

their research topics. The research aims to know that visual thinking skills to be developed in Islamic history for students of the Qur'anic Sciences Department at the College of Education - Taiz University. The difference between the average scores of the pre and post application in the visual thinking skills test among students of the Qur'anic Sciences Department at the College of Education - Taiz University. The effectiveness of using a multimedia program to develop visual thinking skills in Islamic history for students of the Qur'anic Sciences Department at the College of Education - Taiz University.

According to the results reached by the researcher, it recommended that updating the vocabulary of the Islamic history course in line with developing visual thinking skills. Holding training courses for faculty members on how to design multimedia to develop visual thinking skills.

### **Conclusion**

Suggestions in light of the research results and recommendations, the researcher proposes that conducting further studies in Islamic courses - for various university levels - related to visual thinking and its skills, such as: Tajweed, doctrine, the biography of the Prophet, the history of the Umayyad and Abbasid states, jurisprudence. Conducting a similar study by applying this multimedia-based program to a sample of deaf students.

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## **URBAN ROBOTICS AND AUTOMATION: AN ASSESSMENT OF LITERATURE IN MIDDLE EASTERN COUNTRIES**

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**Abstract:** Worldwide urban communities are trying imaginative mechanical and automation technologies in numerous parts of financial and public activity. This paper analyses how mechanical technology and automation systems are being added to metropolitan advanced organizations to improve human office and framework organizations and change the city and residents' day-to-day routines. This field has seen for the most part speculative and confined work. Our examination plan goes past discrete applications and impacts to inspect how mechanical technology and automation interface across metropolitan areas and their consequences for respectful metropolitan geologies, particular individual upgrade and aggregate framework the executives, socio-spatial arranging of urban communities, and dependable metropolitan advancement.

**Key words:** Technologies, Robotics, Eastern Countries.

### **Introduction**

The emergence of urban robotics and automation technologies presents new opportunities and challenges for cities worldwide. Middle Eastern countries, known for their rapid urbanization and technological advancements, have increasingly embraced robotics and automation to address urban challenges. This report aims to assess the existing literature on urban robotics and automation in Middle Eastern countries, exploring the applications, benefits, and challenges associated with these technologies in urban environments.

### **Results and discussion**

Four innovation waves have spread automation all through current progress. Modern automation started during the 1950s with sequential construction system robots and large scale manufacturing controlled by power. The 1980s saw a change from simple to advanced hardware

and mechanics in human-machine systems. Mechanical technology and independent systems' contribution in public activity is as yet creating, and wellbeing, security, and security issues limit certifiable trial and error beyond plants and research facilities. These systems might seem like sci-fi from what's to come. In any case, enormous scope and continuous computerized calculative cycles influence dynamic in numerous areas of society, including business, retail, coordinated factors, designing, transport the board, asset extraction, medical [1-3].

Applications of Urban Robotics and Automation in the Middle East:

- **Smart Infrastructure and Transportation:** Middle Eastern cities have been at the forefront of implementing smart infrastructure and transportation systems. Robotics and automation technologies are utilized to enhance traffic management, optimize public transportation, and improve overall urban mobility. Automated traffic lights, intelligent transportation systems, and autonomous vehicles are some examples of the application of robotics and automation in this domain.
- **Waste Management and Environmental Sustainability:** Robotics and automation play a crucial role in waste management and environmental sustainability efforts in Middle Eastern cities. Automated waste collection systems, robotic sorting and recycling facilities, and intelligent sensors for monitoring air and water quality contribute to efficient waste management practices and promote sustainable urban living.
- **Construction and Infrastructure Maintenance:** Middle Eastern countries have witnessed rapid urban development and construction projects. Robotics and automation are increasingly employed in construction processes, including automated building systems, robotic bricklaying, and autonomous drones for surveying and monitoring construction sites. These technologies enhance construction efficiency, improve worker safety, and reduce project timelines.
- **Healthcare and Assistive Technologies:** Urban robotics and automation have found applications in the healthcare sector, particularly in Middle Eastern countries, where there is a growing focus on healthcare innovation. Robotic-assisted surgeries, rehabilitation robots, and robotic prosthetics are examples of how these technologies enhance medical procedures, improve patient outcomes, and provide assistance to individuals with disabilities.

The literature highlights several benefits and advantages associated with urban robotics and automation in Middle Eastern countries:

- **Efficiency and Productivity:** Robotics and automation technologies streamline processes, reducing human error, and increasing efficiency and productivity in various urban sectors, such as transportation, waste management, and construction.
- **Improved Safety:** By replacing humans in hazardous or physically demanding tasks, robots contribute to enhanced safety for workers and residents in urban environments.
- **Sustainable Development:** Urban robotics and automation support sustainable development goals by optimizing resource usage, reducing waste, and improving environmental monitoring and management.

The literature also identifies specific challenges and considerations regarding the implementation of urban robotics and automation in Middle Eastern countries:

- **Technological Readiness:** While Middle Eastern countries have made significant technological advancements, some challenges remain in terms of technological infrastructure, connectivity, and integration of diverse systems.
- **Workforce Adaptation:** The introduction of robotics and automation may require upskilling or reskilling the existing workforce to adapt to new roles and responsibilities.
- **Ethical and Social Implications:** The ethical and social implications of robotics and automation, such as job displacement and privacy concerns, need to be carefully

addressed to ensure inclusive and equitable implementation.

- Regulatory Frameworks: Establishing robust regulatory frameworks and standards is essential to address safety and security issues, data protection, and liability concerns associated with urban robotics and automation.

### **Conclusion**

The assessment of literature on urban robotics and automation in Middle Eastern countries demonstrates the diverse applications and potential benefits of these technologies in addressing urban challenges. While the region has shown significant progress in adopting robotics and automation, attention must be given to addressing challenges related to technological readiness, workforce adaptation, ethical considerations, and regulatory frameworks. By leveraging the potential of urban robotics and automation while addressing these challenges, Middle Eastern countries can continue to shape smart and sustainable cities for the future.

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## **THE EFFECTIVENESS OF AN ELECTRONIC PROGRAM TO DEVELOP THE SKILLS OF INTEGRATING TECHNOLOGY IN EDUCATION**

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**Abstract:** The study aimed to reveal the effectiveness of an electronic training program to develop the skills of integrating technology into education among basic education teachers in the city of Taiz. The nature of the study required the adoption of two approaches: descriptive analytical and quasi-experimental design. It was applied in two stages: the stage of identifying training needs when the sample reached (210) male and female teachers, and the electronic program implementation stage, which included a sample of (25) teachers, and the two samples were chosen in a simple random way from teachers of the basic education stage in the city of Taiz. This study designed the experimental treatment materials represented by the electronic training program and measurement tools. The study concluded: identifying a list of the most prominent skills for integrating technology into education, which represent a training need for basic education teachers in the city of Taiz. It also showed that there is a statistically significant difference at a significance level ( $\alpha \leq 0.05$ ) between the average scores and a statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between the average achievement scores in the cognitive aspect and skill performance. , among the sample members, and in light of these results, the study recommended the necessity of designing electronic training programs, to develop technology skills and integrate them into education among teachers, according to their actual training needs, in the form of applications that run on smart phones, in addition to urging the e-learning administration to activate online training. After using electronic training platforms, to provide teachers with digital teaching performance skills.

**Keywords:** effectiveness- electronic program- technology integration- basic education- training needs

### **Introduction**

The results of many studies and research have confirmed the extent of the positive effects of integrating technology on learners’ acquisition of skills and concepts and their retention, and have recommended the necessity of activating in-service training for teachers on technological innovations to integrate them into education. Based on that, the current study came to present an