



خطة البحث العلمي للأكاديمية المصرية للهندسة والتكنولوجيا المتقدمة (٢٠٢١-٢٠٢٦)

١- أهداف الخطة البحثية للقطاع الهندسي بالأكاديمية: 2021 - 2026

- ACA 1: Develop innovative ideas in mathematics, physics, and chemistry.
- ACA 2: Develop innovative ideas in science and nanotechnology.
- ACA 3: Evaluate design and technology using labs, tools and user's response.
- ACA 4: Initiate a comprehensive understanding of past and present practices in design and their effect on society as a background for future development.
- ACA 5: Develop innovative ideas in material, reaction, separation, and Chemical Process engineering.
- ACA 6: Develop innovative ideas in electronics, communication, and radar systems.
- ACA 7: Develop innovative ideas in signal, image, and compressive sensing.
- ACA 8: Interaction with the community and the surrounding environment through participation in solving their problems using technology.
- ACA 9: Use of modern technologies to deal with companies and institutions in the formulations of programs for professional intervention with contemporary problems in the industry.
- ACA10: Design of automatic control systems satisfying the needs of local industries.
- ACA11: Develop innovative ideas for Generating and consumption energy in various industries.
- ACA12: Develop innovative ideas in water treatment and reuse.
- ACA13: develop innovative techniques for solid waste management.



٢- محاور واتجاهات الخطة البحثية لقسم العلوم الأساسية: 2021 - 2026

Mathematics

Math. 1 Pure Mathematics

Math. 2 Applied Mathematics

Physics

Ph. 1 Electronics physics and its applications in renewable energy especially in solar cell

Ph. 2 Plasma physics and its applications in Environmental and industry.

Ph. 3 Space science and astrophysics and its applications in space weather.

Chemistry

Chem. 1 Inorganic and analytical chemistry and their versatile applications in science & engineering aspects.

Chem. 2 Material science and nanotechnology.

Chem. 3 Environmental chemistry.



3- مصفوفة ارتباط الأهداف البحثية لقسم هندسة العلوم الأساسية بالأهداف البحثية للاكاديمية:
2026 - 2021

	Ac 1	Ac 2	Ac 3	Ac 4	Ac 5	Ac 6	Ac 7	Ac 8	Ac 9	Ac 10	Ac 11	Ac 12	Ac 13
Math. 1	x		x					x					
Math. 2	x		x					x					
Ph. 1	x		x			x		x					
Ph. 2	x		x					x					
Ph. 3	x		x					x					
Chem. 1	x		x					x					
Chem. 2	x	x	x					x					
Chem. 3	x		x					x					