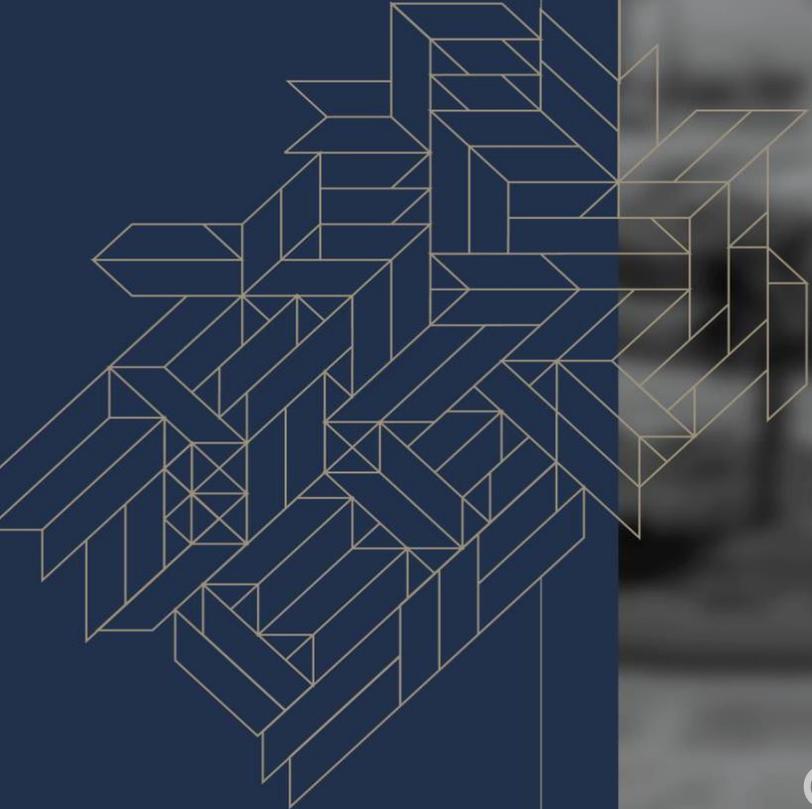




جامعة الإمام عبد الرحمن بن فيصل  
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

عمادة خدمة المجتمع والتنمية المستدامة  
Deanship of Community Service and Sustainable Development



SDG 6.5.2

Off-Campus Water  
Conservation Support  
2024-2025

## Table of Contents

1. Water pollution control .....	3
2. Water Research Community .....	4
3. Field visit.....	5
4. Water Desalination and Treatment Unit .....	6
5. Wastewater/Organic Analysis Lab .....	7
6. IAU Participation in the Middle East Water Week Conference and Exhibition .....	8
7. IAU in cooperation with the Saudi Water Academy for “Generations Summer Program” for Children .....	9
8. Visit of the Delegation of the Saline Water Conversion Corporation to IAU .....	10
9. Services provided by Wastewater / Organic Analysis Lab of IAU .....	11
10. IAU meeting with Environmental Committee at Eastern Chamber for Sustainability .....	12
11. Water And Wastewater Consultation and Engineering Solutions.....	13
12. Integrated Environmental Solutions and Consultancy Office.....	18
13. Field Visit to the Marine Pollution Control Department at Aramco by IAU Faculty and Students.....	22
14. IAU Engineering College Students participated in the “EnviroSpill” Conference and Exhibition at Bahrain .....	23
15. Water Desalination and Treatment Unit of IAU .....	24
16. Involvement of Environmental Engineering Program, IAU in Engineering Projects Exhibition .....	25
17. Environmental Exhibition by IAU .....	26

## 1. Water pollution control

Under the patronage of His Highness Sheikh Sultan bin Ahmed Al Qasimi, Deputy Ruler of Sharjah and President of the University of Sharjah, a team from the Environmental Engineering Department at #College\_of\_Engineering #Imam\_Abdulrahman\_Bin\_Faisal\_University was honored for having their project selected among 900 global entries at the Fifth Forum for Women in Scientific Research in Sharjah on January 20, 2025.



[https://x.com/CE\\_IAU\\_SA/status/1893308397849567243](https://x.com/CE_IAU_SA/status/1893308397849567243)

## 2. Water Research Community



### Imam Abdulrahman bin Faisal University (IAU) Participation in the fifth edition of the Water Research Community Initiative organized by the Saudi Water Authority.

We are proud of the participation of the Mechanical and Energy Engineering Department in the fifth edition of the **Water Research Community Initiative** organized by the Saudi Water Authority, through the presentation of two research papers and the participation of the department head, Dr. Mosaed Al-Zahrani, as a speaker in one of the dialogue sessions.

[https://x.com/CE\\_IAU\\_SA/status/1968561503134437880](https://x.com/CE_IAU_SA/status/1968561503134437880)

### 3. Field visit

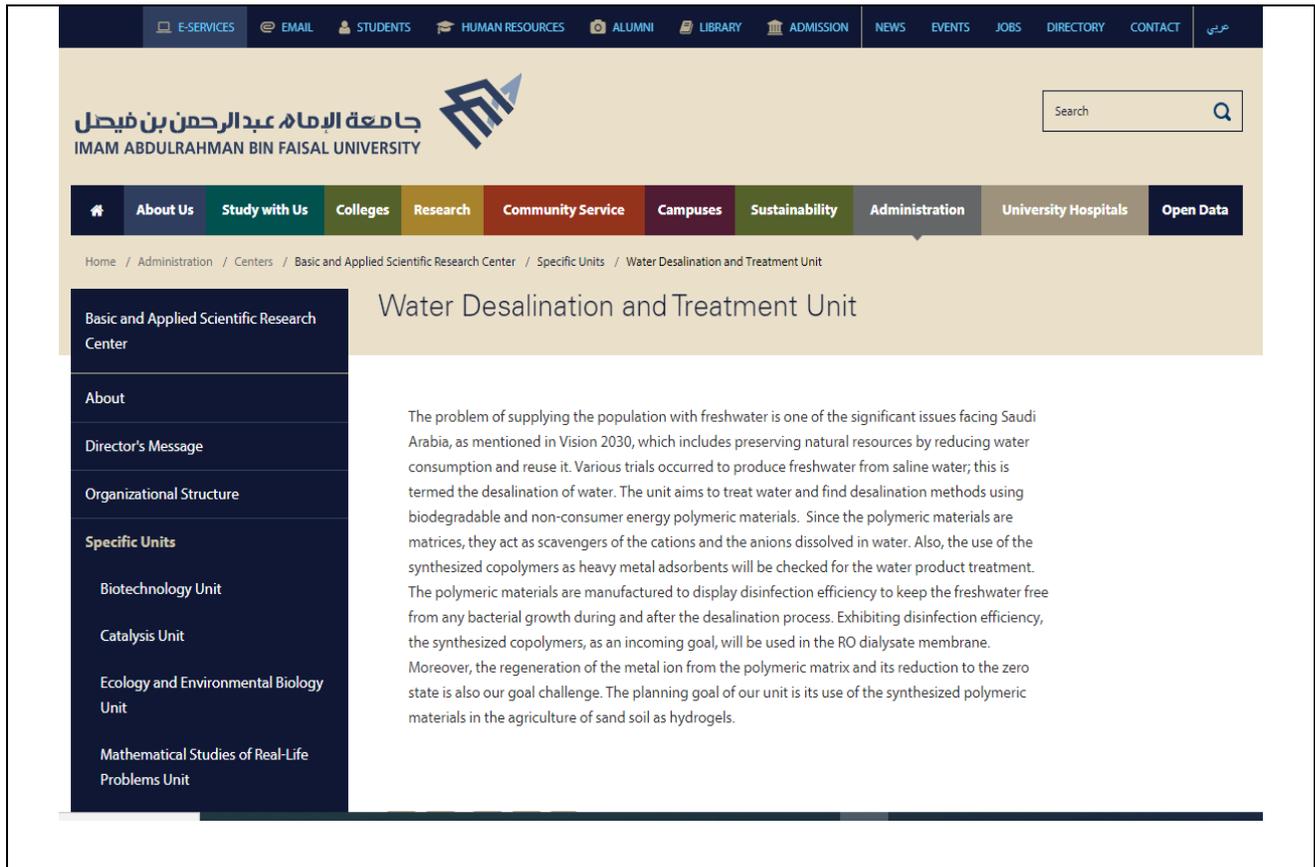


#### **Marine Engineering Students of IAU had a Field Visit to the Zamil Shipbuilding and Repair Company organized by the Saudi Water Authority.**

The Department of Marine Engineering organized a field visit for the first cohort students to Zamil Shipbuilding and Repair Company, where the students were introduced to the various fields of work in the shipbuilding industry, as a step aimed at enhancing the practical aspect and preparing them for the job market.

[https://x.com/CE\\_IAU\\_SA/status/1976558183708848151](https://x.com/CE_IAU_SA/status/1976558183708848151)

## 4. Water Desalination and Treatment Unit



The screenshot shows the website for the Water Desalination and Treatment Unit. The header includes navigation links like E-SERVICES, EMAIL, STUDENTS, HUMAN RESOURCES, ALUMNI, LIBRARY, ADMISSION, NEWS, EVENTS, JOBS, DIRECTORY, CONTACT, and عربي. The main navigation menu includes About Us, Study with Us, Colleges, Research, Community Service, Campuses, Sustainability, Administration, University Hospitals, and Open Data. The breadcrumb trail is: Home / Administration / Centers / Basic and Applied Scientific Research Center / Specific Units / Water Desalination and Treatment Unit.

**Water Desalination and Treatment Unit**

The problem of supplying the population with freshwater is one of the significant issues facing Saudi Arabia, as mentioned in Vision 2030, which includes preserving natural resources by reducing water consumption and reuse it. Various trials occurred to produce freshwater from saline water; this is termed the desalination of water. The unit aims to treat water and find desalination methods using biodegradable and non-consumer energy polymeric materials. Since the polymeric materials are matrices, they act as scavengers of the cations and the anions dissolved in water. Also, the use of the synthesized copolymers as heavy metal adsorbents will be checked for the water product treatment. The polymeric materials are manufactured to display disinfection efficiency to keep the freshwater free from any bacterial growth during and after the desalination process. Exhibiting disinfection efficiency, the synthesized copolymers, as an incoming goal, will be used in the RO dialysate membrane. Moreover, the regeneration of the metal ion from the polymeric matrix and its reduction to the zero state is also our goal challenge. The planning goal of our unit is its use of the synthesized polymeric materials in the agriculture of sand soil as hydrogels.

**Water Desalination and Treatment Unit**

The problem of supplying the population with freshwater is one of the significant issues facing Saudi Arabia, as mentioned in Vision 2030, which includes preserving natural resources by reducing water consumption and reuse it. Various trials occurred to produce freshwater from saline water; this is termed the desalination of water. The unit aims to treat water and find desalination methods using biodegradable and non-consumer energy polymeric materials.

<https://www.iau.edu.sa/en/administration/centers/basic-and-applied-scientific-research-center/specific-units/water-desalination-and-treatment-unit>

## 5. Wastewater/Organic Analysis Lab

### Wastewater/Organic Analysis Lab

**Supervisors**

**Dr. Ismail Anil**  
**Email:** ianil@iau.edu.sa  
**Location:** College of Engineering, A13 Building

**Equipment/Service**

- Gas chromatography coupled with mass spectrometry (GC-MS)
- Ion chromatography
- High-performance liquid chromatography (HPLC)
- Radioactivity Meter
- Solid phase extraction system
- Furnace
- Rotary evaporator
- Automatic titration unit

Laboratory Analysis & Environmental Services Price List

**Wastewater / Organic Analysis Lab at IAU**

<https://www.iau.edu.sa/en/colleges/college-of-engineering/labs-and-equipment/environmental-engineering-laboratories>

## 6. IAU Participation in the Middle East Water Week Conference and Exhibition



### IAU Participation in the Middle East Water Week Conference and Exhibition

The Environmental Engineering section of Faculty of Engineering Imam Abdulrahman Bin Faisal University participated in the Middle East Water Week Conference and Exhibition and presented a number of projects aimed at treating water.

[https://twitter.com/CE\\_IAU\\_SA/status/1736717131863962024](https://twitter.com/CE_IAU_SA/status/1736717131863962024)

## 7. IAU in cooperation with the Saudi Water Academy for “Generations Summer Program” for Children



جامعة الإمام عبد الرحمن بن فيصل  
 IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY  
 مركز التعليم المستمر  
 Continuing Education Center

Kids | الأكاديمية السعودية للمياه  
 SAUDI WATER ACADEMY

### برنامج أجيال الصيفي

يسر مركز التعليم المستمر بجامعة الإمام عبد الرحمن بن فيصل وبالتعاون الأكاديمية السعودية للمياه عن إطلاق برنامج أجيال الصيفي

#### الأنشطة التدريبية

- البرمجة باستخدام روبوت كويكو
- روبوت اسفيرو وملعب كرة القدم
- الواقع الافتراضي وللعزز
- بطارية الليثيوم من باسكو
- الزئيل الاخضر
- قياس الرقم الهيدروجيني في السائل
- تحدي القيادة باستخدام الليجو

التسجيل وللتلومعات  
 موقع التدريب  
 سفير البرنامج  
 الفئة المستهدفة  
 موعد البرنامج

14 يوليو 2024  
 9:00AM - 12:00PM  
 15 ساعة تدريبية

الهيئة السعودية للمياه  
 Saudi Water Authority

SAUDIWACD | WWW.SWACADEMY.COM

### IAU in cooperation with the Saudi Water Academy for “Generations Summer Program” for Children

The Continuing Education Center is pleased to #Imam\_AbdulRahman\_Bin\_Faisal\_University In cooperation with the Saudi Water Academy. The announcement of the launch of “Generations Summer Program”. The Target group is Children from (7 years to 12 years).

[https://twitter.com/IAU\\_KSA/status/1808112744589070344](https://twitter.com/IAU_KSA/status/1808112744589070344)

## 8. Visit of the Delegation of the Saline Water Conversion Corporation to IAU



### Visit of the Delegation of the Saline Water Conversion Corporation to IAU

Part of the visit of the delegation of the Saline Water Conversion Corporation to Imam Abdulrahman Bin Faisal University, which included a tour of: 1) Research Center, Faculty of Science, 2) Faculty of Computer Science and Information Technology, 3) Faculty of Engineering

[https://twitter.com/IAU\\_KSA/status/1604581022351368192](https://twitter.com/IAU_KSA/status/1604581022351368192)

## 9. Services provided by Wastewater / Organic Analysis Lab of IAU

☰
Wastewater/Organic Analysis Lab

**Supervisors**

**Dr. Ismail Anil**  
**Email:** ianil@iau.edu.sa  
**Location:** College of Engineering, A13 Building

**Equipment/Service**

- Gas chromatography coupled with mass spectrometry (GC-MS)
- Ion chromatography
- High-performance liquid chromatography (HPLC)
- Radioactivity Meter
- Solid phase extraction system
- Furnace
- Rotary evaporator
- Automatic titration unit

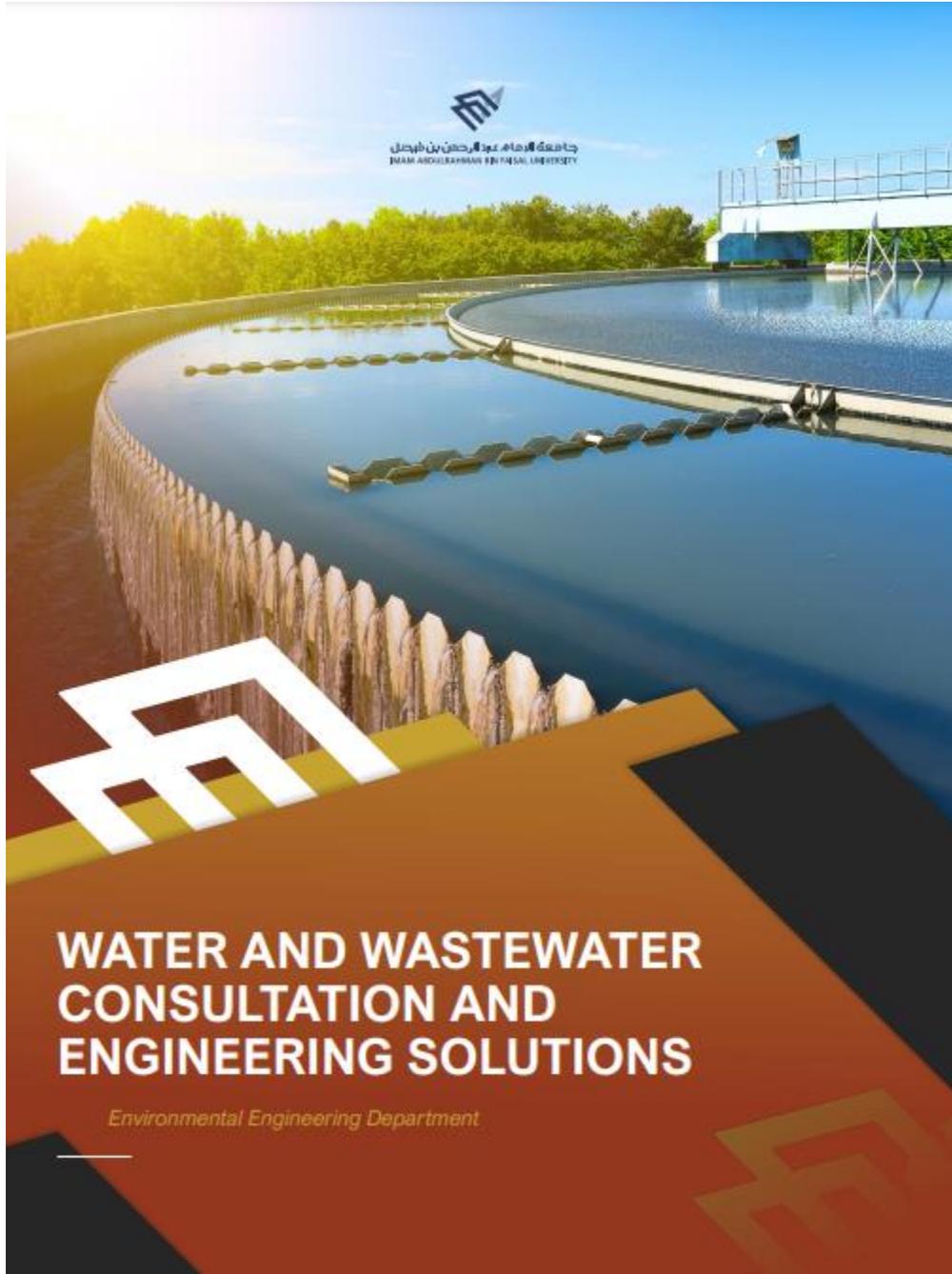
Laboratory Analysis & Environmental Services Price List
📄

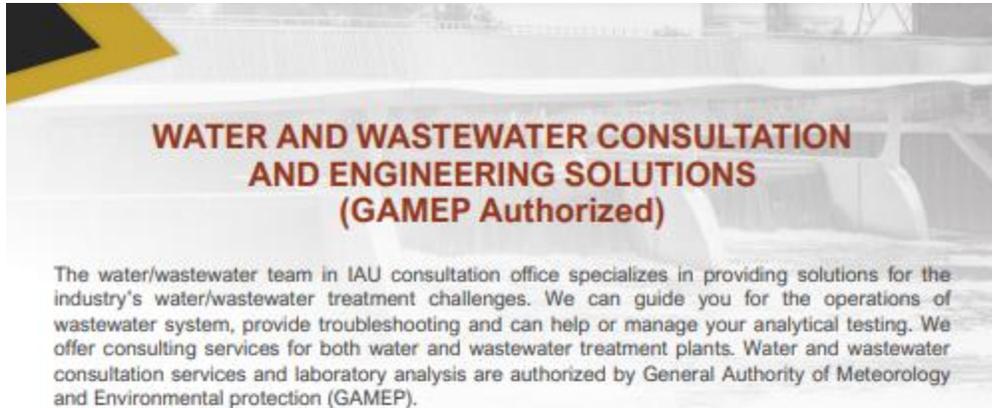
Wastewater / Organic Analysis Lab at IAU

<https://www.iau.edu.sa/en/colleges/college-of-engineering/labs-and-equipment/environmental-engineering-laboratories>



## 11. Water And Wastewater Consultation and Engineering Solutions





## WATER AND WASTEWATER CONSULTATION AND ENGINEERING SOLUTIONS (GAMEP Authorized)

The water/wastewater team in IAU consultation office specializes in providing solutions for the industry's water/wastewater treatment challenges. We can guide you for the operations of wastewater system, provide troubleshooting and can help or manage your analytical testing. We offer consulting services for both water and wastewater treatment plants. Water and wastewater consultation services and laboratory analysis are authorized by General Authority of Meteorology and Environmental protection (GAMEP).

### Our services include:



- Analytical testing, troubleshooting & solutions
- Water and wastewater quality monitoring
- Periodic on-site water treatment plant visits
- Evaluation of water treatment processes (including chemical analyses)
- Preparation and results reporting
- Water system maintenance
- Sludge removal and dewatering solutions
- Expert witness

We also offer short courses related to the area of water and wastewater treatment. The office is part of the Integrated environmental solutions and consultancy center established in 2020 by Imam Abdulrahman Bin Faisal University and accredited by the regulatory environmental accreditation body in Saudi Arabia - General Authority of Meteorology and Environmental protection (GAMEP). All laboratory analyses are conducted following an approved environmental laboratory protocol.

### EXAMPLES OF LAB ANALYSIS

Wet analysis	Elemental analysis	Chromatographic analysis	Microbiology & Toxicity analysis
Conductivity	Total Organic Carbon	Fluorine	Total Coliform
Turbidity (NTU)	CHNS Analysis	Chlorine	Fecal Coliform
Total Solids	Sulfur	Bromide	Total Bacteria Count
Suspended & Dissolved Solids	Sulfate	Mineral oils	E. Coli (MPN)
Settleable & Volatile Solids	Phosphorous	Organics	Chlorophyll a, b, and c
Fixed Solids	Nitrate	PAHs	Fish Biological Experiment
Water Content	COD	PCBs	
pH	Phenol	BTEX	
Ion Mobility	Heavy metals	VOCs	
Zeta Potential	Trace metals		
Acidity			
Dissolved Oxygen			
Color			
Alkalinity			
Total Hardness			

### Wet analysis

Free Chlorine, Total Chlorine, Sulphur, Kjeldahl Nitrogen, Organic Nitrogen, Ammonium Nitrogen, Total Nitrogen, Total Phosphor, Phenols, Oil and Grease, Biological Oxygen Demand (BOD5), Chemical Oxygen Demand (COD), Chromium (VI), Fluoride (F-), Chloride (Cl-), Bromide (Br-), Nitrite (NO<sub>2</sub>-), Nitrate (NO<sub>3</sub>-), Sulfate (SO<sub>4</sub>2-), Phosphate (PO<sub>4</sub>3-) and Cyanide (CN-) are all tested in our lab.

### Chromatographic analysis

F-, Cl-, Br-, NO<sub>2</sub>-, NO<sub>3</sub>-, SO<sub>4</sub>2-, PO<sub>4</sub>2- and cations by Ion Chromatography. Mineral Oil Analysis in Water Samples, Organics; PAHs, PCBs, BTEX, VOCs by HPLC & GC-MS.

### Elemental analysis

(TOC Analyzer), analysis by Individual Test Kits (UV Spectrophotometry) (S<sub>2</sub>-, SO<sub>4</sub>2-, P, NO<sub>3</sub>-, B, Cr<sup>6+</sup>, Cl-, CN-, NO<sub>2</sub>-, COD, F-, Phenol), Heavy & Trace Metals by ICP-OES, ICP-MS, and AAS instrument that includes: Silver (Ag), Indium (In), Aluminum (Al), Potassium (K), Boron (B), Lithium (Li), Barium (Ba), Magnesium (Mg), Bismuth (Bi), Manganese (Mg), Calcium (Ca), Sodium (Na), Cadmium (Cd), Nickel (Ni), Cobalt (Co), Lead (Pb), Chromium (Cr), Strontium (Sr), Copper (Cu), Thallium (Tl), Iron (Fe), Gallium (Ga) and Zinc (Zn).

### Microbiology & Toxicity analysis

HPC, Toxication Thinning Factor (ZSF) among others analysis.

## INSTRUMENT



01

### INDUCTIVELY COUPLED PLASMA / ICP-MS

The Tisch Environmental PM<sub>2.5</sub> and PM<sub>10</sub> high volume air sampler is a Federal Reference Method sampler for collecting fine and coarse particulate matter fractions. Its primary uses are for regulatory sampling and institutional studies.



02

### INDUCTIVELY COUPLED PLASMA / ICP-OES

ICP-OES offers the highest resolution along with high sensitivity and stability for the most demanding applications. It is trace-level, elemental analysis technique that determines concentrations of trace to major elements in part per million (ppm) and can detect most elements in the periodic table. Applications are drinking water, wastewater, other examples of environmental studies, petrochemistry, food, hydrogeology, and others.



03

### GAS CHROMATOGRAPHY MASS SPECTROMETRY / GC-MS

GC-MS covers volatile to semi-volatile analytes, oil, petroleum derivative and petrochemical analysis, in matrices ranging from simple air and drinking water to the most complex food and soil/sludge. Additionally, it is equipped with Gerstel sample introduction system that expands the GC-MS capabilities such as automated sampling handling, head space sampling and solid phase micro extraction "SPME".



04

### HIGH PERFORMANCE LIQUID CHROMATOGRAPHY- HPLC

High performance liquid chromatography with photo diode array detector, HPLC-PDA has been increasingly employed for the analytical control of environmental pollution levels. It appears promising for the identification and determination of non-volatile or strongly polar compounds in air and in surface, waste, and drinking water.



### 05 INDUCTIVELY COUPLED PLASMA / ICP-MS

The Tisch Environmental  $PM_{2.5}$  and  $PM_{10}$  high volume air sampler is a Federal Reference Method sampler for collecting fine and coarse particulate matter fractions. Its primary uses are for regulatory sampling and institutional studies.



### 06 ATOMIC ABSORPTION SPECTROMETER

Atomic absorption spectrometry (AAS) is a single element technique that measures the concentrations of elements. Applications; water and environmental analysis, geochemical analysis, food analysis and metallurgical analysis.



### 07 ELEMENTAR CHNS

Elementar CHNS system is used to detect Carbon, Hydrogen, Nitrogen and Sulfur in inorganic and other types of materials. Being fast and accurate are among the advantages of this system. CHNS can handle a wide variety of sample types including solids, liquids, volatile and viscous samples.



### 08 ROTARY EVAPORATOR

A rotary evaporator is a device used in chemical laboratories for the efficient and gentle removal of solvents from samples by evaporation. Rotary evaporators are also used in molecular cooking for the preparation of distillates and extracts. Besides being used in the Rotary Evaporator chemistry laboratories; it is also applied for necessary processes in fields such as pharmaceuticals, cosmetics, food, petrochemical and R&D.



### 09 MICROBIOLOGICAL TESTING

Our Microbiology lab is equipped with many kinds of microscopes, safety cabinet, laminar flow, incubators, and autoclave to test samples for bacteria, larvae and fungi.



#### EXAMPLES OF PREVIOUS PROJECTS AND STUDIES

- Corrosion inhibition in oil and gas industries using new fine-tunable pH-responsive polymers
- Beach Well Filtration as Pre-Treatment for RO desalination in eastern province-Saudi Arabia
- Electro-decontamination of toxic phenolic wastewaters under different direct current supply modes<sup>11</sup>
- Pulsed-current electrokinetic remediation of groundwater contaminated with heavy metals<sup>12</sup>
- Water quality in higher education institutions



#### EXAMPLES OF PREVIOUS REFEREED JOURNAL PAPERS

- Systematic modeling of municipal wastewater activated sludge process and treatment plant capacity analysis using GPS-X.
- Sewage sludge ZnCl<sub>2</sub> activated carbon intercalated MgFe-LDH nanocomposites: insight of sorption mechanism of improved removal of phenol from water.
- Sustainable wastewater treatment by biochar/layered double hydroxide composites: Progress, challenges, and outlook
- Adsorption behavior and mechanism of methylene blue, crystal violet, eriochrome black T, and methyl orange dyes onto biochar-derived date palm fronds waste produced at different pyrolysis conditions
- Response surface modeling and optimization of sludge activated carbon production conditions for phenolic compounds removal from water

- Corrosion inhibition in oil and gas industries using new fine-tunable pH-responsive polymers
- Beach Well Filtration as Pre-Treatment for RO desalination in eastern province-Saudi Arabia
- Electro-decontamination of toxic, phenolic wastewaters under different direct current supply modes<sup>a</sup>
- Pulsed-current electrokinetic remediation of groundwater contaminated with heavy metals<sup>a</sup>
- Water quality in higher education institutions
- Systematic modeling of municipal wastewater activated sludge process and treatment plant capacity analysis using GPS-X.
- Sewage sludge Zn/C2 activated carbon intercalated MgFe-LDH nanocomposites: insight of sorption mechanism of improved removal of phenol from water.
- Sustainable wastewater treatment by biochar/layered double hydroxide composites: Progress, challenges, and outlook
- Adsorption behavior and mechanism of methylene blue, crystal violet, eriochrome black T, and methyl orange dyes onto biochar-derived date palm fronds waste produced at different pyrolysis conditions
- Response surface modeling and optimization of sludge activated carbon production conditions for phenolic compounds removal from water



جامعة الإمام عبد الرحمن بن فيصل  
IMAM ABDURRAHMAN BIN FAISAL UNIVERSITY

## WATER AND WASTEWATER CONSULTATION AND ENGINEERING SOLUTIONS

Imam Abdulrahman Bin Faisal University  
P.O.Box 1982, Dammam 31451, Saudi Arabia  
+966 1 3333 1713  
CE.EED@iau.edu.sa  
www.iau.edu.sa

FLIP LINK  
[https://simplebooklet.com/TX\\_AZILK6iIM52nMnnqHQT3P](https://simplebooklet.com/TX_AZILK6iIM52nMnnqHQT3P)



[https://www.iau.edu.sa/sites/default/files/resources/water\\_and\\_wastewater.pdf](https://www.iau.edu.sa/sites/default/files/resources/water_and_wastewater.pdf)

## 12. Integrated Environmental Solutions and Consultancy Office



## INTEGRATED ENVIRONMENTAL SOLUTIONS AND CONSULTANCY OFFICE (GAMEP Authorized)



The department of environmental engineering is considered as a pioneer since it is the first department to offer the bachelor's degree environmental engineering in the kingdom of Saudi Arabia.



The Integrated Environmental Solutions and Consultancy Center established by Imam Abdulrahman Bin Faisal University in 2020 and Authorized by the Presidency of General Authority of Meteorology and Environment Protection (GAMEP).



The distinguished experience, expertise, and capabilities are utilized to develop engineering solutions that meet the customers' needs and local standards. The services include providing optimum air quality management and solutions on the indoor/outdoor air pollution and industrial emissions from oil and gas, energy, mining, and minerals sectors.



The Consulting and Engineering Office is dedicated to working with clients to implement compliance solutions using innovative approaches and advanced technologies. The measurement and analysis are conducted following stringent environmental laboratory protocol and best quality practice.



### The multi-disciplinary consultants engineering office includes:

01 Environment services including environmental studies, design, and supervision	05 Physical, chemical, and biological procedures and mechanisms accountable for the proclamation, conveyance, alteration and preservation of pollutants.
02 Professional training for environmental specialists and technicians	06 Pollutant control procedures (predominantly the exclusion of trace & toxins or pollutants).
03 Short and long Certificate programs in environmental specialists and engineering filed	07 Basic ideologies of physical, chemical, and biological conduct know how for water, wastewater and solid wastes scums or residues from different sources.
04 Third-party inspection and opinion work to ensure compliance with the project specifications, codes, and standards.	08 Pollutant control measures for Air, other contaminants removal from air & its monitoring (gases, Particulate matters & Meteorological parameters etc.).



### 1. Division of Solid and Hazardous Waste Management

This consultation office offers consultation services, conducting studies, third-party testing, inspection, and training in the field of environmental engineering and waste management, including industrial, medical among all other types of solid waste. In Addition, we offer short courses related to the area of solid waste management. The office is part of the Integrated Environmental Solutions and Consultancy Center established in 2020 by Imam Abdulrahman Bin Faisal University. All laboratory analysis are conducted following an approved environmental laboratory protocol.




### Our services include:

- Inspecting, analysis, and assessment of all types of hazardous waste.
- Landfill and incineration design
- Best applicable technology
- Oil waste management and reuse
- Industrial waste collection and disposal
- Medical waste management, disposal, and incineration
- Radioactive waste management
- Contaminated solid purification



## 2. Division of Wastewater Treatment and Reuse:

water/wastewater team in IAU consultation office specializes in providing solutions for the industry's water/wastewater treatment challenges. We can guide you for the operations of wastewater system, provide troubleshooting, and can help or manage your analytical testing. We offer consulting services for both water and wastewater treatment plants. We offer consultation services, conducting studies, measurements, and training in the field of wastewater engineering, treatment, optimization, reuse, and design.



**Our consultation services and laboratory analysis are authorized by the Presidency of Meteorology and Environment (GAMEP).**

- Conducting analysis and modeling on the existing design of wastewater engineering systems and finding cost-saving opportunities that provide a return on investment.
- Designing, implementing, and upgrading wastewater treatment systems
- Advice on best practicable and cost-effective solutions for wastewater treatment.
- Wastewater analysis and characterization
- Marine pollution and deep discharge design
- Blue flag services and consultation
- Water footprint calculations and simulations
- Wastewater plant modelling and simulation studies



## 3. Division of Air Quality and Emission Control

Offering consultation services, conducting studies, third-party testing, inspection, and training in the field of environmental engineering, indoor and outdoor air quality assessment, emission inventory calculation, dispersion modeling, health risk assessment, dose calculation.

- Mobile station air quality monitoring for EIA studies
- Stack Gas Monitoring
- Designing Innovative Air Pollution Control Technologies
- Optimizing Current Air Pollution Control Technologies
- Short courses and training
- Calibration and maintenance
- Bioserosol Sampling and Analysis
- Noise Pollution Monitoring, Mapping, Modeling, and Control
- Monitoring of Meteorological Parameters
- Air Toxics Health Risk Assessments
- Dispersion Modelling
- Source Apportionment Modelling
- Air Quality Program Management
- Air Pollution and Air Quality Mapping
- GIS maps for measured pollutants
- Source and stack emission monitoring
- Ambient air quality studies
- Mobile lab services
- Environmental management plan (EMP)
- Environmental impact assessment studies (EIA)
- Life cycle assessment studies (LCA)
- Pollutants dispersion modelling (AREMOD)
- Risk assessment and dose calculation
- Auditing and inspection
- Energy efficiency
- Carbon footprint
- Global warming and greenhouse gases
- Ambient/Indoor Sampling, Monitoring, Analysis of Air Pollutants



**Mobile Air Quality Monitoring Station**



جامعة الإمام عبد الرحمن بن فيصل  
IMAM ABDURRAHMAN BIN FAISAL UNIVERSITY

# Integrated Environmental Solutions and Consultancy office

**One-Stop-Shop.**  
Backed up with our well-equipped laboratories enables us to test and diagnose prior to consultation



**FLIP LINK**  
<https://simplebooklet.com/Y3PjySVJ0PTkaCE6vOKo5y>

**Imam Abdulrahman Bin Faisal University**  
P.O. Box 1982, Dammam 31451,  
Saudi Arabia +966 1 3333 1713  
CE.EED@iau.edu.sa  
[www.iau.edu.sa](http://www.iau.edu.sa)

[https://www.iau.edu.sa/sites/default/files/resources/general\\_introduction-compressed.pdf](https://www.iau.edu.sa/sites/default/files/resources/general_introduction-compressed.pdf)

### 13. Field Visit to the Marine Pollution Control Department at Aramco by IAU Faculty and Students



**Field Visit to the Marine Pollution Control Department at Aramco by IAU Faculty and Students**

I had the honor of organizing a field visit to the Marine Pollution Control Department at Aramco - Tanura Opinion. Many thanks to Aramco for allowing the future engineers to have this unique experience and wonderful organization.

<https://twitter.com/Omer2AGA/status/1755169090157637914>

## 14. IAU Engineering College Students participated in the “EnviroSpill” Conference and Exhibition at Bahrain

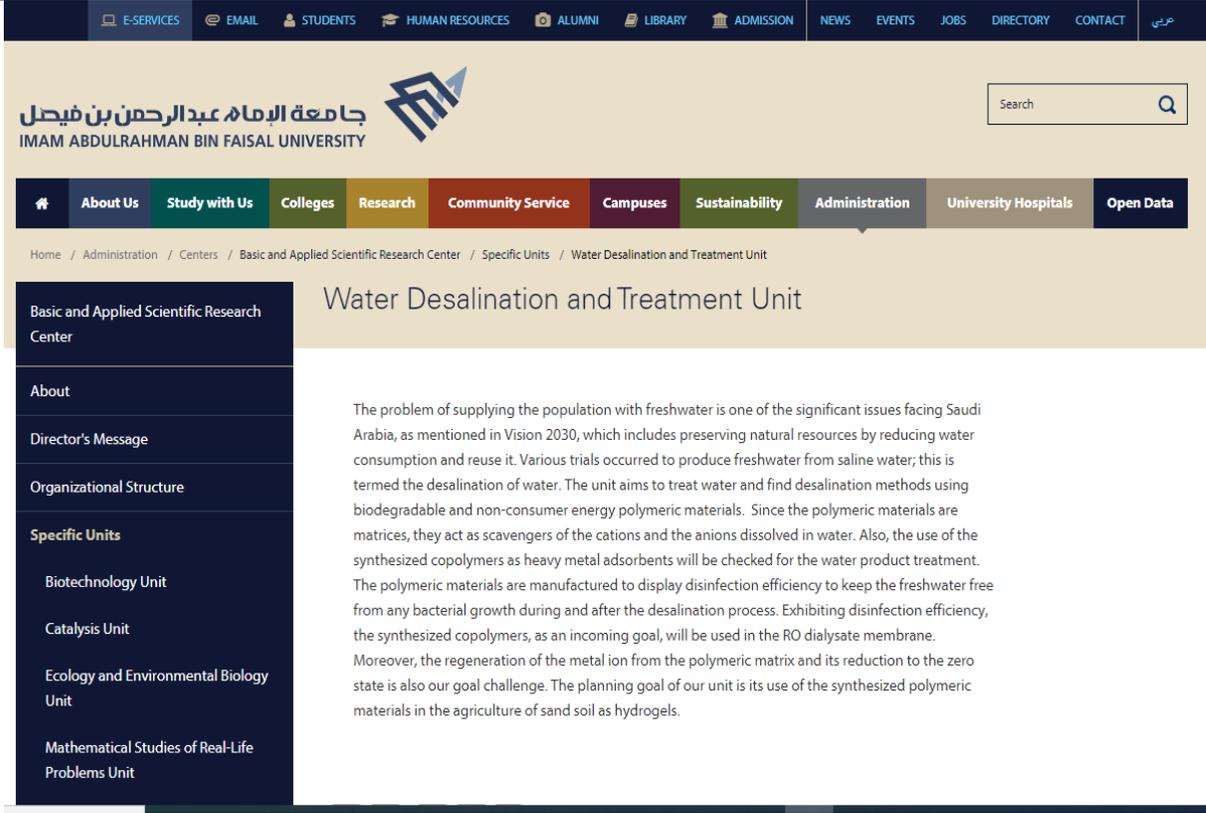


### Participation of IAU Engineering College Students in the EnviroSpill Conference and Exhibition at Bahrain

Part of the participation of College of Engineering students of IAU in the conference sessions specialized in combating pollution through the EnviroSpill Conference and Exhibition, which was held in the Kingdom of Bahrain to learn about the latest technologies in combating oil spills under the patronage and attendance of His Excellency the Minister of Oil and Environment in Bahrain.

[https://twitter.com/IAU\\_KSA/status/1582358003483029504](https://twitter.com/IAU_KSA/status/1582358003483029504)

## 15. Water Desalination and Treatment Unit of IAU



The problem of supplying the population with freshwater is one of the significant issues facing Saudi Arabia, as mentioned in Vision 2030, which includes preserving natural resources by reducing water consumption and reuse it. Various trials occurred to produce freshwater from saline water; this is termed the desalination of water. The unit aims to treat water and find desalination methods using biodegradable and non-consumer energy polymeric materials. Since the polymeric materials are matrices, they act as scavengers of the cations and the anions dissolved in water. Also, the use of the synthesized copolymers as heavy metal adsorbents will be checked for the water product treatment. The polymeric materials are manufactured to display disinfection efficiency to keep the freshwater free from any bacterial growth during and after the desalination process. Exhibiting disinfection efficiency, the synthesized copolymers, as an incoming goal, will be used in the RO dialysate membrane. Moreover, the regeneration of the metal ion from the polymeric matrix and its reduction to the zero state is also our goal challenge. The planning goal of our unit is its use of the synthesized polymeric materials in the agriculture of sand soil as hydrogels.

### Water Desalination and Treatment Unit

The problem of supplying the population with freshwater is one of the significant issues facing Saudi Arabia, as mentioned in Vision 2030, which includes preserving natural resources by reducing water consumption and reuse it. Various trials occurred to produce freshwater from saline water; this is termed the desalination of water. The unit aims to treat water and find desalination methods using biodegradable and non-consumer energy polymeric materials.

<https://www.iau.edu.sa/en/administration/centers/basic-and-applied-scientific-research-center/specific-units/water-desalination-and-treatment-unit>

## 16. Involvement of Environmental Engineering Program, IAU in Engineering Projects Exhibition



### Involvement of Environmental Engineering Program, IAU in Engineering Projects Exhibition

Under the patronage of His Excellency the President Imam Abdulrahman Bin Faisal University Prof. Dr. Abdullah bin Mohammed Al-Rabish, Vice President for Scientific Research and innovation, Prof. Dr. Fahd Al-Harbi, inaugurated the **annual graduation projects exhibition** for College of Engineering, by displaying 48 engineering projects in the specializations of biomedical engineering, **energy engineering**, construction engineering, environmental engineering, and transportation and traffic engineering. In the presence of the Dean of the College, Dr. Murad Al-Thabeti, faculty members and company representatives.

[https://twitter.com/IAU\\_KSA/status/1791090424838336615](https://twitter.com/IAU_KSA/status/1791090424838336615)

## 17. Environmental Exhibition by IAU



جامعة الإمام عبد الرحمن بن فيصل  
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY  
كلية الهندسة 1 College of Engineering

#بيئتك تعرفك  
تعرفك بكل سلوك تقوم به

تدعوكم شعبة النادي البيئي بكلية الهندسة بجامعة الإمام عبد الرحمن بن فيصل لحضور معرض أسبوع البيئة تحت شعار #بيئتك تعرفك

يتضمن المعرض محاضرة مقدمة من  
الدكتور طلال الرشيدى ( رئيس جمعية أصدقاء البيئة )

يوم الإثنين الموافق 20 March  
Am وقت المعرض: 10:00-12:00  
الموقع: كلية الهندسة مبنى A13  
Am وقت المحاضرة: 10:00-11:00  
قاعة الخوارزمي- A13 الموقع: كلية الهندسة مبنى

Enva\_mewa

مبادرة التوعية البيئية 2023  
بيئتك تعرفك

### IAU invitation for Environmental Week Exhibition

The College of Engineering, IAU invited public and students to attend Environment Week Exhibition under the slogan “Your Environment Knows You”

[https://twitter.com/CE\\_IAU\\_SA/status/1637697377539612674](https://twitter.com/CE_IAU_SA/status/1637697377539612674)



**Environmental Week Exhibition by IAU**

Part of the attendance of the Environment Week Exhibition held in the College of Engineering, IAU under the slogan “Your Environment Knows You”

[https://twitter.com/CE\\_I AU\\_SA/status/1637777150844469248](https://twitter.com/CE_I AU_SA/status/1637777150844469248)

