





UNITED ARAB EMIRATES UNIVERSITY SUSTAINABLE DEVELOPMENT **GOALS REPORT**

2022



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EXECUTIVE SUMMARY

The United Arab Emirates University (UAEU), established in 1976, is the first and most comprehensive research University in the country. The University is based in Al Ain City with its state-of-the-art campus, fully equipped with the most advanced educational and research facilities. Approximately 16,000+ students from 89 countries are currently enrolled in the university. UAEU plays an active role in achieving and keeping pace with the sustainable development goals (SDGs) of the United Nations by supporting initiatives and projects seeking to achieve this ambitious vision. According to the Times Higher Education Impact Ranking 2022, UAEU is ranked 12 globally, and first in the UAE, for SDG 4: Quality of Education.

UAEU launched the first SDG report for the year 2021. The 2022 report serves as a testament to the UAEU commitment to fostering a better world by aligning our institutional endeavors with the key principles and objectives outlined in the SDGs. UAEU is committed to enhancing its impact by reinforcing current collaborations and establishing new partnerships, with the goal of expediting sustainability initiatives across our educational, research, and international networks.



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POVERTY

30 PUBLICATIONS IN SCOPUS (2018-2022)

IN UAE BASED ON THE NUMBER OF SCOPUS PUBLICATION ADDRESSING SDG 1 (2018 TO 2022)

END POVERTY IN ALL ITS FORMS EVERYWHERE

The Financial Aid Department at UAEU is dedicated to assisting eligible students from low-income backgrounds who encounter financial challenges potentially hindering their academic pursuits. The department achieves this by offering financial assistance, complimentary meals, lodging, and transportation. Any UAEU student from a low-income family is eligible to submit a financial aid application through e-Services. Each application undergoes a thorough review, and the necessary documentation is evaluated to determine the appropriate level of support.

Lion share of the financial support & tution waiver for the international students received by students from African and Central Asian countries who experiences the most poverty in present world order. This in turn shows UAEU's global view on poverty eradication.

PHD STUDENTS **RECEIVED FINANCIAL** SUPPORT IN 2022

1500+ STUDENTS RECIEVING FINANCIAL SUPPORT

SCHOLORSHIP/FELLOV INTERNATIONAL STUD

- O CHANCELLOR'S FE
- O GRADUATE RESEA
- O GRADUATE TEACH
- O GRADUATE ADMIN
- FULL RIDE SCHO NATIONALS (UAEL
- O PHD SCHOLARSH
- O PHD FELLOWSHIP
- THE ICT SCHOLARS
- O MSC STUDENTSHI AND TECHNOLOG
- O SCHOLARSHIP FO SPACE PIONEERS PROGRAM

The Public Policy Research Center at UAEU focuses on issues related to public policy and leadership in the UAE that includes:

- ECONOMIC POLICIES
- SOCIAL POLICIES
- O LABOR POLICIES
- O MEDIA POLICIES
- **O** SECURITY POLICIES
- HEALTH POLICIES
- **O** EDUCATION POLICIES

The research team at UAEU examined the influence of financial inclusion on tourism demand across 85 Emerging Market and Developing Economies (EMDEs) worldwide, covering the timespan from 1995 to 2017.

UAEU Funded 8 student SDG 1 for the 2021-2022 c

VSHIP SCHEMES ARE AVAILABLE TO NATIONAL A	AND	
ELLOWSHIP FOR GRADUATE STUDENTS AT UAEU		
RCH ASSISTANTSHIP (ALL NATIONALITIES)		
ING ASSISTANTSHIP (ALL NATIONALITIES)		
VISTRATIVE ASSISTANTSHIP (ALL NATIONALITIES)		
NARSHIP FROM MASTER TO PHD FOR UAE		
IP (ALL NATIONALITIES)		
(ALL NATIONALITIES)		
SHIP PROGRAM @ UAEU		
PS AT THE NATIONAL SPACE SCIENCE Y CENTER		
R MSC SPACE SCIENCE UNDER ARAB		

O GOVERNANCE PROGRAMS AND GOVERNMENT EXCELLENCE

s research projects addressing	
zycle.	



• • END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND **PROMOTE SUSTAINABLE** AGRICULTURE

THE KHALIFA CENTER FOR GENETIC ENGINEERING & BIOTECHNOLOGY (KCGEB) WAS INAUGURATED IN 2014 BY HIS HIGHNESS SHEIKH MANSOUR BIN ZAYED AL NAHYAN, DEPUTY PRIME MINISTER AND MINISTER OF PRESIDENTIAL AFFAIRS. RESEARCH AT THE KC-GEB IS FOCUSED ON EXPLORING FLORA OF THE ARID **REGION TO GENERATE SCIENTIFIC KNOWLEDGE TO** ADDRESS THE GLOBAL CHALLENGES IN THE FOOD SE-CURITY AND SUSTAINABLE AGRICULTURE PRACTICE THROUGH GENOMICS, GENETIC ENGINEERING AND **BIOTECHNOLOGICAL INNOVATIONS. KCGEB IS SUP-**PORTED BY STRATEGIC FUNDING FROM THE MINISTRY OF PRESIDENTIAL AFFAIRS.

> PUBLICATIONS IN SCOPUS (2018 - 2022)

THE CENTER HAS THREE RESEARCH PLATFORMS:

- O GENETIC ENGINEERING FOR CROP IMPROVEMENT
- GENOMICS AND BIOINFORMATICS
- O TRANSLATIONAL RESEARCH FOR CROP DEVELOPMENT

ACADEMIC PROGRAMS:

- O BACHELOR OF SCIENCE IN AGRICULTURAL RESOURCE MANAGEMENT
- O BACHELOR OF SCIENCE IN MARINE FISHERIES AND ANIMAL SCIENCE
- BACHELOR OF SCIENCE IN HORTICULTURE
- MASTER OF SCIENCE IN HORTICULTURE
- O DOCTOR OF PHILOSOPHY IN HORTICULTURAL SCIENCES
- O BS-MS OPTION IN HORTICULTURE
- BACHELOR OF SCIENCE IN FOOD SCIENCE
- O DOCTOR OF PHILOSOPHY IN FOOD SCIENCE AND TECHNOLOGY
- O BS-MS OPTION IN FOOD SCIENCE
- O MASTER OF SCIENCE IN FOOD SCIENCE
- BACHELOR OF VETERINARY MEDICINE
- **O** BACHELOR OF SCIENCE IN NUTRITIONAL SCIENCE
- BACHELOR OF SCIENCE IN DIETETICS
- O BACHELOR OF SCIENCE IN NUTRITIONAL SCIENCE
- BACHELOR OF SCIENCE IN DIETETICS
- CROP PRODUCTION AND ORGANIC FARMING (CONCENTRATION)

CAVM along with the College of Business and Economics has established a partnership with the Khalifa Fund to design an effective business incubation program for the food sector to help foster an entrepreneurial culture among local female Emiratis. The Food Innovation Program is the first of its kind in the Middle East and North Africa (MENA) region and one of the very few programs globally that is fully integrated with a University that caters for:

- FARMERS LOOKING TO DEVELOP VALUE-ADDED PRODUCTS;
- RESTAURANT OWNERS INTERESTED IN PRODUCING PRODUCTS FOR RETAIL SALE (SALAD DRESSINGS AND SAUCES);
- O TALENTED BAKERS OR COOKS WHO WANT TO SELL THEIR PRODUCTS
- ANYONE LOOKING TO START A FOOD BUSINESS

IN UAE BASED ON THE NUMBER OF SCOPUS **PUBLICATION (2018 TO 2022)**









RESEARCH AND EXPERIMENTAL STATIONS

The College of Agriculture and Veterinary Medicine is pioneering the efforts with regards to food security, sustainability, and animal/aquaculture systems through its three unique constituent research and experimental stations at Falaj Hazza, Al Foah & Nahshella units. The three experimental and research stations provides sustainable agriculture and aquaculture knowledge, skills or technology to local farmers and food producers through different workshops and training programs.

The <u>"Emirates Journal of Food and Agriculture</u> [EJFA]" from UAEU is a unique, peer-reviewed Journal of Food and Agriculture publishing basic and applied research articles in the field of Food Science and Technology, Agricultural Sciences (Plant Production & Protection, and Animal Sciences), Human Nutrition, Agribusiness, Consumer Sciences and the Environment.

PROMOTING SUSTAINABLE DIETARY OPTIONS

Within the university campus, a food court is present in both the male and female sections, offering a diverse range of wholesome and nutritious meal options. These include Oriental, Middle Eastern, Asian, and European menus. The food court is committed to catering to the dietary preferences of campus students, including those who follow vegan or vegetarian lifestyles. Rigorous health inspections are routinely conducted at all outlets to guarantee consistent adherence to food safety.







The United Arab Emirates University (UAEU) and the Abu Dhabi Agriculture and Food Safety Authority (ADAFSA) discussed ways of joint cooperation to enhance the scientific research and common projects, to meet the requirements of development in the field of agriculture and food security and to enhance the capabilities and skills of students.

The research team at UAEU undertook a study to record crucial data concerning the <u>microbial com-</u> <u>munities</u> linked with H. anatolicum in the UAE. This investigation aims to enhance our comprehension of the microbial distribution in livestock ticks within the UAE, ultimately contributing to unraveling the relationships between microbes. The findings will also play a significant role in exploring potential factors that could inform the development of effective management strategies.

Students of Zakher Private School in Al Ain paid an educational visit to the College of Agriculture and Veterinary Medicine at the United Arab Emirates University on Monday, March 14, 2022. The college delivered an informative presentation encompassing details about its departments and the available majors. Following the presentation, the students explored the diverse laboratories within the college and toured the facilities at the Falaj Hazaa complex.



301-400 THE IMPACT RANKING

HEALTH SERVICES AT UAEU:

UAEU IS DEDICATED TO PROVIDING THE HIGHEST QUALITY HEALTHCARE TO ALL THE STUDENTS. PROVIDED FREE HEALTH INSURANCE FOR FACUL-TY MEMBERS, STAFFS AND THEIR DEPENDENCIES ALONG WITH ALL THE STUDENTS AND CLINICS FOR MALE AND FEMALE CAMPUS FOR HEALTH CARE SUPPORT.

SMOKE-FREE POLICY

UAEU has a smoke-free policy for all buildings and surroundings on campus.

The research team at UAEU conducted a study on the dynamics of a stochastic epidemic model incorporating vaccination and multiple time-delays for COVID-19 in the UAE.

Health club at UAEU: Whether you are looking to get in shape or participate in team sports, the Student Activities Sports Complex is the place to go. The sports facilities are open to students, faculty, and, staff for a variety of recreational and competitive athletic activities. The staff also actively pursue developing and improving the level of sports in the UAE through athletic championships, symposia, and training courses

COUNSELING AND WELLBEING SERVICE

The Counseling and Wellbeing Service offers a diverse array of specialized counseling services designed to assist students in attaining enhanced psychological, social, and academic equilibrium. This service is instrumental in aiding students in overcoming difficulties and challenges across various facets of their lives. The primary goal of the unit is to support students in comprehending themselves, recognizing their potential for skill development, and overcoming weaknesses. Additionally, it seeks to foster healthy relationships with family, friends, and colleagues, while also promoting the development of independence and self-reliance.

AGES

FOR ALL AT ALL







UAEU SDG REPORT 2022

RESEARCH CENTERS

UAEU, with the generous support of the Zayed Bin Sultan Al Nahayan Charitable and Humanitarian Foundation, has established the Zayed Bin Sultan Al Nahyan Center for Health Sciences (ZCHS). The center has organized its work into a series of programs, each of which will have a mix of research, teaching and consultancy.

- 1. POPULATION HEALTH AND CLINICAL EPIDEMIOLOGY
- 2. TRAUMA AND INJURIES
- 3. MENTAL HEALTH
- 4. MATERNAL AND CHILD HEALTH
- 5. OCCUPATIONAL AND ENVIRONMENTAL HEALTH
- 6. LIFESTYLE DETERMINANTS OF HEALTH, BEHAVIOR CHANGE AND COMMUNITY DEVELOPMENT.
- 7. HEALTH SYSTEMS AND LEADERSHIP
- 8. NEUROSCIENCE
- 9. DIABETES AND CARDIOVASCULAR DISEASES
- 10. RESPIRATORY DISEASES
- 11. CANCER
- 12. MOLECULAR GENETICS & GENOMIC MEDICINE
- 13. IMMUNOREGULATION & INFECTION
- 14. ARTIFICIAL INTELLIGENCE AND ROBOTICS APPLICATIONS IN HEALTH
- 15. NANOTECHNOLOGY

Emirates Centre for Happiness Research aims to research and provide appropriate, evidence-based and implementable measures to enhance happiness and wellbeing and resolve the factors affecting them. The center also offers services to agencies and to the UAE community.

The Emirates Center for Happiness Research at the United Arab Emirates University has organized a retreat, with the participation of deans of colleges, representatives of a number of public institutions, and the Comprehensive Wellness Clinic Dubai.



PUBLICATIONS

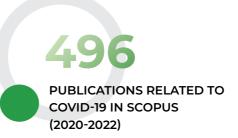
IN SCOPUS

(2018-2022)

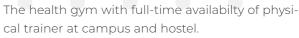


UAEU PROVIDES FREE EMERGENCY MEDICINE RESOURCES TO MEDICAL STUDENTS AROUND THE WORLD.

The International Emergency Medicine Education Project began in 2015 at the College of Medicine and Health Sciences (CMHS) of the United Arab Emirates University (UAEU) with a vision to promote emergency medicine and provide free, reusable educational resources for the world s medical students. It took three years to establish the project and create the necessary resources that were provided by 187 contributors from 27 countries.

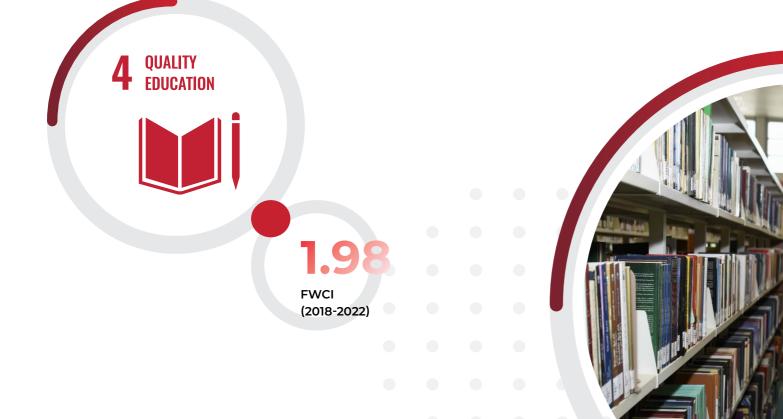


Emirates Center for Happiness Research hosted an open day in celebration of World Mental Health Day. The event featured informative workshops and lectures facilitated by mental health experts and the American Center for Psychiatry and Neurology.









ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

RANKED 12TH GLOBALLY AND FIRST IN THE UAE FOR SDG4 ACCORDING TO TIMES HIGHER EDUCA-TION IMPACT RANKING 2022

Different Centres to support students

- O SPEAKING CENTRE
- WRITING CENTRE
- O LANGUAGE CENTRE

The College of Business and Economics at the United Arab Emirates University inaugurates the "Executive Education Program" 2021



THE IMPACT RANKING 2022

UAEU has been listed in record 16 subjects by QS World University Rankings by Subject 2021. UAEU has been named the nation's top university in Times Higher Education's ranking release which placed UAEU as the 39th best university in Asia. UAEU has been ranked the top business school in the UAE in the QS 2021 Global Executive MBA Rankings The Centre for Excellence in Teaching & Learning (CETL) – supports the UAEU's strategic vision and mission by promoting emerging educational technologies and teaching pedagogies among faculty members and instructors. CETL provides its supporting functions using four units: Instructional Design Unit (ID) to oversee the massive online and blended course transformation process that has started in support of implementing smart teaching and learning in UAEU courses. A second unit titled Teaching Scholarship & Assessment Unit (TSA) supports the assessment of teaching and learning effectiveness and efficiency. A third unit in charge of Faculty Professional Development (FPD) which plans, develops, and manages the delivery of workshops, seminars, discussion panels, and forums to promote teaching excellence. The fourth unit in CETL is the Textbooks unit, which manages the digital textbooks provision via UAEU's Virtual Learning Environment (Blackboard).

The orientation program for new students at the UAEU has been successfully concluded, along with the admission procedures for 2,330 students for the spring semester of 2021-2022.

College of Business and Economics-UAE University offers a new Master's program in "Business Analytics" in Abu Dhabi starting from August 2022

The College of Humanities and Social Sciences at the United Arab Emirates University organized a lecture Reading and Media in a Changing World within the activities of the Reading Month.

The Student Affairs Sector arranged a four-day event called "Come Closer" for high school students, aiming to familiarize them with the important facilities and services offered by the university.

The United Arab Emirates University Receives International Institutional Accreditation for Universities for 10 Years Resources: UAEU provides free access to the library for the entire national community, which includes all citizens and residents in the UAE. For those wishing to use services such as online databases, computer usage, or borrowing books, we charge 10 AED (3 USD) per year. UAEU scientists also provide free edX courses for local high school students and other courses that are provided free access for all. The university has a Continuing Education Centre that provides a range of courses targeting the local population outside the university. These courses may be charged.

Events and lectures for the public: The UAEU Continuing Education Centre provides a series of programmed events, lectures, and training sessions to which the local community is invited. These include language training, IELTS preparation and other useful skills like blockchain, artificial intelligence, Amazoogle, and design thinking. We offer another initiative to teach Arabic to non-native Arabic speaking children called 'Arabic is the language of tolerance'. The library organises a series of ad hoc events for targeted audiences mainly outside the university. The Science & Innovation Park offers events and courses for the local population and school students to encourage innovative and creative thinking, e.g. seed fund coaching. Finally, the university career centre offers events and lectures that are only for the university alumni.

Ph.D. Teaching Academy Program offered by CETL: The PhD Teaching Academy program is a blended program developed to prepare PhD students to start a teaching career in the academia. The program allows PhD students to learn how to manage large and small classes and gain handson experience with a range of teaching and learning pedagogies, instructional technologies, and best practices. A delegation of students from the United Arab Emirates University has completed a visit to the University of Navarra in Pamplona, Spain as part of their week-long summer training program.

BACHELOR'S

DEGREE PROGRAMS



LIBRARY SERVICES

- RESEARCH DATA SERVICES
- RESOURCE SHARING
- ONLINE SERVICES
- LENDING SERVICES
- **O** REFERENCE SERVICES
- O ASK A LIBRARIAN
- O COURSE RESERVES
- O RESOURCE PURCHASE REQUEST
- TRIAL DATABASE EVALUATION
- LECTURE ROOM RESERVATION
- LIBRARY INSTRUCTION REQUEST
- EDITING & ITHENTICATE

Student Affairs conduct a Customer Happiness Survey (every semester) to get the feedback of students on admission and registration services, overall rating about the teaching methods and courses offered to them.

UAEU offering some of the courses as MOOCs (Massive Open Online Courses) or SPOCs (Small Private Open Courses) to anyone in the world via <u>UAEU-X</u>.



UAEU received 5-star rating for online learning according to the QS World University Ranking. This achievement confirms UAEU's pioneering role in the educational process as a national institution through the development of its academic outcomes and programs that meet international standards.

ACHIEVE GENDER EQUALITY AND **EMPOWER ALL** WOMEN AND GIRLS

UAEU RESEARCHER IN COLLABORATION WITH DEAKIN UNIVERSITY ASSESSES THE POTENTIAL OF GENDER RESPONSIVE BUDGETING (GBR) FOR ENGENDERING SO-CIAL CHANGE AND SUPPORTING GENDER EQUALITY

UAEU has traditionally provided a university environment more suited to women. Therefore, approximately 81% of our students are female and we rigorously track females' application, acceptance, and completion rates.

2.62 FWCI (2018-2022)

GENDER

EQUALITY

5



Non-discrimination against women: UAEU has a policy that prohibits any and all discrimination against anyone for reasons of gender, religion, age, disability, race, color, origin, or nationality of others (p. 548). The first item is discrimination against anyone for reasons of gender and defines the such practice as malignant behavior that breaches the student conducts code. Discrimination against women is punished under this code. MS-02 (p. 708) also states that 'The United Arab Emirates University is an equal opportunity employer that prohibits discrimination based on race, color, religion, national origin, gender, and disability status'. The University implements educational policies and procedures that aim to provide equal educational opportunities to both genders (Update if any changes have done in this policy



On the occasion of the Emirati Women's Day, the Office of the Associate Provost for Research at the United Arab Emirates University organized the "UAEU Second Women's Research Forum".

UAEU allowed the employed mothers who have children in the grade six and below, to apply for work remotely during the covid-19 pandemic.

Maternity and Paternity leave: As a federal government institution, UAEU human resources policy is taken from the Federal Authority on Human Resources. Article 75 provides a period of paid maternity leave for mothers along with additional benefits following the period of maternity leave. Article 76 also provides for a period of paid paternity leave for fathers.











UAEU SDG REPORT 2022 ¹⁹

6 CLEAN WATER AND SANITATION



ENSURE ACCESS TO WATER AND SANITATION FOR ALL

FREE DRINKING WATER

201-300

THE IMPACT

RANKING 2022

The university provides free drinking water for all students, faculty, and employees. The university provides free bottled water to all staff in all offices on campus. In addition, there are 19 drink fountains distributed throughout the campus with instructions on safe and appropriate water usage. These are all regularly tested for micro biologicals to reduce risk to human health and each machine is also checked regularly for proper functioning. Refill bottles are readily available and replaced by our facilities team.

WASTEWATER TREATMENT

UAEU works closely with the municipality on wastewater treatment. The university base water and faucets are each connected to the municipality network and all wastewater treatment is undertaken in the municipality domain. We then use one specific line of recycled 'grey' water for irrigation on campus.



WATER CONSUMPTION TRACKING

UAEU is extremely careful about water conservation as we have a hot desert climate with limited rainfall. We use the company Khadamat for services including water supply. We have metering from the main pumping station and additional meters in each building on campus. These are used for measuring, auditing, and comparing water consumption and the figures are compiled into a monthly report for each building and for the whole university

WATER MANAGEMENT EDUCATIONAL OPPORTUNITIES

United Arab Emirates University shelters the National Water and Energy Center, the leading research center providing pioneering scientific research and comprehensive consulting services in the fields of water resources and energy sustainability. Being one of UAEU's research centers aiming to be a worldclass center specialized in research in areas of strategic importance to the country, the center provides a combination of research, training, professional development, and consultancy in the fields of water resources sustainability and energy.

> **2.30** FWCI (2018-2022)

AMOUNT OF WATER SAVED (2015-2022)

247,218M³

PROMOTING CONSCIOUS WATER USAGE

UAEU provides a series of customised workshops to students in Years 10, 11, and 12 from all the Emirates in the country. The workshops formed part of a summer camp and originally involved UAEU experts going out and visiting schools to provide the sessions. The workshops covered an introduction to geology, aquifers, different types of pollution along with methods to prevent pollution and monitor water quality. UAEU faculty taught the school pupils and encourages children to teach their parents as an example of inter-generational cooperation for the good of the whole community. Within the university, UAEU offers a course on sustainability of which almost half the course is devoted to water sustainability. We also take our students to visit the Sheikh Zayed Desert Learning Centre, a 5-Pearl rated sustainable building. As the recent movement restrictions have stopped the visits, our students have made a video to enable current students to hold virtual visits.



Water is one of the United Arab Emirates University's core research areas. The university offers world leading research, training and innovation in different disciplines related to water resources, including

- O HYDROLOGY
- HYDROGEOLOGY
- WASTEWATER TREATMENT TECHNOLOGIES
- WATER RESOURCE MANAGEMENT
- WATER DESALINATION TECHNOLOGY
- SIMULATION OF SURFACE AND GROUNDWATER RESOURCES
- CONTAMINANT TRANSPORT 0
- BIOGEOCHEMISTRY
- COASTAL ZONE MANAGEMENT

A research team from UAEU conducted an investigation into the production of hydrogen sulfide (H2S) gas in wastewater, a factor contributing to the corrosion of concrete surfaces in wastewater treatment plants. This study scrutinized the variables influencing the formation and release of H2S in a wastewater treatment facility, ultimately developing a model based on the most significant influencing parameters.

The National Water and Energy Center at the United Arab Emirates University has organized a webinar "Journey to Sustainable Water Management", with participation of the Research Centre for Sustainable Process Technology at the National University of Malaysia,.

UAEU research team developed a mixed-integer optimization model for water sector planning and policy making in arid regions

Researchers from UAEU studied Biodesalination and treatment of raw hypersaline produced water samples using indigenous wastewater algal consortia

UAEU has been granted a patent for a Desalination System Based on Solar Pond and Venturi Structure

The National Water and Energy Center at the United Arab Emirates University has organized international conference "Water Resources Management and Sustainability: Solutions in Dry Regions" from March 22 - 24, 2022 in cooperation with the Australian Pavilion and the South Australian Institute of Water Research at Expo 2020 Dubai.



82,014M³

VOLUME OF WATER USED(2022)

RESEARCHERS IN THE UAEU'S NATIONAL WATER AND ENERGY CENTER HAVE **GRANTED PATENT FOR** INNOVATIVE DESALINATION SYSTEM THAT DRAMATICALLY **REDUCES ENERGY** CONSUMPTION DURING THE DESALINATION PROCESS

PUBLICATIONS IN SCOPUS (2018 - 2022)



44,888_{MW}

~ENERGY CONSUMPTION 2022

CAMPUS ENERGY

SAVINGS SINCE 2014

ENSURE ACCESS TO AFFORDABLE, REL<mark>IA</mark>BLE, **SUSTAINABLE** AND MODERN 68,300MWH ENERGY FOR ALL

AFFORDABLE AND **CLEAN ENERGY**

Researchers from UAEU developed a model of Electric Vehicle Fast-Charging Stations in Al Ain City and developed methods to help design and manage a coordinated fast charging Stations planning model that enhances the user experience for Electric vehicle owners. Ultimately, the project is beneficial for sustaining the fast growing demands for Electric vehicles in UAE and helps to prepare a plan to locate and size the Charging Stations that benefit all stakeholders.

UAEU HAS PROGRESSIVELY SAVED ELECTRIC ENERGY CONSUMPTION OVER THE PAST 6 YEARS THEREBY REDUCING CARBON EMISSION.

- and park, promoting eco-friendly transportation.
- measures.

• Concrete measures taken to transform the university into a cleaner and more energy-efficient environment involve the substitution of conventional bulbs with energy-efficient dimmable LEDs across all lighting fixtures. Additionally, energy consumption from air conditioning units has been curtailed by implementing timers and centrally setting target temperatures. The adoption of solar energy for water heating is now in place, and efforts are underway to construct a cycle track

• UAEU has implemented an energy monitoring system in 42 buildings on campus and since 2014, the university has saved nearly 68,300MWH of energy.

o The facilities management team at UAEU proactively identifies energy wastage by regularly examining the energy consumption of each university building on a monthly basis. If there is an unjustified increase compared to the same month in the previous year, it signals potential wastage, prompting immediate corrective

101-200

THE IMPACT

RANKING 2022

RANKINGS



UAEU has implemented an energy monitoring system in 42 buildings on campus and since 2014, the university has saved nearly 68,300MWH of energy.

UAEU central data center is completely designed to be more energy efficient with minimum stress on environment. Power and cooling infrastructure is based on most sophisticatedly chosen, green certified hardware. Current data centers, which are hosted in "College of IT" building, have "InRow Cooling" technology that eliminates the use of heavy-duty HVAC units. InRow cooling units draws only 25% of the energy-required compare to other solutions.

Renewable Energy Lab at Falaj Hazza has Solar photovoltaic, Solar thermal, Energy storage, Grid integration, Wind, Bio-fuels and fuel cells facilities.



FWCI (2018 - 2022)

RENEWABLE ENERGY RESEARCH

- ^o The research team at UAEU conducted a variable parametric study on a dual fuel compression ignition engine, examining its performance when fueled with waste cooking oil biodiesel supplemented with hydrogen under atmospheric conditions. The parameters investigated in this study encompassed variations in engine speed (18–30 rev/sec), gaseous fuel flow rate (0–18.4 LPM), pilot fuel flow rate (9.92–15.79 Mlpm), and ignition timing (20–45° BTDC)
- ^o UAEU researchers crafted a model for Electric Vehicle Fast-Charging Stations in Al Ain City, devising methodologies to facilitate the design and coordinated management of fast-charging stations. This planning model is aimed at improving the user experience for electric vehicle owners. In essence, the project proves valuable in meeting the escalating demands for electric vehicles in the UAE and contributes to the formulation of a strategic plan for locating and sizing charging stations that serves the interests of all stakeholders.



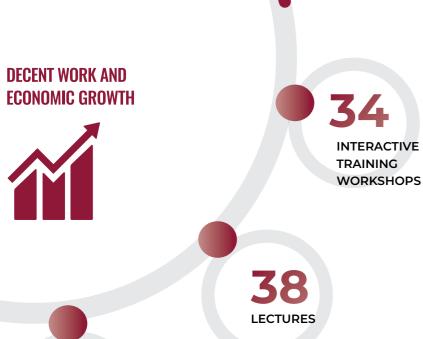
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UAEU has core strenghs in several key areas of Energy research

- CONVENTIONAL ENERGY (OILS AND GAS)
- O ENHANCED OIL RECOVERY
- O NON-CONVENTIONAL OIL PRODUCTION
- O GAS AND GAS CONDENSATE FIELDS DEVELOPMENTS
- O NEW SOURCES OF RENEWABLE ENERGY
- MICRO AND SMART GRIDS
- **O** ENERGY EFFICIENCY
- O ENERGY MANAGEMENT
- POLICY STUDIES

- ^o The research team at UAEU undertook a study with the objective of analyzing the development challenges of the smart grid system (SGS) in the UAE. The research focuses on extracting key insights and identifying issues that impact the progressive implementation of SGS in Abu Dhabi city. The empirical study delves into the significant factors influencing the smart grid system across four dimensions: nature, sponsor support, government responsibility, and market expansion.
- Researchers at UAEU conducted a comparative study of five ensemble machine learning methods, specifically focusing on bootstrap aggregating and gradient boosting techniques for photovoltaic (PV) applications. The methods evaluated in the study include AdaBoost, LightGBM, XGBoost, Random Forest, and CatBoost.
- ^o Renewable Energy Lab at Falaj Hazza has Solar photovoltaic, Solar thermal, Energy storage, Grid integration, Wind, Bio-fuels and fuel cells facilities

FACULTY MEMBER FROM UAEU PRESENTED A LECTURE TITLED "ENERGY EFFICIENCY IN THE BUILT ENVIRONMENT: THE CASE OF UAE" AS PART OF THE AUA LECTURE SERIES.



2741 NUMBER OF PARTICIPATION

The UAEU has a wide range of excellent benefits and facilities on offer to staff/faculty. These can benefit personal and professional development, health, wellbeing and finances.

O PENSION

8

- O ACCOMMODATION
- O FURNITURE ALLOWANCE
- **O** VACATION TICKETS
- CHILDREN'S EDUCATION
- O VACATION LEAVE
- MEDICAL COVERAGE INCLUDING DENTAL COVERAGE
- O END OF SERVICE
- TRAINING & DEVELOPMENT
- UNIVERSITY SOCIAL CLUB

PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

<u>College of Graduates Studies</u> conducts workshops and training programs to improve the research and employebility skills of graduates students.

The United Arab Emirates University announced the launch of the <u>"KHIBRA"</u> program, the first of its kind in the Middle East, to train students and guide them in various aspects of work by the university-experienced graduates specializing in their leadership, administrative and technical fields.

Partnership programs of UAEU with reputed industrial firms provide students to get acquaintance with the company's policy and strategy. **301-400** THE IMPACT RANKING 2022





192 PUBLICATIONS IN SCOPUS (2018-2022)

1095 ALUMNI BENEFICIARIES

28 UAEU SDG REPORT 2022





The Center for Career Placement and Alumni (CCPA) provides students and Alumni with many opportunities for career preparation and employment.

- Provide students with internship and work placements that have a significant impact on their professional lives;
- o To prepare students for developing and pursuing careers and to assist them in the cultivation and enrichment of career-related skills;
- o To build a strong connection and collaboration with all UAEU alumni;
- To provide effective and efficient services to organizations seeking to employ the institution's graduates and students.





BUILD RESILIENT INFRASTRUCTURE, **PROMOTE INCLUSIVE** AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

NUMBER **OF PATENTS** GRANTED

> 28 NUMBER OF PATENTS FILED

> > INTERNALLY FUNDED PROJECTS

2417 NUMBER OF PUBLICATIONS IN SCOPUS

DISTRICT 4.0 PROJECT

RIES, NAMELY.

- O SMART MANUFACTURING LAB
- O COGNITIVE, ARTIFICIAL INTELLIGENCE AND ROBOTICS LABORATORY (CAIR)
- ADVANCED ADDITIVE MANUFACTURING LAB

278 PUBLICATIONS ADDRESSING SDG 9 (2018-2022)



NUMBER OF EXTERNALLY FUNDED PROJECTS

THE INDUSTRY 4.0 DISTRICT IS A MAJOR UNDERTAKING BY UAE UNIVER-SITY AS PART OF ITS AMBITIOUS PLAN TO BE THE "UNIVERSITY OF THE FUTURE". THIS "DISTRICT" IS PLANNED TO HOST LABS AND INTEGRATE VARIOUS COMPONENTS OF THE FOURTH INDUSTRIAL REVOLUTION (4IR) INTO UAEU STUDENTS' EDUCATION, INCLUDING COURSES, PROGRAMS, PROJECTS, RESEARCH ACTIVITIES, AND INDUSTRIAL APPLICATIONS.

THE "DISTRICT 4.0" WILL START BY HOSTING FIVE MAJOR LABORATO-

- ADVANCED MATERIALS CHARACTERIZATION LAB
- SMART GRID AND SMART CITIES LAB

UAEU SDG REPORT 2022 ³¹



UAEU HAS BEEN GRANTED A PATENT FOR ARM MO-TION SENSOR SYSTEM

The arm motion sensor system includes at least one sensor attached to the body and positioned to detect arm motions, a control system for detecting when the arm motion is characteristic of a bad habit or activity that may spread infectious disease, and an alert system warning the user to refrain from such activity.

UAEU researchers, in a recent study published in the journal Sustainability, have investigated the recycling of <u>3D-printed nylon composites</u>, aiming to enhance the sustainability of the additive manufacturing industry.

The United Arab Emirates University and the University of California - Berkeley in the United States of America signed a partnership agreement, which culminated in the opening of "materials innovation laboratories" in the Department of Chemistry at the College of Science for both students and researchers.

<u>UAEU Science and Innovation Park</u> supporst the commercialization of new ideas, products and inventions by providing emerging business talent with the skills, startup support and advice. It also encourages an entrepreneurial environment in the UAE.

- STARTUP PROGRAM
- SCALE UP PROGRAM
- CHALLENGE FOR INNOVATION C41

UAEU has been granted a patent for Material degradation monitoring system from United States patent and trademark office. UAEU and <u>Strata</u> formed a cooperation to create a 24-month Aerostructures Technicians Program. During this period, students will learn the principles of manufacturing and aerospace as well as receive on-the-job training to enable them to produce aircraft parts.

Abu Dhabi Airports has partnered with <u>Meta</u> <u>Touch</u>, to deploy new touchless technology across 53 elevators at Abu Dhabi International Airport (AUH), helping to prevent cross-infection from interacting with elevator buttons and enable a COVID-19-free airport environment.



INTERNAL RESEARCH GRANT FUNDS (MILLION-AED)

89.35

EXTERNAL RESEARCH GRANT FUNDS (MILLION-AED)



REDUCED INEQUALITIES



3.7

FWCI (2018-2022) **883** FIRST-GENERATION STUDENTS STARTING A DEGREE

> 720 FIRST GENERATION FEMALE STUDENTS STARTING A DEGREE

1084 INTERNATIONAL STUDENTS FROM DEVELOPING COUNTRIES

1451 NUMBER OF WOMEN STARTING A DEGREE

REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES

IN UAE BASED ON THE NUMBER OF SCOPUS PUBLICATION (2018-2022)

35

PUBLICATIONS IN SCOPUS (2018-2022)

UAEU CAMPUS IS FULLY ACCESSIBLE.

Students with special needs are met at the main gate by an electric campus vehicle and transported as needed for classes or services. All buildings are accessible, and handicapped toilet facilities are available across campus. Each of the residence halls on the new campus also include rooms that are fully accessible.

As a national university, UAEU supports tolerance and heritage that strongly prohibit any forms of discrimination based on gender, race, ethnicity, region, nationality or disabilities

The United Arab Emirates University Center for Public Policy and Leadership seeks to give new methods and solutions to the country's many problems, especially those relating to labor and social policy.

The Special Education Department Child and Family Lab- College of Education at the United Arab Emirates University has organized a workshop "Read and Ascend" within the activities of the Reading Month, which addressed several topics such as dyslexia, tactile intelligence, and the relationship between reading and writing, presented by the college professors and specialists.

UAEU faculty member conducted research on experiences of disabled people in the United Arab Emirates: Barriers to participation in higher education and employment

UAEU celebrated "<u>Tolerance & Inclusivity</u>" theme week in Expo 2020 Duba, on the topic: How can we foster a greater common understanding to enable more tolerant and inclusive societies? The College of Humanities and Social Sciences at the United Arab Emirates University organized the second online forum of the International Day for Tolerance focusing on to achieve justice, transparency and tolerance, and in diversity we find our greatest strength

Students of Determination Services Center ensures that all UAEU students with disabilities have access to educational opportunities equal to their fellow students.

UAEU Assistive Technology Lab is equipped with PC computers that use assistive technology software and equipment that feature:

- TEXT-TO-SPEECH SOFTWARE
- SCREEN READER SOFTWARE
- SCREEN ENLARGEMENT SOFTWARE
- CCTV AND PORTABLE TEXT MAGNIFICATION SYSTEMS
- O PRINTER ACCESS FOR NOTE-TAKERS
- FLAT SCREEN MONITORS
- BRAILLE PRINTER
- BRAILLE SENSOR
- ADAPTIVE MICE AND KEYBOARDS
- ADJUSTABLE TABLES

UNITED ARAB EMIRATES UNIVERSITY CELEBRATES THE INTERNATIONAL DAY FOR TOLERANCE

10 REDUCED INEQUALITIES



College of Education - UAEU organizes a workshop on reading difficulties for people of determination

The Special Education Department, College of Education, at the UAE University, organized a "Special Education" Day, which highlights the most important programs offered at the undergraduate and graduate levels, in addition to honoring the winners of the 1st "Inspirational Teacher Award".



The Student Affairs at the United Arab Emirates University organized a cultural festival entitled "UAE Homeland of Tolerance", on the International Day for Tolerance, which is marked on November 16 of each year. The university conducted cultural and artistic activities on this occasion, with the wide participation of university students from 27 different countries.



UAEU research team explores the predictors and mediators of nutritional knowledge and practices among parents and teachers of children with disabilities in the United Arab Emirates (UAE) using Nutbeam's hierarchical health literacy model as a framework.

https://bmcnutr.biomedcentral.com/arti-<u>cles/10.1186/s40795-022-00605-9</u>



UAEU researcher conducted a Comparative Study of the Perspectives on the Impact of a Culturally Responsive Picture Exchange Communication System for Children With Autism Spectrum Disorder in the United Arab Emirates. https://www.frontiersin.org/articles/10.3389/ fped.2022.841064/full

UAEU Center for Career Placement and Alumni organizes "Recruitment Platform for People of Determination" Event







MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

11 SUSTAINABLE CITIES AND COMMUNITIES



UAEU FACILITIES

The new UAEU campus features the most modern architecture spans over 80-hectare campus in Al Ain. The campus, with a capacity of about 16,000 students, includes outstanding classroom, library, academic and office space; both male and female sides have recreational facilities including Olympic size swimming pools, dining, mosques, meeting spaces, shops, residence halls, and considerable space for related student life activities. Both female and male sides of the campus have office and classroom buildings for each of the Colleges. A research team from Emirates Center for Mobility Research at the UAEU demonstrates successful first trail tests of the "Smart Roads Project".

UAEU research team evaluates the <u>application of</u> <u>street connectivity</u> policies stated by Abu Dhabi's Urban Planning Council (UPC) on newly developed projects.

Research team consisting of the Emirates Center for Mobility Research at UAE University, the Department of Health and Abu Dhabi Public Health Centre devised a new mathematical methodology to model the impact of non-pharmaceutical intervention measures (such as remote work decisions, curfews, closure of schools and public venues, etc.) using big social media data as the input.

A UAEU researcher examined the application of artificial intelligence (specifically edge AI) and Blockchain, investigating their potential to revolutionize urban development and enhance city intelligence. The study delves into the diverse applications of edge AI and Blockchain technologies, particularly in the realms of intelligent mobility and energy, while also scrutinizing pertinent research initiatives in these pivotal aspects of contemporary smart cities.

The Department of Geography and Urban Sustainability offers excellent Academic Programs in various aspects of geography and urbanization

- O MINOR IN GEOINFORMATICS
- BACHELOR OF ARTS IN GEOGRAPHY
- MASTER OF SCIENCE IN REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEMS





UAEU research team demonstrated a case study for enhancing energy and water efficiency via building design, which consequently contributes to the environmental sustainability of the built environment.

Emirates Center for Mobility Research (ECMR), known previously as The Roadway, Transportation and Traffic Safety Research Center (RTTSRC) was established in June 2004 at UAE University, with the objective to boost the university's role in serving the community developmental goals in the fields of road engineering, transportation and traffic safety.

ECMR at UAEU is registered as a consulting body with the Department of Planning and the Economy and the Abu Dhabi Chamber of Commerce and Industry for roadways and transportation projects. It is also registered as an engineering consultancy with the municipalities of both Abu Dhabi and Al Ain.

ECMR's strength revolves around its five Research Groups

- EFFICIENT INFRASTRUCTURE
- O GREEN MOBILITY
- O CONNECTED & AUTONOMOUS MOBILITY (CAM)
- O INTEGRATED MOBILITY
- SAFE MOBILITY

Researchers from the Emirates Center for Mobility Research at UAEU simulate 30 years of passenger transportation to find the most efficient and environmentally friendly method





SDG STUDENTS RESEARCH PROJECTS ADDRESSING SDG 11 FUNDED

RTA

The Emirates Centre for Mobility Research at the United Arab Emirates University conducts research projects in cooperation with various government agencies to serve the UAE strategic objectives and address the most important contemporary issues related to safe mobility, such as "the development of Abu Dhabi's Vision Zero Strategy project to eliminate traffic fatalities and severe injuries by 2040" in cooperation with the Integrated Transport Centre in Abu Dhabi; "mathematical modelling of COVID-19 spread dynamics in Abu Dhabi" in cooperation with the Abu Dhabi Department of Health;

PROJECT WITH UMM UL QURA UNIVERSITY

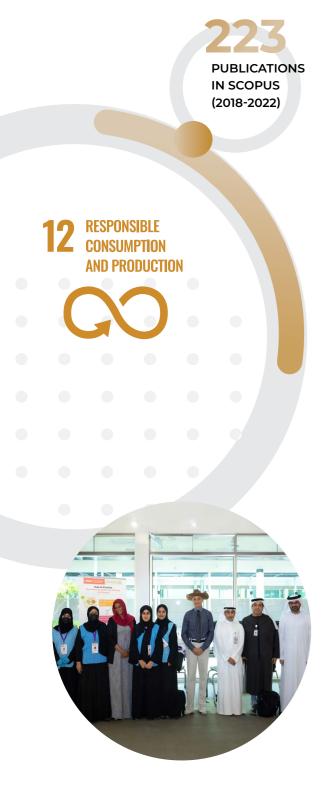
Emirates Center for Mobility research center in cooperation with Umm Al-Qura University and the Ministry of Education in the Kingdom of Saudi Arabia developed agent-based simulation models for the assessment of COVID-19 infectiousness and crowd management at Hajj and Umra seasons

Emirates Center for Mobility Research (ECMR), known previously as The Roadway, Transportation and Traffic Safety Research Center (RTTSRC) was established in June 2004 at UAE University, with the objective to boost the university's role in serving the community developmental goals in the fields of road engineering, transportation and traffic safety.

Abu Dhabi Energy Services (ADES), a subsidiary of Abu Dhabi National Energy Company (TAQA), signed a Memorandum of Understanding (MoU) with United Arab Emirates University (UAEU). ADES will explore retrofitting its buildings with energy efficient solutions that reduce power and water consumption to enhance energy efficiency and sustainability throughout its premises in Al Ain. It will also work closely with UAEU to assess its current power and water consumption trends and develop a comprehensive plan to improve energy efficiency across the university's facilities. The MoU plays an important role in Abu Dhabi's Demand Side Management and Energy Rationalisation Strategy 2030, which targets a reduction in electricity consumption by more than 22 percent and water consumption by more than 32 percent.

IN UAE BASED ON THE NUMBER OF SCOPUS **PUBLICATION (2018 TO** 2022)

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS



UAEU STUDENTS TRANSFORMED DATEPALM WASTE TO BIODEGRADABLE CUTLERY

UAEU Students Tap Into UAE Resource to Address Critical Environmental Issues with around 40 million date palm trees spread across the UAE, the UAEU students are finding innovative and sustainable ways to tap into the resource by transforming datepalm leaves to the innovative biodegradable cutlery in partnership with <u>Palmade</u>.

The research team at UAEU is exploring the possible use of alumina as a debromination agent to address the high bromine content in products obtained from the thermal <u>recycling of non-metallic fractions (NMF)</u> in printed circuit boards (PCBs).

UAEU research team conducted a survey on the Use of <u>Plastic versus Biodegradable Bottles</u> for Drinking Water Packaging in the United Arab Emirates and published the work in Sustainability Journal.

The College of Agriculture and Veterinary Medicine at the United Arab Emirates University launched an awareness campaign entitled "Food Waste Audit", in cooperation with the Office of the Associate Provost for Research and participation of the Abu Dhabi Waste Management Center (Tadweer) and a number of local institutions. UAEU in collaboration with Khadamat has implemented a fully comprehensive green cleaning program at par with world class cleaning practices. It has adapted hybrid specification of work output and low environmental impact cleaning policy by using green seal standard products and smart cleaning machines such as vacuum cleaners, which capture 96 percent of particulates, 0.3 microns in size and operate with a sound level less than 80dBA. They follow the steam cleaning method of disinfection, which is extremely efficient and environmentally-friendly cleaning alternative to traditional methods.

UAEU Researcher studied the environmental and energy policies to enable sustainable consumption and production in the Gulf Cooperation Council countries

Al Foah Experimental Farm a wide spectrum of research activities, most of which focus on the development of sustainable plant and animal production systems that yield healthy produce. Around 40 hectares of land and a range of cutting-edge research facilities are made available for scientists and students from various specializations to develop and test innovative strategies that support food security in the region. Aside from our involvement in UAEU research and education, the Experimental Farm actively engages with the community and supports agricultural education outside of the university.

Scientist from UAEU studied the how to achieve SDGs in Social Housing in the UAE: From Conventional to Building Integrated Photovoltaic (BIPV) Houses

Waste boxes placed in every corner of the campus for 4R method of waste processing. Waste collected includes;

- O DOMESTIC WASTE
- O RECYCLABLE ITEMS
- HAZARDOUS WASTE

The research team at UAEU investigated the perceptions of food waste among university students in the UAE.

https://www.mdpi.com/2071-1050/14/18/11196

UAEU research team conducted a survey on the Use of Plastic versus Biodegradable Bottles for Drinking Water Packaging in the United Arab Emirates and published the work in Sustainability Journal.

https://www.mdpi.com/2071-1050/14/5/2664

<u>Khadamat Waste Management</u> Team manages and facilitates the collection of waste in the UAEU Maqam Campus. This service is an efficient, timely and compliant waste management service for the operational and environmental aspects of the Facilities.

UAEU researchers in collaboration with Nottingham Trent University explored an advanced approach to demonstrate how a combination of demographic and socio-economic, attitude and values, and anticipated feelings can stimulate guests' food waste reduction behaviour (FWRB).

FWCI (2018-2022)



CLIMATE ACTION

UAEU



TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS **IMPACTS**

> 259 PUBLICATIONS IN SCOPUS (2018-2022)



The commitment to reduce environmental impact and power consumption are becoming increasingly important objectives for IT organizations. UAEU emphasized the importance of Green computing by adapting sustainable aspects of Green IT that have a huge impact on the environment. As computing becomes increasingly pervasive for United Arab Emirates University, the energy consumption attributable to computing is climbing every second. The Division Of Information Technology (DoIT) is continuously developing ways to reduce the environmental impact of our IT use. We are committed to a more sustainable way of working and as a result over the past years there has been significant improvement into the UAEU Green IT environment. DoIT has implemented several Green Initiatives and is working towards an objective whereby the initiatives become widely used practices on all of our campuses. There are many new Green beginnings that DoIT is aspiring to introduce on campus. We are committed to reducing the carbon footprint for IT through the promotion of sensible and practical changes to the way we all work. By working together we can help reduce the impact on the environment.

tries"

A recent study conducted by UAEU seeks to develop a recycled composite utilizing various carbon fiber remnants, effectively addressing the escalating surplus of Polylactic acid (PLA). This innovative approach serves as a promising solution to meet the rising demand for both materials while contributing to sustainability efforts.

into the future!

Electric vehicle charging points are made free of cost in campus to promot the use of EV vehicles in UAE.

GREEN IT

UAEU researcher <u>participated in the study</u> "Nexus between carbon dioxide emissions and economic growth in G7 coun-

Scientists at the university are modelling species distribution in the UAE as a result of climate change up to 50 years



As the invasive Mesquite plant continues to spread all over the world, Taoufik ksiksi has discovered the impact of soil, temperature, and clay fractions on the plant's relentless march. In parallel, Ruwaya Kendi is investigating the level of microplastics finding their way into fish and other biological life. As microplastics have been found in some commercially available cosmetic products, her work is important for regulatory authorities as it provides the data needed to develop safety guidelines.

UAEU Pavilion at Expo2020 organised <u>Climate and Biodi-</u> versity Theme week

UAEU students, among the six finalists, have developed an innovative solution, Sustainable Builders, for a cleaner environment, promoting the circular economy, and encouraging youth empowerment as part of the Swiss – Middle East Circular Economy for Youth Initiative (SMECEYI).

"<u>Sustainable Builders</u>" is a mobile application where recycling companies and other interested stakeholders can find excess construction waste and contact the seller to reuse it. It is a platform that creates a space for all interested stakeholders to share information and manage such excess materials.

COURSES

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- O ARCH 532 SUSTAINABLE ARCHITECTURE & URBAN ENVIRONMENTS IN HOT CLIMATE
- O GESU 121 SUSTAINABILITY
- O GEO 452 CLIMATOLOGY
- GEO 462 CURRENT ENVIRONMENTAL ISSUES
- ECON 237 ENVIRONMENTAL AND ENERGY ECONOMICS
- O ARCH 433 ENVIRONMENTAL SYSTEMS & CONTROL
- BIOE 240 PRINCIPLES OF ENVIRONMENTAL SCIENCE
- CIVL 270 INTRODUCTION TO ENVIRONMENTAL ENGINEERING
- O CHEM 423 ENVIRONMENTAL CHEMISTRY



The UAEU Research team from College of Agriculture and Veterinary Medicine is conducting a research that evaluates the performance of crop genotypes using morphological and physiological parameters under induced environmental stress factors, including temperature, drought, salinity, UV radiation, and carbon dioxide, which influence the growth of crop cultivars. The research identifies traits and varieties tolerant to a combination of stress situations, provides novel insight into the mechanisms of tolerance and adaptation, and give insight into strategies for the development of improved crop varieties suitable for this region through breeding programs and genetic engineering.







IN UAE BASED ON THE NUMBER OF SCOPUS **PUBLICATION (2018-**2022)

Researchers from the Department of Biology at the UAEU, in cooperation with a number of researchers and international centers in Russia, succeeded in discovering an unknown type of crustacean " Diplostraca" of microorganisms in the animal kingdom in Arabian Peninsula within the group of common species.

The Bachelor program in Marine Fisheries and Animal Science encourages students to excel in a wide range of animal science specializations that are highly relevant to food security in arid lands. Students are provided with up-to-date theoretical information, and receive intensive practical training in well-equipped laboratories, on UAEU's experimental stations, and through internship opportunities.

The research team at UAEU undertook a study with the goal of forecasting the potential current and future marine distribution of the species under different climate change scenarios using environmental variables affecting distribution using MaxEn.

CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE **RESOURCES FOR** SUSTAINABLE DEVELOPMENT

UAE UNIVERSITY TEAM WINS EGA'S ANNUAL STUDENT INDUSTRIAL ROBOTICS COMPETITION.

A student team from the College of Engineering at the United Arab Emirates University won the 4th annual industrial robots competition organized by Emirates Global Aluminum EGA, as part of a challenge between students of universities and higher education institutions in the country to design and build industrial robots for use in the EGA aluminum smelters.

This year, the team faced the challenge to develop a robot capable of cleaning silt and mud in aeration areas at the EGA's Al Taweelah site. It aerates the used seawater before returning it to the sea, which increases the percentage of oxygen to protect the marine environment



THE FOUNDATION OF THE AQUACULTURE RESEARCH STATION IN 2013 WAS A IMPORTANT STEP TO-WARD THE ESTABLISHMENT OF SUSTAINABLE AGRICULTURE RESEARCH CAPACITY IN UAEU. IT ALSO PROVIDES EXCELLENT EDUCATIONAL AND EXTENSIONAL SERVICES.

The 1,600-square-metre unit includes 4 greenhouses with 16 fiber glass tanks for fish and 16 for plants. Each greenhouse holds 4 lines of the 24-meter tanks. The main fishes are Tilapia, a prodigious breeder, with a 1-kilogram female producing about 5,000 eggs every four to six weeks and catfish produces 2,000 eggs twice a year.

Examples of areas of research interest and services are:

- Growth and reproductive performance of freshwater fish.
- Nutrition of freshwater fish and water quality in recirculatory system
- o Aquaculture technologies for desert environments and high temperature
- Studies on freshwater ornamental fish
- o Training on fresh water aquaculture in recirculatory system
- o Aquaculture extension services in UAE

ACADEMIC PROGRAM : **BACHELOR OF SCIENCE IN MARINE FISHERIES**

AND ANIMAL SCIENCE

COURSES

- O GESU 121 SUSTAINABILITY
- O ARAG 205 INTRODUCTION TO FISH & ANIMAL SCIENCE
- **O ARAG 230 PRINCIPLES OF FISHERIES MANAGEMENT**
- **O** ARAG 325 FISHERIES MANAGEMENT AND CONSERVATION
- O ARAG 424 FISH BREEDING AND PROPAGATION
- O ARAG 425 SHELLFISH AND MOLLUSCAN AQUACULTURE
- O ARAG 326 MARICULTURE
- O ARAG 426 AQUATIC ECOLOGY
- O ARAG 430 FISHERIES STOCK ASSESSMENT
- ARAG 433 FISH NUTRITION
- O GEO 411 OCEANOGRAPHY
- O BIOE 454 MARINE BIOLOGY





PROTECT, RESTORE AND **PROMOTE SUSTAINABLE** USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT **BIODIVERSITY LOSS**



PUBLICATIONS

IN SCOPUS

(2018-2022)

15 LIFE ON LAND

UAEU research team created a time-series (TS) vegetation map to track and analysed the vegetation dynamics over an extended period of fifty years for 3 desert cities of the UAE, Abu Dhabi (AD) capital city, Dubai city and Al Ain city.

The UAEU focused on Innovative concepts for installing and maintaining of urban greenery

UAEU researchers have modeled the distribution of species across ecosystems in the UAE, considering the anticipated changes in climate. The study focuses on key plant species, determining their preferred habitats under existing environmental conditions. This research enhances our comprehension of the environment's various characteristics, enabling the projection of potential scenarios based on anticipated changes in temperature and rainfall.

> UAEU funded 32 under graduate research projects addressing SDG 15.

COURSES

- BIOC 250 BASIC ECOLOGY
- BIOE 250 BIODIVERSITY AND EVOLUTION
- ^O BIOE 310 INSECT DIVERSITY, ECOLOGY, AND SYSTEMATICS
- **BIOE 320 POPULATION AND COMMUNITY ECOLOGY**
- **BIOE 330 DIVERSITY AND BIOLOGY OF FUNGI**
- **BIOE 340 BIOLOGY AND DIVERSITY OF MAMMALS**
- **BIOE 380 DESERT ECOLOGY**
- **BIOE 391 FIELD ECOLOGY**
- **BIOE 390 WILDLIFE & RANGELAND MANAGEMENT**

IN UAE BASED ON THE

NUMBER OF SCOPUS

PUBLICATION

(2018-2022)

- ARAG 402 WOODY PLANTS IN THE LANDSCAPE
- ^O ARAG 454 LANDSCAPE DESIGN
- ARAG 455 NURSERY AND GREENHOUSE OPERATIONS
- ARAG 404 VEGETABLE PRODUCTION IN ARID LANDS
- ARAG 407 DESIGN OF ORGANIC PRODUCTION SYSTEM
- ARAG 452 PALMS AND DATES
- ARAG 410 FRUIT PRODUCTION IN ARID LANDS
- GEO 402 LAND USE



MINOR IN ECOLOGICAL AND ENVIRONMENTAL BIOLOGY ECOLOGY AND ORGANISMAL BIOLOGY CONCENTRATION CROP PRODUCTION AND ORGANIC FARMING CONCENTRATION

- O ARAG 401 SUSTAINABLE AGRICULTURE IN ARID LANDS
- ^O ARAG 451 LANDSCAPE MANAGEMENT FOR ARID LANDS
- ARAG 408 SURVEY OF PLANT COMMUNITIES IN ARID LANDS
- ARAG 305 PRINCIPLES OF ORGANIC HORTICULTURE

GEO 412 GEOGRAPHY OF ARID LANDS

UNDER GRADUATE **RESEARCH PROJECTS** ADDRESSING SDG 15

IN UAE BASED ON THE NUMBER OF SCOPUS PUBLICATION (2018 TO 2022)

PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

16 PEACE, JUSTICE AND STRONG

INSTITUTIONS



UAEU researcher studied "How Can Lower-Income Countries Access COVID-19 Medicines Without Destroying the Patent System? The National Exhaustion Solution"

UAEU researcher studied the role of security spending to regaining international tourism attractiveness after an armed conflict 82 PUBLICATIONS IN SCOPUS (2018-2022)

OFFICE OF LEGAL AFFAIRS & POLICY

Provided legal opinion and legal representation through three main units:

- **O** LITIGATION UNIT
- CONTRACTS AND AGREEMENTS UNIT
- LEGISLATION AND POLICY UNIT

ACADEMIC PROGRAMS:

- O BACHELOR OF LAW
- O DOCTOR OF PHILOSOPHY IN LAW
- O MASTER OF PRIVATE LAW
- MASTER OF PUBLIC LAW
- O BACHELOR OF ARTS IN POLITICAL SCIENCE
- MINOR IN CITIZENSHIP
- **O MINOR IN POLITICAL SCIENCE**
- O MINOR IN FAMILY STUDIES



UAEU Center for Public Policy and Leadership (CPPL) is a specialized academic and research unit serving the governmental institutions, federal and local, alongside the private sector, by providing effective solutions and innovative approaches towards various governance issues. The research agenda of the Center focuses on issues related to public policy and leadership in the UAE that includes:

- ECONOMIC POLICIES
- SOCIAL POLICIES
- LABOR POLICIES
- O MEDIA POLICIES
- **O SECURITY POLICIES**
- O HEALTH POLICIES
- O EDUCATION POLICIES
- GOVERNANCE PROGRAMS AND GOVERNMENT EXCELLENCE

STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE **GLOBAL PARTNERSHIP** FOR SUSTAINABLE DEVELOPMENT

401-600 THE IMPACT **RANKING 2022**

PARTNERSHIPS FOR THE GOALS





Abu Dhabi Energy Services and United Arab Emirates University Sign Memorandum of Understanding to Promote Energy Efficiency

69.8% PUBLICATIONS THROUGH INTERNATIONAL COLLABIORATIONS (2018-2022)

The United Arab Emirates University is part of the Asian Universities Alliance (AUA), which is a collaborative network consisting of 15 member institutions located across Asia

In the presence of representatives from 9 Asian universities and with the online participation of 6 universities, the "Asian Universities Alliance AUA" Executives Meeting was held at the United Arab Emirates University in Al Ain.



The United Arab Emirates University is supporting the clinical trial of the innovative COVID-19 vaccine created by the Gamaleya Institute of Epidemiology and Microbiology in Russia. This human adenoviral vector-based vaccine is the first of its kind to receive global approval.

College of Law at UAEU in cooperation with McGill Institute of Air and Space Law at McGill University, Canada, organized International Annual Conference on the Legal Aspects of the Usages of Outer Space: Opportunities & Challenges

College of Law in collaboration with Eversheds Sutherland (International) LLP, UK, held a lecture titled 'Companies Acquisition in UAE' delivered by Christine Khoury, a Legal Advisor and a Senior Associate in Eversheds' Sutherland (International) in Dubai.

UAEU launched Dual Award PhD Program in Chemical Engineering with Katholieke Universiteit (KU) Leuven

UAEU HOSTED THE QS HIGHER ED SUMMIT: MIDDLE EAST AND AFRICA

The 2022 QS Higher Ed Summit: Middle East and Africa delved into the dynamics of innovation propelled by higher education, the business sector, and students. Operating under the theme "Innovation Enabling Environments," the summit deliberated on the definition of innovation, explored avenues for its cultivation, and underscored its significance in addressing evolving and interconnected priorities on both national and regional levels.







RESEARCH COLLABORATION

The United Arab Emirates University actively promotes research partnerships with government entities, corporate organizations, and academic institutions, both domestically and internationally. This commitment underscores its ongoing dedication to addressing society's most urgent challenges through scientific progress and technological innovation.

A leading provider of technology services, <u>CAFU</u>, and the United Arab Emirates University have entered into a research partnership agreement to conduct in-depth research on the successful cultivation and planting of Ghaf tree seeds in challenging climates like the desert environment in the UAE. This will improve the nation's strategic efforts to combat desertification.

The College of Medicine and Health Sciences at the UAEU has signed a Memorandum of Understanding with <u>Burjeel Hospital & "VPS Healthcare"</u> to enhance cooperation between the two institutions in the fields of medicine, academic research and health care. The partnership will employ students, and develop specialized training programs for them.

The United Arab Emirates University and the Emirates Driving Company have initiated a strategic research collaboration in the realm of driving and traffic safety.



The Governor-General of the Commonwealth of Australia and Australia's Ambassador to the UAE visit the United Arab Emirates University to Celebrate the University's Links with Australian Universities and Research Institutions.



The National Space Science and Technology Center at the United Arab Emirates University welcomed a delegation from the National Aeronautics and Space Administration (NASA to explore avenues for research and educational collaboration in the field of space between the two entities. UAEU hosted 10th <u>Asian Management Research and</u> <u>Case (AMRC) Conference</u>

UAEU participates in Global Sustainable Development Congress at the University of Glasgow, Scotland





REGION	COLLABORATING INSTITUTIONS	CO-AUTHORED PUBLICATIONS
WORLDWIDE	4486	6052
AFRICA	342	1083
ASIA PACIFIC	1334	2753
EUROPE	1438	1977
MIDDLE EAST	493	2596
NORTH AMERICA	708	1432
SOUTH AMERICA	171	246



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The United Arab Emirates University (UAEU) presented its experience in empowering students with scientific research skills as an important future tool in the 2nd "Future Forum Youth Edition", which was organized by the Islamic World Educational, Scientific and Cultural Organization (ICES-CO) at Rabat, Kingdom of Morocco.







UAEU



United Arab Emirates University, P.O. Box 15551, Al Ain, Abu Dhabi, United Arab Emirates.



800-8238(UAEU)

servicedesk@uaeu.ac.ae