

University of Applied Science and Technology IRCAST

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Preface

Learning by doing is the main idea of IRCAST, This idea causes Transcendence from traditional model of university. In our model, training is developed from vocational skills, which according to the definition of higher education studies are in accordance with manual activities, toward learning practices. The occurrence of Electrical and mechanical engineering departments with complete educational facilities together with departments such as law and management-which are considered as different horizons of human thinking- is also in the direction of this strategy.

In our paradigm, the apprehension about the community and public area's need to knowledge and updated educational curriculums supersedes the Bureaucracy and the bureaucratic formalities which are the characteristic of classical and traditional universities; our educational curriculums are in accordance with the paradigm of the university of applied science and technology (UAST) which, in their turn, correspond to the educational curriculums of other prestigious and well-ranking universities.

The students do not come to IRCAST for sanctifying scientific theories-that basis of industry or social study-rather they come to put these theories into practice or to get an impression of this theories in their future work environments. IRCAST started its educational activities in 2008 with 135 students and now have 1000 students, 100 teachers and 35 staffs and 6500 graduated in seven departments in associate and bachelor's degrees.

Location

Major campus of IRCAST located on Motahari Street, Islam abad gharb. This building consist of 50 classes, Laboratory and workrooms.





Departments

IRCAST have 7 educational departments, i.e. electrical engineering, mechanical engineering, computer, architecture and civil, law, accounting and management.



Department of Electrical Engineering

In the fields of electrical, control and instrumentation engineering has students. This department has a full-featured workshops, General Electric, industrial Electric and control circuits, electrical machines laboratory, workshop PLC is control and industrial electronics

Head of Department: Dr. Kuomars Sabzvari (Ph.D)



Workshop control circuit

The workshop has five double sets of control panel

The application of this workshop is design and testing of electrical circuits control and power used in Electrical panel factory, water wells, Elevators. In this workshop, the Industrial Electricity and control circuit workshop lessons is formed .



General Electric Workshop

The workshop has five double sets of general electric includes a variety of Lighting electrical circuits, photocell circuit, circuit voice, video and etc.

The application of this set of teaching students to design and implement electrical installations building. In this workshop, the general Electricity workshop lessons is formed.



Laboratory of Electronics and electrical circuits

The workshop has six sets of electronic panel. Each set has the DC power supply and AC, function generator, digital multimeter and oscilloscope .In addition SETS electronic devices such as inductive and resistive capacitive - box, set Primary and Supplementary industrial electronics and is logic circuit lab.

The use of this unit in the design, test and repair of electronic circuits.

In this laboratory courses electric circuits laboratory, fundamentals of electricity, Applied Electronic Laboratory ,general and Industrial electronic, Electric measurement laboratory and logic circuit laboratory is formed.



Laboratory of electrical machines:

A second set of electrical machines and also items such as autotransformer three-phase, three-phase circuit-breaker types, a variety of industrial timers, motor DC, phase control relay and load.

In this workshop, the Laboratory of electrical machines is formed .



PLC Lab.

The Lab. has one set is complete and consists of PLC S7 and Logo Siemens. which contains several modules and control circuits is in factories.

It also has two complete sets of Operators and sensors .

In this lab, students in two Primary-level and medium PLC applications familiar to practically implement the circuit.

application of this laboratory in understanding and Launch control systems and instrumentation are in industries and factories.

In this laboratory, workshop lessons PLC, advanced instruments and sensors lab is formed.



Winding workshop

The workshop is a full-featured windings of electric motors, transformers, armature and also includes a set of tests is motors and transformers.

Application of the workshop on windings repair and design of electrical motors, domestic and industrial. In this workshop, the Winding workshop is formed.



Department of mechanic

This department consists of two majors of repair and maintenance of car and heating, ventilation and air conditioning (HVAC) in the degree of bachelor and associated degree (Technician). This department has several laboratories consist of: auto mechanic, hydraulic, pneumatic, electricity of automobile, non-destructing test, chassis and body of automobile, metallurgy, welding, casting, generation and transmission of power in automobile and refrigeration.

Head of Department: Mr. Marzban Safari



Refrigeration laboratory

The laboratory equipped with the several types of industrial and non-industrial refrigerators and water cooler, and different type of HVAC equipment's such as air washer, split and automobile HVAC and etc. the students in the courses of refrigerator lab. 1 and 2 learn how to repair and maintain the HVAC and refrigerators equipment.



Hydraulic and pneumatic laboratories

The laboratory equipped with hydraulic and pneumatic circuits. Students in this lab. get familiar with the design and installation of hydraulic and pneumatic circuits for different applications such as bus door and hydraulic hammer. In this laboratory students get familiar with the hydraulic and pneumatic operators, sensors, and electrical equipment's of the hydraulic and pneumatic circuits.



Generation of automobile power, chassis and body laboratory:

In this laboratory, engine, body and suspension system of Pykan, Peugeot 405 and Tondar is using for teaching of this course. Car diagnostic test, turbo charge equipment and supercharge is also explaining for students. In this laboratory students learn to diagnose the problem of the engine and how to solve its problem.



Transmission of automobile power laboratory:

In this laboratory, first student get familiar with the fundamental of the mechanic of fluids such as Rynolds number, types of the fluids flow, Venturi meters and Orifice meters. After that the fundamental of the manual and automatic gear boxes and clutch is explaining. In this laboratory the courses of laboratory of fluid mechanics and laboratory of transmission of automobile power is holding.



Machinery and welding workshop:

In this laboratory different types of welding equipment such as arc welding and Acetylene gas welding is using for teaching to the students. Working by several equipment such as lathes, milling machines and etc. is teaching in this laboratory.



Casting and heat treatment workshop:

In this workshop furnace and equipment for heat treatment of the metals are provided. Also, casting equipment is provided for teaching the fundamental of casting of the metals.



Department of computer

This department has students in Information Technology (IT), Network engineering, Software engineering. The successful participation in the 8th period of National Robotics Competition and the 3rd National Festival of Movement in Tehran University, writing the program of computer ethics and master of IT are some of the most important activities of this department. This department has three equipped computer sites.

Head of Department: Mr. R. Esmaili Manesh (M.Sc)





Department of architecture and civil

Students in associate and bachelor's degrees trained in Architecture and Civil engineering at this department. Two equipped ateliers and workshops is belongs to this department.

Head of Department: Mrs. Azadeh Esmaili (M.Sc)



Department of Law

The Law department has student in the field of Legal Rights with the major in notarized science in modular system in both Associate and Bachelor's degrees

Head of Department: Dr. Khosro Biniaz (Ph.D)



Department of Accounting

The Accounting department has student in the field of industrial system accounting. Among its actions, has signed a contract with the system group (the largest Iranian software group) for training the students of this department. The training is free for IRCAST's student and its expenditures are provided by the system group and IRCAST

Head of Department: Mr. Sajjad Gholami (M.Sc)



Department of Management

In The Management Department worked on the field of Business management, Industrial Management and engineering of financial and social systems.

Head of Department: Mr. Mehdi Mohammadi (M.A)



Most activities of educations part of IRCASIT:

Arrangements and systemized of educational system of IRCASIT for 1000 students and 6500 graduates.

Supplying full equipment for all of the departments.

Making good relation between IRCASIT and factories, offices and etc for visiting of students.

Arranging seven programs for graduates student in Master, i.e.: Innovation in buildings (civil), Diplomacy in Science and Technology, Intelligent educational management, Entrepreneurship in productions clusters, Milk Industry, Auto Mechanic, IT branch of Network security.

Research

Research component in university of applied science and technology is different from classical universities, and applied sciences university must focus on innovation, solving the real problems of industry, social services, agriculture and; rather than production of papers without references.

Conferences and seminars

Number of conferences and seminars that occurs in IRCAST is as below:

Engineering education and national development, corporate with Iran Society of engineering education (ISEE), and Keynote speaker Dr. Houshang Afshari, president of Iran Association of Mechanical engineering, October 2013.





Usefulness in web application corporate with Iran Society of engineering education (ISEE), and Keynote speaker Dr. Ramtin Khosravi, faculty member in university of Tehran. November 2013



Entrepreneurship, corporate with ISESCO (Islamic Educational Scientific and Cultural Organization), Keynote speaker: Dr. Abbas Sadri, Head of ISESCO regional office in Iran, December 2013





Common workshop on Electrical Panel with Iranian Society for Advancement of Industry Academia Collaboration, August 2013



- Optical Fiber: foundations and applications, electric dept. keynote speaker: Farokh Nazari, Ph.D. student in Yerevan university at Armenia, June 2012.**
- Formalities in contracts, law dept., keynote speaker: Dr. Ali Abbas Hayati, professor and faculty member in Imam Sadegh University, June 2012**
- Creativity in design, Architecture Dept., keynote speaker: Ronak Alipanah, teacher in IRCAST, July 2012.**
- Rational Strategic in Future Study, management Dept., Dr. Meysam Khosravi, Chancellor of IRCAST, July 2012.**
- Machine studies in Mechanical engineering, Dr. Morad Paknejad and Dr. Habibollah Safarzadeh, faculty members in Razi University, October 2011.**
- Change management, management dept., Maryam Shahabi, Teacher in IRCAST, November 2011.**
- Pure Accounting and Pure Production, Lida Bavanpoor, staff of office of Ovghaf, December 2011.**
- Nano technology in electrical Industries, Dr. Keumarc Sabzevari, Head of Electrical Dept., December 2011.**
- Computer ethics, computer dept., Dr. Meysam Khosravi, December 2011.**
- Economic benefits of education, keynote speaker: Dr. Bahman Saeidipour, faculty member of Payam Noor University, April 2009.**
- Information Technology: definitions, goals and programs, computer dept. keynote speaker: Dr. Abdoullah Chalehchaleh, faculty member of Razi University, May 2009**

Workshops:

Reinforced concrete, architecture and civil dept., May 2012

Sketch, architecture and civil dept., June 2012

EF7 motors, mechanic dept. July 2012

Bourse and Capital, Accounting Dept., Corporate with Kermanshah bourse, May 2014

Methods of source research for mechanical engineers, May 2013.

National Festivals:

Iranian Robocup in Noushirvani University of Technology, Babol, April 2010

3rd Harakat National Festival, University of Tehran, May 2010

5rd Harakat National Festival, Shahid Beheshty University, September 2012

6rd Harakat National Festival, University of Zanjan, August 2013

Network of Government- Industry- University

Connect to important component of related part of Government that deal with science and technology policy and industries is a mean idea in literature of link between universities and industries. In IRCAST this idea followed exactly. Design the system of connection between Government- Industry- University for Iranian Institute of Information Technology and commutation is a example of this case. Other topic in this case is as follow:

Corporate in programs and sessions of Applied Research Council of Tehran region 2013-2015

Implementation of Advance regional meetings between industry and the University of Kermanshah and Ilam provinces in cooperation with the assistance of Iranian Research Organization for Science and Technology (IROST) and attended factory training managers and production companies, directors and managers offices of relationship with industry, universities, Kermanshah and Ilam provinces. Jan 2012

Industry and Entrepreneurship Clinic: this clinic started with authority of central office of UAST in Tehran and make services to regional industries. The website address of this clinic as below:

www.tech.ircast.org



The collegiate experience is much more than academic coursework, with more than 250 student clubs and organizations you learn and practice skills of team building and leadership, while making contributions to the campus and community.

THINK TANK: Kermanshah Think Tank of Technology and Regional Development
It's on abilities of IRCAST that can schedule and handle the think tank and research center of policy with approach of technology and regional development. The THINK TANK opened its doors on May, 2016 in an effort to streamline and centralize academic support services at the IRCAST. We have partnerships with many academic departments and colleges, as well as other support units, on campus. Those partnerships are vital to the success and vibrancy of the <TANK.> It is this collaborative process that enables you to learn with confidence. Our THINK TANK directly worked with presidential center of strategic studies and Iranian think tank network (ITAN) and have two main projects recently: water crisis and Addiction.

Most activities of THINK TANK:

Seminar: Urban and Architecture design and optimal water use, Keynote speaker: Mrs. Azadeh Esmaili (Head of architecture department), May 2016



**Seminar: Economics of water resource, keynote speaker: Dr. Sohrab Delangizan
(professor of economics in Razi University), June 2016**



Seminar: Water ecological footprint, Dr. Khalil Jalili (President of kermanshah Jahad Daneshgahi), June 2016



Instrumentation and Automation in Water resources, Dr. Keumars sabzvari (Head of Electricity Department), July 2016



Game Theory and Water resources, Keynote speaker: Dr. Meysam Khosravi
(chancellor of IRCAST), July 2016



Student life

The collegiate experience is much more than academic coursework, with more than 10 student clubs and organizations student learns and practices skills of team building and leadership, while making contributions to the campus and community.

- Workshops on life skills and psychology
- Honoring outstanding students
- Sport games and national sport festivals







Honors

- Premier center of University of Applied Science and Technology in 5th National festival of Applied Science and Technology, October 2012.
- Premier university center between university of Kermanshah region, regional jury of Iranian ministry of Science, Research and technology, 2011-2012-2013-2014.
- Iranian Premier University form training and desk-audit office, Iranian ministry of Science, Research and technology, 2011.

