ISSUE 2024

INSIDE K&A

Khatib & Alami Newsletter

60 YEARS AND BEYOND

TOWARD A THRIVING FUTURE

IN THIS ISSUE:

KHATIB & ALAMI

FOREWORD

A NOTE FROM OUR CHAIRMAN AND CEO

Dear clients and partners,

2024 marks six decades since the founding of K&A, a significant milestone in our history as we pursue our vision of driving innovation and expanding our services to the communities we serve. Since our establishment, we have remained committed to excellence, evolving from a modest beginning to becoming a leader in our field. Our journey over the past sixty years is a testament to the unwavering dedication of all to providing cutting-edge solutions and our adaptability in the face of a rapidly changing world.

Building on our remarkable growth and achievements, we continue to forge ahead in delivering exceptional engineering and design solutions deploying the latest technology tools, and strengthening our partnerships with key stakeholders. From Building Information Modelling and digital twins to machine learning and artificial intelligence, we have continually pushed the boundaries of what is possible in the design, planning, construction, management, and maintenance of physical assets.

Additionally, the company made significant strides in its transformation program, focusing on enhancing quality and productivity, maximizing competitiveness, and creating a great workplace. We have also expanded our Digital Services division and have begun to reap the benefits of this new division across various projects, including a state-of-the-art 3D digital twin platform, a digitally transformed electrical distribution grid, and an innovative geospatial solution with aerial surveys using aircraft and AI.

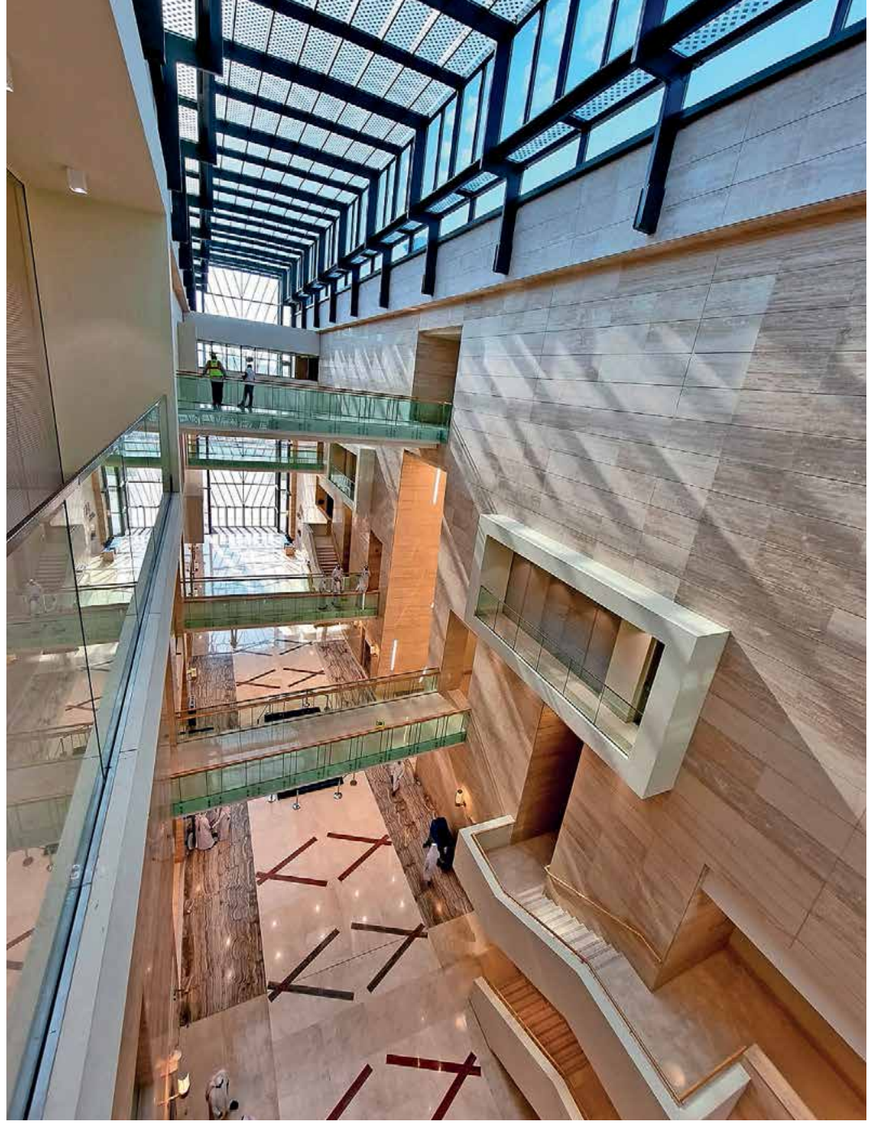
By combining our digital expertise, geospatial systems integration, and energy and utility teams into one dynamic entity, we aim to develop advanced digital solutions tailored to the evolving needs of clients in diverse industries such as AEC, telecommunications, utilities, transportation, local government, emergency response, and commercial enterprises. This integration allows us to deliver cutting-edge solutions, enhance operational efficiencies, streamline workflows, and drive transformative growth. Our unwavering commitment to innovation and excellence ensures that we stay at the forefront of the digital revolution, continually adapting to provide the most effective and forward-thinking solutions for our clients.

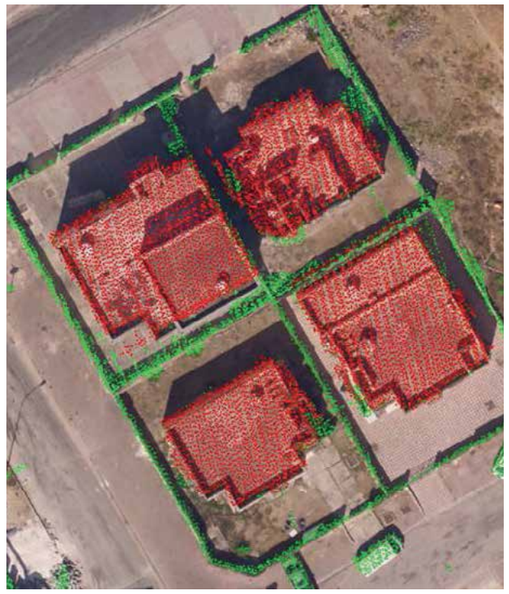
With 2024 well underway, we have made significant strides in expanding our diverse portfolio of projects and market presence in MENA, as well as in East and West Africa, having completed over 400 multidisciplinary projects for both public and private clients. Our teams have been dedicated to developing innovative solutions tailored to address the specific challenges each community faces. From implementing sustainable solutions to designing cutting-edge infrastructure, our team is driven by the larger purpose of improving the lives of people and making a positive impact on communities.

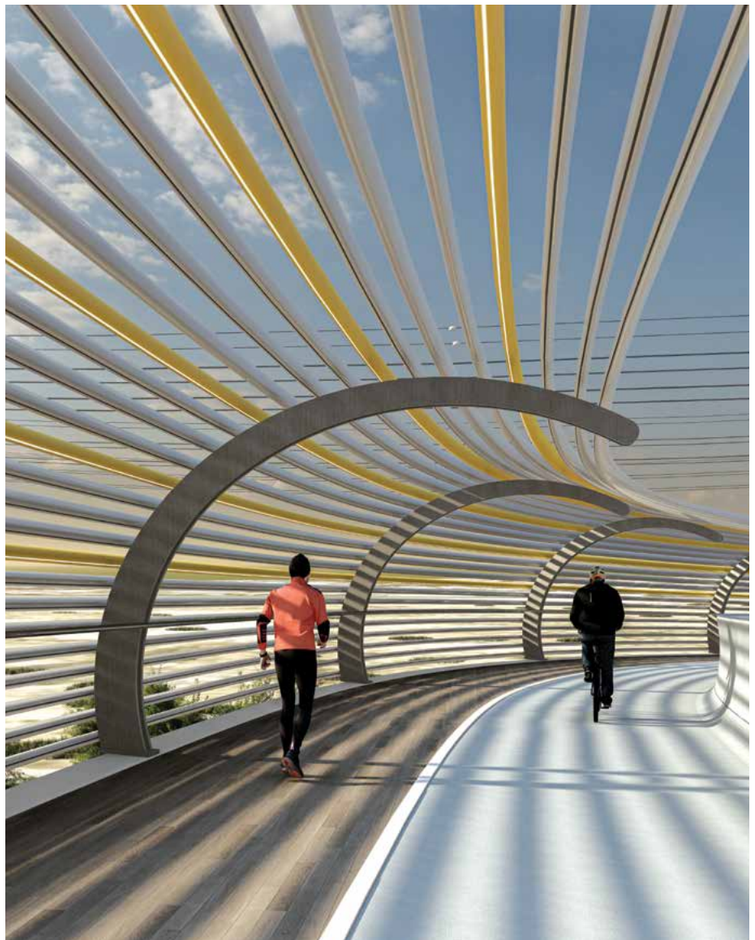
We are enthusiastic about building upon the strong momentum we have generated and remain dedicated to innovation and excellence while fostering meaningful collaborations with our clients through various projects and cutting-edge technologies that will guide us as we continue to navigate the challenges and opportunities that lie ahead. As we commemorate this milestone, we reflect on our accomplishments and look forward to the future with optimism and determination. Only together, we wil shape the future, leveraging technology to create a better, more connected, and more sustainable world.

Najib Khatib, Ph.D.
Chairman & CEO

IN THIS ISSUE







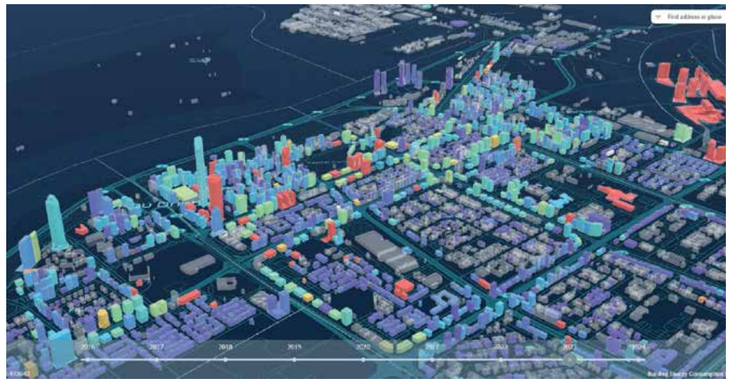
NEW DIVISION

K&A DIGITAL SERVICES: FORGING THE PATH OF GLOBAL DIGITAL INNOVATION

Khatib & Alami (K&A) has been at the forefront of digital innovation for 35 years. With the establishment of K&A Digital Services, the company has unified its digital expertise, Geospatial Systems Integration, and Energy and Utilities teams into a single, powerful entity.

This strategic restructuring aims to develop advanced digital solutions by leveraging the extensive skills of K&A experts to meet clients' evolving needs across various industries. These industries include Architecture, Engineering, and Construction (AEC), telecommunications, utilities, transportation, local government, emergency response, and commercial enterprises.

These solutions enable efficient data analysis, leading to improved decision-making and enhanced customer experiences. For instance, in Egypt, K&A has completed several projects aimed at digitally transforming the electrical distribution grid. One notable project is the Dokki Site Acceptance Test (SAT) in four Distribution Control Centers (DCC), where K&A was responsible for data model creation, consultancy activities, and ArcFM implementation. Additionally, our team successfully implemented the base map and electric network digitization for the Helmya Distribution Control Center, covering the districts of Helmya, Mataria, Marg, and El-Salam in collaboration with El Sewedy Electric T&D and Toyota Tsusho Corporation.



In the UAE, we launched the 3D Utilities Infrastructure Project for Dubai Municipality, creating a 3D Digital Twin Platform. This innovative platform streamlines business processes, mitigates risks, optimizes operational efficiencies, and provides valuable insights to decision-makers.

K&A was also appointed by the Center for GIS (CGIS) to execute the National Data Capture and Mapping project for Qatar's Ministry of Municipality. Our team is responsible for updating the 3D map of the entire country, delivering various hardware and software products, aircraft, aerial cameras, and airborne LiDAR sensors, as well as conducting an aerial topographic (Topo) and bathymetric (Bathy) LiDAR survey.

Moreover, K&A is pioneering the integration of cutting-edge technologies such as Building Information Modeling (BIM), Geographic Information Systems (GIS), the Internet of Things (IoT), Artificial Intelligence (AI), Machine Learning (ML), and Virtual Reality (VR). These technologies transform our approach to design, planning, and construction processes. An example of this is our recently completed Urban Landbank Using Aerial Survey and Artificial Intelligence (AI) project in Oman, where K&A devised an innovative solution involving an aerial survey using aircraft and AI to detect footprints and roads.

K&A Digital Services remains committed to innovation and high-quality service delivery, ensuring we continue to exceed client expectations and maintain our leadership position in the digital transformation landscape. ■

URBAN LANDBANK | OMAN

THE FUSION OF ARTIFICIAL INTELLIGENCE WITH GEOGRAPHIC INFORMATION SYSTEM

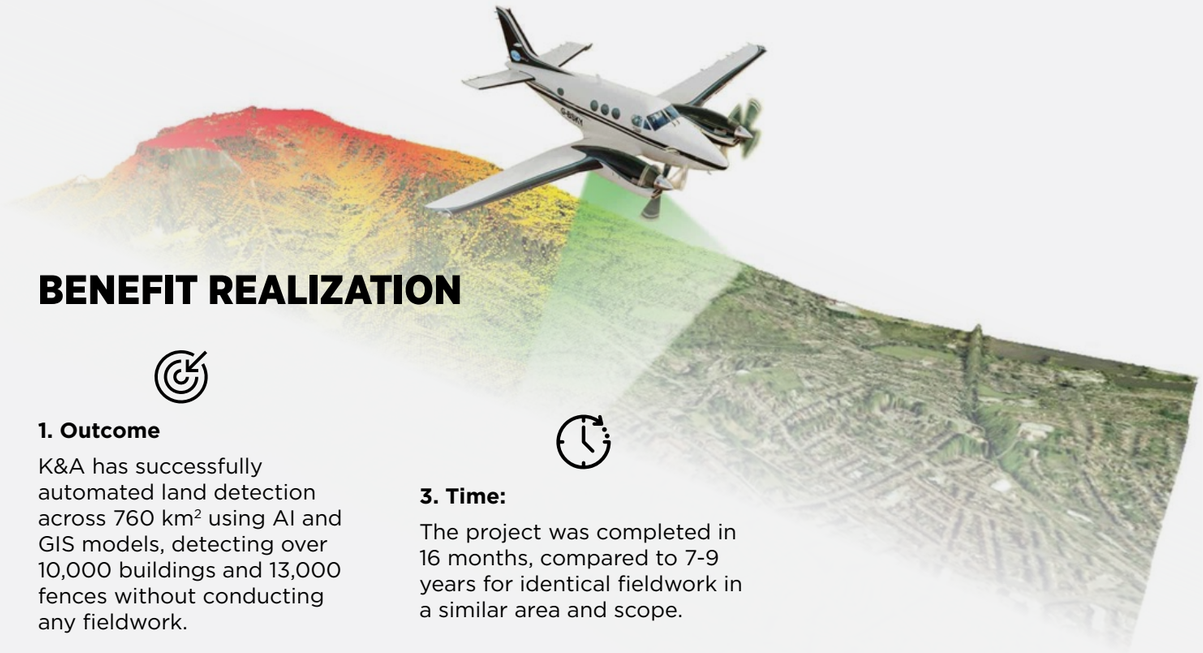
Artificial Intelligence (AI) is a game-changer that's poised to revolutionize the way we use Geographic Information System (GIS). In this digital project, the Urban Landbank Using Aerial Survey and Artificial Intelligence, we will explore how integrating AI with GIS has helped automate land detection across an area of 760 km² in the Sultanate of Oman.

The Dhofar Governorate in Oman aims to create a digital landbank of buildings, roads, fences, and above-ground utilities to aid the Ministry of Housing and Urban Planning (MoHUP) in planning and generating accurate site plans and deed ownerships. Due to social concerns and the challenging topography, the project necessitated an innovative solution that didn't involve a traditional field survey or site visits.

To achieve this, K&A spearheaded an aerial survey using aircraft to capture accurate images, and AI to detect footprints, fences, and roads, covering a large area of 760 km² with a two-year deadline. The project utilized five deep learning models to analyze aerial mapping imagery and low-density point cloud data, achieving unparalleled accuracy in detecting and classifying structures with a precision of 10 cm for built-up fences and building footprints. Moreover, flight planning and clearance, optimization of Ground Control Points (GCP), mission coordination with the appropriate authority, and ad hoc Aerial Triangulation led to accurate Orthophoto Mosaic Production and LiDAR Classification of Ground Sample Distance (GSD) 5 cm, within just nine days of data capture.

The project faced challenges due to limited clearance time, affecting flight and re-flying duration. Coordination between teams was crucial to secure clearance and ensure accurate AI outcomes and geo-referenced GIS landbank. "The main risk of this project is to accurately capture the raw data for all 760 km² areas within a limited 9-day time frame. After the aircraft had flown back, there was no option to rectify the failed images/point clouds, which meant that the project could fail to detect correct footprints and generate accurate site plans and deeds for citizens. Good planning, quality checks, and teamwork were the keys to success," said Rouba Zantout, Senior Delivery Manager.

K&A implemented a digital strategy to streamline the project, which resulted in impressive outcomes and reduced manual work. The use of specialized technology led to more outcomes than planned: accurate images of less than 6 cm precision with a GSD of 3-4 cm, compared to the planned 10-15 cm and 5 cm respectively. ■



BENEFIT REALIZATION

1. Outcome

K&A has successfully automated land detection across 760 km² using AI and GIS models, detecting over 10,000 buildings and 13,000 fences without conducting any fieldwork.

3. Time:

The project was completed in 16 months, compared to 7-9 years for identical fieldwork in a similar area and scope.

2. Cost

Leveraging AI-powered GIS has significantly reduced implementation costs by automating the entire process with minimal human intervention to detect lands and mitigate errors. Performing a traditional field survey to fulfill this kind of project, may cost more than 10M USD while this project cost was less than 0.8M USD.

4. Innovation:

Using AI and GIS to detect landbanks from aerial imageries and LIDAR point clouds enabled the generation of accurate and correct site plans with an accuracy of 6-10 cm, overcoming social concerns and topology constraints.

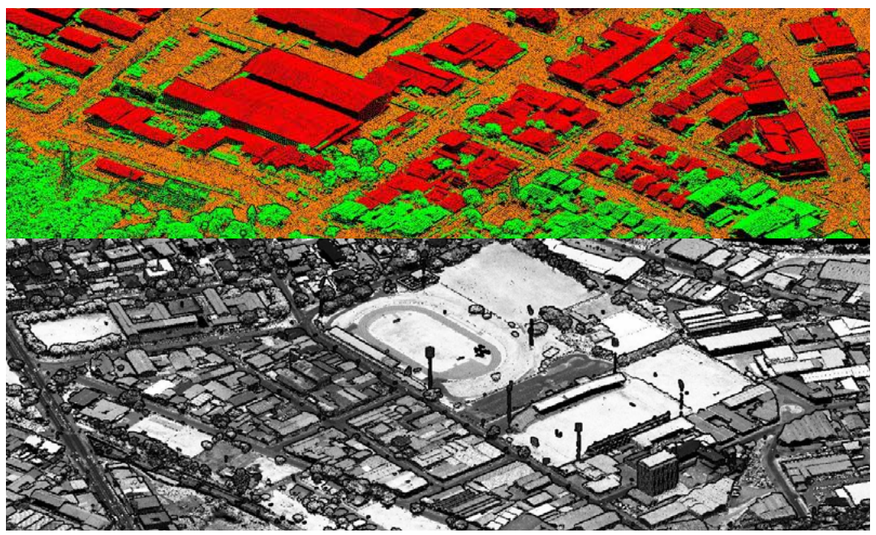
5. Digital Strategy:

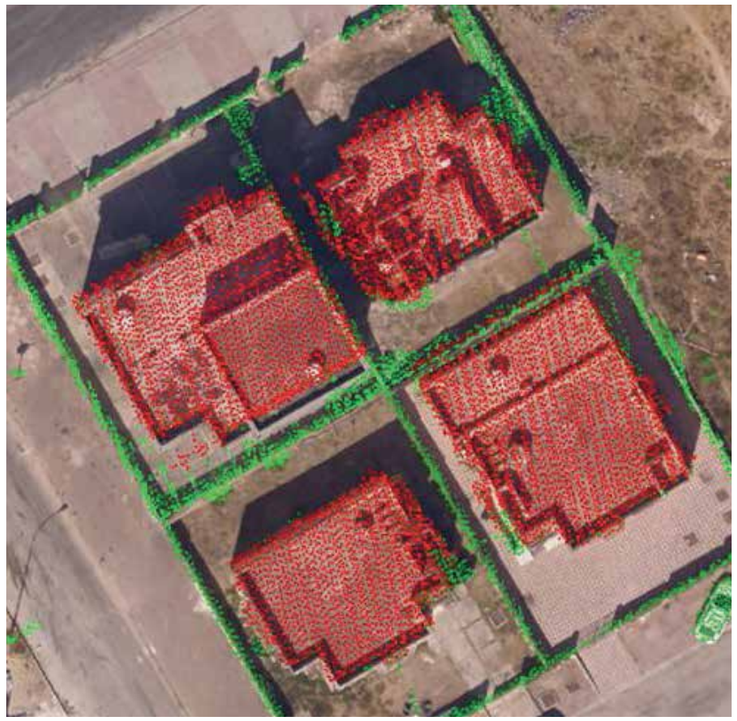
The project's digital strategy enriched the portfolio of digital services, creating an innovative process that secures new and upcoming projects in urban planning and survey. The efficient execution of the project resulted in increased profit, investment in team development, and technology advancements.

The three project teams utilized Microsoft Project to plan and allocate resources. The first team coordinated with authorities to obtain clearance for aircraft and ensure accurate GCP marking. The second team flew and checked images and LIDAR quality using Esri ArcGIS Pro and Leica Mission Pro software. The third team used aerial triangulation to do geo-referencing and feature detection using deep learning. They evaluated captured images/LIDAR data using Esri ArcGIS Pro, Bentley Context Capture, TerraSolid, and Python Scripts developed in ArcGIS Pro.

The flight plan was completed in just nine days, and using image clarity and LIDAR data allowed for correct and accurate processing of AI/GIS outcomes, saving over 20% of the cost.

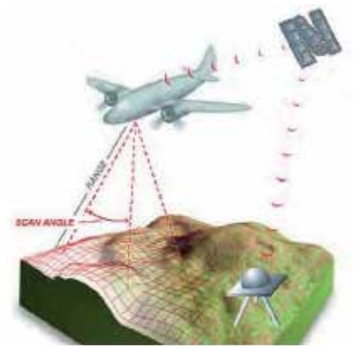
Commenting on the project's outcomes, Rouba Zantout added: "The project, completed within 16 months with minimal human intervention and nine days of flight capturing, resulted in a complete GIS landbank of buildings, fences, roads, and main above-ground utilities with 6 cm accuracy and received outstanding feedback from the client and citizens.





Consequently, K&A has secured a new larger project covering seven times the initial area." The Urban Landbank Using Aerial Survey and Artificial Intelligence is an exemplary project in AI-powered by GIS; where AI stands as a beacon of innovation in land detection and GIS in quality, analysis, and dissemination.

"According to the client, this successful project will become a role model of planning and innovation for many upcoming similar projects with MoHUP in the Sultanate of Oman. It will enable MoHUP to access detailed representations for the country's short and long-term planning strategies." ■



AMASSING RECOGNITION FROM TECHNOLOGY PARTNER, ESRI

Our exceptional work in Geographic Information Systems (GIS) has earned Khatib & Alami (K&A) the State and Local Government Specialty designation from Esri, the world's leading supplier of GIS software.

This fourth Esri Partner Network (EPN) Specialty designation underscores our three-decade-long partnership and unwavering commitment to Esri technology. It reflects our dedication to delivering value to state and local government clients. K&A holds four Esri Partner specialty designations, including Network Management, State and Local Government, ArcGIS System Ready, and Indoor GIS, enabling customers to benefit from in-depth analysis, real-time data, informed decision-making, and driving digital transformation.

In addition, K&A has received the Utility Network Implementation Award further acknowledging our success in implementing core Esri technology for utility and telecommunications operators globally.

These accolades reinforce K&A's commitment to providing exceptional solutions to help our customers achieve their goals and unlock new opportunities for success. ■

AIRPORT | BAHRAIN

NAVIGATING SKIES: KHATIB & ALAMI'S LEADING FEASIBILITY STUDY FOR BAHRAIN INTERNATIONAL AIRPORT'S EMERGENCY RUNWAY UTILIZATION

Khatib & Alami (K&A) is embarking on an exciting venture into Bahrain's aviation sector, having been commissioned by the Bahrain Airport Company (BAC) to conduct an extensive feasibility study.
This initiative aims to evaluate the viability of using Bahrain International Airport's emergency runway when the main runway is not available.

With BAC's plans for a substantial refurbishment and upgrade of the main runway, necessitating its temporary closure, a pressing challenge emerges. To address this, there is an urgent requirement to utilize the emergency runway to minimize disruptions to airport operations. In response, K&A has been entrusted with conducting a comprehensive feasibility study to guarantee the airport's safe and uninterrupted functioning during this period of refurbishment.

The study will delve deep into various key aspects, such as assessing weather conditions, runway length, capacity analysis, ground operational concepts, airspace procedures, safety assessments, and identifying essential operational and infrastructure upgrades necessary to meet the airport's demands. Additionally, it will undertake a thorough aeronautical analysis to ensure a comprehensive understanding of aviation-related factors.

Director - Airports (Global), Dr. Rabih El Khatib, said: "A significant challenge in our current project stems from the constrained timeframe for completion, compounded by the extensive data requirements essential for its thorough analysis. Our objective is to devise optimal solutions that meet the needs of BAC, airline operators, and passengers, all while navigating site constraints and adhering to international aviation codes and standards."

To overcome these challenges and deliver the highest quality of work to BAC, K&A's approach involves leveraging a pool of resources, sound expertise, and insights gained from previous projects.
The team is committed to meticulously adhering to the set project milestones while upholding the utmost quality standards. Furthermore, they will explore opportunities to integrate K&A's digital solutions to enhance efficiency and effectiveness in project execution.

"OUR OBJECTIVE IS TO DEVISE OPTIMAL SOLUTIONS THAT MEET THE NEEDS OF BAC, AIRLINE OPERATORS, AND PASSENGERS, ALL WHILE NAVIGATING SITE CONSTRAINTS AND ADHERING TO INTERNATIONAL AVIATION CODES AND STANDARDS."

Dr. Rabih El Khatib,
Director - Airports (Global)

As K&A embarks on this ambitious endeavor, its dedication to excellence, innovation, and client satisfaction shines through. With the commitment to delivering cutting-edge solutions and ensuring uninterrupted airport operations, the firm is poised to make a lasting impact on Bahrain's aviation landscape. ■

INDUSTRY AWARDS

CELEBRATING EXCELLENCE AND PERSEVERANCE: INSIDE K&A'S TRIBUTE TO INDUSTRY ACCOLADES

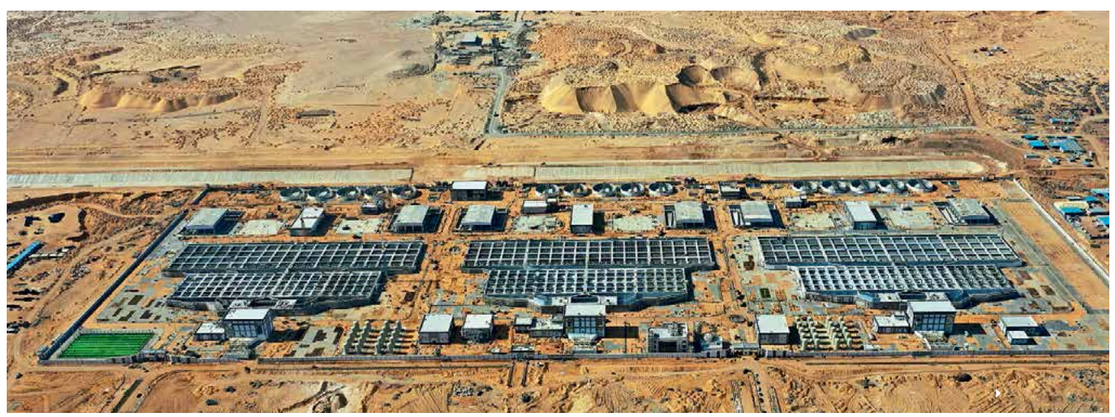
Last year, our team's outstanding contributions were acknowledged and celebrated at several prestigious awards ceremonies. We are thrilled to share some of these accomplishments in this issue of Inside K&A:

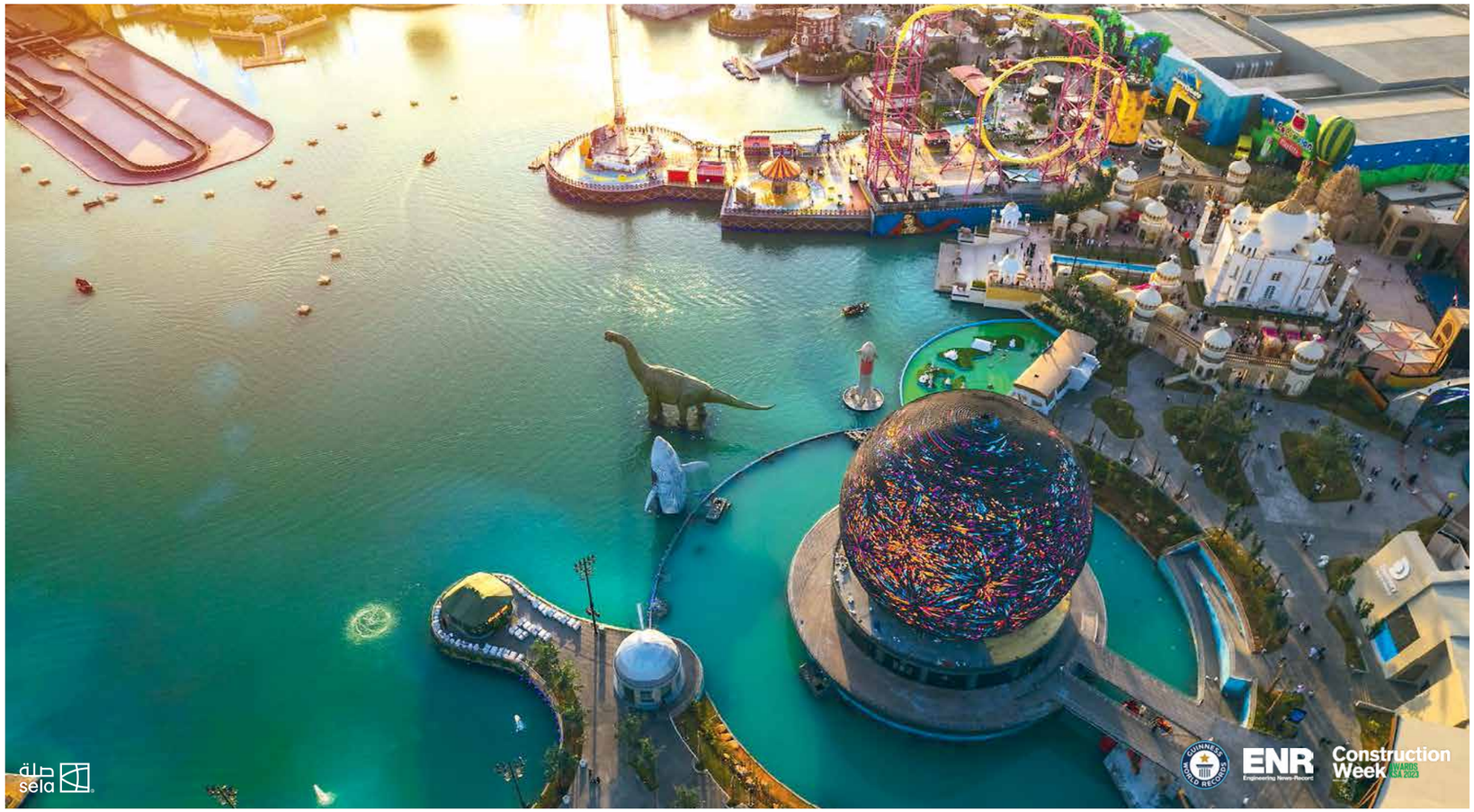
At the Big 5 Global Impact Awards, Khatib & Alami (K&A) has been awarded the Partnership of the Year accolade, along with our joint venture partners Metito Limited, Orascom Construction, The Arab Contractors Company, and Hassan Allam Construction. The accolade acknowledged our two-year partnership and hard work on the New Delta Wastewater Treatment Plant project in Egypt.

In addition, our recently completed project, the New Delta Wastewater Treatment Plant in Egypt has received the Best Project recognition in the Water/Wastewater category at ENR's Global Best Projects Awards and was named National Winner in the Water Treatment Project of the Year category at MEED Projects Awards 2023.

The New Delta Wastewater Treatment Plant is an impressive facility that holds four Guinness World Records. It is the largest water treatment plant, covering an area of 320,600 m^2 and with a capacity of 86.8 m^3/s.

It also has the largest sludge treatment plant, with a capacity of 670.01 kg, and the largest epoxy coating in a building extending to 520,339 m^2. This fast-track project, which was delivered in just 24 months, will treat and reuse agricultural wastewater to irrigate 210,000 ha of new agricultural lands and bridge the current gap of approximately 20 billion m^3 of water annually according to Egypt's 2030 National Agenda and the UN Sustainable Development Goals. ■





Furthermore, the Boulevard World project in Riyadh, Kingdom of Saudi Arabia, has won the Best Project award in the Sports/Entertainment category at the ENR Global Best Projects Awards. Additionally, it has been recognized as the Commercial Project of the Year at the Construction Week Middle East's KSA Awards 2023. The multicultural theme park, part of the Riyadh Season, earned renowned recognition from the Guinness World Records, breaking new records for the largest artificial lagoon, the tallest metal replica model of a fictional character, the biggest LED light ball, and the largest music production studio. K&A collaborated with 70 design and build contractors to bring the infrastructure and superstructure works from concept to completion, breaking an 80-day completion record.

Another project that was recognized by ENR with the Award of Merit in Education/ Research category was Qatar University's New College of Law (NCL).

The project, for which K&A provided the design and construction supervision, aims to improve Qatar University's education system and is a sustainable development model built to 4-star GSAS standards. NCL assembled a diverse multicultural team to create an inspiring learning environment, requiring a detailed communication plan, collaborative work, and BIM support for coordinating design options.

The View Hospital in Qatar was also awarded the highly commended Retrofit Project of the Year at the MEP Awards 2023. Initially designed as a high-rise hotel apartment, the building was converted halfway through construction into a fully functional hospital where all healthcare-specific equipment and components were fitted into the pattern of hotel rooms. As the lead consultant for interior design and engineering services, our team completed the building conversion by adapting it to the structural grid and shear walls and making necessary MEP adjustments - all within the deadline of August 2022 for the FIFA World Cup. ■

CELEBRATING 60 YEARS OF HISTORY

FROM HUMBLE BEGINNINGS TO GLOBAL IMPACT:

A JOURNEY OF RESILIENCE AND EXCELLENCE

60

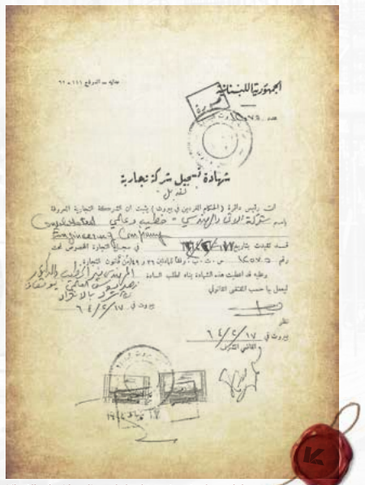
1964 - 1974 BUILDING DREAMS

United by a shared vision, Prof. Mounir Khatib and Dr. Zuheir Alami embarked on establishing K&A, starting with modest resources, funding operations from teaching salaries, and leveraging local talent to solidify their institution's lasting impact.

In February 1964, Khatib & Alami (K&A) emerged in response to a dire shortage of local engineering consultancy firms capable of meeting high standards in architecture and engineering. Both founders, Prof. Mounir Khatib and Dr. Zuheir Alami, who met at the American University of Beirut Campus, shared a unified vision to establish K&A as a prominent international entity and leverage local talent to create a lasting institution.

Despite limited resources, they pursued their dreams, funding operational costs from their teaching salaries and working from a modest office shared with friends.

From these humble beginnings, K&A began its ascent. Initially focused on Lebanon, the firm gained traction, notably with the Arab Bank Building project in Downtown Beirut, laying the groundwork for expansion into the Emirates and Oman. Initially providing architectural services, K&A gradually diversified to include infrastructure work, adapting to emerging trends.



Khatib & Alami's original contract signed by both parties- Beirut

Key projects bolstered K&A's reputation, particularly in the Emirates, where the firm secured a foothold by overseeing building design. In 1969, a significant highway project marked K&A's entry into Saudi Arabia, followed by a substantial contract with the Ministry of Municipal Affairs in 1972, involving extensive infrastructure design in Khobar and Dammam.

1972 proved pivotal, with K&A winning a prestigious competition to design the Holiday Inn Hotel in Bahrain, solidifying its presence in the hospitality industry. This success, coupled with other burgeoning projects across Bahrain, the Emirates, and KSA, inspired the partners to envision K&A's international growth potential. To realize this vision, the firm recruited top-tier talent to manage its expanding workload. By 1973, K&A had successfully penetrated the Omani market, marking yet another milestone in its journey.

1974 - 1984

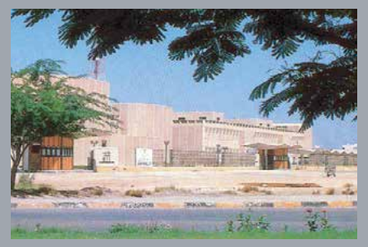
FROM ACADEMIC ROOTS TO GLOBAL IMPACT

K&A experienced a surge in workload, prompting the establishment of regional offices across the Middle East. Despite facing challenges such as political instability, the firm's reputation flourished, focusing on high-end educational and medical projects.

In 1974, K&A's workload surged, leading to the establishment of regional offices in the UAE, KSA, Bahrain, and Oman. As time passed, the workload grew increasingly demanding, necessitating the resignation of both founders from their teaching positions at the American University of Beirut.

Yet their ties to the American University of Beirut remained strong and their teaching and academic background shaped their evolution and ability to gain the confidence of clients and joint partners.

Recognizing the importance of retaining skilled senior staff, K&A introduced associateships in the mid-1970s, cultivating a culture of partnership.



The founders also knew that times were changing and technology was reshaping the industry. In 1979, they embraced technological advancements, integrating computers and AI to streamline operations, fueling further growth.

From 1971 to 1982, K&A completed 170 projects, expanding to 10 offices across Saudi Arabia, the UAE, and Oman and employing 630 staff. This period also saw

strategic joint ventures with global firms, solidifying K&A's presence in various engineering fields.

Despite challenges like political instability, K&A persevered, exemplifying resilience. In 1982, amid turmoil, the Beirut team relocated for safety, ensuring project continuity amidst the chaos.

K&A's reputation soared in the 1980s with a focus on high-end educational projects, including cutting-edge facilities like the Language Institute & Teaching Aid Center in Abu Dhabi and the College of Medicine & Medical Sciences in Bahrain. Their commitment to specialized projects continued with initiatives like an education center in Amman, Jordan, showcasing their expertise and dedication.

Ever since, K&A's impressive portfolio has grown to include distinctive medical care facilities in the Sultanate of Oman and Lebanon.

1984 - 1994

SHAPING THE FUTURE OF ENGINEERING AND URBAN PLANNING

From its first recognition among the Top 100 International Design Firms, to becoming a leader in the global engineering sector, K&A's journey was marked by pioneering GIS usage and rapid expansion.

In 1984, K&A achieved its first recognition among the Top 100 International Design Firms, affirming its position as a leader in the global engineering sector. Since its founding, K&A has committed to delivering cutting-edge solutions, continually embracing innovative technologies to stay ahead in the industry. This commitment led to K&A pioneering the use of Geographic Information Systems (GIS) early on, beginning with a landmark project in Muscat, Oman, in 1988.

The Oman Land Information System Design Study for the Supreme Committee for Town Planning was a collaborative effort with the Environmental Systems Research Institute (ESRI), focusing on a comprehensive Land Information System design.

As K&A emerged as the region's first GIS distributor and the exclusive provider in Lebanon and Oman, it not only facilitated the sale of the software but also provided expert training and support, catalyzing a series of major projects.

The early 1990s brought about a period of rapid expansion with the establishment of a new office in Doha, Qatar, and significant diversification efforts, particularly in Sharjah, UAE. Here, K&A made its mark by designing its first high-rise towers and expansive complexes.

This era of growth saw the Sharjah design department expand tenfold in just a decade, underscoring the firm's escalating influence and capacity in the architectural field.

Additionally, K&A established one of the region's earliest Urban Planning departments, recognizing the burgeoning potential in the UAE market. This department quickly became a cornerstone of K&A's multidisciplinary approach, contributing significantly to several prominent projects, including the Hatta and Al Warqa Housing Developments for Dubai Municipality.

Through continuous innovation and a commitment to excellence, K&A has solidified its reputation as a trailblazer in urban planning and a multidisciplinary powerhouse in the engineering world.

1994 - 2004

A JOURNEY OF GROWTH AND INNOVATION

K&A's GIS department has grown exponentially, playing a crucial role in post-Lebanese Civil War reconstruction, broadening its portfolio across diverse geographical regions, and solidifying its position as a leader in emerging markets.

In 1994, with just five employees, K&A's GIS department started on projects for key clients like Solidere and EDL, while supporting vital initiatives such as Lebanon's Staged Wastewater Program and Mechref Community Development.

The exponential growth of K&A necessitated moves to larger spaces in the Rifai and Colombia buildings by 1997, where a team of 40 thrived, paving the way for the acquisition of even more IT infrastructure and GIS resources.

The region's burgeoning interest in GIS solutions was highlighted by the Salalah Addressing Project in Oman, showcasing K&A's expertise in facilitating urban expansion

through comprehensive GIS-based systems.

During the years 1995-1998, the department achieved breakthroughs in GIS utilities with projects like EDL GISEL, laying the groundwork for transformative ventures such as the Port of Beirut Automated Mapping/Facility Management System in 1998 and consultancy services for Oman's Ministry of Electricity & Water.

In 1999, K&A achieved significant milestones with projects like the Building Damage Assessment in Beirut and hosting Lebanon's first Esri GIS conference, paving the way for expansions into the UAE and gas sector, notably with the Sharjah Gas Distribution Project, modernizing core business processes.

Entering the new millennium, the GIS department relocated to K&A's headquarters in 2001, initiating collaborations with ADWEA and furthering commitments to the GISEL project through GISELOM, while 2003 marked another pioneering effort with a visually captivating book for Lebanon's Council for Development and Reconstruction, setting precedents for future endeavors.

Following the end of the Lebanese Civil War, K&A emerged as a pivotal player in reconstruction efforts. Since it was appointed consultant for the High Relief Committee in 1994, K&A has maintained this role ever since due to its exceptional work, swiftly responding to natural disasters and man-made crises, while focusing on steering war-torn Lebanon towards a brighter future. For instance, K&A facilitated the delicate balance between preserving Beirut's historic architectural heritage and advancing reconstruction efforts by developing a custom GIS database and assessment criteria in 1997, reflecting their commitment to harmonizing the past, present, and future.

In 1998, K&A's offices in the UAE earned ISO 9001 certification, further solidifying the company's reputation for high-quality standards in the Emirates. Over time, K&A garnered an extensive portfolio spanning from Oman to Morocco, earning repeat business from governments and private developers.

2004 - 2014
EXPANDING HORIZONS AND REDEFINING EXCELLENCE

From 1982 to 2000, K&A excelled in designing and supervising a wide array of projects across housing, infrastructure, hospitals, and airports, establishing itself as a trusted service provider for Saudi Aramco.

By 2000, under visionary leadership and perseverance, K&A embarked on a transformative journey, expanding its footprint across diverse geographical regions, diversifying its expertise into multiple disciplines, and embracing state-of-the-art technology to venture into emerging markets like Morocco, Sudan, Algeria, and Kazakhstan.

Venturing into the railway sector in 2002 with the Dubai Rail Project, K&A's collaboration with Systra laid the foundation for regional leadership in Saudi Arabia's railway sector in 2003, culminating in the design of the world's longest railway, the 2,480 km North-South Railway, marking a monumental achievement and partnership with Systra and Canarail renowned for their expertise in this specialized field.

K&A's expansion into Africa and subsequent recognition for projects, alongside achievements in GIS technology, contributed to its growth to over 6,000 employees and its status as a top global design firm, driven by a commitment to excellence, innovation, and social and environmental responsibility.

The exponential growth of projects in the region prompted K&A to expand its GIS arm in 2005, establishing offices in the Kingdom of Saudi Arabia and Bahrain. This strategic move brought a new wave of projects, with KSA emerging as a prominent market by 2006. The firm secured several significant projects, including the Malaria Defeating Program for the Gizan Ministry of Health.

Building on its regional success, K&A extended its footprint to Egypt in 2006, with a keen eye on African markets. Recognizing untapped natural resources and the potential for vital maritime connections, K&A expanded further into Sub-Saharan, Central, and East Africa between 2009 and 2011, establishing offices and representations in Nigeria, Sudan, Gabon, and Ethiopia.

During this period, K&A earned 14 prestigious awards, including recognition as the Best Architectural Firm in the GCC in 2010 and the Energy Ambassador of the Year in 2014. In addition, many of K&A's projects garnered success, such as the Rose Rayhaan being named the World's Tallest Hotel in 2009 and the Eco Towers becoming the First Platinum Rated Building in the Middle East in 2012.

In 2013, the Gate Towers in the UAE won the Leisure and Tourism Project of the Year award, adding to K&A's accolades. The firm's expertise was evident in the flawless execution of complex engineering feats, including the world's highest construction lifting operation for the Gate Towers project.

Moreover, K&A became the first Platinum Partner of Esri and Schneider Electric in the Middle East and North Africa, marking notable success through various accolades for its GIS projects. These include the UN-HABITAT Business Good Practice Award in 2009, the Esri Innovation in Technology Award in 2010 for both the Beirut Project and the Oman National Census Project, and the Geospatial World Excellence Award in 2012 for its exceptional application of geospatial technology in the Facilities Information System.

By 2014, K&A had grown to over 6,000 employees, a significant increase from its modest beginnings. Despite this growth, the company maintained a familial atmosphere, encouraging team spirit through regular team-building events and open internal communication.

K&A attributes its success factors to exceptional service, quality, and dedication to client satisfaction. The firm's internal corporate culture, founded on merit and competence, has been instrumental in its growth and adaptability to industry shifts.

With a network spanning 30 offices worldwide and a distinguished position among the top 50 design firms globally, K&A continues to push boundaries, embracing cutting-edge technology, exploring new markets, and prioritizing social and environmental responsibility.

2014 - 2024
A DIGITAL REVOLUTION

K&A's implementation of SAP's ERP/CRM system and consolidation of digital expertise, solidified its leadership in engineering and technology, driving growth and transformation across diverse industries

K&A's transition to cloud technology has revolutionized its operations, facilitating seamless collaboration and extending its global reach. This shift has been instrumental in the company's rapid growth, particularly in managing intricate projects with tight deadlines across design centers. Amidst the pandemic, cloud collaboration became pivotal, prompting K&A to invest in additional licenses and enhance company-wide understanding. Thanks to the myriad advantages offered by Autodesk Construction Cloud, all projects, irrespective of their scale or value, were stored in the cloud and shared with clients and stakeholders. This fostered a collaborative approach, enhancing understanding among design teams and significantly improving cost and time efficiency.

Despite the challenges posed by the pandemic, K&A's specialized expertise began to span various sectors, including healthcare facilities design, hazardous waste management, Geographic Information Systems (GIS), and project financing, benefiting communities across the Middle East and Africa. A notable example is the design and construction of the Kingdom of Saudi Arabia's National Health Emergency Operations Center. The facility, leveraging state-of-the-art infrastructure, innovative digital technologies, location intelligence, and real-time data analysis, has been instrumental in bolstering the Kingdom's response to the pandemic. Its achievements have not only secured the Kingdom's leadership in emergency management and health disasters but also garnered global recognition. This was evident when the NHEOC became the inaugural facility in the Eastern Mediterranean region to receive accreditation from the World Health Organization.

The COVID-19 pandemic accelerated digitization, prompting a focused effort within the Architecture, Engineering, and Construction (AEC) industry to harness the full potential of various technologies. K&A's commitment to fusing engineering with technology is exemplified by projects like the Riyadh-based Dispatch Center for SWCC, which brought about a complete digital transformation of water management in Saudi Arabia.

This groundbreaking endeavor has set a new standard through the unprecedented level of integration between Architecture, Engineering, and Construction (AEC) and Information & Operational Technologies (IT/OT) in the development and implementation of the Water Management System (WMS) for SWCC.

The start of the new decade saw investments in internal and external technologies, such as Virtual Reality (VR) and Augmented Reality (AR) drones, 3D printing, digital

twins, and BIM, which further advanced K&A's dedication to innovation and client support. The adoption of an Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) system from SAP has streamlined core business processes, empowering employees and enhancing services related to the Internet of Things (IoT), big data, and Artificial Intelligence (AI).

K&A has cultivated one of the most formidable GIS teams globally. Our experts are at the forefront, laying the groundwork for smart city advancements and the progressive evolution of smart city paradigms. The Riyadh Smart Square design stands as a pioneering initiative by Aqalat, embracing the concept of smart city development from its inception. Harnessing cutting-edge technologies like AI, IoT, and big data analytics, the project was meticulously crafted to prioritize critical applications such as security, traffic management, and the seamless integration of residents' daily activities.

The firm's evolution with the times and its new prime position on the global scene sparked even more changes. As the world cautiously embraces hope and optimism in 2021, marked by the eagerly awaited Expo 2020 Dubai, K&A proudly contributed to the event by delivering five pavilions and acknowledging the immense effort invested over the years. Furthermore, the firm's remarkable contributions in Egypt, particularly exemplified by the Bahr Al Baqar wastewater treatment plant, which has been acknowledged by the Guinness Book of World Records for its exceptional capacity, demonstrate its unwavering dedication to environmental stewardship and societal progress.

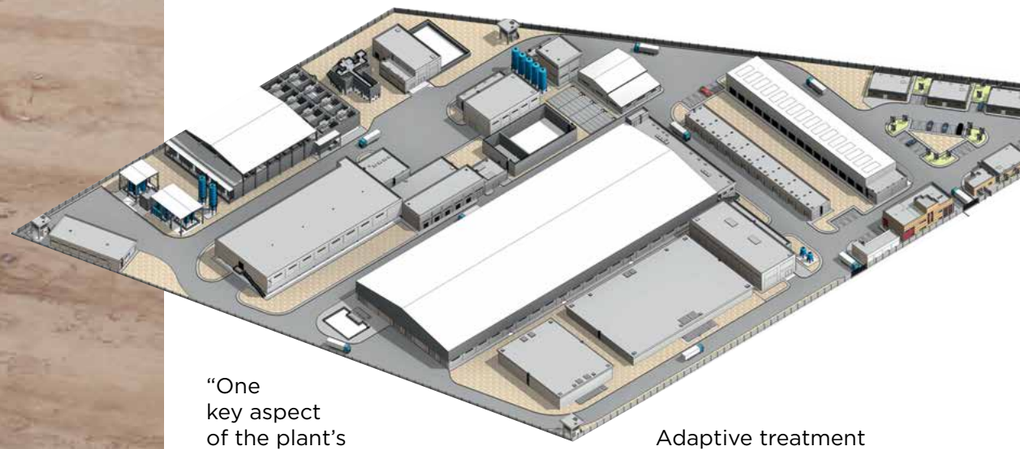
Between 2022 and 2023, K&A's pursuit of excellence extended to achieving international BIM standards and consolidating digital expertise into "K&A Digital Services." This strategic integration enables the provision of enhanced services across diverse industries, driving growth and transformation. By exploring emerging technologies like AI, VR, and machine learning (ML), K&A continues to reshape design, planning, and construction processes, earning recognition as an Esri Platinum Partner.

As K&A expands its market presence and broadens its service offerings, its steadfast commitment to developing tailored, innovative solutions remains paramount, making a positive impact in every community it serves. ■

WATER DESALINATION | IRAQ

BASRA'S ABU FLOUS DESALINATION PLANT: A PIONEERING FACILITY IN WATER TREATMENT TECHNOLOGY

The Abu Flous Desalination Plant in southern Iraq excels with advanced treatment technologies, its adaptability to fluctuating raw water conditions, and innovative energy recovery systems, highlighting its crucial role in ensuring regional water security and promoting sustainable development.



The Abu Flous Desalination Plant sets a new benchmark in water treatment with its advanced Reverse Osmosis (RO) technologies. This innovation allows it to efficiently treat water with a wide range of salinity levels, from 500 ppm up to 35,000 ppm, setting it apart from conventional desalination facilities.

The plant is strategically situated in the Abu Flous area of Abi Al-Khaseeb District, within the Basra Governorate in southern Iraq. In this region, where water scarcity is exacerbated by population growth and limited freshwater resources, desalination emerged as the most viable solution to tackle these challenges head-on.

Associate Principal, Rami Hanna, said: "The Abu Flous Desalination Plant provides a sustainable solution to increasing the freshwater supply by drawing its raw water from the Shat Al Arab and the Irwaiyah Canal, which are vital water sources for the region. Its strategic location is pivotal in addressing the pressing challenges in the area, which include variable water quality and high Total Dissolved Solids (TDS) levels in these raw water sources."

Moreover, the plant boasts a sophisticated pre-treatment system that effectively handles challenging raw water, overcoming high TDS levels, turbidity, and variable pollutant concentrations. The system's robust design ensures reliable operation and consistent production of high-quality freshwater despite raw water fluctuations, making it an indispensable asset in addressing regional water scarcity challenges.

"One key aspect of the plant's operation is its ability to intake water from two distinct sources, a river with high salinity and a canal with lower salinity. This means the plant adapts to varying water quality conditions," added Project Manager, Fadi ElHindi. "Despite the differences in salinity levels between these sources, the pre-treatment system ensures that water from both inputs undergoes thorough treatment to meet stringent quality standards."

Additionally, the facility leverages advanced technology and prioritizes sustainability through several key initiatives. Energy efficiency is enhanced using state-of-the-art RO systems and energy recovery devices, significantly reducing energy consumption.

Adaptive treatment processes optimize resource usage, ensuring efficient operations while minimizing environmental impact. Responsible brine disposal practices further contribute to the plant's sustainability, aligning with its long-term environmental stewardship goals.

The Abu Flous Desalination Plant marks a significant step towards alleviating water scarcity and ensuring water security for the region. It enhances public health by reducing waterborne diseases and catalyzing economic growth across various sectors. Furthermore, it serves as a model for future sustainable water management initiatives, providing lasting benefits for Basra and its neighboring communities. ■

WATER SUPPLY MASTER PLAN | BAHRAIN

LAUNCHING BAHRAIN'S POTABLE WATER PRODUCTION AND TRANSMISSION MASTER PLAN

A highly skilled team of Khatib & Alami (K&A) experts, with specialized knowledge in water supply, water treatment, SCADA, power, and mechanical design, have started the implementation of an innovative potable water production and transmission master plan for the Electricity and Water Authority (EWA).

The primary goal of the project is to develop a comprehensive water supply master plan for Bahrain spanning from 2024 to 2030. This involves studying and recommending optimized plans for expanding, modifying, and reinforcing the EWA production and transmission facilities to meet future potable water demand. Additionally, the scope includes conducting energy-saving and groundwater studies.

The EWA potable water network comprises production facilities that extract potable water from seawater and brackish water sources. These facilities are interconnected with storage, transmission, and distribution networks to ensure uninterrupted water services to all EWA customers 24/7. Key components of the existing network include 7 production facilities, 66 water stations for forwarding and distribution, storage facilities totaling 700 million gallons across 125 ground storage tanks and 40 elevated reservoirs, and 618 km of transmission pipelines ranging from 1400 mm to 600 mm in diameter. Currently, the network distributes an average of 165 million gallons daily.

"THIS YEAR, AS WE CELEBRATE OUR 50 YEARS OF OPERATION IN BAHRAIN, WE ARE DEEPLY COMMITTED TO SUPPORTING EWA IN THIS SIGNIFICANT PROJECT."

Samer El Husseiny,
Project Manager

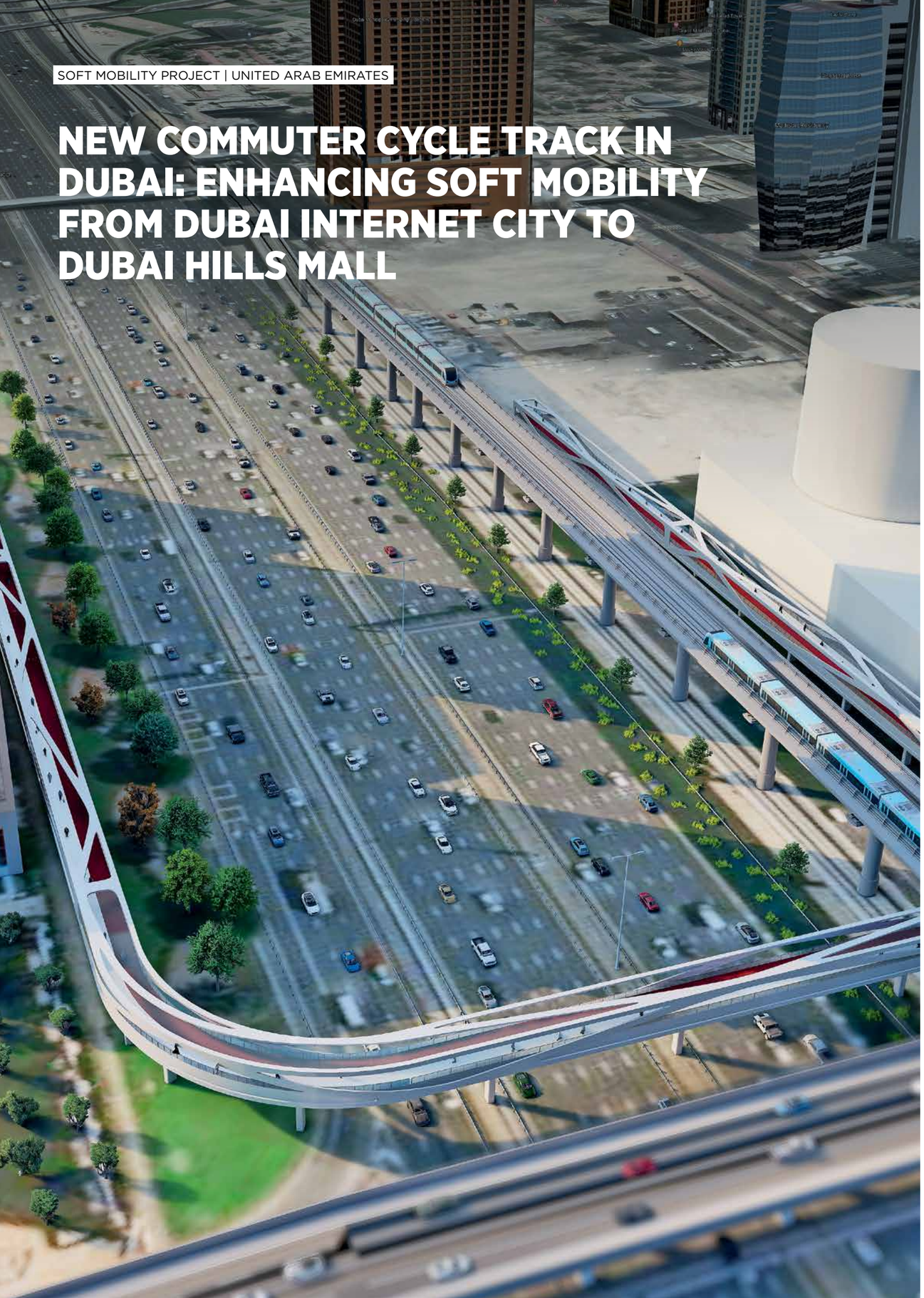
"The unwavering mission of the team is to design a production and transmission framework that prioritizes resilience and effortlessly adapts to various scenarios, ultimately strengthening the connectivity between the main production facilities to better handle any emergency in the future," said Project Manager, Samer El Husseiny.

This initiative will significantly enhance Bahrain's water infrastructure with desalination plants and water networks boasting a collective capacity exceeding 900,000 m^3/day.

"This year, as we celebrate our 50 years of operation in Bahrain, we are deeply committed to supporting EWA in this significant project. We aim to introduce sustainable and AI solutions that will contribute to the long-term well-being and development of Bahrain, emphasizing our dedication to the country's future." ■

SOFT MOBILITY PROJECT | UNITED ARAB EMIRATES

NEW COMMUTER CYCLE TRACK IN DUBAI: ENHANCING SOFT MOBILITY FROM DUBAI INTERNET CITY TO DUBAI HILLS MALL



In a significant stride towards sustainable urban mobility, a new 13.5 km commuter cycle track is set to be established in Dubai. This initiative is designed to serve cyclists and e-scooter users, with the added convenience of an adjacent footpath for pedestrians.

Khatib & Alami (K&A) has spearheaded the transport integration and soft mobility improvement to Hessa Street by providing a commuter cycle track aligned with the Roads and Transport Authority (RTA) Cycle Masterplan. The new commuter cycle track will extend from the Dubai Internet City Metro Station, running along Hessa Street, parallel to Al Khail Road, through a section of Umm Suqeim Road, and connecting with the Dubai Hills Mall in Dubai Hills Estate. It will not only cater to bicycles and e-scooters but will also include a separate footpath. This dual-path design ensures safety and accessibility for all users, promoting a more active and environmentally friendly mode of transportation.

To enhance the user experience, the project includes strategically placed rest areas and shading, providing comfort, particularly during the hot summer, and making the cycle track more usable throughout the year. Additionally, a mobility hub, designed according to RTA integration requirements, will be a central feature of the project, facilitating seamless transitions between different modes of transport, and enhancing the efficiency of the network.

Furthermore, two grade-separated iconic pedestrian-cyclist bridges are proposed to enhance connectivity. The first bridge, spanning Sheikh Zayed Road, will enable smooth and uninterrupted mobility across this major thoroughfare. It will seamlessly link the new cycle track with existing ones near the Dubai Internet City Metro Station, providing a continuous and safe route for cyclists and e-scooter users. This bridge is designed to handle high traffic volumes, ensuring users can cross without delays or safety concerns. The second bridge will traverse Al Khail Road, one of Dubai's major highways.

This bridge will facilitate safe and efficient crossing, integrating the cycle track with other vital areas in the city.

The cycle infrastructure design was developed from a comprehensive study conducted by K&A, which identified the volumes of future soft mobility users along the 13.5 km route. The design was then incorporated into the extensive Hessa Street Road upgrade design prepared by K&A. This was a multidisciplinary effort involving experts from our transport planning, roads, landscaping, wet and dry utilities, and quantity surveying divisions.

By connecting various parts of the urban landscape, these bridges will play a crucial role in making the cycle track an integral part of Dubai's transportation network. They are designed to prioritize user safety and convenience, encouraging more people to opt for soft mobility options over traditional motorized transport. ■

Services Provided

- Soft mobility improvement options
- Providing a pedestrian and cyclist bridge across a major
- Expressway
- Impact study on existing utilities and proposed utility
- Diversions
- Proposed stormwater drainage concept design
- Landscape concept design alternatives
- Construction cost estimates and option assessment

PIONEERING SAFETY EXCELLENCE

In 2024, we proudly celebrate outstanding HSE accomplishments across our global projects. These achievements underscore our team's dedication to maintaining the highest safety standards, marking significant progress in ensuring the well-being of our people, protecting the environment, and enhancing operational quality and safety.

DEVELOPMENT OF GARN AL SABKHA AND SHEIKH MOHAMMAD BIN ZAYED ROAD INTERCHANGE RECEIVES THE PRESTIGIOUS FIVE STAR RATING BY BRITISH SAFETY COUNCIL

This exceptional project, selected by the Roads and Transport Authority (RTA) to undergo an audit by the British Safety Council, has received the prestigious Five Star Occupational Health and Safety rating. The project was praised for its effective safety management systems, having recorded a remarkable milestone of 3.5 million Lost Time Injury (LTI) free man-hours to date.

The Five Star Occupational Health and Safety Best Practice Audit is a quantified benchmark of health and safety performance against the latest legislation, recognized standards, and best practice techniques. The assessments included a thorough review of health and safety management documentation, interviews with management, staff, and stakeholders, as well as a comprehensive site tour, inspection, and operational sampling.

Through this process, the Khatib & Alami project team continually monitored and reviewed the program performance to integrate best practices, improve documentation, and deliver extensive on-the-job training to ensure a proper understanding of the expected safety behaviors and outcomes. Moreover, the audits and inspections conducted by the RTA QHSE department not only facilitated significant improvements but also helped establish a safety culture and governance that understands the importance of safety management systems and how to effectively implement them.

THARBA MEDICAL CENTER CELEBRATES 3 MILLION SAFE MANHOURS AND CLIENT RECOGNITION

The Tharba Medical Center, a groundbreaking healthcare facility in Al-Ula, Saudi Arabia, represents a significant leap forward in medical services for the region. Commissioned by the Royal Commission

for AlUla (RCU), this state-of-the-art center is designed to meet the diverse healthcare needs of the local community and visitors alike.

As the project progresses towards completion, our team has achieved a remarkable safety milestone of 3 million safe man-hours on RCU asset projects, supporting the center's unwavering commitment to safety, excellence, and healthcare innovation.

Senior Director of Supervision - Buildings, Hamed Okeil, said: "We are incredibly proud to have achieved this milestone. As we celebrate, we also want to acknowledge the vital contributions of RCU and the project stakeholders who made this possible. We look forward to many more successes in the future."

K&A SUPERVISION TEAM HONORED FOR SAFETY EXCELLENCE BY RED SEA MARKETS COMPANY LIMITED ASIR

Red Sea Markets Company Limited Asir has honored the K&A Supervision Team for their outstanding commitment to safety during the construction of The Point, a new mixed-use development in the Abha region.

The Point is set to become a landmark for retail, dining, entertainment, and hospitality, reflecting the essence and history of Asir. With construction underway and expected to be completed by summer 2026, this recognition underscores the team's dedication to maintaining high safety standards on site and proactive measures to prevent accidents and ensure a secure working environment.

As the construction supervision consultant, K&A ensured that the project met its ambitious goals and adhered to the highest safety standards. The team implemented a proactive approach, rigorous training programs, and regular safety drills to maintain high safety standards throughout construction.

In acknowledgment of their exceptional performance, Red Sea Markets Company Limited Asir presented certificates of appreciation to the supervision team.

JABAL OMAR DEVELOPMENT ACHIEVES HIGH CLIENT SATISFACTION AND KEY MILESTONES

The Jabal Omar Development in Makkah Al-Mukarramah is a visionary mixed-use project designed to cater to the needs of the city's ever-growing number of pilgrims and seasonal visitors. Under the meticulous supervision of Khatib & Alami (K&A), the project has achieved remarkable

milestones, including high client satisfaction ratings and the successful handover of the First Ring Road to the Municipality of Makkah.

Spanning a land area of 230,000 m^2 and a built-up floor area of approximately 2 million m^2, the Jabal Omar Development project provides world-class accommodation with supporting religious, social, and commercial facilities for the city's visitors and residents. It was designed with a high-density development plan to accommodate 1,500 persons per hectare, becoming a cornerstone of Makkah's urban landscape.

Since K&A mobilized its supervision team in 2011, the project has made substantial progress, earning high client satisfaction ratings. Another standout accomplishment of the project is the successful handover of the First Ring Road to the Municipality of Makkah. This pivotal infrastructure development, initiated in 2014, is set to improve significantly transportation and accessibility within the Jabal Omar area.

"The success of the Jabal Omar Development Project is a testament to K&A's unwavering commitment to excellence in supervision and project management. The team's proactive approach, attention to detail, and relentless pursuit of quality have been instrumental in achieving these milestones," said Senior Director of Supervision - Buildings, Hamed Okeil.

The Jabal Omar Development Project is poised to transform Makkah's urban landscape, providing state-of-the-art facilities and accommodations for the millions of pilgrims and visitors to the holy city. As the project progresses, it remains a shining example of excellence in urban development and a beacon of collaboration and dedication. ■

TECHNOLOGY

ENHANCING MICRO-MOBILITY SAFETY WITH ARTIFICIAL INTELLIGENCE SOLUTIONS

Houssam al Masri, Smart City Design Lead at K&A's Digital Services team, looks at the transformational role of artificial intelligence (AI) to enhance rider and pedestrian safety.

Dr. Houssam Al Masri
Smart City Design Lead

The increasing popularity of micro-mobility, specifically electric scooters, has opened up new opportunities for urban transportation, offering alternatives to traditional car-centric models. However, this surge has brought to light important safety issues, which require innovative solutions to ensure the smooth integration of micro-mobility into urban landscapes.

THE CHALLENGE

Micro-Mobility Safety Dilemma

Urban transportation systems prioritizing cars have resulted in negative outcomes such as traffic congestion, air pollution, and noise, significantly impacting the city's quality of life. In response to these challenges, city planners are encouraging alternatives like walking, cycling, and public transport.

Shared electric bikes and scooters have emerged as positive additions to urban mobility but introduce safety concerns, such as conflicts with pedestrians, cyclists, and vehicles. Key issues include speed disparities, inadequate infrastructure, overloading, sidewalk misuse, mis-parked e-scooters, nighttime visibility challenges, and high-speed maneuvering risks.

These problems impact all road users, necessitating comprehensive solutions to enhance micro-mobility safety. Failure to address these issues could result in more accidents, injuries, and negative public perception, hindering micro-mobility integration into urban transport systems and preventing its full potential.

THE SOLUTION

AI-Powered Solutions for Micro-Mobility Safety Enhancement

Several AI-based solutions aim to improve electric scooters' safety in urban settings and are designed to prevent collisions and conflicts with pedestrians and other road users.
Here's a summary of the proposed solutions:

1. AI System for Real-Time Driving Focus:
An AI system that collects real-time data to monitor electric scooter drivers' focus. It enhances driver awareness and reduces accidents.

2. Noise Generation Device:
A device that produces sounds of varying intensity based on the scooter's speed to alert pedestrians.

3. Multifunctional Helmet and AI System:
A helmet worn by electric scooter drivers with an AI system that gathers real-time data on accidents, speeding, and helmet usage, offering personalized safety insights on individual rider behavior.

4. Geofencing for Semi-Dockless E-Scooters:
Geofencing creates virtual parking areas for e-scooters in various transport facilities, leading to a semi-dockless system that could improve infrastructure and safety.

5. Object Surveillance via Surveillance Cameras:
An AI system that uses cameras to detect illegal activities by e-scooter riders. It's limited to camera-covered areas but targets safety issues like multi-person riding and helmet compliance.

6. Real-time Data Collection Module for Sidewalk Safety:
A module that collects data from scooters in real time to prevent sidewalk accidents and determine the number of riders, enhancing sidewalk and shared space safety.

7. Footrest and Data-Collection Module with AI Integration:
A solution that combines a pressure-sensitive footrest with data-collection and accelerometer modules. It detects overloading and sidewalk driving, reducing common safety risks. The system uses Velostat for pressure sensing, an Arduino for processing, and Wi-Fi for communication. Data is sent to a smartphone app, which notifies users of tandem riding or sidewalk usage.

These solutions collectively aim to create a safer environment for electric scooter usage by employing advanced AI technologies and real-time data analysis.

THE BENEFITS

Leveraging AI for Micro-Mobility Safety and Seamless Urban Integration

Adopting AI-powered solutions for micro-mobility is essential for enhancing urban transportation safety and promoting sustainability and efficiency.
These solutions offer numerous benefits and drive positive changes in urban mobility.

AI integration in micro-mobility helps enhance safety for riders and pedestrians by reducing accidents and injuries. It increases rider awareness with real-time updates on traffic, weather, and hazards, fostering responsible use. AI also provides auditory safety alerts, making micro-mobility safer and more accessible, and delivers personalized safety tips based on riding habits.

Additionally, effective dockless system management optimizes vehicle distribution and maintenance, while improved surveillance helps authorities identify safety concerns and enforce regulations.

Real-time data prevents sidewalk accidents and overloading, and cognitive reaction tests ensure riders are clear-minded, promoting responsible behavior. AI features like the Skid Braking Prevention System also prevent dangerous riding behaviors, enhancing overall safety.

WHAT'S NEXT?

Navigating the Future of Micro-Mobility with AI Integration

AI integration in urban transportation offers a promising solution to safety concerns associated with micro-mobility.
By continuously monitoring and analyzing data, AI enables cities to proactively address potential safety challenges, paving the way for optimized micro-mobility services and more harmonious coexistence among various transportation modes.
Utilizing advanced AI models, especially those developed with the Keras open-source library and Python, AI systems are trained with diverse boarding and driving data, enhancing their understanding of micro-mobility scenarios.

Despite the progress, challenges remain, such as the need for more extensive data collection under varied driving and passenger conditions and addressing issues like drunk driving and illegal parking. This ongoing refinement aims to stabilize the integration of electric scooters as a safe and innovative mode of mobility.

The commitment to integrating AI in micro-mobility is a continuous journey of adaptation and innovation, inviting collaborative efforts to create safer, smarter, and more sustainable urban transportation ecosystems. ■

2024 AWARDS SEASON LAUNCHES WITH EXCEPTIONAL PROJECTS

These awards demonstrate our unwavering commitment to elevating industry standards through our work. For the third consecutive year, K&A has proudly brought home accolades from the Construction Technology Awards, which celebrate the best-in-class use of digital technology and new approaches in the built environment.

This year marks the second successive win for our projects in Oman, underscoring our continued excellence and leadership in the industry. Our groundbreaking project, the Urban Landbank Using Aerial Survey and Artificial Intelligence, was named the Digital Project of the Year. The project received high praise for its exceptional use of digital

technologies to accurately map an area of 760 km² in the Dhofar Governorate of Oman.

Moreover, three years after its completion, the Bahr Al-Baqar Wastewater Treatment Plant continues to reap the success of its ingenious engineering and socioeconomic impact. This life-critical project has been awarded the prestigious Abdul Latif Al-Hamad Award from the Arab Fund for Economic and Social Development, as the best development initiative in the Arab world and the second Egyptian project to earn this distinguished accolade.

The Abdul Latif Al-Hamad Award celebrates exceptional economic and social development projects in Arab countries, prioritizing initiatives that effectively address existing challenges and significantly enhance economic growth and social development. The Bahr Al-Baqar project stands as an example of these values. Since 2021, the project has garnered numerous accolades, including the ENR Global Best Project of the Year and the MEED Project Award. Additionally, the Bahr Al-Baqar holds three Guinness World Records as the world's largest wastewater treatment plant, sludge treatment plant, and single-operator ozone-generating plant. ■

REACHING A NEW MILESTONE IN ISO CERTIFICATION ACROSS SAUDI ARABIA

Khatib & Alami (K&A) has raised quality standards by achieving ISO 9001, ISO 45001, ISO 14001, and ISO 41001 certifications across its branches in Riyadh, Jeddah, and Al-Khobar.

K&A's journey towards obtaining these prestigious certifications began with the decision to streamline and consolidate our quality, occupational health and safety, environmental management, and facility management systems.

Recognizing the importance of adhering to international standards, K&A embarked on this ambitious endeavor with a clear vision and determination to raise the bar for excellence.

Senior Director – Business Operations/PMC - KSA, Mohamed Ismail said: "As with any significant undertaking, our journey had its challenges. We encountered obstacles that tested our resolve and ingenuity, but we tackled each challenge head-on through perseverance and teamwork, leveraging our collective expertise to find innovative solutions and drive progress."

Achieving ISO certifications required meticulous planning and systematic implementation. It involved extensive collaboration across departments and branches to align all processes with the stringent requirements of each standard. From defining objectives to establishing procedures, every step was carefully executed to ensure compliance and effectiveness.

"This new milestone is not just a validation of our dedication to quality, safety, environmental sustainability, and facility management, but also a testament to the collective efforts of every individual within our organization," concluded Senior Manager - QMS, Waleed Akl. ■

DR. NAJIB KHATIB RANKED #5 IN THE TOP 20 CONSULTANTS WITHIN CONSTRUCTION WEEK MIDDLE EAST'S POWER 150

Dr. Najib Khatib, with a remarkable tenure of over 28 years at Khatib & Alami (K&A), has been recognized as the #5 most influential figure in the Top 20 Consultants within Construction Week Middle East's Power 150.

This accolade highlights his pivotal role in navigating K&A through numerous global challenges and fostering a culture of innovation and excellence within the company. Under Dr. Khatib's guidance, K&A achieved significant milestones, completing over 400 projects valued at over $22 billion, including prestigious contracts with the Ministry of Finance in the Kingdom of Saudi Arabia, the Iraqi Ministry of Construction and Housing, Saudi Saline Water Conversion Corporation, ROSHN Group, NEOM, and Saudi Aramco.

K&A has also embarked on a comprehensive transformation program, enhancing productivity, competitiveness, and workplace culture, with notable advancements in digital services and landmark projects like the 3D utilities infrastructure in Dubai and the Urban Landbank project in Oman.

Dr. Najib Khatib's recognition as one of the most influential consultants in the Middle East is a testament to his visionary leadership and the collective achievements of K&A. As the company celebrates its 60th anniversary, it continues to set benchmarks in innovation, quality, and social impact, driving forward with a shared vision of excellence. ■

EMPOWERING FUTURE LEADERS: K&A QATAR INSPIRES STUDENTS AND INTERNS

As part of our Corporate Social Responsibility efforts, Khatib & Alami (K&A) Qatar visited The Lebanese School of Qatar to inspire students about engineering and Geographic Information System (GIS).

Alex Hanna, our Vice President in Qatar, and Hassan Mahmoud, Senior Solutions and Products Analyst, engaged with students from grades 10 to 12, sharing insights and real-world examples of our work in engineering and GIS. The session was filled with lively discussions and interactive activities, during which we shared some of our projects and addressed students' questions.

K&A also welcomed students from grades 10 and 11 as interns in our Qatar office, giving them hands-on experience and a glimpse into their future careers.

This initiative bridges the gap between classroom learning and real-world application, helping them gain valuable skills in a professional engineering environment.

At K&A, we are steadfast in our commitment to empowering the next generation of engineers and GIS enthusiasts, inspiring them to passionately pursue their ambitions and make a positive impact on their communities and beyond. ■

EQUIPPING THE STATE OF QATAR'S CENTRE FOR GEOGRAPHIC INFORMATION SYSTEMS WITH FIRST-IN-THE-REGION MAPPING AND SURVEY EQUIPMENT SOLUTION

Khatib & Alami (K&A) in partnership with the global leader in aerial imaging, Vexcel Imaging, are delighted to announce that we have provided the State of Qatar's Centre for Geographic Information Systems (CGIS), with an advanced mapping and survey equipment solution. The equipment includes the region's first UltraCam Osprey 4.1 photogrammetric nadir and oblique aerial camera system, along with the comprehensive UltraMap processing suite, which features five modules.

K&A Qatar Vice-President, Alex Hanna said: "We are excited to have delivered this state-of-the-art geospatial solution to our client, CGIS. This advanced mapping and survey equipment delivered by Vexcel Imaging will bring significant benefits to CGIS, enabling them to achieve higher quality and operational efficiency."

"We are proud to partner with Vexcel Imaging to foster the use of GIS technology in support of our mutual customers in the Middle East. This milestone marks the beginning of a new partnership whose shared mission is to shape the geospatial landscape of the region."

K&A is a Platinum Partner in the Esri Partner Network and a leading geospatial system integrator and digital services provider of GIS solutions, systems integration, and enterprise implementations across multiple industry sectors. With more than 60 years of experience, we are driven to deliver exceptional solutions and unlock new opportunities that address business challenges and exceed clients' expectations. ■

KHATIB & ALAMI SET TO DELIVER THE CHEVAL LADUN LIVING HIGH-RISE TOWER IN SAUDI ARABIA

Khatib & Alami (K&A) has been appointed the design and construction supervision consultancy for the prestigious Cheval Ladun Living residential tower. The Cheval Ladun Living marks the first project of the Cheval Collection in Saudi Arabia, aiming to set a benchmark for luxury and service in Riyadh's dynamic real estate landscape.

Set to rise along the bustling King Fahd Road, the tower will feature 130 residential units of various sizes with luxury amenities such as a gym, swimming pool, and sauna.

Vice President, Maher Kahil said: "This venture not only represents a significant milestone for K&A and Ladun Investment Company but also underscores our commitment to contributing to the region's development by delivering high-quality residential solutions."

The tower's construction is set to commence this year, with expected completion in 2027. ■

WE ARE INSPIRED BY OUR VISION OF A THRIVING FUTURE FOR OUR COMMUNITIES AND CONFIDENT IN OUR ABILITY TO DELIVER INNOVATIVE SOLUTIONS TO ACHIEVE THIS GOAL.

ARCHITECTURE & PLANNING

Buildings
- Residential
- Commercial
- Hospitality
- Retail
- Healthcare
- Educational
- Special Facilities
- Sports & Recreation

City & Regional Planning
- Urban Planning & Design
- Sectorial & Regional Planning
- Landscape Architecture

Interior Design & FF&E

INFRASTRUCTURE

Transportation
- Roads & Highways
- Airports
- Rail & Mass Transit
- Bridges
- Ports
- Transport Planning & Traffic Engineering

Water & Environment
- Water Resources & Stormwater Drainage
- Water Treatment
- Urban Hydraulic
- Dams & Hydraulic Structures
- Environmental Studies & Waste Management

Geotechnical & Heavy Civil
- Foundations & Earthworks
- Heavy Civil Engineering

ENERGY

Power & Renewables
Oil & Gas
Energy & Utilities

PROGRAM MANAGEMENT SERVICES

Program Management Consultancy
Sustainability

DIGITAL SERVICES

Geospatial Systems Integration
Energy & Utilities

If you would like to find out more information about anything you have read in Inside K&A, or to be put in touch with one of our experts, please email us at **marketingandcommunications@khatibalami.com**

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