

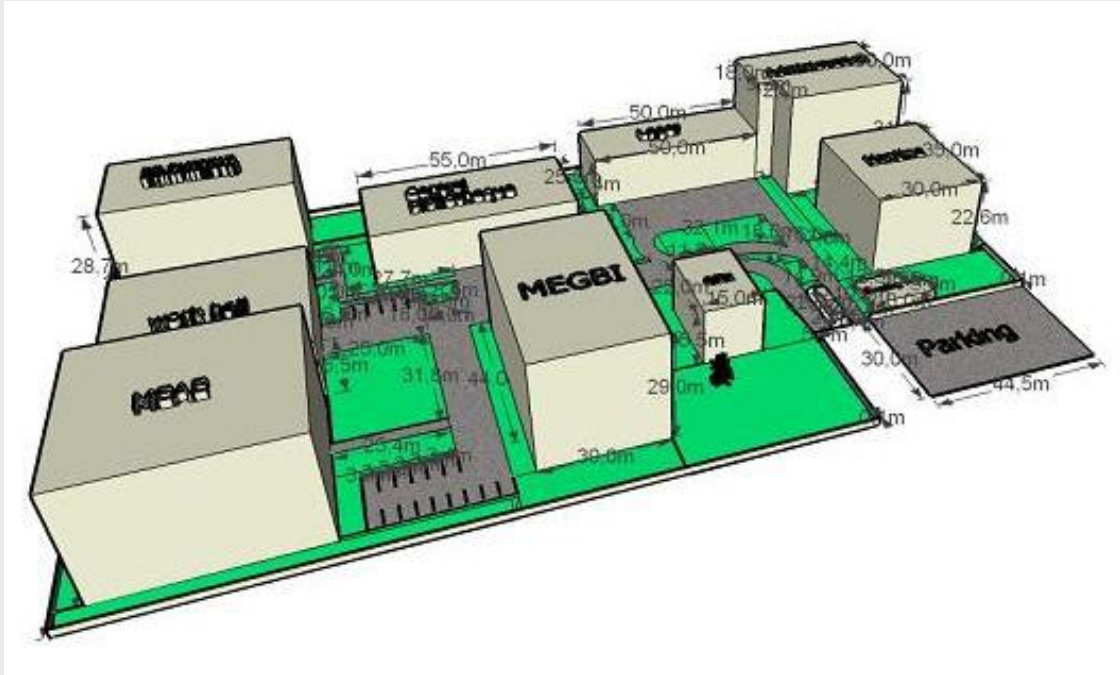
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Technological Development Foundation

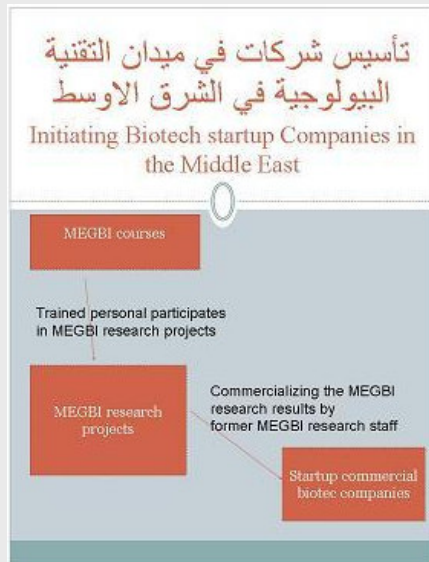
AECENAR Applied Research Center

August 2008 – January 2012

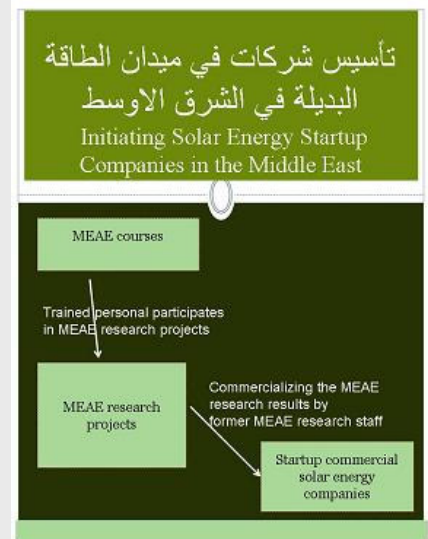
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ابحاث تطبيقية ذو مصلحة عامة Applied Research of Public Interest



مساعدة انشاء بنية تحتية للصناعة في المنطقة Helping of Industrial Growth in the Region

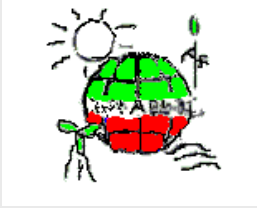


Institutes مراكز الابحاث



مركز ابحاث الشرق الاوسط
للجينات والتقنية البيولوجية
<http://aecenar.com/institutes/megbi>
ابحاث عن ألقحة

**MEGBI - Middle East Genetics and
Biotechnology Institute**
<http://aecenar.com/institutes/megbi>
Vaccine research



مركز الشرق الاوسط للطاقة البديلة
<http://aecenar.com/institutes/meae>
بحوث حول اجزاء لخطات طاقة عن طريق الحوار
الشمسية و عن طريق حرق النفايات

**MEAE - Middle East Alternative
Energy Institute**
<http://aecenar.com/institutes/meae>
Elements for Solar- and
Incineration Power Plants



مركز ابحاث لعلم الفلك و فيزياء النجوم
<http://aecenar.com/institutes/iap>
نمذجة لاحداث في مناطق بين
النجوم و لانشاء النجوم

**IAP - Institute for Astronomy and
Astrophysics**
<http://aecenar.com/institutes/iap>
Modeling Interstellar Processes
and Star Building

Central Library المكتبة المركزية

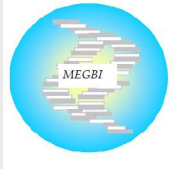


المنشورات Publications 2011 – 2010

Houda A., Bakoben S., Introduction to Molecular Modeling
(مدخل الى النمذجة الجزيئية), Ras Nhache, June 2011

Abdulwahab N., Mourad S., Borghol S., Laboratory verifying of the peptid
candidate FLKDVME SM by ELISA analysis, Ras Nhache, June 2011

Mourad S., Al-Haj R., Abdulwahab N., El-Eter G., Al-Chbib L., Khidr M., Zaki
O., *Training Courses in Genetic Engineering I-III*,
تدريبات مختبرية في ميدان البيوتكنولوجيا (جميع التفاصيل باللغتين العربية والانجليزية)
Ras Nhache, August 2010



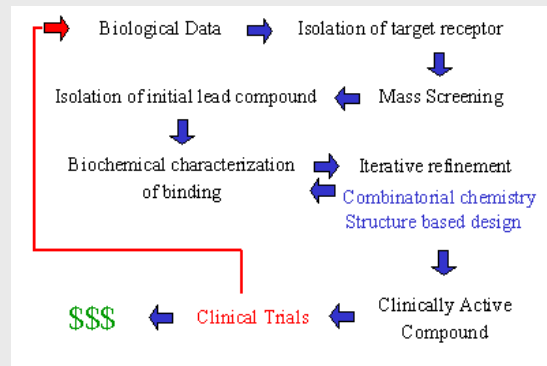
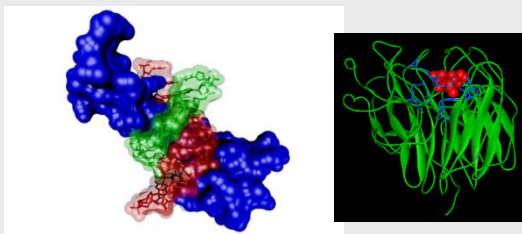
MEGBI - Middle East Genetics and Biotechnology Institute
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Research fields

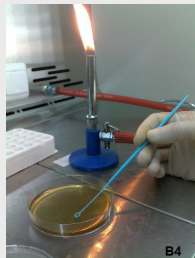
ميادين الابحاث

Rapid Prototyping for DNA vaccines

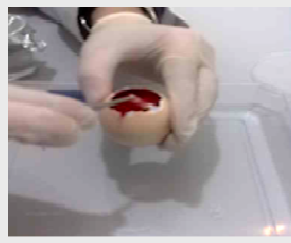
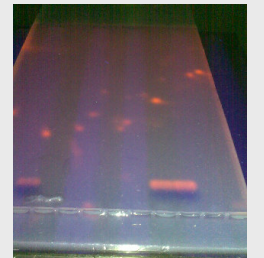
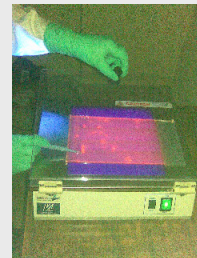


MEGBI Laboratory

مختبر المركز



Genetic Engineering Lab with Biosafety Level 2



MEGBI Milestones

August 2009: Beginning of MEGBI Genetic Engineering Lab work

October 2010: Publication of MEGBI Training Courses I-III in Genetic Engineering Techniques

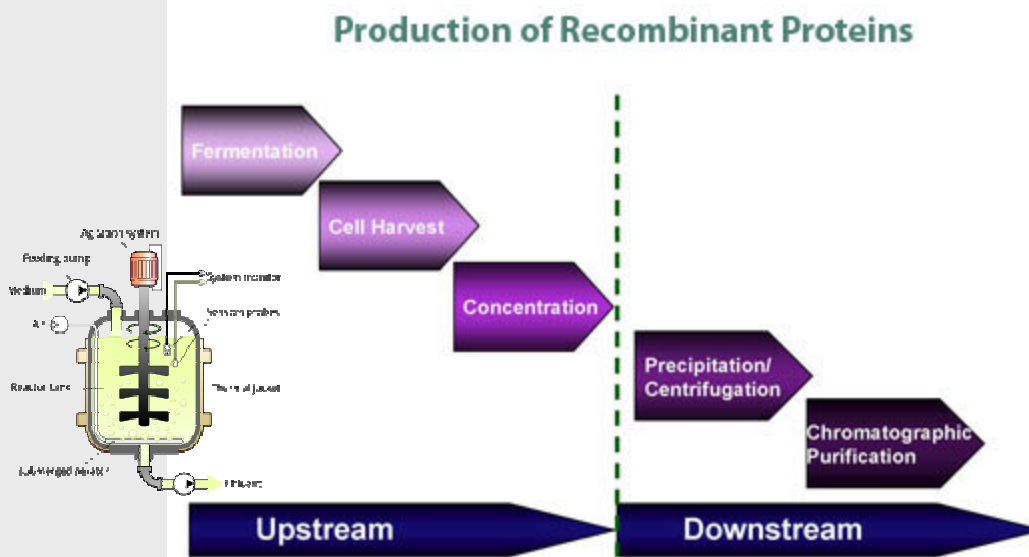
January 2011: Starting of work in MEGBI bioinformatics lab

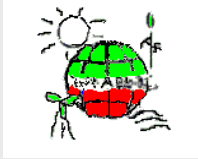
April 2011: First diagnostic services available at MEGBI partner company LG Biotech

March 2011: Starting H5N1 Peptid Vaccine Research Project by former trained staff

Actual Projects at MEGBI

Large scale production of influenza A vaccines:
Establishment of upstream (bioreactor) and downstream (purification)
processing of DNA vaccines in *S.cerevisiae* and *E.coli*



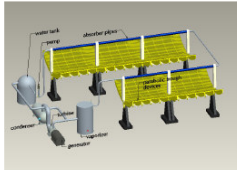


MEAE - Middle East Alternative Energy Institute
www.aecenar.com/institutes/meae

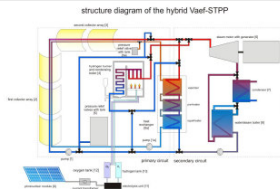
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Research fields

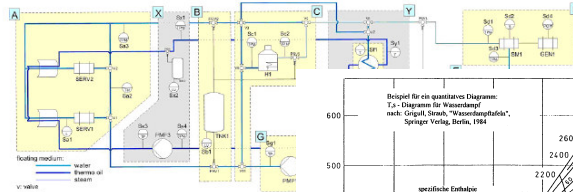
ميادين الابحاث



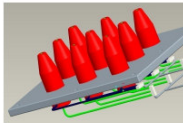
ProE Model of the Direct Heating Teststand



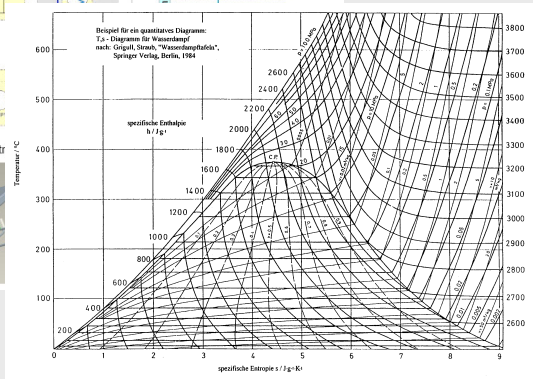
Elements for alternative power plants suited for solar / wind / inceneration combustion hybrid plants



Architecture of process contr



Hydrogen burner



Development of safe mini steam turbines

Numerical Combustion: Simulation Models for safe small combustion devices

MEAE Laboratory

مختبر المركز



Process control system
 Development with Siemens S7 technology



Construction of mechanical pieces with
 CAD program ProEngineer



Solar vacuum pipe



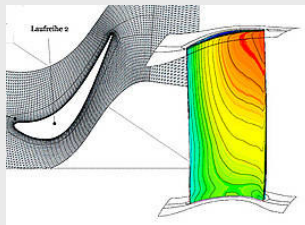
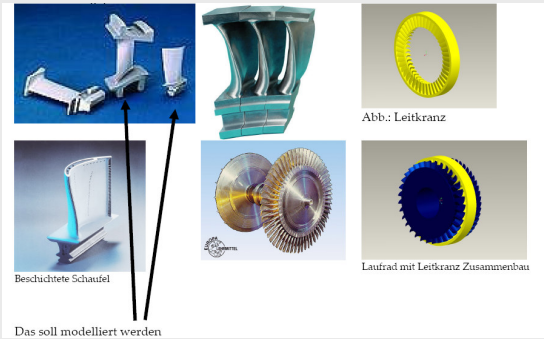
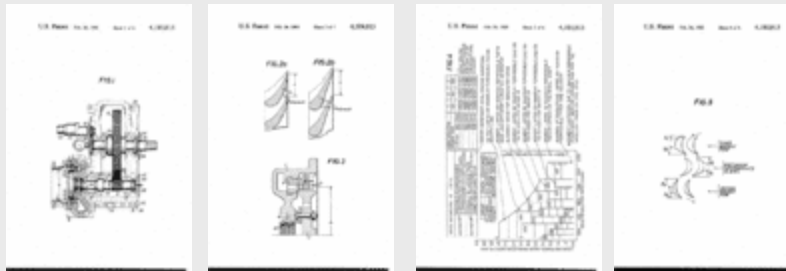
Manufacturing of solar parabol panels



Actual Projects at MEAE

Development of a one-stage turbine

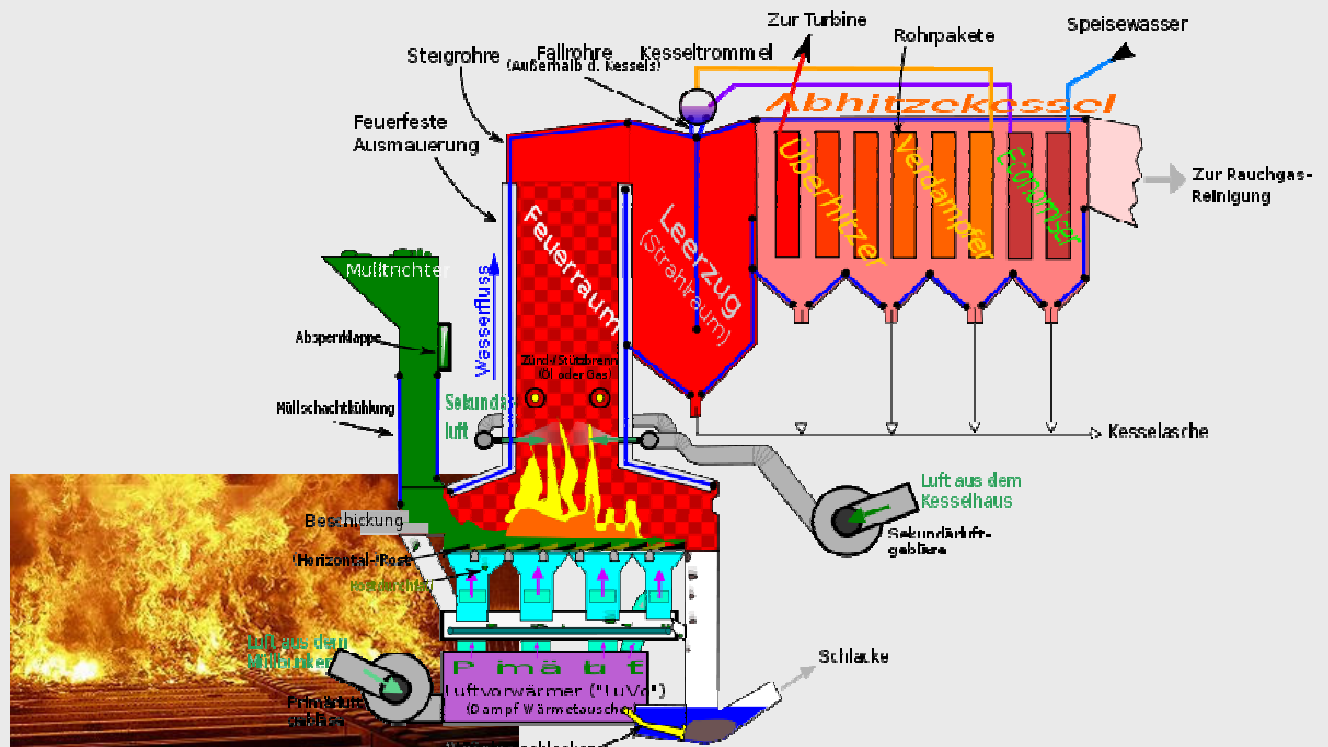
Construction of a turbine blade with ProE based on a patent from 1980 („Method for manufacturing single stage geared turbines “)



CFD analysis of the turbine design based on FreeCFD

Development of a pilot test rig for steam generation with waste incineration

ترميم النفايات



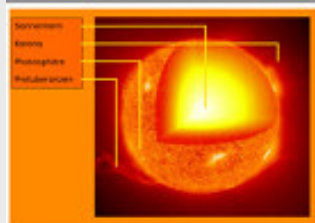
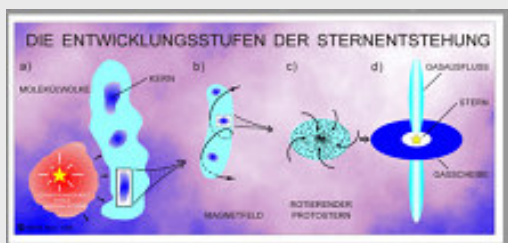


IAP – Institute for Astronomy and Astrophysics
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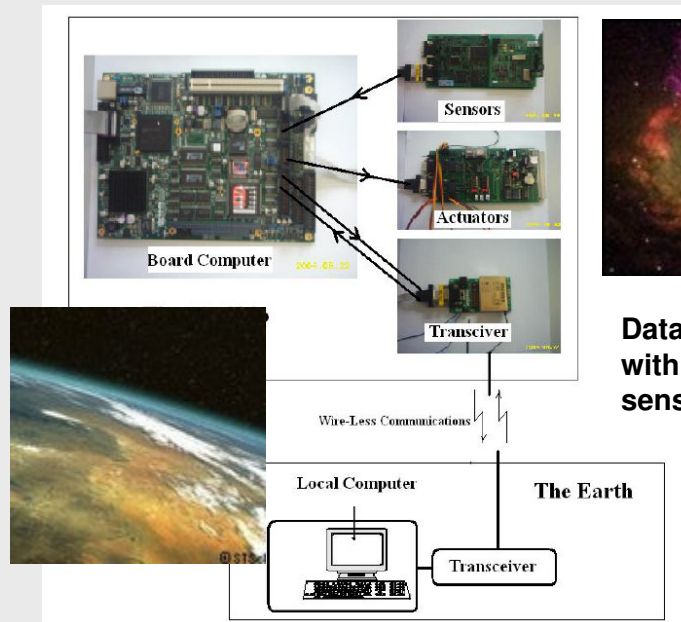
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Research fields

ميادين الابحاث



Modeling Interstellar Processes and Star Building



Data Acquisition with orbit sensors

IAP Laboratory مختبر المركز

Actual Projects

Computer Simulation Lab



مختبر ايلكترونيكي
 Electronics Lab



Migration of former „VaEf alternative airship Lotte“ control system to the IAP satellite based control system

Building of a simulation model for the first phases of star building with the CFD software package FreeCFD



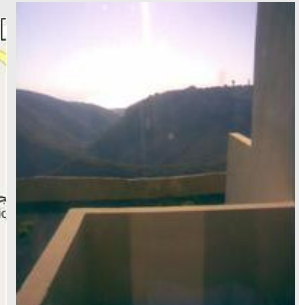
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Association for Economical and Technological Cooperation
in the Euro-Asian and North-African Region

جمعية الشرق الأوسط للتنمية والتعاون في الميدان التكنولوجي AECENAR Middle East

Ras Nhache Facility (about 25 km from Tripoli in North Lebanon)

مراكز راسنحاش (تقع على بعد 25 كم. من طرابلس الشرق)



AECENAR Middle East

Ras Nhache, Main Road, District: Batroun – North Lebanon, **Lebanon**

رأسنحاش – قضاء البترون – لبنان الشمالية - لبنان

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