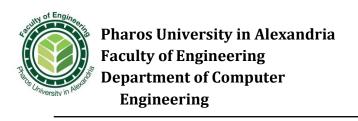# *Distinctive Features of the Program Supporting Its Competitive Position:*

The Computer Engineering program is distinguished by several features that support its competitive position compared to other programs within the same institution and similar institutions. The key distinctive features are as follows:

● **Specialized Academic Entity**: The program has a specialized academic entity that teaches unique and specialized courses in Computer Engineering, distinguishing its graduates from those in similar programs. Examples of these courses include: (Electronics, Embedded Computer Security, Intelligent Systems, Introduction To Computer Vision, Introduction To Robotics, Computer Graphics and Visualization, and Digital Image Processing).

● **Interactive Teaching Methods**: The program relies on interactive learning, research, efficient teamwork, and continuous follow-up, using up-to-date textbooks. This approach ensures that graduates are capable of self-learning and innovation.

● **Community Service and Environmental Development**: The program focuses on finding scientific solutions to societal problems related to the specialization through community-based research projects.

● **Collaborations with Companies and Institutions**: The program has agreements and protocols with various companies and institutions for field visits and student training in modern technological fields. Some partners also participate in teaching specialized courses to align the program's content with market needs and transfer expertise. Examples include: (Ethydco, Sidpec, Egyptian Petrochemicals Company(EPROM), Egypt Experts for Software and Hardware, AMOC, Arab Organization for Industrialization, Alexandria Fertilizers Company, Telecom Egypt, Alexandria Electricity Distribution Company, Lake Company, Enerbek, ASPEC, Runprof LLC.

● **International Agreement**: The program agrees with the Royal Institute of Technology in Sweden (PUA/KTH) to accredit the Computer Engineering program's bachelor's degree awarded by Pharos University in Alexandria according to Swedish education quality standards. This agreement has resulted in the exchange of faculty members and students to study some courses at the Royal Institute of Technology.

● **Use of Technology**: The program uses the Blackboard platform for course management and a hybrid learning system. It also employs the Power Campus Self-Service software system for managing information in academic programs.

● **Strategic Location**: The college is located in the heart of Pharos University in Alexandria, close to all university services, saving time and effort for all educational process participants. Services include: (Computer Center, Language and Translation Center, Commercial International Bank (CIB), University Printing Press, Medical Clinic, Study Hall, Cafeteria with a food court, Sports fields (football, basketball, volleyball, handball,

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Pharos University in Alexandria
Faculty of Engineering
Department of Computer
Engineering

جامعة فاروس بالإسكندرية
كلية الهندسة
قسم هندسه الحاسب

tennis),Seminar Hall, Theater).

● **Continuous Development**: The program includes a Center for Educational Development to enhance the skills of faculty members, a Business Incubator, a Career Preparation and Entrepreneurship Center, and an Innovations Club.

● **Modern Facilities**: The program boasts well-equipped classrooms, lecture halls, and modern laboratories in artificial intelligence and embedded systems.

● **Small Class Sizes:** The program ensures small class sizes in lectures, exercises, and labs to maximize student benefit through direct and continuous interaction with faculty members and teaching assistants.

● **Student Support**: There is a committee to monitor and assist struggling students to help them overcome academic difficulties.

● **Participation in Scientific Competitions**: The program encourages participation in scientific competitions.

● **Continuously develops teaching and learning methods.**

● **Research Focus**: The program engages in new research fields aligned with Egypt's 2030 research strategy, including artificial intelligence applications, deep learning applications, and Internet of Things applications.

● **Modern Future Sciences Axis**: Applications of Artificial Intelligence, Deep Learning, and Internet of Things.

● **Distinctive Research Schools**: The program forms research schools with unique patterns and features in networks, robotics, artificial intelligence, Internet of Things, intelligent systems, embedded systems, security systems, design, operating systems, medical devices, and computerized medical systems.