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Modern technology necessity in academic training to protect of Iran architectural heritage authenticity

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Abstract

The importance of Iranian ancient as architectural heritage have to competent international prestige and respect due this is important with regard to proper conservation methods based on non-destructive evaluation methods and non-contact testing; providing enough accuracy and speed to bring performance to stabilize while correct location and age value of valuable architectural aspect of quantification. Quality and originality of these valuable cultural points of view, maintenance, protection and restoration in principle be enough and intervention measures in the field of strengthening and improvement due seismic in these important historic monuments. Thus re-assessment actions shall be effective with accuracy, speed and lack of unnecessary destruction in order to maintain these buildings may be accompanied by gentility. Therefore, we should transfer the newest technical knowledge through appropriate training and non-destructive with non-contact methods in the field of architectural restoration for ancient monumental works in these objectives will be achieved. Based on any particular monument, rules and technical measures appropriate to its historic monument need to be used. This paper tries to explain while doing it is specialized modern academic training and evaluating the existing technology in architecture, the importance of attitude in non-destructive observing methods, assessment, measurement and diagnostic engineering features of monuments. The methods of documentation, studies, classify scheme, explain the profile of engineering methods of pathology, evaluation, analysis and formulation process of expanding the structural weakness of monuments and finally race precision appropriate intervention measures, modeling, strengthening and durability of the architectural heritage of Iran through the training consideration of a new curriculum.

Keywords: *Academic training, Modern technology, Non-destructive and Non-contact testing, Authenticity protection, Iran architectural heritage.*

1. Introduction

Effectiveness of protection actions, maintenance and intervention in the repair and retrofitting of monuments need of being a system identification procedures, assessment analysis, pathology diagnosis of weaknesses and planning appropriate intervention actions of field is; software, hardware and logical tools.

In other words, from the standpoint of adequate technical knowledge in the field of software applications and equipment with modern equipment providing facilities and tools necessary to non-destructive and non-contact evaluate from the standpoint of hardware; that is necessary from the standpoint of management and logic programming software in compliance with appropriate measures intervention in the behavior of building structural form of monuments and venerable reliability safety protection. Maintenance of the buildings against the destructive environmental factors and fatigue during the strengthening works and durability of resistance and restore historic buildings against cracking and deformation would inappropriate historical structures sustainability and quality improvement in terms of historic structures, operations or future conditions appropriate rehabilitation and development programs while maintaining originality and cultural identity of valuable historical formally integrated to find others to maintain. Therefore, training of new academic knowledge transfer and technical expertise to professionals in architecture, using non-destructive technology when building monuments has to form a system and access special importance will be digital.

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2. Modern Technology in Technical and Computer Documentations Of Heritage Buildings

Methods of surveying, measuring, would be measuring excessive features system engineering monuments today are interested. Therefore, to determine the geographic coordinates of the position location of the GIS and technical equipment to help determine the size, thickness and angles and internal communications as a three-dimensional virtual spaces with the help of laser and determine the status of three-dimensional solid, porous layered architecture by help with the physical influence radar wave GPR and determine the status of diversity, gender composition and distribution of materials in mass components monuments by help with ultrasound UTS takes place. On the other hand, methods and classified documentations and compiling technical specifications of the historic buildings in historic areas, oral, and graphics library for architecture components, structural, facility and a courtyard to a system of computer applications and associated documentation disturbance and environmental contradictions, history and related items of structural interference with the ability of computer utilization are prepared. Within fifty years of Architectural heritage; GIS location as the digital world become computable in the introduction that this issue works to the world with effective and tie with local information and data given treasures global sense of belonging where cultural elements human comparability with each other and find a local historic architecture of the spiritual quality assessment to be sure [1]. In other words, because the main factor and cultural heritage to future generations transfer documents is accurate and sensitive methods and technologies developed in such a manner dependent on rapid documentation recent advances in measurement techniques, drawing and identify geometric, physical properties, mechanical condition existing monuments, precise determination of structural disadvantages of three-dimensional computer is today in the protection and maintenance of historic structures with modern methods of photogrammetric close range caused the preparation of indisputable evidence of the reality of the situation has been the world's cultural heritage technics [2]. On the other hand the development of computer documentation of three-dimensional architectural history of the world requires the establishment of a centralized computer database to reveal it to protect the valuable partnership with the global technical community as a challenge to research proposes to create a system reconstruction of non-technical information and prevent the possibility of standardizing the methods of documentation and proper utilization of the documents mentioned in the planning, engineering information management and architectural heritage of computer modeling techniques to improve sanitation structures in world history. Thus we provide finally able to intellectual property rights and computer documents defining the principles to find valuable monuments [3]. Appropriate management information and data, in geometric and structural monuments for conservation and restoration principles and structures and ornamental architectural heritage and full support for technical documents; all stages of intervention and repair actions performed in the monuments recorded by computer frequent evaluation and possible seismic resistance of buildings in this complex, even with 5000 elements in any desired element with the necessary technical accuracy and provides extremely fast and with automatic sensors on the status of the element by building monuments to the administrative centers send technical assessment and control, quality and quantity of engineering monuments to be continually makes compatible with the situation decide the World Bank technical specialist will be done [4]. In order to accurately diagnose technical documents of monuments by using the modern technology of radar waves near Photogrammetric method GPR can analyze a structure and pathology and geometry of form and level of assimilation of material and cracking condition as revealed in three-dimensional data also recognizes the risk positions and model of structure resistant monument set in [5]. In the world many research fields Three-dimensional laser scanning as digital protection scheme as digital historic structures by extinction that took place in order to protect the ancient heritage of Iranian architecture, has a great value [6]. Nevertheless with the digital world's cultural heritage technical documents and allows access to this collection of computer science and specialized technical level, the main need of professional restoration work of ancient architecture to be fulfilled. In this regard in Eastern Europe after the Turkish, has opened database for preparation digital documents that has its architectural heritage and this apart from its importance, can be cause metamorphosis to prevent the forgetfulness and lack of local cultural to reserves in the future [7].

3. Modern Experimental Technologies for Non-Destructive Evaluation Testing in Diagnosis of Heritage Buildings

Identify features of historic structures and evaluate positions and development under the structural weakness of the destructive effects of structures in the form of valuable consideration is a system. Today, with the help of Pathology monuments non-destructive methods of thermal-wave survey to determine the status of NDT and exhausted, sat, cracking and even status interference structure wave method by help with thermal detecting TDT and sound determination UTS of the above process with the destructive effect of factors by help of sensors, digital systems and continuous wave survey are used. Considering the importance of preventing destructive tests in the evaluation of technical features historical structures, according to a credit review of the act specified that the destructive results of technical tests to non-destructive test results in ancient structures; relationship meaningful and acceptable and sure enough, there can be results of nondestructive testing NDT [8]. Regarding the exact properties of materials consumed in the ancient buildings by help with the new technologies and the differential porosity burnout components through the control structure of ancient materials and mortar permeability rate by

ancient visitors scanning electronic microscope completely professional level consistency and durability of mortar preservative components historic structures are known, and even the quality of refurbished previous cases with very high accuracy will be detected [9]. With damage assessment and critical factor to reduce the capacity of poor structural stability, amount of ancient historical building quality seismic capacity, even by building monuments to detect the position, status of intervention operations and cracking conditions, the possibility of structural collapse-related factors skeletal geometric and physical components of the monument can be non-destructive ultrasonic tests as seismic tomography with longitudinal wave propagation speed analysis of changes in the audio components of the monument took advantage of seismic safety and quality monument and moisture conditions of materials and gathering place for ancient salt operating corrosion and decay of structural elements of the monument can be identified [10,11,12]. In terms of providing clear and detailed images with rapid and inexpensive method of photogrammetric and laser scanning image sensing path closely with extraordinary precision components and space for internal and external views of complex and decayed monuments such action that is the integration of multi-point unidirectional and some visitors of this way satisfy the required accuracy is specialized calculations [13]. On the other hand, the extraordinary buildings that nested quantification and quality assessment of caries status and corrosion problems are structural components; to determine the amount of pores and surface permeability and the type of venation and shape of the potential collapse and destruction of historic buildings with electronic microscope Using X-Ray at Nano-level advantage that is the exact shape and density and the amount of three-dimensional density and influence atmospheric pollutants in the historical building components with high-resolution earn and success of intervention measures to repair building historic actions can prove [14,15].

About the assessment and diagnosis of dynamic characteristics as well as historic structures before any decision on repairing and retrofitting seismic considering the need to preserve authenticity and physical appearance can be a valuable historical building by help with the radar waves penetrate and longitudinal sections transverse structure of the ancient and important materials, especially earth platform location obtained in the preparation of three-dimensional computer models in the shortest time in the most accurate physical and geometric conditions with waves up to hundreds of meters deep impact possible. So with this category of cases, weakness and unwanted holes in structural materials and soil bed to be identified accurately and frequently during the repair and retrofitting plan utilization is an ancient monument. In particular the control method underground water drainage program efficiency and precision under the bed soil structure can be designed [16, 17, 18, 19]. By considering these problems in the assessment and analysis of numerous injuries on monuments, today by help with the radar wave survey, optical, ultrasonic, thermal and ... Precisely, quick and easy to maintain and protect the authenticity and identification of mechanical behavior of ancient structures with high complexity and variety of incongruity to do efficiently and possible seismic performance estimation and analysis of mechanical behavior of true and accurate seismic and Pathology correct estimate of the possible development obtained. Therefore, this mention deserves to develop guidelines and criteria provide software assessment and seismic pathology reveals the historical monuments [20]. On the other hand, the fundamental relationship in the development of Architecture in order to improve the quality of historic structures with seismic quality criteria and explain the theoretical principles and practical development of new methods of intervention and improvement of seismic protection of historical monuments, architectural heritage observance of authenticity and identity while taking advantage of new technologies is necessary. Thus, in relation to knowledge construction monuments the ancient buildings characteristics of materials and technology-specific protection of such buildings against the destructive environmental conditions during recent years extensive research has been done. Also using of new technologies assessment and diagnostic observations with new materials to reduce earthquake hazards in accordance with UNESCO guidelines has been recommended. In the major cases, even when using reinforcement nylon fibers FRP structural components of the historical authenticity of such buildings valued is gone. In other, made models to assess quality seismic scale monuments with specific and use the same mortar with ancient mortar were taken, although positions and failure rate of seismic capacity of these buildings will automatically determine the potential, renovation and restoration program guides and reveals, but the actual behavior of mechanical originality of monuments does not directly visible [21, 22]. On the other hand to standardization of diagnostic testing results to real materials in historic structures; non-destructive test results compared with conventional destructive tests of ancient mortar compressive strength has shown that higher-destructive test results and a strong level of indirect non-destructive tests and modern digital imaging simulation software as well as good results compared to finite element method in analyzing the behavior of historical monuments and more particularly the emergence of software enabling more precise analysis of GID can, so this common method repairs and seismic improvements monuments to transforming. More interesting than the 3000 years teaching experience competition adapting traditional buildings with destructive earthquakes in Central Asia; coil represents a multi-layer scheme, dried and packaged software possible structural vibrations in historic structures is also leading with new technology base in such as the use of natural fibers with protective radius around the scheme, using natural materials and native. In other words, with technical experience new countries such as Afghanistan, Turkey, Armenia, Central Asia, England and in particular Himalayan region of match while engineering this indigenous knowledge and traditional technologies with new technologies in conservation, retrofitting and

construction materials as well as indigenous ancient structures can be classified with the pod on seismic improvements to counter the destructive effects of earthquake protection will act [23, 24].

4. Modern Technologies as Modeling, Simulation, Analysis, Evaluation and Pathology of Monuments Seismic

Modeling and performance analysis of historical monuments under the effect of structural aging, physical, chemical corrosion and corruption of ancient material, to change and transformation of environmental conditions, interference strengthening, seismic retrofitting and upgrading with the aim of building monuments sustain to help both new technologies because the effects of Nano-science and technology to improve energy performance and behavior of seismic quality historic structures; for pathology to determine appropriate development, structural failures and determining positions worthy of restoration and management requires a system approach in the field as logic software is operational. In this way the relationship can be simplified in ways such as the equivalent frame modeling of seismic behavior of structural components in non-linear historical performance and use software to simulate three-dimensional dynamic acceleration by applying simulated earthquakes possible analysis of the spectrum response plan; performance seismic quality heritage assessment studies would detailed the results of these methods equivalent with a small percentage (6%) difference on the actual results were known [25, 26 ,27]. In more accurate modeling and simulation with finite element analysis of continuous or discrete non-linear behavior of structures by three-dimensional computer modeling using computational dynamic analysis or seismic waves vibration influence and use of radar and reliable response seismic actual historic structures as a nondestructive measure of complexity and certain related structures; we get rid of the old and worn out with ease, speed, accuracy and ensure adequate structural weaknesses monuments of static and dynamic loadings to discover the principles bearing capacity and appropriate intervention plan seismic improvements to retrofitting the historical structures [28, 29, 30, 31]. In order to analyze the earthquake and seismic rate variability monuments to identify weaknesses and possible collapse of destructive earthquake and determine the correct method of repair, new technologies can be non-destructive and non-contact testing with the three-dimensional modeling method Relying on finite element oscillating potential base period historical structures in the face of the ground motion period area historical context. Thus we shall action status cracking and decay of the ancient structures to detect with sufficient speed and accuracy proved monument risk areas identified. Note however that these methods regard to the actual scale of historic structures under test, with results contrary to traditional results and analyzing the behavior of common heritage, but completely safe and would be consistent with the fact [32, 33, 34]. Stances in the diagnosis and extent of injury must also apart from the experimental methods and principles of visual inspection as well as fast; before attempting to perform non-contact and non-destructive testing we have to note that cracking and the density of structural components seismic test results highly effective and high quality three-dimensional simulation models of behavior of historical structures. Seismic analysis with computer of high quality ancient monuments such as the theoretical analysis also compared the equivalent frame adhered to ensure the greater accuracy in detecting seismic vulnerability of buildings Historical occur [35, 36, 37]. With analysis of overall quality and precision vibration and static strength apart from the historic structures according to technical instructions codes as FEMA, AISC, OPCM in determining the behavior of three-dimensional arches, vaults, walls, horizontal, vertical and circular deformations of production, should make the scale and design earthquake response spectrum analysis and exact dynamic behavior of linear and nonlinear materials carefully to the old practice to be brought regardless of peaks and frequencies applied in all cases proved enough. Then the risk destructive earthquake waves in the plan to consider the behavior of large parts of the horizontal openings and long or narrow column bases and base connection points with arches, vaults and structural components, such as the vulnerable position of strengthening improvement be specific [38, 39, 40, 41, 42]. Bearing capacity in the final assessment and vulnerability analysis and definitive destruction of historical structures can also help us with ultrasound waves and new methods of seismic load. Also influence radar waves and three-dimensional models using the finite element method speed and accuracy of discrete aspects of creative new qualitative and quantitative analysis of failure and failure of structural seismic performance. Even though with complex models do monuments and analysis of such complex non-linear collapse of ancient elements in the range of tensions produced and especially we show the rate of change and failures process and the collapse condition of structures under static and dynamic loads into a simple conversion [43, 44, 45].

5. Modern Technologies in Protecting, Improving Intervention and Seismic Retrofitting Monuments

Executive actions and interventions to maintain and repair protection factor, strength and stabilization of structural stability, quality improvement, mention accountability, increased seismic stability and development of seismic sustainability of monuments representation in views and develop programs, methods of intervention, elimination of defects and biology weaknesses damage and potential historic structures and materials to help new technologies; require special management is a systemic attention. On the other hand, while measures to improve the behavior of historical structures and reform of weakness related to quality seismic capacity of ancient buildings against destructive earthquakes must be controlled seismic refurbished buildings such principles in order to protect and maintain

constant element in the future and prevent future structural weakness is the attention to this point is essential to help three-dimensional computer models of the finite element method consistent with the restoration of historic properties under the structural components of dynamic load test and vibration survey non-destructive and are located in areas prone to failure like arch and support of the dome and positions under tensile stress is more attention [46, 47]. Review process in seismic retrofitting monuments and compare the methods of quantitative and qualitative assessment of precision analyzed seismic vulnerability of monuments must be sufficient attention to this issue based on form or shape, materials, their own physical condition, location historic areas and weak shear buckling inside page and a page out of its walls during the earthquake occurrence. Analytical methods should not only confine and theoretical methods should be experimental pathology and also to estimate the quality of seismic performance of structures monument action then is based on three-dimensional computer model method finite element analysis and assessment software such as ANSYS, ETABS, STAD and its action is similar to the exact technical specifications of the minarets and domes and its positions connection with other structural components to turn [48, 49]. With existing methods of earthquake resistant building and qualitative improvement of old monuments as well as the instructions valid FEMA, AISC, OPCM since seismic improvement measures and improve the quality of fittings and add structural components, reinforcing scheme and vulnerabilities retrofitting fibers; employing protective structures methods in shear and bending preservatives in addition the original ancient structures has been used repeatedly. Quality control of seismic stability and capacity improvements to these buildings and theoretical methods or with non-contact and non-destructive testing also reassuring were diagnosed. But preserving the valuable historical architectural authenticity of identity has been less attention and most ancient monuments in the physical stability was considered, while the use of new energy technologies and innovative nanotechnology to improve the seismic performance must be a greater attention [50, 51, 52].

6. Modern Technologies Training Affairs Design, Seismic Retrofitting as Upgrading Monuments

Although considered non-engineering simplicity and alleged that the traditions of ancient architectural heritage in order to say something in design training and construction techniques to protect structural monuments have emerged but during the recent earthquakes formidable in the past with valuable architectural materials and traditional technologies. The good seismic structural behavior has shown strong interest versus the production of concrete and steel buildings. Vibration control techniques as well as destructive earthquakes have learned so relying on the principles of horizontal control scheme and materials about arming the walls of traditional buildings would be the new engineering principles for architectural design education level of new build, conservation and improvement of existing monuments and correct risk earthquake has been developed. In other words, valuable historic buildings would be a worthy treasure of specialized scientific and technical discovery. Thus decoding of this floodlight on the darkness of trained technical engineers and operating life of the current restoration of these architectural heritage visitors in the most basic levels of his career is considered. Therefore, encouraging and supporting cultural heritage organizations, academic centers, as well as structural design architecture can be valuable both environmentally friendly and earthquake created a new restoration with improvement interventions to reduce the possibility of danger presented [53]. On the other hand, the paucity of technical knowledge of ancient buildings and traditional construction courses from these little precious monuments learned; know that the components of traditional architectural monuments to the fundamental role of structural and engineering features of traditional and historic buildings in need of recognition and technical detailed analysis and specialized. In recognize the structural role for architectural components, implications design, geometric configuration, mass of material distributing, special density, special construction materials and traditional technology to deal with the destructive effects of earthquakes is very informative in the overall design. Architecture in the future by accordance with the persistent Situation hard, soft and non-load bearing components due heavy loads codification regulations require that effective training of new architectural will be design. Then present proof of claim with seismic capabilities worn monuments to deal with local destructive earthquake occurs. In addition, classification and develop practical experience craftsmen experienced local construction sites worthy tradition can be new technologies specialized composition and quality of operations maintenance, protection and improvement of seismic provided in monuments [54, 55]. In examining the experimental method, linear and nonlinear analysis of seismic behavior of quality naked masonry structures with regard to valid international regulations to this point can be noted that although the regulations codes such as FEMA, AISC, OPCM heavily in research and improvement of seismic design earthquake resistant buildings have suffered and to prevent criminal damage and catastrophic financial, technical knowledge free to provide engineers involved are traditional buildings to Latest research results and new achievements are familiar with their behavior and design of buildings in seismic earthquake be better. But conventional methods of analysis and evaluation of procedural accountability structures seismic performance based on historical three methods, (ARIA model in India, Equivalent-frame and Equivalent-member rigid wall of a building into the solid by central column or X bracing) are even regulations designed masonry buildings in earthquake-like themes; height to width ratio of masonry walls, armed or unarmed masonry wall being, having or not having vertical or pop-coil scheme on the walls and especially quality and quantity of materials consumed in the masonry walls for seismic performance effective wall

know. So, effectively compiling regulations in the areas of buildings earthquake resistant design and seismic upgrading monuments principles needed to be seriously considered [56, 57]. About how to design training and gain a better understanding of the performance architect engineers for the building according to latest research carried out by simulation techniques as a powerful design trend architecture, engineering education has been recognized. Thus, engineers trained in this technique by relying performance intelligent software simulations, environmental conditions and design patterns; can design a stable and lasting structures compatible with the environment and saves created and increase the quality of architectural design and the emergence of innovations to provide more comprehensive and integrated plan with speed and accuracy necessary to provide transition training concepts in the process of matching design with variable environmental conditions and time step. This method planning seismic improvement interventions in monument buildings and prevent to reduce spending downtime be unwanted advantage [58, 59, 60].

7. Architecture Training Problems in Protection, Maintenance and Retrofitting of Iran Architectural Heritage Authenticity

Apart from general problems of governing the country's high education system and vocational technical problems governing engineering education system in Iran, special issues governing education in the field of architectural conservation and restoration of architectural heritage. There are the following major selections and important cases on the basis of its review. Topics courses approved architectural engineering graduate by the Ministry of Science, Research and Technology of Iran MSRT are as below:

7.1. System of curriculum contents and outlines academic training modules of Architecture education in Iran

Education in this field as a theoretical text and graphics and professional experience were not enough to enjoy, without the creativity and the ability to create the possibility to enforce the professional works extremely controversial and no opportunity to do research on modern architecture.

7.2. Academic performance operator units of educational contents of Architecture training

The main duties of architecture schools to provide the necessary space and facilities for education professionals familiar with the rules in the normal engineering and specialists training for quite skilled and professional commitment in this educational field of entrepreneurship and creativity to maintain the incidence of identity preservation and traditional architecture, native Iranian participation in the study as well as donor education, modern science and technology is a solution with International formal upgrade while a unit is considered as an optional activity courses.

7.3. The fields that technologies training required to Architecture education

Main courses focus on technology in the form of courses in this field are gravitational field forces of interaction, knowing material, manufacturing technology and management performance capabilities that are not attractive and enough manpower training specialist familiar with new technology and even facilities and traditional non-destructive tests and non-contact required for accurate and rapid assessment. Authenticity weaknesses and Architecture heritage was denied only to general and technical familiarity with conventional cases of Architecture heritage restoration is limited.

7.4. Modern training and management in creative thinking process in the Architecture education

Engineering education in architecture requires ongoing attention to issues of new educational, enough knowledge, skills matched graduates and promote educational models in the fields of theoretical and practical, especially new technologies for utilizing skills proved of new equipment and creative ways to use non-destructive control methods. In order to protect the valuable heritage of Architecture authenticity and identity and utilization of simulation techniques for teaching methods without error is inexpensive and creative.

7.5. Comparative evaluation of the technical education system of Architecture field in Iran

International university of Entrepreneurship technical skills in architecture, organization and management principles in the design field of architectural and conservation importance, consider courses such as economic, industrial applications, design principles, automated management system, sales of professional services and especially regulations, rules and technical standards in order to provide the new material, the latest achievements of modern industrial technologies needs in progress of industrial upgrading must spend a extra attention. While in the field of architecture education technology courses and less important as providing them with some problems such as failure; disproportion educational content needs the technical and administrative up to professionals, non-compliance with coherence as a component of educational process targeted, in educational goals ambiguity, difference in the teaching way, effective educational services, non-compliance with the new technology education, training are sufficient to remove the theoretical and practical workshops on technology. Especially lack workshops new technologies and new materials Construction of new equipment and are face to non-destructive and non-contact are cause of students scurry through architecture retardation professional efficient of modern technology provides.

7.6. Suggested solutions to improve the quality of education in Architectural technology field

Considering the need for graduates and professionals familiar with architectural new technologies, particularly in specialized areas and improving conservation or restoration of monuments, while observing concordant making curriculum contents and methods of educational services and an emphasis on exploiting opportunities new educational assistance and technical courses updating content and promotion the technology courses in new fields such as construction. Tall buildings, intelligent, space structures, pneumatic and tents, rotator buildings and design of virtual spaces and computer, are new methods of training and development courses to improve process in architectural technology field at all three known methods (skills to content, content to expertise, skills to skills) with enough knowledge of traditional methods with valuable past technical useful and relying on new technologies and modern technical equipment. Training process made more efficient architecture education fields of participation, motivation skills and valuable administrative experience in the field of new technologies with the opportunity to benefit from training. Specialized workshops as well as valuable projects, setting up professional workshops and training of professional staff working active groups would be prepared too.

8. Assessment and Expertise Needs to Request the New Technologies in Architecture Education

Current issue of efficiency in the field of technology education and entrepreneurship skills, particularly in terms of equipment used to make the administrative assessment methods in administrative operations and the need to learn new technologies in the construction and control of the technical characteristics of the particular architectural design. Thus, training process workshops will be search the specialist fields of architecture, after several periods of qualitative evaluation of the educational process as a common action to perform random sampling requested from 60 professional graduated persons in practical courses. The results have been extremely strategic training planning as the following Description (Table-1) would present:

Table 1 Results of requested response specialized training necessary for new technologies in architecture

Excellent%	Perfect%	Almost%	Never%	Questions text and the percentage response of graduates in architecture field practical training courses (%)	Row
23	30	45	2	Can lessons from practical skills workshop for architect engineers be essential to creation?	1
8	33	52	7	Are compatible workshop curriculum contents with your educational goals in architectural engineering training?	2
3	27	58	12	Are educational purposes provided with the specialized needs and your future career matches in Architectural engineering training?	3
3	17	72	8	Whether the specialized skills and employment factors will be needs presented an architect to meet?	4
3	23	56	18	Whether has been available scientific and technical subjects and documents required courses in your workshop?	5
7	22	40	32	Is necessary adding the research projects as practical courses in the field of architecture?	6
3	17	55	25	Whether equipment, tools and facilities required training workshop has been consistent with the educational objectives?	7
2	27	62	10	Whether has been consistent the materials consumed in training workshop by objectives lessons?	8
38	43	17	2	Is necessary the specialized training equipment to help with new practical workshop courses?	9
43	45	10	2	Are effective the using new materials to improve practical skills training workshop lessons?	10
30	45	23	2	How much is necessary the utilizing modern methods of quality control in the workshop lessons?	11
23	27	27	23	Is effective the benefiting from students in skills training instead of expert craftsmen work performance?	12
23	40	30	7	How much is necessary the utilization of facilities operations by simulation training workshop?	13
18	27	33	22	How much is required the utilizing software methods in a virtual training courses practical workshop?	14
8	30	47	15	How much will be extent the quality of education boosts with using of educational multimedia facilities?	15

27	43	27	3	How are quite so effective individual field researches in practical professional skills?	16
43	42	13	2	What is effective teaching practice the performance specialized camps and group visits in a factories?	17
33	48	28	7	How much effective Hits perform specialized operations executive workshop on entrepreneurship technical skills?	18
20	38	40	2	What have been effective in skills training the sample size models of separate and composed material?	19
20	42	38	0	How much have been needed the providing of specialized technical models full administrative complex project features?	20

According numeric results in above that produced by specialized questions; emphasize the need to strengthening and improve training methods, workshop new technologies use in educational process, modern facilities, modern materials, performance of individual operations workshop for practical skills , taking advantage of virtual learning methods and educational support facilities, efficient utilization of inspection manner and research training, making prototype models and abstract concepts are essential to diagnose. The importance notes are; the use of modern technologies, modern materials and modern equipments apart from the effect of architecture on improving training procedures. These concepts would be very useful and necessary in maintenance, repair and upgrading monument architectures that has been detected.

9. Conclusion

Based on the analysis that has mentioned and ask professional results presented in relation needs to create change in the current training procedures and training programs to achieve development based on practical skills useful for professionals working in the field of architecture and modern technology Non-destructive testing and non-contact in the field of protection of heritage architecture authenticity. In accordance would require the comprehensive process of retrospection and central, being native, systematic, controversial partnerships, the orbital patterns, and particularly to assure protection of innovations and opportunities to make creativity in theoretical perspectives and practical measures to improve the process of improving architectural education is necessary. Therefore, an encounter specialist in the field of studying on the new technologies and adapt global technologies, traditional indigenous valuable monuments recorded in Iran, attempts to teach basic training and experienced professionals in the field of restoration and improvement of local seismic monuments at risk of destructive Iran's earthquakes. So we can also provide construction materials testing new equipments as new non-destructive non-contact; with regard to the necessity of development of technical standards, safety and environmental conditions consistent in the whole of country by accountability. At all we would have gain the familiar engineers with the authenticity, conservation maintenance and improvement of architecture principles valuable heritage.

10. Some Images of Apply the Modern Technology and Use the New Equipment for Detecting Skills, Diagnosis Manners and Modeling Styles

Finally, due to the extensive content listed only some images related to the fields of documentation, modeling, simulation and analysis of seismic behavior of three-dimensional monuments acted as follows; (Figure-1) have been presented:

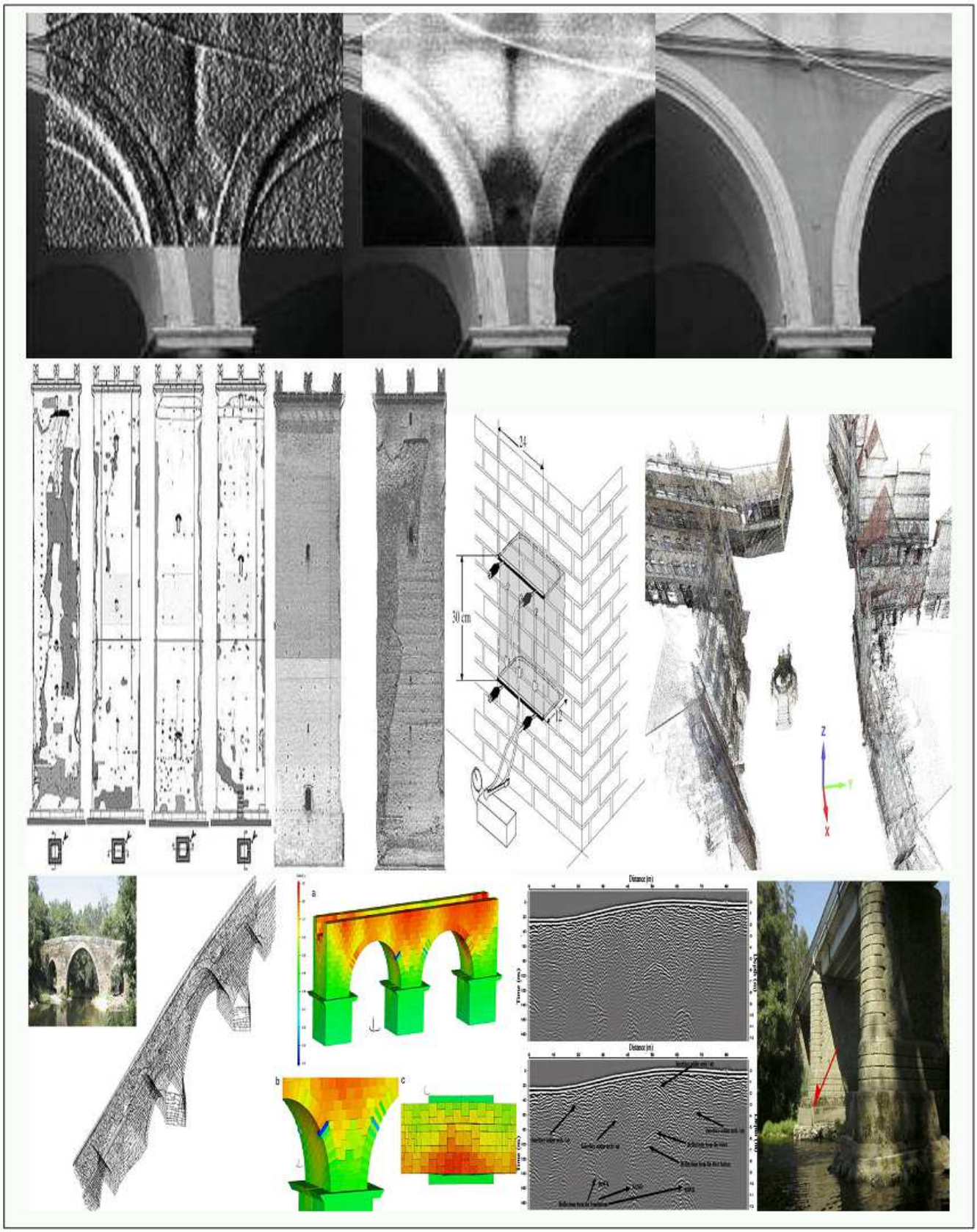

Fig. 1. Some result images of methods that used by non-destructive and non-contact evaluation of historic buildings

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