



**Iranian Research Organization for Science and Technology
(IROST)**

IROST Programmes and Activities

2015-2016

Presented by:

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and
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in
18th COMSATS Coordinating Council Meeting
Colombo, Sri Lanka
12-13 May 2015



IROST Brief Introduction

- Founded: 1980
- IROST is affiliate organization of the Ministry of Science, Research and Technology (MSRT)





IROST Mission

- **Strengthening the foundations of self-reliance in science and technology**
- **Supporting Iranian inventors, innovators, researchers and industrialists**
- **Responding to the increasing demands for science and technology development programs**
- **Supporting applied and developmental research**
- **Developing technologies through employing qualified experts and utilizing modern equipment and facilities**



The Major Objectives of IROST

- to provide support and facilities and making necessary arrangements with inventors, innovators, researchers and industrialists in S&T
- to support development of technology at national and international levels
- to encourage a positive interaction between technology supply and demand
- to provide ground for growth, creativity and innovation in utilizing the research results
- to facilitate and support technology transfer and commercialization in a competitive environment



The Major Objectives of IROST

- to organize annual Khwarizmi International Award (KIA) and Khwarizmi Youth Award
- to spread awareness on the investment opportunities available in various fields of science and technology
- to extend help and training to the entrepreneurial communities in technology development
- to attract investments in the fields of advanced technologies



IROST Structure & Facilities

Eight Technology Institutes namely :

- 1. Advanced Material & Renewable Energies**
- 2. Advanced Technologies**
- 3. Agriculture**
- 4. Biotechnology**
- 5. Chemical Technologies**
- 6. Electronics & Computer**
- 7. Mechanical Engineering**
- 8. Space Technologies**



IROST Structure & Facilities

IROST provides the following facilities for developing new technologies and supporting innovations:

- **Infrastructures and enhancement of human resources for development of technology in IROST technology incubators and technology parks, universities and industries**
- **An appropriate institutional and laboratory framework to support various national projects**



IROST Structure & Facilities

Establishment of Specialized Centres at IROST:

- 1. Regional Desalination Center (RDC)**
- 2. National and International Centre for Halal Food Standardization**
- 3. Sustainable Health Research Centre**
- 4. Aerodynamic Research Centre**
- 5. Herbal Medicine Research Centre**
- 6. Research Center for Policy and Diplomacy**



IROST Personnel

No.	Staffs	Number
1	Academic staff	<u>135</u>
	Full Professor	4
	Associate Professor	28
	Assistant Professor	63
	Lecturer	15
	Researchers M.S	25
2	Technical Support Staff (M.S , B.S)	<u>158</u>
3	Administration & Finance	<u>157</u>
4	Total number of staffs	<u>450</u>



PhD and MSc Students

- IROST mission in training research based PhD and MSc. Students in:

- ◆ Chemistry
- ◆ Chemical Engineering
- ◆ Agricultural Engineering
- ◆ Biotechnology
- ◆ Mechanical Engineering
- ◆ Electronic

- **Number of PhD and MSc Students**
- **MSc. : 152**
- **PhD : 90**
- **Total : 242**



IROST Structure & Facilities

Facilities:

- **Necessary infrastructure**
- **High educated researchers and technicians**
- **Developed Research labs**
- **Pilot plants**
- **Projects oriented research setups**
- **Reference labs**



IROST Programmes for Researchers Support



- Khwarizmi International Award

- ✓ Annually
- ✓ 28th KIA at 3rd March, 2015
- ✓ to select best researchers , inventors and innovators around the world (based on application and evaluation)
- ✓ Will be inaugurated and honored by His Excellency,
- ✓ the President of the I. R. Iran





The 29th Khwarizmi International Award (KIA)

Tehran, I. R. Iran

March 2016

The KIA secretariat invite researchers, innovators and inventors, from all over the world and to participate their invaluable achievements in various fields of science and technology as indicated in bellow table:

No	Field	No	Field
1	Technology Studies	8	Medical Sciences
2	Basic Sciences	9	Chemical Technologies
3	Materials & Metallurgy	10	Agriculture & Natural Resources
4	Electronic & Computer	11	Mechanical Engineering
5	Nanotechnology	12	Aerospace
6	Civil Engineering	13	Information Technology
7	Biotechnology & Basic Medical Sciences	14	Mechatronics



IROST Programmes for Researchers Support

- Khwarizmi National Youth Award
 - ✓ Annually
 - ✓ National
 - ✓ to select best young researchers
(based on application and evaluation)





IROST Programmes for Researchers Support

- ☐ Feasibility study of research results of private sectors
- ☐ Commercialization of developed technologies
- ☐ Marketing of developed technologies
- ☐ Coordinating universities and research centers with industries
- ☐ Supporting students' research projects
- ☐ Organizing workshops and training programs



IROST Programmes for Researchers Support

- ✓ **Managing Iranian Scientific Data Network**
- ✓ **Providing scientific information and documents to research communities**
- ✓ **Supporting the Intellectual Property of the researchers**
- ✓ **Giving Consultancy R&D and R&T institutions to enhance their infrastructure and procedures**
- ✓ **Developing entrepreneurship centers in universities.**



International Cooperation

IROST is official focal point of following international organizations:

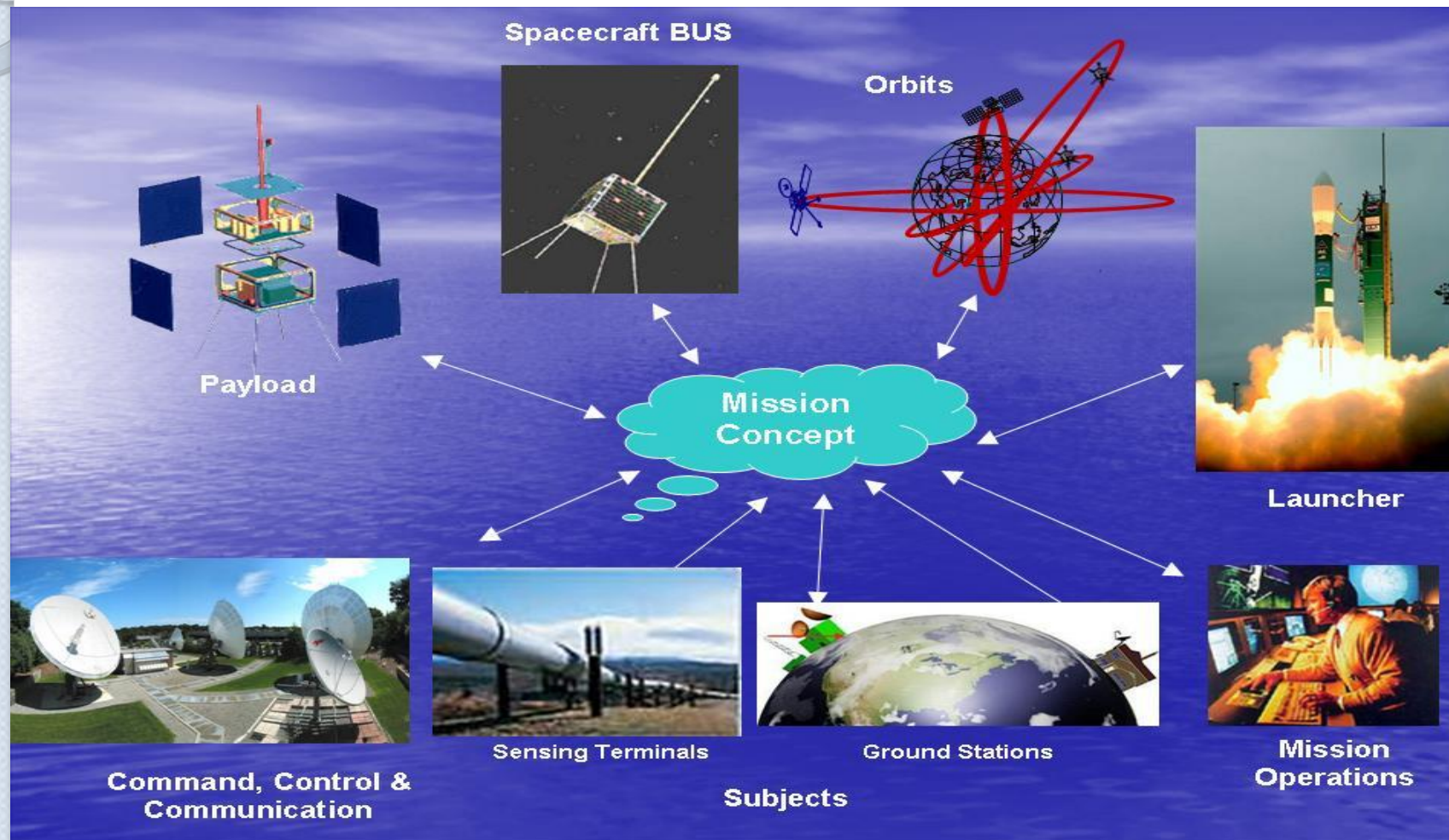
- ☐ Asian And Pacific Centre For Transfer Of Technology (UN-APCTT)
- ☐ Commission on Science & Technology for Sustainable Development in the South (COMSATS)
- ☐ Organization of Islamic Conference Standing Committee on Scientific & Technological Cooperation (COMSTECH)
- ☐ IORA Regional Centre for Science and Technology Transfer (IORA RCSTT)
- ☐ Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre)
- ☐ World Association of Industrial & Technological Research Organizations (WAITRO)



IROST Major Achievements



Achievements: Mesbah Satellite Project





Achievements: Space laboratory





Achievements: Vertical Wind Tunnel





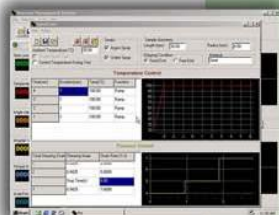
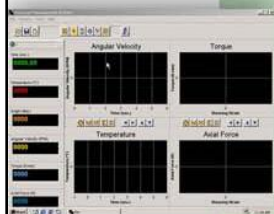
Achievements: Freeze Dryer





Achievements: Torsion test

Hot Torsion Test Machine



Control Panel

Inductively heated specimen

Protected atmosphere enclosure **IROST**

Longitudinal RTL view

Longitudinal LTR view

Hydraulic power pack

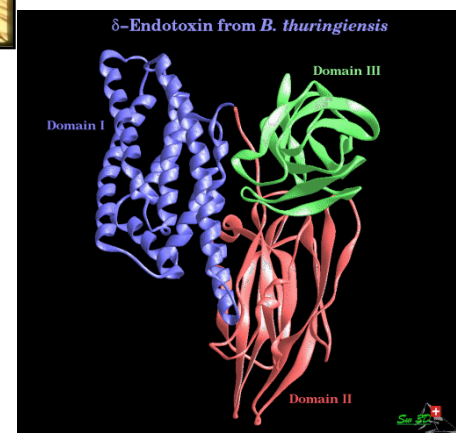
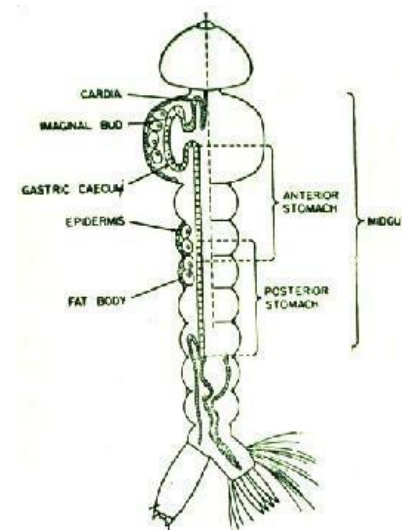
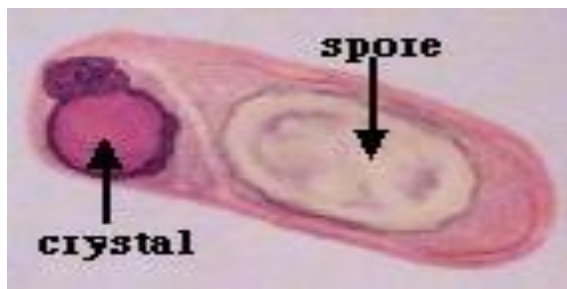
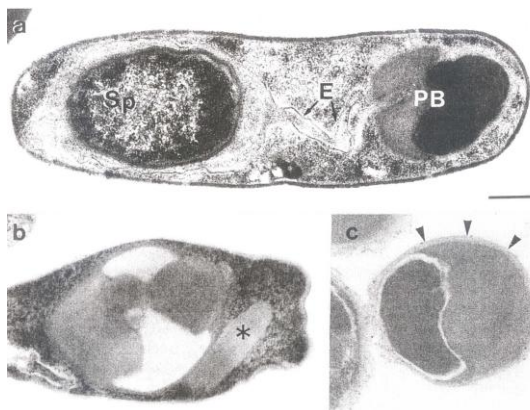
Induction heating furnace (RF)



Achievements: Hemodialysis Machine

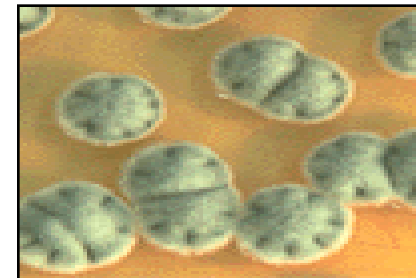
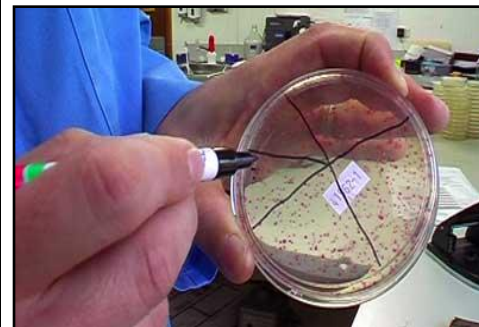


Achievements: Biological Control of Mosquitoes Born diseases



The Persian Type Culture Collection (PTCC)

- PTCC was founded in 1982
- PTCC is a member of World Federation Collection (WFCC) with code no. I124 since 1984
- Accepted as regional reference in Central and East Asia by UNESCO (Thran Mircen)





Achievements: Biological Control of Mosquitoes Born diseases



3000 L Fermantor





Achievements: Chem. Technology Pilot Plants





Achievements: Alumina Pilot Plant



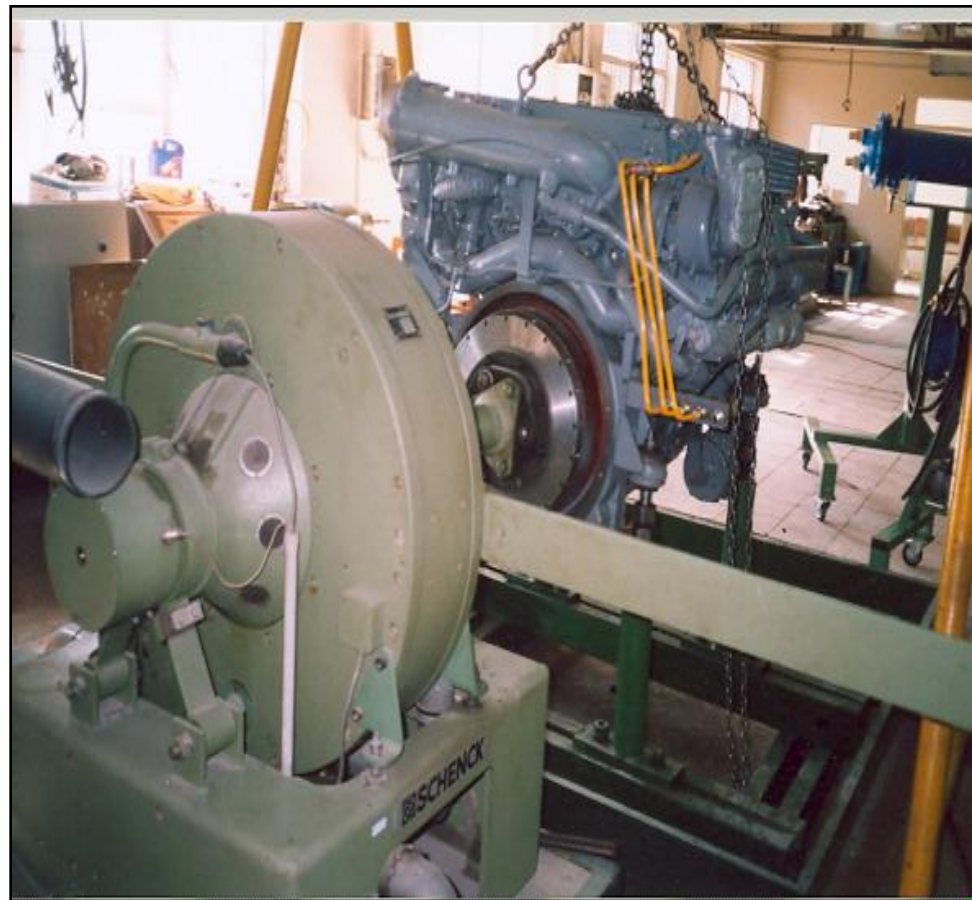


Achievements: De-Methyl Ether (DME) Pilot Plant





Achievements: Engine prototype for DME and Bio-diesel fuel





Achievements: Biotechnology Pilot Plant



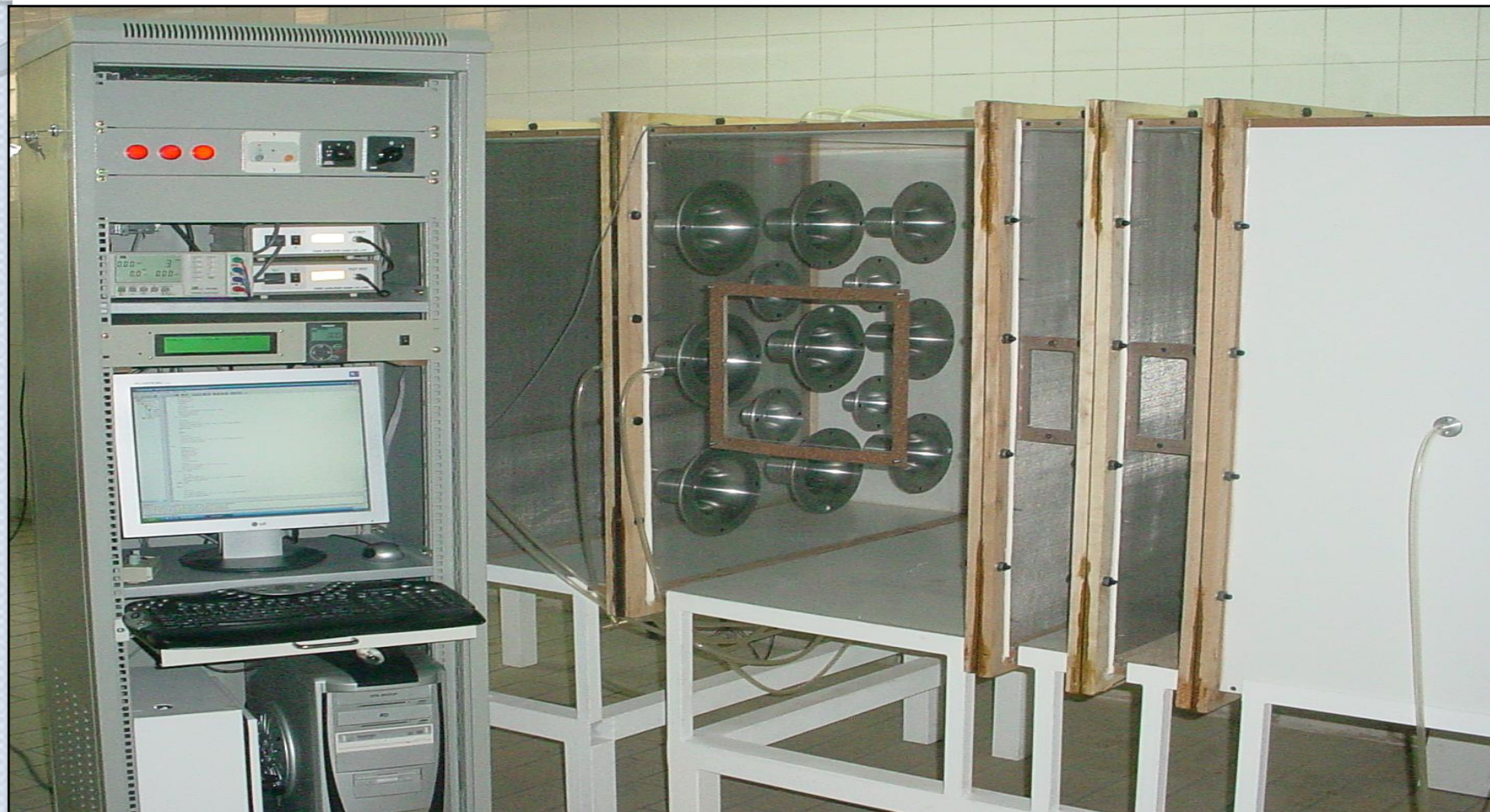


Ref Labs: Tube Flame tester





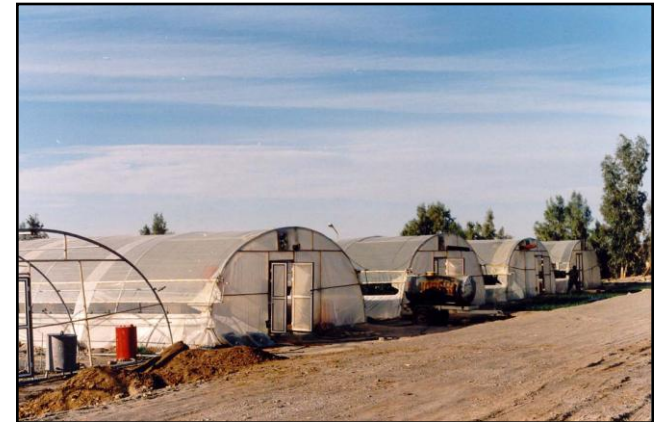
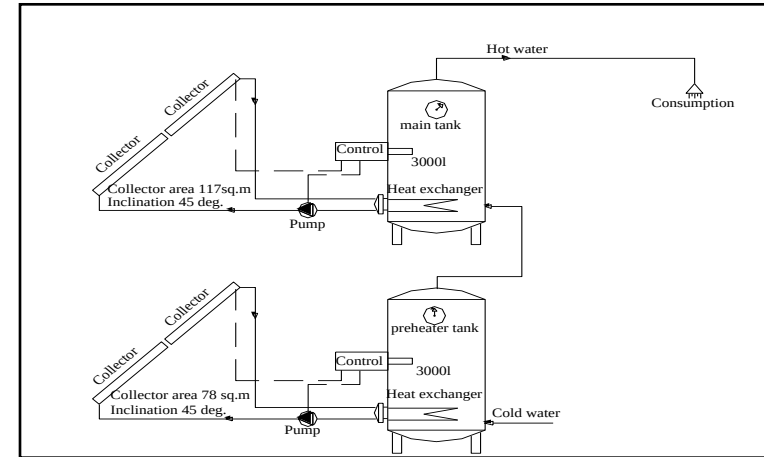
Ref Labs: Fan Tester



Pilot Plant for Extraction of Biofuel



New & Renewable Energy





**Proposed
IROST Programmes in
Collaboration with and Support of
COMSATS
for 2015 -2016**



IROST Programmes for 2015 -2016

□ **Title:** The Meeting of ITRG of COMSATS and Expert Meeting on Renewable Related Energy Focusing on Microalgae Technology Using Ocean Resources

Date: 14-15 September 2015

Venue: IROST, Tehran, I.R. Iran

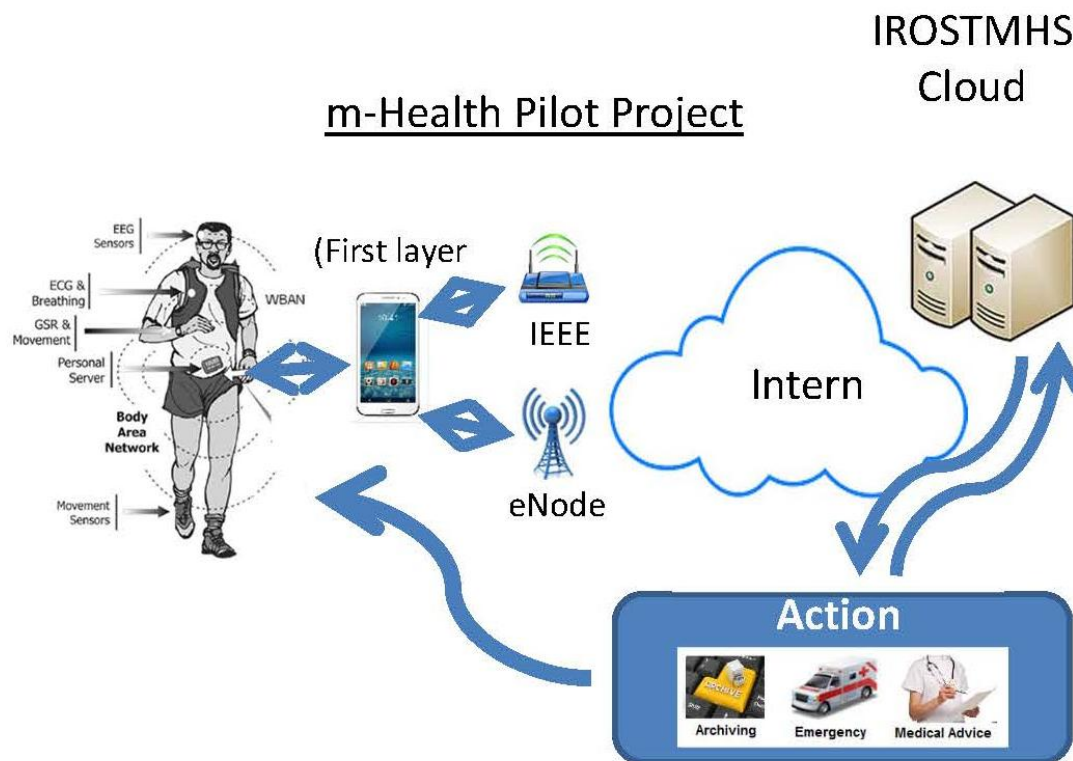


- **Title:** 1st International Expert Meeting/Workshop on: Solar cells, Crystallography, Pharmaceutical technology
- **Date:** 5-7 October 2015
- **Venue:** Turkey, Dicle University
- **In Cooperation with and Supported by:** COMSATS, IORA RCSTT



Title: Expert Meeting for Implementing COMSATS Mobile-Health Service Platform (COMSATS-MHSP) for Networking

Proposed Date: 1-3 June, 2015





The project under the title of **"COMSATS Mobile-Health Service Platform"** has been presented by IROST Representative, Dr. Shervin Amiri, in Second meeting of COMSATS' International Thematic Research Group (ITRG) in Islamabad on December 2014. The mentioned project has been supported as a joint research project between IROST and COMSATS member states.



Establishing a New COMSATS ITRG

IROST is ready to establish a new International Thematic Group under the title of **Bioprospecting and Sustainable Use of Microbial Resources.**

The proposed date for ITRG Meeting: 11-12
March 2016

Venue: IROST, Tehran, I.R. Iran

In Cooperation with and Support of: COMSATS



**Thank you very much for your kind
attention**

