the director of Egyptian educational mission, the Egyptian Cultural and Scientific Attaché, director of Egyptian Cultural Bureau at the Egyptian Embassy to Italy with a diplomatic mandate ended July 2012.

Prof. Mattar was the Chairman of CMRDI, Egypt; July 2016- December 2018 and President (Dean) of Metals Technology Division (Faculty) at CMRDI; June 2013- July 2016.

Prof. Mattar languages skills are Arabic (mother tongue), fluent in English and Italian and basic knowledge of French and German. He has strong command of computer tools and programs micro soft office, on-line meeting, internet tools, graphics program, plotting and scientific programs. Prof. Mattar is specialist in market and feasibility studies since 1994.

Mattar worked as Advisor of International Cooperation in Misr El-Kheir Foundation (July 2012- June 2013). He is the founder of Arab Network of Nanotechnology, FASRC, 2009. Prof. Mattar was the secretary General of Arab Network of Materials Sciences and Nanotechnology (July 2016- December 2018) and the MENA region' focal point for World Association for Industrial and Technological Research Organization- WAITRO, (July 2016- December 2018). He was appointed as a member of the scientific committee of the Calabrian Institute of international politics- ISCAPI, Italy (2010- now) and the Academic Affairs and International Cooperation Advisor at knowledge Innovation Academy (KIAC), Egypt (2012- now).

Prof. Matter is a founder of three technology transfer offices in Egyptian Universities.

Prof. Mattar has a large experience in research as well as establishment of international cooperation. He was a member in the coordination team in the Egyptian German Year of Science and Technology and in the supervisory team of the Italian Egyptian Year of Science as the Egyptian representative in Italy.

Mattar had many awards and grants from different countries beside Egypt as NSF (USA), STDF, STIFA, CSSP, EU delegation, TVET and ASRT (Egypt), BMBF, DAAD (Germany), ASTF (UAE), Campus France and MAE and IsCaPI (Italy). Prof. Mattar cooperated and worked with many international organizations in the field of innovation, Academia- Industry linkage, Technology Transfer, TEVT, Commercialization of R&D outcomes; (ISESCO, ALECSO, ESCWA, FASRC, AIDMO, MEK and IsCaPI).

Family name: Mattar
First names: Taha Mohamed Taha
Nationality: Egyptian
Education: PhD, MSc, BSc in Science and MSc in Economics

Present position:

- Dean, Tabbin Institute for Metallurgical Studies (TIMS), Egypt; April 2020- now
- Chairman of Energy and Environment Research Center, TIMS, Egypt; April 2020- now
- Chairman of Manufacturing Studies Research Center, TIMS, Egypt; April 2020- now
- Chairman of Egyptian-Belarusian Center for Science and Studies, TIMS, Egypt; April 2020- now
- Ex-Chairman, Central Metallurgical R&D Institute (CMRDI), Egypt; July 2016- Dec. 2019
- Professor, Central Metallurgical Research and Development Institute (CMRDI), June 2010- now
- Founder, Center of Excellence: “Materials for water applications”, CMRDI, 2018
- Founder, Center of Excellence: “Materials for energy applications”, CMRDI, 2018
- Founder, *Annual International Conference on Materials Science and Engineering*, 11-13 March; www.icmse-egypt2019.org
- Founder and coordinator of Steel Industry Challenges Annual Forum, June, Egypt
- Founder, Technology Transfer and Commercialization Office at BUE and HUSD universities
- Advisor of Industrial and International Cooperation, Knowledge Innovation Academy; KIAc, 2012-Now
- Member of scientific committee, Calabria Institute for International Policies (IsCaPI), Italy, 2010- Now
- Founder of Italian Scholarships for technical Education Initiative, Calabria Region- Mek, Egypt (540 Scholarships, 2010-2017)
- Founder of the Arab Network of Nanotechnology, 2009

Education background

<i>Institution:</i> <i>Date from – date to</i>	<i>Degree(s) or Diploma(s) obtained:</i>
University of Rome II, Tor Vergata, Italy; 2009-2011	Master of Science in Economics
University of Helwan, Egypt, 1992-1996	PhD in Chemistry
University of Helwan, Egypt, 1988- 1991	MSc in Chemistry
University of Helwan, Egypt, 1983-1987	BSc in Chemistry

Language skills:

Language	Reading	Speaking	Writing
Arabic	mother tongue	mother tongue	mother tongue
English	Excellent	Excellent	Excellent
Italian	Excellent	Excellent	Excellent
French	Sufficient	Sufficient	Sufficient
German	Sufficient	Sufficient	Sufficient

Computer skills:

Strong command of operating system, MS office, graphics, statistics, communication and internet programs.

Membership of Professional bodies:

- Founder and Co-Chairman, Annual International Conference on Materials Science and Engineering, 11-13 March, Egypt; www.icmse-egypt2019.org
- Founder and Chairman, Annual Academia Industry Forum on Steel Industry Challenges, Cairo Egypt.
- Board Member in the Egyptian Society of Heat Treatment, 2004 - till now
- Founder of German Egyptian Network of Young Scientists (GENYS), 2006
- Member of Scientific Committee, Calabria Institute for International Policies, IsCaPI, Cosenza, Italy, 2010- till now
- CMRDI Board member, 2013- 2016
- Chairman of Managing Board of CMRDI, 2016- Jan 2019
- Member in the scientific council, Tibeen Institute for Metallurgical Studies, December 2015- 2017
- Member of Faculty Council, Faculty of Science, Helwan University, Feb. 2018- 2020
- Member of Managing Board, Egyptian Company for Ferroalloys, August 2018- 2021
- Member in the Experts Committee for Coinage, Ministry of Finance, Egypt, 2018
- Founder of the Egyptian Scientific Community at Pittsburgh (ESCP), 2005
- Focal point for industrial research centers, AIDMO, 2016-2019
- Member of nanotechnology scientific initiative, AIDMO, 2016-2019
- Founder of Arab Network for Materials Science and Nanotechnology, 2009
- Secretary General of Arab Network for Materials Science and Nanotechnology, 2016- 2019
- Member in Egyptian Syndicate of Scientific Profession, 1987 - till now
- Member in Egyptian American Scholars Association, 1994
- Member in ASM International, 1999 - 2007

Other skills:

- Winner of Egyptian state prize in advanced technological sciences, 2002
- Project management, evaluation and monitoring expert
- Higher Education Development projects Coordinator
- Leadership and team workability in multicultural environment
- Risk management
- Time management
- International cooperation expert
- Fund raising expert
- Strong command of computer soft wares and applications for processing and results evaluation
- Market& feasibility studies expert
- FP7 projects proposal writing, EU, Brussels, Sept. 2002
- Techno-preneurship training program, ISTIC- KISR, Kuwait, Sept. 2013
- Top Management training program, WAITRO, KL, Malaysia, June 2014
- European cooperation training program, EU Association, July 2019
- Critical Thinking training program, April 2020
- Decision making training program, April 2020
- Project Management training program, May 2020
- Risk Management training program, May 2020

Education& Teaching activities:

- Teaching Materials science course for Masters students at Institute fur Eisen Hutten Kunde (IEHK), RWTH-Aachen, Germany, 2002-2003
- Teaching BSc project students, Faculty of Science, Helwan University, 1997-2002, 2003-2009)
- Teaching Biomedical Materials courses for Engineering students at Higher Technological Institute (HTI), 10th Ramadan City, 2007-2009

Publication Data 126 articles in reviewed journals and conferences

Industrial Projects Sharing as PI, CO-PI or member of research team in 59 research projects financed by National and/or International Associations

Key qualifications

- Founder and Chair of Annual *International Conference on Materials Science and Engineering*, 11-13 March; www.icmse-egypt2019.org and Annual Academia Industry Forum on Steel Industry Challenges, June, Egypt
- Advisor and founder, Technology Innovation and Commercialization and Transfer Office, British University in Egypt (BUE), Egypt (2016- Now)
- Director, Technology Innovation and Commercialization and Transfer Office, Heliopolis University for Sustainable Development in Egypt, Egypt (2012- 2015)
- Advisor, Vocational and Technical Education scholarship program, IsCaPI, Italy (2009- Now)
- Advisor, Vocational and Technical Education scholarship program, Misr Elkheir Foundation, Egypt (2010- 2013)
- Project manager and Industry Academia linkage, SDF, Egypt, EC_TEMPUS_DIMPTOT_2005 (2005-2014)
- Advisor, Higher Education Industrial training and internship, Heliopolis University for Sustainable Development, Egypt (2005- 2016)

Professional experience record:

<i>Date from - to:</i>	<i>Location</i>	<i>Company& reference person (name & contact details)</i>	<i>Position</i>	<i>Description</i>
June 1988- June 1991	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Assistant Researcher	Performing MSc research work and participating in applied and industrial projects in the field of steel and ferroalloys
June 1991- Feb. 1993	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Research Assistant	Performing PhD research work and participating in applied and industrial projects in the field of steel and ferroalloys
Feb. 1993- Feb. 1995	Turin, Italy	Politenico di Torino	PhD Student	Performing PhD research work
Feb. 1995- June 1996	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Research Assistant	Performing PhD research work and participating in applied and industrial projects in the field of steel and ferroalloys
June 1996- Oct.2000	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Researcher	Performing research work and participating in applied and industrial projects in the field of steel and ferroalloys
Oct. 2000- Jan. 2001	Nancy, France	Ecole des Mines de Nancy (EMN)	Visiting researcher	Performing research work in the field of electroslag refining and modelling of metallurgical processes
Jan. 2001- Oct. 2001	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Researcher	Performing research work and participating in applied and industrial projects in the field of steel and ferroalloys
Oct. 2001- July.2003	Aachen, Germany	Institute of Ferrous Metallurgy, IEHK, RWTH-Aachen	Visiting researcher	Performing research work in the field of precipitation and transformation behaviour of microalloyed steels
July 2003- May 2005	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Associate Professor	Performing research work and participating in applied and industrial projects in the field of steel and ferroalloys
May 2005- Jan. 2006	Pittsburgh, USA	Carnegie Mellon University (CMU)	Visiting scientist	Performing research work in the field of simulation of precipitation and transformation behaviour of alloyed steels
Jan 2006- Feb. 2009	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Associate Professor	Performing research work and participating in applied and industrial projects in the field of steel and ferroalloys
Feb. 2009- July 2012	Rome, Italy	Egyptian Embassy in Rome, Cultural Bureau	Director and Attaché	Managing Egyptian Educational mission and scientific and cultural relations between Egypt and Italy

June 2010- till now	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Professor of steel metallrgy, Supervisor of MSc and PhD Thesis and Manager of R&D national, regional and international projects	Performing research work and participating in applied and industrial projects in the field of steel and ferroalloys
July 2012- July 2013	Cairo, Egypt	Misr Elkheir Foundation	Advisor of cooperation	Managing the scientific and educational relations
Nov. 2012- Dec.2015	Cairo, Egypt	Heliopolis University for Sustainable Development	Advisor of Academia/ Industry Cooperation& Director of Technology Transfer Office	Managing Technology Transfer Office Managing Strategic Alliance of the University Managing the internship program for students
June 2013- July 2016	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Head of Metals Technology Division and Managing Board Member	-Managing the scientific activities of the division and the four departments belonging to it -Performing research work and participating in applied and industrial projects in the field of steel and ferroalloys
July 2015- August 2019	Cairo, Egypt	British University in Egypt	Advisor and Founder of Technology Transfer Office	Supervising Technology Transfer Office Activities, cooperation with industry and community, projects proposal writing and management
July. 2016-25 Dec. 2018	Cairo, Egypt	Central Metallurgical R&D Institute (CMRDI)	Acting President and Managing Board Chairman	Orienting Institute facilities to connect R&D in applied industries through Ministry of Higher Education and Scientific Research
Feb. 2018- Feb. 2020	Cairo, Egypt	Faculty of Science, Helwan University	Council member	Managing all Scientific issues of the faculty
July 2018- Nov. 2020	Aswan/Cairo , Egypt	Egyptian Company for Ferroalloys, Metallurgical Holding Company, Ministry of Investment	Managing Board Member	Managing the Administrative, Financial and Technical work of the Company
July 2018- June 2019	Cairo, Egypt	Mint Authority, Ministry of Finance	Coinage' Expert Committee Member	Development of local manufacturing lines for coinage/ Mint and Car/ Motorcycles plates
April 2020- now	Cairo, Egypt	Tabbin Institute for Metallurgical Industries (TIMS)	Dean/ Director	Executing Institute scientific, educational, research, innovation, capacity building, international cooperation, technology transfer and industry academia linkage' work.

Awards:

2018: Year **2018 State** Public Figure, Iron & Steel Network, December 2018, Cairo, Egypt.

2018: One Golden and two Silver Medals, Cairo 5th Int. Innovation Exhibition, Nov. 2018.

2018: SteelVia award, Global Steel Forum 26 Sept. 2018, Dubai, UAE.

2014: Technical Education Enhancement symposium, FASRC, Khartoum, Sudan.

2014: H2020 Meeting and WAITRO Assembly, EU, Copenhagen, Denmark.

2014: Top Management training program, WAITRO, KL, Malaysia.

2013: MedPol Summer School, IsCaPI, Calabria, Italy.

2013: Technopreneurship managerial training Program, ISTIC, Kuwait.

2011: Misr Elkheir Foundation Moral Recognition for the efforts in the Italian technical education scholarships for Egyptian students.

2010: Fashion Ambassador for the Fashion Designers Union in Calabria Region.

2010: Member of the scientific committee, Calabrian Institute of International Politics, Italy.

Feb. 2009: Nominated as the Egyptian Cultural Attaché to Italy (2009- 2012).

2005: National Science Foundation, USA 2-month award.

2005: US-Egypt Science and Technology program 6-month award.

June 2003: Egyptian state prize in advanced technological sciences for the year 2002.

October 7th-10th, 2002: ASM International Materials Solutions Conference, Columbus, Ohio, USA.

2002: IB-BMBF Juelich, Germany one year award at IEHK, RWTH-Aachen, Germany.

October 2001 - December 2001: DAAD award at IEHK, RWTH-Aachen, Germany.

June 14th-20th, 2001: ACS NORM2001 Conference American Chemical Society, Seattle, WA, USA.

March 2001: CMRDI three weeks award at SMIC, Politecnico di Torino, Turin, Italy.

October 2000 - January 2001: Egyptian Government, Missions' Department award at LSG2M, EMN, Nancy, France.

May 1999: CMRDI three weeks award at SMIC, Politecnico di Torino, Turin, Italy.

1993-1995: Italian Ministry of Foreign Affairs award at SMIC, Politecnico di Torino, Turin, Italy.

Supervision of graduate students

15 completed and 8 ongoing

Hossam Halfa (MSc in Metallurgical Engineering, Completed),
Hassan El-Sentrisy (MSc in Chemistry, Completed),
Saeid Ghaly (MSc in Chemistry, Completed),
Hossam Halfa (PhD in Metallurgical Engineering, Completed),
Mohamed Kamal (MSc in Chemistry, Completed),
Saeid Ghaly (PhD in Chemistry, Completed),
Mohamed Kamal (PhD in Chemistry, Completed),
Haytham Abdel Rafea (PhD in Chemistry, Completed),
Eslam Ashmawy (MSc in Chemistry, Completed),
Ahmed Ramadan (PhD in Metallurgical Engineering, Completed),
Hassan Bahaa (MSc in Metallurgical Engineering, Completed),
Mohamed Esmaeil (MSc in Metallurgical Engineering, Completed),
Sherif Ali (PhD in Metallurgical Engineering, Completed),
Mohamed Abdel-Latif (MSc in Mechanical Engineering, Completed),
Ahmed Hamed (MSc in Chemistry, Completed),
Mohamed Salah Fahim (PhD in Chemistry, Completed),
Islam Mohamed Salem (MSc in Chemistry, Completed),
Randa Essam (MSc in Chemistry, Ongoing)
Hassan Bahaa (PhD in Chemical Engineering, Ongoing),
Salwa Mohamed Mahmoud (PhD in Chemistry, Ongoing)
Amr Ahmed (PhD in Metallurgical Engineering, Ongoing)
Mohamed Essam (PhD in Mechanical Engineering, Ongoing)
Noha Abdeltawab (PhD in Materials Science& Engineering, Ongoing)
Islam Mohamed Salem (PhD in Chemistry, Ongoing),

Research Projects

1. **Project:** Follow-up quality, control at El-Nasr Steel Pipes and Fittings Co., Helwan, Cairo, Egypt, 1990.
Sponsor: El-Nasr Steel Pipes & Fittings Co.
Position: Member of research team.
2. **Project:** Introduction of oxygen blowing technology in 25- tone EAF of Delta Steel Mill Co., Cairo, Egypt 1990
Sponsor: Delta Steel Mill Co.
Position: Member of research team.
3. **Project:** Study of Desulphurization Processes of Steel in OHF”, NAMTIN Co., Cairo, Egypt 1988-1990
Sponsor: NAMTIN Co. , Cairo, Egypt .
Position: Member of research team.
4. **Project:** Study of some technical defects of steel pipes, 1991.
Sponsor: El-Nasr Steel Pipes and Fittings Co., Cairo, Egypt.
Position: Member of research team.
5. **Project:** Production of high strength low alloy steels in open-hearth and electric arc furnaces, 1991.
Sponsor: NAMTIN Co., Cairo, Egypt.
Position: Member of research team.
6. **Project:** Implementation of water-cooled roof in 5-tone EAF, 1992.
Sponsor: Egyptian Iron and Steel Co., Cairo, Egypt.
Position: Member of research team.
7. **Project:** Follow-up quality control, Elnasr Steel Pipes and Fittings Co., Cairo, Egypt, 1992.
Sponsor: El-Nasr Steel Pipes & Fittings Co.
Position: Member of research team.
8. **Project:** Introduction of oxygen blowing technology in 36-tone EAF in the national company for metallurgical industries (NAMTIN), 1992.
Sponsor: NAMTIN Co., Cairo, Egypt.
Position: Member of research team.
9. **Project:** Production of ferroalloys from local resources, 1992.
Sponsor: Egyptian Academy of Scientific Research and Technology.
Position: Member of research Team.
10. **Project:** Production of specific grades of special steel in Delta steel mill company, 1992.
Sponsor: Egyptian Academy of Scientific Research and Technology.
Position: Member of research team.
11. **Project:** Implementation of water cooled walls (water cooling panels) in 25 tones electric arc furnace EAF, Nov. 1995.
Sponsor: Delta steel mill co. (Egypt) and MEFOS Institute (Sweden)
Position: Member of the research team
12. **Project:** Improvement of sugar steel chains in Hawmdia equipment’s factories.
Sponsor: Hawmdia equipment’s factories (HEF), Giza, Egypt, 1995
Position: Member of research team
13. **Project:** Productivity & quality improvements of ferromanganese production in Sinai Manganese Co., 1995.
Sponsor: Sinai Manganese Co.
Position: Member of research team.
14. **Project:** Follow-up quality control of steel pipes and tool steels at El-Nasr Steel Pipes and Fittings Co., Helwan, Cairo, Egypt, 1995 – 1996.
Sponsor: El-Nasr Steel Pipes & Fittings Co.
Position: Member of research team.

15. **Project:** Improvement of steel heat treatment shop in Hawamdia Equipment's Factories, 1996.
Sponsor: Hawmdia equipment's factories (HEF), Giza, Egypt.
Position: Member of research team.
16. **Project:** Productivity& quality improvements of ferromanganese production in Sinai Manganese Co., 1996.
Sponsor: Sinai Manganese Co.
Position: Member of research team.
17. **Project:** Implementation of water-cooled roof in 25 tones electric arc furnace EAF, Nov. 1996-1997.
Sponsor: Delta steel mill co. (Egypt) and MEFOS Institute (Sweden).
Position: Member of the research team.
18. **Project:** Improvement of steel grades used in chain manufacturing in Hawamdia Equipment's Factories, 1997.
Sponsor: Hawmdia equipment's factories (HEF), Giza, Egypt.
Position: Member of research team.
19. **Project:** Market& feasibility studies of Silicon Carbide manufacturing line, 1997.
Sponsor: HMEF, Hawmdia, Giza, Egypt.
Position: Responsible and designer of the study.
20. **Project:** Quality improvement of galvanization & heat treatment shops at El-Nasr Steel Pipes and Fittings Co., Helwan, Cairo, Egypt, 1997.
Sponsor: El-Nasr Steel Pipes & Fittings Co.
Position: Member of research team.
21. **Project: Steelmaking pollution control in Egyptian steel shops, 1997.**
Sponsor: Holding Company for Metallurgical Industries, Cairo, Egypt.
Position: Member of the research team.
22. **Project:** Market & Feasibility study for silicon carbide spare parts production line, 1997
Sponsor: Hawmdia equipment's factories (HEF), Giza, Egypt.
Position: Computer designer of the study
23. **Project:** Melting of steel tools at El-Nasr Steel Pipes and Fittings Co., Helwan, Cairo, Egypt, 1998.
Sponsor: El-Nasr Steel Pipes & Fittings Co.
Position: Member of research team.
24. **Project:** Productivity& quality improvements of ferromanganese production in Sinai Manganese Co., 1998.
Sponsor: Sinai Manganese Co.
Position: Member of research team.
25. **Project:** Improvement of steel grades used in chain manufacturing and optimization of tool steel grades in Hawamdia Equipment's Factories, 1998.
Sponsor: Hawmdia equipment's factories (HEF), Giza, Egypt.
Position: Member of research team.
26. **Project:** Market& Feasibility study for silicon manganese factory, 1998
Sponsor: Sinai Manganese Co.
Position: Computer designer of the study
27. **Project:** Production of steel shots, National Project, 1999
Sponsor: Egyptian Academy of Scientific Research and Technology.
Position: Member of research team
28. **Project:** Production of high strength steel for pre-stressed concrete National Project, 1999.
Sponsor: Egyptian Academy of Scientific Research and Technology.
Position: Member of research team.

29. **Project:** Production of Cored wire for powder alloying in steel making National Project, 2000.
Sponsor: Egyptian Academy of Scientific Research and Technology.
Position: Member of research team.
30. **Project:** Production Ferromanganese nitrogen alloy 2001
Sponsor: Egyptian Academy of Scientific Research and Technology.
Position: Member of research team.
31. **Project:** Investigation of Phase transformation, precipitation and recrystallisation in microalloyed steels, 2002-2005.
Sponsor: CMRDI- Cairo- Egypt; IEHK, RWTH- Aachen and IB-Juelich, BMBF- Germany.
Position: Principal Investigator (PI)
32. **Project:** Enhancing the properties of metals by laser surface treatment, 2004-2006.
Sponsor: Academy of Scientific Research and Technology, Egypt
Position: Co-Principal Investigator (Co-PI)
33. **Project:** Production of Quasicrystalline Materials, 2004-2006.
Sponsor: Central Metallurgical R&D Institute (CMRDI), Cairo, Egypt
Position: Principal Investigator (PI)
34. **Project:** Investigation of NMI-molten slag interaction using confocal laser scanning microscope, 2004-2005.
Sponsor: ASRT (Egypt), NSF (USA) and CMU (PGH, PA, USA)
Position: Principal Investigator (PI)
35. **Project:** Investigation the transformation and precipitations in nitrogen alloyed steels using confocal laser scanning microscope, 2005-2006.
Sponsor: MSE, CMU, PGH, PA, USA
Position: Principal Investigator (PI)
36. **Project:** Decarburization and nitriding of ferromanganese fine in the solid state, 2004- 06
Sponsor: ASRT (Egypt), BAS (Bulgaria)
Position: Member of research team.
37. **Project: Development of metallic interconnects for solid oxide fuel cells (SOFC'S), 2006-2008.**
Sponsor: Arab Science and Technology Fund (ASTF), UAE
Position: Principal Investigator (PI)
38. **Project: TRIP and TWIP steel production, 2006-2008**
Sponsor: Central Metallurgical R&D Institute (CMRDI), Cairo, Egypt
Position: Principal Investigator (PI)
39. **Project:** Micro and nano structured steel surfaces by Laser surface alloying, 2007- 2009
Sponsor: AUC, Cairo, Egypt.
Position: Co-Principal Investigator
40. **Project:** Hydrogen storage Materials, 2007- 2009
Sponsor: AUC, Cairo, Egypt
Position: Co- Principal Investigator
41. **Project: EC_JEP_DIMPTOT_2005, 2007-2010**
Sponsor: EC
Position: Project Coordinator
42. **Project:** Implication of the Arab scientific community in the process of decision making, 2009-2010.
Sponsor: ASTF and AECI
Position: Egyptian representative
43. **Project:** Measures of support to the innovation of Arab Small and Medium Enterprises, 2009-2010.
Sponsor: ASTF and AECI
Position: Egyptian representative

44. **Project:** Investigation of the metal- gas interaction in the conditions of levitation melting under pressure, 2009-2013.
Sponsor: Egypt- Bulgaria Scientific Program
Position: Co-PI
45. **Project:** Establishment of Technology Transfer Office at Heliopolis University for Sustainable Development.
Sponsor: ASRT- Egypt, 2013-2016
Position: PI
46. **Project:** Technology package and know- how transfer of tool steel production.
Sponsor: STDF- Egypt Program, 2015
Position: PI
47. **Project:** Production of Ferrosilicon- Aluminum alloy from waste and low grade local ores.
Sponsor: STDF- Egypt Program, 2015.
Position: Co-PI
48. **Project:** Technology transfer of steel shots and steel grits production to the industry.
Sponsor: STDF- Egypt Program, 2015
Position: Co-PI
49. **Project:** Know- how of ultra-fine high strength- high-toughness and Impact strength economic steel.
Sponsor: STDF- Egypt Program, 2015
Position: Co-PI
50. **Project:** Technology transfer of nanotechnology and nanoinoculation in steelmaking.
Sponsor: ASRT- Egypt/ Bulgaria Program, 2016-2019
Position: PI
51. **Project:** Improving and developing solid oxide fuel cells via metallic interconnects.
Sponsor: ASRT- Egypt/ Italy Program, 2016-2019
Position: PI
52. **Project:** Deepening the local manufacturing in Egypt.
Sponsor: ASRT, Egypt - Knowledge and Technological Alliances (KTA), 2016-2018
Position: Track5-PI
53. **Project:** Knowledge &Technology Alliance in Chemical Industry- Deepening the local manufacturing of mineral resources in Sinai for developing the chemical industry in Egypt
54. **Sponsor:** ASRT, Egypt- Knowledge and Technological Alliances (KTA), 2017-2019
Position: WP4-PI
55. **Project:** Knowledge &Technology Alliance for Renewable- Energy- RENERGY
Sponsor: ASRT, Egypt - Knowledge and Technological Alliances (KTA), 2017-2019
Position: WP4 PI- Alliance PI is BUE
56. **Project:** InnoEgypt, Inncubate Your Idea, <https://eu-innoegypt.net/>
Sponsor: Europe Aid, TVET Phase II, 2017-2020
Position: Technical committee member
57. **Project:** Hydrogen Embrittlement in steel.
Sponsor: JESOR- ASRT program, 2018
Position: Co-PI
58. **Project:** Knowledge &Technology Alliance for Renewable Energy Alliance for Made in Egypt, Real-EG.
Sponsor: ASRT, Egypt - Knowledge and Technological Alliances (KTA), 2018-2020
Position: WP4-PI- Alliance PI is Helwan University
59. **Project:** Affordable resources for Egypt Industrial Growth (RIndustry)
Sponsor: EuropeAid- Lot 3 (2019-2022)
Position: CMRDI Project Manager
60. **Project:** Designing and manufacturing of Egyptian mining crusher for Ferroalloys.
Sponsor: STIFA- Egypt, DDP Program, 2021
Position: Co-PI

Publications

1. K.A. M. El Fawakhry, M.L. Mishreky, M.M. Eissa and **Taha Mattar**; "Behavior of sulphur in basic open-hearth furnaces" Middle East Sulphur symposium, NRC, Cairo, Egypt, 12-16 Feb.1990.
2. K.A. M. El Fawakhry, M.L. Mishreky, M.M. Eissa and **Taha Mattar**; "Study of Parameters affect the Dephosphorization process of steel in open-hearth furnaces ", 3_{rd} Mining, Petroleum and Metallurgy Conference, MPM, Faculty of Engineering, Cairo University; Giza, Egypt, 2-4 Feb. 1992.
3. Usama Rahoma and **Taha Mattar**; "Effect of Steelmaking industrial pollutants on Solar Energy Performance", Air pollution conference, Riyadh, Saudi Arabia Kingdom, June 1997.
4. **Taha Mattar** and Usama Rahoma; "Environmental pollution impact of ferromanganese industry and its effect on solar spectrum" 6th International conference on Energy and Environment EE6, May 1998.
5. Kamal Elfawakhry, Micheal Mishreky, Mamdouh Eissa, Hoda Elfaramawy and **Taha Mattar**; "Implementation of water cooled system in small and medium electric arc furnace in Egypt" AISU 2nd International Symposium on Electric Furnace, Arab Iron and Steel Union, Damascus, Syria, October 18-20, 1998.
6. Kamal Elfawakhry, Micheal Mishreky, Mamdouh Eissa, Hoda Elfaramawy and **Taha Mattar**; "Efficiency of cooled systems in small and medium electric arc furnaces", 56th Electric arc furnaces conference, N.O., LA, USA, November 15-18, 1998.
7. **Taha Mattar**, Mamdouh Eissa and Kamal El Fawakhry;"Nitrogen behavior during Electro-slag remelting (ESR) of tool steels" 5th International tooling conference, Leoben, Austria, Sep. 29th - Oct. 1st, 1999.
8. **Taha Mattar**, Hoda El Faramawy, Ayman Fathy, Mamdouh Eissa and Kamal El Fawakhry; "Optimization of desulphurization of tool steels during EAF and ESR processes", Metal2001, Ostrava, Czech Republic, May 15th -17th, 2001.
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