#### الدكتور فاخر جبر مصطفى عكور

# [ الأستاذ المشارك في جودة البيئة]

#### المؤهلات والشهادات العلمية

1989	الهندسة الزراعية / انتاج نباتي	رجة البكالوريوس في الانتاج النباتي. الجامعة الأردنية – عمان – الأردن
2000	تقييم الأثر البيئي: مراجعة الحسابات البيئية، والرصد والتقييم البيئي	درجة الماجستير في جودة البيئة / جامعة مورسيا - اسبانيا
2002	تقييم مدى تدهور وتلوث التربة "تربة البحر الأبيض المتوسط الحمراء بالأملاح والمعادن الثقيلة في أنسجة النبات المختلفة ".	درحة الدكتوراه في جودة البيئة : الكيمياء الزراعية بتقدير ممتاز مع مرتبة الشرف. جامعة مورسيا - اسبانيا

\_

- الوظيفة السابقة: خبير، رئيس قسم العلوم البيولوجية والبيئة. الوكالة العربية للطاقة الذرية. تونس.
  - الوظيفة الحالية: أستاذ مشارك كلية. الموارد الطبيعية والبيئة، قسم إدارة الأراضي والبيئة.

# الوظائف الأكاديمية:

- استاذ مشارك. قسم ادارة الأراضى والبيئة. كلية الموارد الطبيعية والبيئة الجامعة الهاشمية
- · أستاذ مساعد أ(.March 2009-August 2014). قسم ادارة الأراضي والبيئة. كلية الموارد الطبيعية والبيئة الجامعة الهاشمية
- أستاذ مساعد ب. (Feb. 2008- March 2009). قسم ادارة الأراضي والبيئة. كلية الموارد الطبيعية والبيئة الجامعة الهاشمية
- محاضر متفرغ .(September 2003 Feb. 2008). قسم ادارة الأراضي والبيئة. كلية الموارد الطبيعية والبيئة الجامعة الهاشمية
- محاضر غير متفرغ. الفصل الدراسي الأول January 2002 September. قسم ادارة الأراضي والبيئة . كلية الموارد الطبيعية والبيئة الجامعة الهاشمية

- محاضر غير متفرغ. الفصل الدراسي الثاني January 2003 May. قسم ادارة الأراضي والبيئة . كلية الموارد الطبيعية والبيئة الجامعة الهاشمية .
- محاضر غير متفرغ. الفصل الدراسي الأول May 2002 September. قسم علوم البيئة كلية العلوم جامعة العلوم والتكنولوجيا الأردنية.

### الخبرات الإدارية

- رئيس قسم ادارة الأراضي والبيئة كلية الموارد الطبيعية والبيئة. الجامعة الهاشمية.
  - مساعد عميد كلية الموارد الطبيعية والبيئة الجامعة الهاشمية.
  - خبير، رئيس قسم العلوم البيولوجية والبيئة. الوكالة العربية للطاقة الذرية. تونس

### الجمعيات المهنية والفخرية

- نقابة المهندسين الزر اعيين الأر دنيين
- الجمعية الأردنية لمكافحة التصحر وتنمية البادية الأردنية
  - الجمعية الأردنية للزراعة العضوية
  - والشبكة الدولية للتصحر DesertNet
  - الاتحاد الدولي لحفظ الطبيعة (IUCN)
  - ISFAE الاتحاد الدولي للغذاء والزراعة والبيئة -

## منشورات ما قبل الدكتوراة والمؤتمرات العلمية والعالمية

- i. Chemical Degradation of Soils caused by Agronomical Practices:
   Topographic Influence. Conference: ISCO 2000. Buenos Aires Argentina.
- ii. Influencia de la Topografia en el Estudio de la Contaminacion por sales en climas Semiaridas (Influence of Topography on the study of Contamination by

Salts in Semi-arid Climate). Conference: 11th international Soil Conservation Organization Conference. ISCO/2000 - Buenos Aires – Argentina. 2000.

- iii. Heramientos para el desarrollo de la metodologia de proteccion de Lugares de Interes Geologico en el Municipio de Jumilla (Tools for the development of the methodology of protection of places of Geologic Interest in the Jumilla municipality (Autonomous Community of the Region of Murcia)). Conference: V National Meeting of the Commission of Geologic Patrimony of the Geologic Society of Spain. 2001. Molina of Segura–Murcia Spain.
- iv. Evaluation of the assimilation of heavy metals by plants in Red Mediterranean soils. Conference: 15th International Symptoms on Environmental Biogeochemistry. Biochemical Processes and Cycling of elements in the Environment. ISEB. 2001. Wroclaw Poland.
  - v. Evaluation of the hydric dispersion of Pb, Zn and Cd in abandoned mining areas. Conference: Sixth international Conference on Biochemistry of traces elements. 2001. Guelph Canada.

vi. Evaluacion del riesgo de asimilacion de metales pesados por las plantas en suelos de influencie minera (Evaluation of the risk of assimilation of heavy metals by the plants in soils of mining influence). Conference: VIII National Symposium - IV Iberian on Mineral Nutrition of the Plants: Mineral Nutrition in a sustainable Mediterranean Agriculture. 2001. Molina De Segura - Murcia - Spain. vii. Nitrate distribution in Mediterranean red soils in the 'Campo de Cartagena': topographic influence. Conference: international symposium on sustainable uses and

management of soils in arid and semi-arid regions –2002. Cartagena - Murcia – Spain.

viii. National Conference in Jarash University: Environmental Legislation conference. Lecture about: Human Rights from Environmental point of View.

## المنشورات العلمية في المجلات العلمية العالمية المحكمة والمفهرسة

- 1- H.M.Saoub, M.K.J. El-Shatnawi, I.M. Makhadmeh, N.I. Haddad and Fakher J. Aukour. Clipping of Avena sterilis under sub-humid Mediterranean conditions. Crop Research Journal (Vol. 29, No. 1, 2005).
- 2- Munir J. Mohammad, Lee K. Heng, and Fakher J. Aukour. Barley Productivity, Carbon Isotope Discrimination and Nitrogen Utilization Efficiency as Affected by Moisture Levels in Jordan. Journal of Agricultural Sciences, Vol. 3, No. 1, 2007.
- 3- Fakher J. Aukour. Changes take place in Health Care Waste Management practices through theoretical plan adoption and application. Umm Al-Qura Univ. J. Sci. Med. Eng. Vol.20 No.1. P61-77. 2008
- 4- Fakher J. Aukour and Mohammad Al-Qinna. Marble Production and Environmental Constrains: Case Study from Zarqa Governate in Jordan 2007- The Jordanian Journal of Earth and Environmental Sciences. 2008.
- 5- Fakher J. Aukour. Feasibility Study of Manufacturing Eco- Blocks Concrete Using Marble Sludge powder as Raw Materials. Oral presentation in Fourth International Conference on Sustainable Development and Planning. Cyprus. May 2009.

- 6- Abdul Latief A. Al-Ghzawi, Emad Bsoul, Fakher aukour, Zakaria AlAjlouni, Maram Al-Azzam and Mohammad M. Ajlouni. Genetic Variation for Quantitative Traits In Jordanian Lentil Landraces. Journal of Advances in Environmental Biology, 5(11): 3676-3680, 2011.
  - 7- **Fakher J. Aukour**. Incorporation of Marble Sludge in Industrial Building Ecoblocks or Cement Bricks Formulation. Jordan Journal of Civil Engineering, Volume 3, No. 1, 2009.
  - **8- Fakher J. Aukour.** (2013). Halopeplis amplexicauis (Vahl) Ung.-Sternb (Chenopodiaceae Family). Re-collection in Zarqa of Jordan. Ecologica Balkanica,
    - 9- AUKOUR, F. J., AL-HAMMOURI, A. and AL-GHZAWI, A. L. A. (2013): Recovery of plant species, richness and composition in abandoned grassland in arid region. Acta Botanica Hungarica 55(3–4).
    - 10- Salman D. Al-Kofahi & Nezar Hammouri & Mohammed N. Sawalhah & Ahmed A. Al-Hammouri & Fakher J. Aukour. (2018a). Assessment of the urban sprawl on agriculture lands of two major municipalities in Jordan using supervised classification techniques .Arabian Journal of Geoscience. 11:45
    - 11- Fakher J. AUKOUR, Nabeel BANI HANI, Salman D. Al-KOFAHI, Shereen ABU SMEIR. (2018b). Biosolid Application effects on the Water Use Efficiency and growth behaviour of Sesbania sesban (L.) Merr in Arid Mediterranean Environment. Jordan Journal of Earth and Environmental Sciences. Volume 9, Number 3, December 2018. Pages 134- 138.
    - **12- Fakher J. Aukour and Nabeel Bani Hani**. (2020). Inorganic Biosolid application and its role in Enhancing Water Use Efficiency and Plant Biomass. Agrociencia Journal.

#### منشورات اخرى:

كتاب باللغة العربية: بعنوان: النباتات وتنسيق الحدائق: مفهوم وممارسة. دار اسامة للنشر- الأردن. 2007. رقم الايداع لدى دائرة المكتبة الوطنية: 2009/12/5313.

# الشهادات المهنية المتخصصة والدورات

 Certificate of Proficiency. In: Climate Change Science & Negotiations. An Online Course Offered by SDSN Edu. (Sustainable Development Solutions Network), In October 2014.

### ابحاث اخرى ودراسات:

- 1- دراسة تطوير وخصخصة القطاع الزراعي في دولة قطر. دراسة استشارية من خلال مركز الدراسات الزراعية والبيئية القطرى . 2005.
  - 2- اعادة تاهيل المحاجر المهجورة في امانة عمان الكبرى الأردن .
- 3- المشاركة في برنامج دكتور لكل مصنع من خلال دراسة امكانية اعادة استخدام الكمخة من مخلفات مصانع الرخام الطبيعي في مواد البناء وتحديد خواصها الكيميائية والفيزيائية.
- 4- دراسة امكانية استزراع نبات الجوجوبا)الذهب الأبيض (لاستصلاح الأراضي واستعادة الغطاء النباتي في المناطق الجافة وشبه الجافة ومكافحة التصحر. مدعوم من الجامعة الهاشمية. تحت الدراسة.

### الاشراف على رسائل الماجستير:

# **Dissertation Supervision**

- Vegetation responses in open access areas and exclosures areas at Yarmouk Protected Area in Northern Jordan. Aladdin Omar Al-Hiyasat. Master degree of Climate Change and Dry land Sustainability. Deanship of Scientific Research and Graduate Studies. 2017. Hashemite University. Jordan.
- Germination of Jojoba seeds under the influence of different parameters.

- "Mohammed Nour" Mahmoud Mohammed Hajjat. Master degree of Climate Change and Dry land Sustainability. Deanship of Scientific Research and Graduate Studies. 2017. Hashemite University. Jordan.
- Phytoremediation of contaminated soil with polycyclic aromatic hydrocarbons using *Helianthus annuus*. Ismail Ahmad Alhuniti. Deanship of Scientific Research and Graduate Studies. 2017. Hashemite University. Jordan

### المشاركة بمناقشات رسائل الماجستير:

- 1. GIS-Based Documentation and Geo-Environmental Assessment of Wadi Ziqlab, North Jordan; Natural and Cultural Resources. Mohammad Nabil Mohammad Sa`da. Faculty of Graduate studies. Hashemite University. 2010.
- 2. The effect of Olive mil wastewater (OMW) on germination and growth of selected crops. Kawther Abdel Rahman Abu Tahoon. Faculty of Graduate studies. Hashemite University. 2010.
- 3. Soil and crop responses to water stress and irrigation with different water qualities. Ali Abdullah Marouf Ghanim. Faculty of Graduate studies. Jordan University of Science and Technology. 2010.
- 4. Natural and Cultural Heritage in Humret Ma'in Proposed Area. Ra'eda Jamil Al-Masaed. Faculty of Graduate studies. Hashemite University. 2010.
- 5. Evaluation of the Toxicity of Nickel, Cadmium, and Copper among Persons Working in Jewelry manufacturing. Abdalrahman Albalwi. Faculty of Graduate Studies. Jordan University of Science and Technology. 2011.
- Investigating the Relationship between Mental Retardation and Lead Intoxication. Saud Ahmad Alanazi. Faculty of Graduate Studies. Jordan University of Science and Technology. December, 2011.
- 7. Investigation of Cobalt and chromium Toxicity among Dental Technicians in The North of Jordan. Mansour Al-shater Alsarhani. Faculty of Graduate Studies. Jordan University of Science and Technology. April of 2012.

- 8. Investigating of Aluminum toxicity among workers in Aluminum industry sector. Badr Salem Alanazi. Faculty of Graduate Studies. Jordan University of Science and Technology. May, 2012.
- 9. Treated wastewater reuse for irrigated agriculture in Al-Mafraq wastewater treatment plant site: environmental and public health issues. Shaddy Hisham Alshraah. Faculty of Graduate Studies. Jordan University of Science and Technology. December, 2012.
- 10. Exploring the Toxicity levels of CHOMIUM among welders. Abdulghani Mahmoud Zord. Faculty of Graduate Studies. Jordan University of Science and Technology. March, 2012.
- 11. Studying the role of vitamin D deficiency and depression among addictive patients. Wafa'a Sameeh Khalid Rawashdeh. Faculty of Graduate Studies. Jordan University of Science and Technology. 2014.

- 14- Utilization of Yeast Industry Waste (YIW) by Saccharomyces cerevisiae to produce Ethanol. Mohammad Mustafa Suleiman Mohammad. Faculty of Graduate studies. Hashemite University. 2016.
- 15- Investigation the Surface Water Contamination and Fate in the Eastern Region of Lower Jordan River. Zainab Saleem Mohammad Abu Zaid. Faculty of Graduate studies. Hashemite University. 2016.

### الابتكارات والاشراف على مشاريع الطلبة

- 1- Environmental friendly Innovations: Convert inert solid waste materials into valuable products in term of Re-Use.
- Using marble sludge as construction material through the manufacturing of cemented Blocks.
- Using marble sludge as construction material through the manufacturing of cemented Pre-cast kerbs stone (road kerbs).

2- Environmental Quality and Health (undergraduate student projects) - Supervise undergraduate project: Car wash waste water treatment and re-use. As a participated project in JOSCO competition awards for Jordanian Universities Undergraduate students. 2016.

3- Supervise undergraduate project: Renewable energy uses in Agriculture: Smart greenhouse production. As a winner project in JOSCO competition awards for Jordanian Universities Undergraduate students. 2016.

# اعداد وتنفيذ دورات تدريبية متخصصة

- 1. **Fakher J. Aukour, et al., 2010**. Training Agricultural Engineers, teachers in the Jordanian Ministry of Education. Hashemite University.
- 2. **Fakher J. Aukour. 2013.** Planning and Implementing a Training course for Libyan Agriculture Engineers, Head departments and Officers in The department of Range and Forestry Ministry of Agriculture Libya. At Jordanian Agricultural Engineers Association. Entitled: Range Management: Grazing Capacity measurements and the impact of overgrazing.
- Fakher J. Aukour., 2014. Training Agricultural Engineers, Managers in the Jordanian Ministry of Agriculture. Entitled: Agriculture Projects: Planning and Management. At Hashemite University.
- 4. **Fakher J. Aukour, 2015.** Training Agricultural Engineers, Managers in the Jordanian Ministry of Agriculture. Entitled: Feasibility study of Agricultural Projects. At Hashemite University.

# المشاركة في انشطة جودة وصحة البيئة

Member and supervisor in volunteering project in Hashemite University – Zarqa Jordan entitled: Hashemite University Municipal waste separation, Segregation and
Reuse.

- 2- Member and Supervisor in Hashemite University Zarqa Jordan. Old Plastic Bottles Re-use: Vertical household Garden.
- 3- Educative seminar in Um Al-Hussein orphanage –Irbed Jordan. Oral presentation entitled: How to manage your waste: Reduce Recycle Reuse.
- 4- Educative Seminar in Greater Amman Municipality Jordan. Oral presentation Entitled: Solid Waste Management.
- 5- Diyar Bakr Turkey. Workshop entitled: Quarries Environmental Impacts. Oral presentation entitled:
- 6- Environment Brokerage event in Sevilla Spain. Oral presentation entitled:
  Abandoned Old Quarries Rehabilitation and environmental Impact assessment.
- 7- Workshop on Population and Environment. Zarqa Municipality Jordan. Oral Presentation entitled: Citizen Roles and Increasing Public Participation in Municipal Solid Waste Reduction.
- 8- Environmental brokerage in Greater Amman Municipality -Jordan. Oral Presentation entitled: Incorporation of Marble Sludge in Industrial Building Eco-blocks or Cement Bricks Formulation.
- 9- Implementing plant for Marble sludge in producing building materials (cement blocks)- Al-Masri Marble Industry company- Irbed Jordan.
- 10-Graduation project supervisor in Jordan University for Science and Technology: medical waste evaluation in Health Institution.
- 11-National Conference in Jarash University: Environmental Legislation conference. Oral Presentation entitled: municipal organic waste management.

## Non- academic Work Experience: الخبرات غير الأكاديمية

- 1- Queen Alia Airport, 1990-1991. Duties: Agricultural Engineer, this post involves landscaping and land management, Number of employees in the department 45.
- 2- Jordan University for Science and Technology, 1991-1992. Duties: Agricultural Researcher, this post involved the analysis of food products for research purposes.

- 3- Private sector. 1992-1993 Duty: Agricultural Engineer, landscaping, farm management and horticulture.
- 4- Jordan Refinery Company. 1993 1996. Duties: Agriculture Head Manager, this post involved the management of the refinery water reuse for agricultural purposes, as well as, landscaping and farm management, responsible for 70 employees (Engineers and Labours).
- 5- Hashemite University, 1996 1998. Duties: Agricultural Head Manager, this post involved the management of land for agricultural purposes and landscaping and farm management. Responsible for 150 employees (Engineers and Labours)

### اعداد وتحرير وتنفيذ والاشراف على دورات تدريبية

- Fakher J. Aukour, et al., 2010. Training Agricultural Engineers, teachers in the Jordanian Ministry of Education. Hashemite University.
- Fakher J. Aukour. 2013. Planning and Implementing a Training course for Libyan Agriculture Engineers, Head departments and Officers in The department of Range and Forestry - Ministry of Agriculture – Libya. At Jordanian Agricultural Engineers Association. Entitled: Range Management: Grazing Capacity measurements and the impact of overgrazing.
- Fakher J. Aukour., 2014. Training Agricultural Engineers, Managers in the Jordanian Ministry of Agriculture. Entitled: Agriculture Projects: Planning and Management. At Hashemite University.
- Fakher J. Aukour, 2015. Training Agricultural Engineers, Managers in the Jordanian Ministry of Agriculture. Entitled: Feasibility study of Agricultural Projects. At Hashemite University.
- 5. **Fakher J. Aukour, et al., 2018-1. Training course in**: Integrated Pest Management using nuclear techniques: Radiation, biological and chemical treatments to improve agricultural soils. Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration with Egyptian Atomic Energy Agency. Cairo Egypt. 14-19/04/2018.

- Fakher J. Aukour, et al., 2018-2. Training course: in Nuclear techniques in improving animal production. Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration with Jordanian Atomic Energy Agency and JNARC (Jordanian National Agricultural Research Centre). Amman-Jordan. 7-12/7/2018.
- Fakher J. Aukour, et al., 2018-3. Workshop on: Saving food with radiation to achieve health safety. Arab Atomic Energy Agency. Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration with Egyptian Atomic Energy Agency. Cairo – Egypt. 01-06/9/2018.
- 8. Fakher J. Aukour, et al., 2018-4. Workshop on the use of nuclear radiation technologies to develop improved agricultural mutations and to resist climate change. Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration with Jordanian Atomic Energy Agency and JNARC (Jordanian National Agricultural Research Center). Amman-Jordan. 9-13/9/2018.
- 9. **Fakher J. Aukour**, **et al.**, **2018-5. Training course** on: The use of radioisotopes and stable isotopes in water conservation. Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration with Jordanian Atomic Energy Agency and Ministry of Water and Irrigation-Amman-Jordan. 16-20/9/2018.
- 10. Fakher J. Aukour, et al., 2019-1. Training course on: "The use of nuclear techniques in water resources detection and methods of conservation and rationalization of water consumption" Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration Ministry of Electricity and Water, Kuwait Water Association, and the Arab Planning Institute in Kuwait. 2019/03/07 03.
- 11. Fakher J. Aukour, et al., 2019-2. Training course on: The use of ionizing radiation in soil testing and detection of contaminants and control its spread and combating soil erosion using nuclear technologies. Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration with Egyptian Atomic Energy Agency. Cairo Egypt. 2019/7/11-7.
- 12. Fakher J. Aukour, et al., 2019-3. Training course on: Preparation of radiation protection trainers in medical and industrial facilities. Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration with Jordanian Atomic Energy Agency Amman-Jordan. 21-25/07/2019.

- 13. Fakher J. Aukour, et al., 2019-4. Training course on: Radiation measurements, sampling, and analysis of radioactive materials in marine environment and sediments. Prepared and financed by Arab Atomic Energy Agency. Implemented in collaboration with Lebanese Atomic Energy Agency. Amman-Jordan.2019/08/9-5.
- 14. **Fakher J. Aukour, et al., 2019-5. Workshop on**: Monitoring and measurement of radioactive contamination of environmental elements and mechanisms to deal with radioactive waste and mechanisms of implementation and control of radioactive contamination. Implemented in collaboration with Lebanese Atomic Energy Agency in collaboration with Energy and Minerals Regulatory Commission. Amman-Jordan. 18. 2019/08/22
- 15. Fakher J. Aukour, et al., 2019-6. Expert Meeting: To prepare a report on the potential impacts of border reactors on the Arab region and its environment and radiological measurements and associated scientific activities. Amman-Jordan.. 25-27/08/2019.
- 16. **Fakher J. Aukour, et al., 2019-7. Workshop on**: The use of nuclear application in controlling the Mediterranean fly. Hammamet The Republic of Tunisia. 2019/09/27-23.
- 17. **Fakher J. Aukour, et al., 2019-7. Workshop on**: International standards for radionuclides management in food and drinking water. Implemented in collaboration with Tunisian National Centre for Nuclear Science and Technology. The Republic of Tunisia. 25-29/11/2019.

# 18. الأنشطة واللجان الخدمية المهنية والعلمية

- National Conference in Jarash University: Environmental Legislation conference.

  Oral Presentation entitled: Human Rights from Environmental point of View. 2003
- Workshop: Development of a National Plan for implementation of the Stockholm on POPs. 2003. Ministry of Environment. Jordan.
- Workshop on Persistent Organic Pollutants Project. Ministry of Environment. 2003. Jordan. Ministry of Environment – Jordan.
- First Environmental week activity Scientific days. Faculty of Natural resources and Environment. Hashemite University.

- E- learning training course
- National Workshop on Global Environmental Outlook 4. Ministry of Environment. 2004. Jordan.
- Advance Seminar on agro tourism as an alternative for rural areas in Mediterranean countries, Spain. 19-27/2004.
- Sustainable Water Resources Management Training course. A collaboration training course between Hashemite University and Arizona University.
- Member of the National Steering Committee of National Capacity Self-Assessment for Global Environmental Management (NCSA) Jordan. Ministry of Environment. 2005.
- National Capacity Self-Assessment for Global Environmental project (NCSA) funded by the Global Environmental facility (GEF) and administered by the UNDP country office in Jordan.
- Steering/ advisory committee. Ministry of Environment. Jordan. 28\9\2005.
- Member in the Steering committee: National strategy in drought control and mitigation. Ministry of Agriculture. 2005.
- Regional Workshop on Desertification. Yarmouk University. Jordan. .2005
- Workshop on National Drought Mitigation Strategy. Ministry of Agriculture. Jordan.
   2005
- Workshop on Population and Environment. Zarqa Municipality. 2005. Jordan
- Workshop entitled "National Experts Meetings to activate the National Biodiversity Strategy and Action Plan". Ministry of Environment. 2005. Jordan.
- Zarqa river rehabilitation workshop. Ministry of Environment.
- Workshop on Desertification Control. Ministry of Environment. Jordan
- Lecture in: Rules of Scientific research in finding Environmental Alternatives for non-hazardous waste. Ministry of Environment and Association of Agricultural Engineers.
- Environment Brokerage event you have attended in Sevilla Spain 25<sup>th</sup> -28<sup>th</sup> May 2010. In cooperation with the Higher Council for Science and Technology (FP7 programs).

- Participation in the Inauguration of the Forum and 10th Anniversary of IUCN Center for Mediterranean Cooperation. Malaga, November 2010. Spain.
- 2003-2011 Internal committees (Hashemite University)
- 2011 Participation in the 2011 IMFN Global Forum and the International Symposium on Ecosystem and Landscape-level Approaches to Sustainability. Hosted by the Castile and León Region- Spain.
- 2011 Participation in MedForum 2011 which was launched under the umbrella of The Mediterranean Model Forest Network (MMFN) and the Organizers of this event were PACA Region (France)

تطوير منتجات صناعية جديدة

#### **Developing new products in industrial firms of Solid waste form**

- 1- Eco- Modified Pre-Cast Concrete Kerb Manufacturing.
- 2- Incorporation of marble sludge in industrial building Eco-blocks or Cement bricks formulation. Presented as new Invention. In Jordan. Ministry of Industry and Trading. 2011.

Languages

- **1-** Arabic (Mother language)
- **2- English (Speaking, Writing and Reading)**
- 3- Spanish (Speaking, Writing and Reading)