



# THE Impact Ranking SDG9 Report

SDG

9

Industry, Innovation  
and Infrastructure



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## SDG9: Industry Innovation and Infra structure Events

### 9.1 Protocol on Cooperation Between PUA and ANRPC

<https://www.pua.edu.eg/protocol-on-cooperation-between-pua-and-anrpc/>

Highly ranked delegation from Alexandria National Refine & Petrochemical Company (ANRPC) visited PUA on Wednesday, March 9th, 2022. The delegation was headed by Chem. Salah Gaber Bahnasy, Chairman and Managing Director. It also included Eng. Ghada Abdul Hameed, Technical Office Director-General, Acc. Mohammad Ali Assi, Assistant Director for Financial Affairs, Chem. Essam Qabari, Director-General of Industrial Safety, Chem. Hany Mahmoud, Director-General of Operations, Mr. Abdul Latif Nazrah, Director-General of Public Relations. The delegation was welcomed in PUA's Council Hall in 3rd floor by Prof. Dr. Mahmoud Mohy El Din, PUA's President, Prof. Dr. Ramadan Abu El Ella, Vice-President for Community Service and Environment Development, Prof. Dr. Abbas Anwar, Head of Petrochemical Engineering, Prof. Dr. Mohammad Yehia Al Mekki, Lecturer in the Faculty of Engineering, Chem. Hossam Anwar, Lecturer in Petrochemical Engineering Department, and Dr. Fathy Lecturer in Petrochemical Engineering Department.

Both parties discussed the possibilities of mutual cooperation in the training field and participation in solving the technical issues, to which PUA can help find practical solution. Further, both parties agreed on the necessity of optimal utilization of the possibilities available to each respective party in conformity with the state's strategy in terms of connecting the industrial institutions with production sites, and the Egyptian scientific and academic institutions to achieve the developmental objectives of the Egyptian society. To this end, both parties agreed on a protocol on cooperation that was signed by Prof. Dr. Mahmoud Mohy El-Din, as PUA President and Chem. Salah Gaber Bahnasy, as Chairman and Managing Director of ANRPC.



## 9.2 Faculty of Engineering Organizes a Workshop: Industry 4.0 and Digital Twinning in Effective Teaching

<https://www.pua.edu.eg/faculty-of-engineering-organizes-a-workshop-industry-4-0-and-digital-twinning-in-effective-teaching/>

Due to the implications of industry 4.0, major changes occurred to the businesses that strongly affected manufacturing processes and competitive features of local and international companies, industries, and systems.

In this regard, Faculty of Engineering, PUA organized a workshop that aims at contributing in the discussion on the effect of Industry 4.0 through surveying academic and industrial viewpoints. This can be done through the application of the technologies of the 21st century Industry 4.0. These technologies include Smart Manufacturing, Industrial Internet of Things, PC-based Controls, Autonomous Things (AuT), AR/VR, Artificial Things, which are considered the core of Industry 4.0.



### 9.3 PUA's Faculty of Engineering Sign a Cooperation Protocol with TÜV AUSTRIA

<https://www.pua.edu.eg/puas-faculty-of-engineering-sign-a-cooperation-protocol-with-tuv-austria/>

In the context of supporting the academic study of the Faculty students, providing them with practical and field experiences, and linking the curricula with industrial fields to achieve the sought integration, Prof. Dr. Mohamed Gaber Abou Ali, Dean of the Faculty of Engineering along with a group of the Faculty professors welcomed Mr. Osama El-Sayed Ibrahim, Regional Director of TÜV AUSTRIA, on Wednesday, January 26, 2022. The meeting included the signing of a cooperation protocol between PUA's Faculty of Engineering and TÜV Austria.

In addition, during this meeting, aspects of cooperation between the two parties were tackled. These aspects included providing training opportunities and specialized workshops for the faculty students, providing experienced staff to supervise the students' research and projects at the Faculty, which would provide solutions to some of the industry's problems. In a similar context, the Faculty organizes training programs, workshops, conferences and seminars for the company's employees. It also provides academic consultations in light of the experience of its professors to solve some of the company's problems, which requires conducting research and studies in this regard.





#### 9.4 PUA Signs a Protocol on Cooperation with Alexandria Specialty Petroleum Products Company (ASPPC)

<https://www.pua.edu.eg/pua-signs-a-protocol-on-cooperation-with-alexandria-specialty-petroleum-products-company-asppc/>

On Early Tuesday, 22 Feb 2022, a high-ranking delegation of Alexandria Specialty Petroleum Products Company (ASPPC) visited PUA. The delegation was headed by Chem. Dr. Mosaad Attia Al Qasabi, Chairman and Managing Director. The delegation also included Eng. Eid Qassim, Assistant Director of Production, Eng. Ayman Hegazi, Assistant Director of Technical Affairs, Dr. Tariq Abbas, Assistant Director of Marketing, Acc. Ez Abdul Salam, Director-General of Supplies, Dr. Bassim Abdullah, Director-General of Technology and Development.

The delegation was hosted in PUA's Grand Hall by Prof. Dr. Mahmoud Mohy El-Din, President, Prof. Ramadan Abu El-Ala, Vice President of Community Service & Environment Development Affairs, Prof. Dr. Prof. Mohamed Gaber Abou Ali, Dean of the Faculty of Engineering, Prof. Dr. Gamal Elbhery, Dean of the Faculty of Computer Science & Artificial Intelligence, Prof. Dr. Mohamed Yahia Al Mekki, Professor of Engineering, and a number of faculty members of the Faculty of Engineering.

Both parties discussed mutual cooperation possibilities in training fields, and participating in solving the technical issues, to which PUA can contribute in finding practical solutions. Thus, the parties agreed on the necessity of the optimal use of each party's available capabilities in a manner compliant with the state's strategy in terms of connecting the industrial institutions with production sites, and the Egyptian scientific and academic institutions to achieve the developmental objectives of the Egyptian society. To this end, both parties agreed on a protocol on cooperation that was signed by Prof. Dr. Mahmoud Mohy El-Din, as PUA President and Chem. Dr. Mosaad Attia Al Qasabi, as Chairman and Managing Director of Alexandria Specialty Petroleum Products Company (ASPPC).





## 9.5 Protocol on Cooperation Between PUA and Alexandria Mineral Oils Company (AMOC)

<https://www.pua.edu.eg/protocol-on-cooperation-between-pua-and-alexandria-mineral-oils-company-amoc/>

A prestigious delegation from Alexandria Mineral Oils Company (AMOC) headed by Chem. Ehab Ahmed Abdul Halim, Chairman and Managing Director, visited PUA on early Monday 07/02/2022. It included Mrs. Hala Wagih, Assistant Director for Training and Human Resources Development, Mrs. Rania Al Maleki, Director-General for Media and External Affairs, Eng. Mohammad Abdul Razaq, Director-General of the Public Administration for Chemical Labs, along with other leading staff members. The delegation was welcomed in PUA's Grand Hall by Prof. Dr. Ramadan Abu Al Ella, Vice-president for Community Services and Environment Development, Prof. Dr. Mohamed Gaber Abou Ali, Dean of the Faculty of Engineering, Prof. Dr. Gamal Behiry, Dean of the Faculty of Computer Science and



Artificial Intelligence, Prof. Dr. Mohammad Yahia Al Mekki, Faculty of Engineering, as well as other faculty members of the Faculty of Engineering.

Both Parties have tackled the prospects of mutual cooperation in training fields, and participation in solving the technical issues, to which PUA can contribute in finding practical solutions. Accordingly, both parties have agreed on making optimal use of their respective capabilities in a manner compliant with the state's strategy in terms of connecting industrial institutions and productions sites, with the Egyptian Scientific and Academic Institutions to achieve the developmental objectives of the Egyptian society. To achieve that, a protocol on cooperation has been signed by Prof. Dr. Ramadan Abu Al Ella, as PUA's Vice-president for Community Services and Environment Development and Chem. Ehab Ahmed Abdul Halim, as Chairman and Managing Director of Alexandria Mineral Oils Company (AMOC).





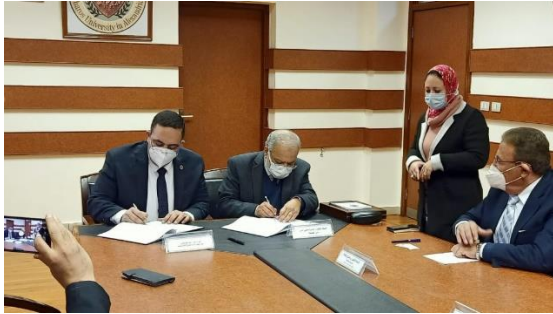
## 9.6 Cooperation Protocol between Pharos University and Arab Organization for Industrialization

<https://www.pua.edu.eg/cooperation-protocol-between-pharos-university-and-arab-organization-for-industrialization/>

A high-level delegation from the Arab Organization for Industrialization visited Pharos University (P.U.A), and the delegation was headed by Major General /Ahmed Abdel Aziz – chairman of the board of directors of the electronics factory in the organization. The delegation included Dr. Essam Mansour – Advisor to the chairman of the board of directors of the electronics factory and Eng. Ashraf Khalil – head of the Human Resources sector. The two parties discussed the possibilities of cooperation in the fields of scientific research, training and participation in solving technical problems for the sake of carrying out research and patents and benefiting from the scientific and human capabilities at Pharos university and the Arab Organization for Industrialization. The delegation was received by Prof. / Mahmoud Mohy Al-Din – President of the University, Prof. /Ramadan Abu Al-Ela – Vice President for Community Service and Environmental Development Affairs, Prof. / Mohammed Gabar Abo Ali Faculty of Engineering Dean, Prof. / Mohammed Naem Faculty of Engineering Vice Dean, and Prof./ Mohammed Yahia Al-Makki Professor at the Faculty of Engineering, and a number of teaching staff committee at the Faculty. Both parties agreed on the optimal use of the resources to move to the rank of developed countries and achieving the developmental desired aims of the Egyptian society and to accomplish the above the both parties signed a cooperation protocol signed by Prof./ Mahmoud Mohy El-Din as a Pharos University President Also Major General/ Ahmed Abdel Aziz – authorized by Lieutenant General chairman of the organization







## 9.7 Cooperation Protocol between Pharos University and Electronic Researches Institute

<https://www.pua.edu.eg/cooperation-protocol-between-pharos-university-and-electronic-researches-institute/>

Implementing to what agreed on between Pharos University and Electronic Researches Institute during a visit of delegation headed by Dr./ Shereen Abd Al-Qadar – in charge of institute president to Pharos university and that on Wednesday 17/11/2021, and high delegation from Pharos university headed by Dr./ Ramadan Abo Al-Alaa University Vice President for Society Service Affairs visited the institute on Tuesday 14/12/2021. And the delegation included: Prof./ Mohammed Gabar – Engineering Faculty Dean and Prof./ Mohammed Naem – Vice Dean of Engineering faculty- Prof./ Mohammed Abd Al-Rahman – Electric Engineering head of department and Dr./ Nabil Rashwan teacher at Electronic Engineering department. And the delegation was received by Dr./ Shereen Abd Al-Qadar – in charge of



institute president and the visit was done by: Dr. Ahmed Attia – in charge of Microwave Engineering head of department and Dr./ Magad Naqib –High Energy head of department and Dr./ Ghada Farouq – In charge of information researches head of department, and Dr./ Haitham Husien Abd Alluah Professor at microwave department and Eng./ Sameer Husien head of central laboratories at the institute. And the university delegation inspected the central laboratories and the specialized laboratories (Nano Technology, Precise Electronics, photonic cells and high energy) as well the building of the emerging companies and business leading building, the both parties agreed on that the cooperation will be on different axes including student training in the institute laboratory and supervision and following up the graduation projects. Also the business leading technological incubators in the electronic and communication field and information technology to expand the cooperation foundation in the industry and implement projects and researches to serve the community.





## 9.8 Pharos University to Foster Ties with the Industrial Modernization Centre

<https://www.pua.edu.eg/pharos-university-to-foster-ties-with-the-industrial-modernization-centre/>

Prof. Ramadan Abu El-Ala, the Vice President of Community Service and Environment Development Affairs, along with Prof. Hana Yassin, the Dean of the Faculty of Arts and Design- Pharos University held a meeting with some representatives of both branches of the Industrial Modernization Centre (IMC) in Cairo and Alexandria and the Coordinator of the Innovation Programmes in Nile University and NilePreneurs Initiative. The distinguished guests included the following:

1. Hisham Mohamed Sayed Basha, the Deputy Director of the Industrial Modernization Centre (IMC)
2. Ahmed Hossam El Din, an expert in business development
3. Ibrahim Atashy Ibrahim, the Head of the Industrial Modernization Centre (IMC) in Borg Al Arab – Alexandria
4. Mohamed Abbas Gomaa, the Coordinator of the Innovation and Technological Incubators Programme.

This was held in the presence of Dr. Shaimaa Khodair, the Head of the Training Unit at the faculty of Arts and Design. During the meeting, means of cooperation were sought between Pharos University on one side and the Industrial Modernization Centre (IMC) and the whole industrial sector in Alexandria on the other side, in



concern with the realm of field training as well as the implementation of the students' graduation projects. It was also discussed the possibility of the participation of Pharos University in providing solutions to some of the problems encountered by the industrial sector in Alexandria. At the end of the meeting, Prof. Ramadan Abo El-Ala called for another meeting between Pharos University and the Industrial Modernization Centre (IMC) to work on achieving the goals of the community service sector in Pharos University and finding solutions for the problems of the industrial sector in Alexandria.







### Industry Innovation and Infra structure Publications:

No.	TITLE/YEAR/AUTHORS	DOI
1	Investigation of physical, mechanical and gamma-ray shielding properties using ceramic tiles incorporated with powdered lead oxide 2020 Ceramics International	10.1016/j.ceramint.2020.03.119
	Mahmoud, M.E.   El-Khatib, A.M.   Halbas, A.M.   El-Sharkawy, R.M.	
	Pharos University in Alexandria   Alexandria University	
2	Oil spill clean-up using combined sorbents: a comparative investigation and design aspects 2020 International Journal of Environmental Analytical Chemistry	10.1080/03067319.2019.1636976
	Tayeb, A.M.   Farouq, R.   Mohamed, O.A.   Tony, M.A.	
	Menoufia University   Pharos University in Alexandria   Minia University   Port Said University	
3	Towards a secure signature scheme based on multimodal biometric technology: Application for iot blockchain network 2020 Symmetry	10.3390/sym12101699
	Hassen, O.A.   Abdulhusein, A.A.   Darwish, S.M.   Othman, Z.A.   Tiun, S.   Lotfy, Y.A.	
	Universiti Kebangsaan Malaysia   Pharos University in Alexandria   Alexandria University   Ministry of Education, Iraq	
4	Functionalization of CeO <sub>2</sub> -SiO <sub>2</sub> -(CH <sub>2</sub> ) <sub>3</sub> -Cl nanoparticles with sodium alginate for enhanced and effective Cd <sup>II</sup> , Pb <sup>II</sup> , and Zn <sup>II</sup> ions removal by microwave irradiation and adsorption technique 2020 Environmental Nanotechnology, Monitoring and Management	10.1016/j.enmm.2020.100367
	El-Sharkawy, R.M.   Allam, E.A.   Mahmoud, M.E.	
	Pharos University in Alexandria   Alexandria University	
5	Applicability of Using Natural Fibers for Reinforcing Concrete 2020 IOP Conference Series: Materials Science and Engineering	10.1088/1757-899X/809/1/012018
	El-Nadoury, W.W.	
	Pharos University in Alexandria	



No.	TITLE/YEAR/AUTHORS	DOI
6	Nano-manganese oxide-functionalized-oleyl amine as a simple and low cost nanosorbent for remediation of ZnII/CoII and their radioactive nuclides 65Zn and 60Co from water 2020 Applied Radiation and Isotopes	10.1016/j.apradiso.2019.108989
	Mahmoud, M.E.   Allam, E.A.   El-Sharkawy, R.M.   Soliman, M.A.   Saad, E.A.   El-Khatib, A.M.	
	Ain Shams University   Pharos University in Alexandria   Egyptian Atomic Energy Authority   Alexandria University	
7	Validated specific HPLC-DAD method for simultaneous estimation of paracetamol and chlorzoxazone in the presence of five of their degradation products and toxic impurities 2020 Drug Development and Industrial Pharmacy	10.1080/03639045.2020.1821054
	El-Yazbi, A.F.   Guirguis, K.M.   Bedair, M.M.   Belal, T.S.	
	Pharos University in Alexandria   Alexandria University	
8	Optimization of photocatalytic degradation of methylene blue dye using titanate nanotube 2020 Journal of Nanophotonics	10.1117/1.JNP.14.026008
	Tayeb, A.M.   Hussein, D.S.   Farouq, R.	
	Pharos University in Alexandria   Minia University	
9	A flexible ergonomic redesign of the sewing machine workstation 2020 Research Journal of Textile and Apparel	10.1108/RJTA-10-2019-0050
	Eladly, A.M.   Abou-Ali, M.G.   Sheta, A.M.   EL-Ghlomy, S.H.	
	Pharos University in Alexandria   Alexandria University	
10	Business trends: Application of blockchain technology in the petrochemical industry 2020 Hydrocarbon Processing	-
	Ezzat, A.A.	
	Pharos University in Alexandria	
11	H-Seed: Vision for smart city 2020 WIT Transactions on Ecology and the Environment	10.2495/SDP200091
	Shehata, H.M.   Bakr, A.F.   Hassan, A.	
	Pharos University in Alexandria   Alexandria University	



### Industry Innovation and Infra structure Courses:

No	Faculty in Pharos University	Course name	Course code	SDG of relevance	Topics in each course
1	Pharmacy	Good Manufacturing Practices	PPC E02	SDG9	Responsible production consumption techniques in pharmaceutical industry
2	Tourism	Entrepreneurship in Hospitality Industry (Elective)		SDG9	Economic growth and partnership with tourism companies