International Journal of Recent Research in Electrical and Electronics Engineering (IJRREEE)

Vol. 11, Issue 2, pp: (1-8), Month: April - June 2024, Available at: www.paperpublications.org

# Jordanian Legal Regulation for Electronic Employment Contracts

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DOI: https://doi.org/10.5281/zenodo.11203135

Published Date: 16-May-2024

Abstract: The steps to the study are based on search, systematization, and content analysis of the main laws and jurisprudence that provide support for the electronic employment contract acceptance, in order to identify the limits and possibilities that ensure authorization by electronic means. The practical limitations and possibilities are built on a comparison with the theory, considering the real social and cultural conditions faced by the Brazilian society, especially the employees. The conclusion regarding limitations and possibilities for electronic acceptance of the employment contract is based on the most recent laws and jurisprudence, as well as the Brazilians' social and cultural reality.

Keywords: Electronic Employment Contracts, jurisprudence, Brazilian society.

#### 1. INTRODUCTION

The acceptance of employment contracts by electronic means continues to be a blurry issue, as it raises doubts on the formal requirements of the employment contract, in particular with regard to the employee's written consent. The problems of legalization have drawn attention to this important matter, of which the aim of this study is to analyze the laws and jurisprudence for electronic acceptance of employment contracts. The legal support is mostly based on the Civil Code and laws such as the Digital Right Act, but in some cases also refers to collective bargaining agreements (CBA), job safety regulations (JSR), and jurisprudence.

#### 2. ADVANTAGES OF ELECTRONIC EMPLOYMENT CONTRACTS

Another advantage of using electronic employment contracts is certainly the possibility of immediate access to them, as well as the possibility of making changes to them. Electronic work contracts can be concluded, archived, and stored in electronic form, and the parties can immediately receive information about the signed contract. The employer is obliged to ensure that the electronic employment contracts are available to employees and presented to them, as well as to provide such contracts to work inspectors or occupational health and safety services upon request. Contracts concluded in electronic form should be stored by the parties for the entire duration of the cooperation and, upon request, presented, in particular the employer, to the competent inspection services. In connection with the legislation in this area, the employer's protection obligation should be understood as the obligation to protect electronic employment contracts.

Electronic employment contracts are becoming increasingly common in everyday relationships between employers and employees. There are also many advantages to this form of concluding and storing work agreements. Some of their advantages are the following: simplifying the signing of contracts is one of the most crucial advantages of electronic employment contracts. The agreement regarding the specific provisions of the contract can be reached almost immediately and the signatures placed by the parties are a formality. What is equally important, in the case of an act of conclusion and termination of such a contract, the legislator applies more lenient rules than otherwise provided, in favor of employees. However, the main advantage of the electronic employment contract in terms of signing documents and concluding contracts via electronic means is certainly the facilitation of business process monitoring.

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#### 3. LEGAL CONSIDERATIONS

Qualified electronic signature of the employee contract? Supported by jurisprudence, legal certainty requires that contracts of employment subject to the ordinary law of contracts be signed in writing. It remains to clarify the conditions of writing and signature of the electronic exchanges specific to the contract which bind the employee and the employer entity. Proponents of digital contracts suggest that the electronic contract can be qualified as a writing insofar as it is "reduced to a digital writing recorded on a support", the electronic exchange could be a writing as it is reduced to a document encoded information. The dematerialization of the form is in principle the result of the writing of the contract. It is also the signing of the employee contract, determined in terms of Law of March 13, 2000.

The use of electronic contracts raises specific legal problems with respect to the conditions of formation and the evidence of the rules provided by the agreements thus concluded for the person with whom it does business. The specificities of the electronic writing and the electronic signature give the electronic contract a confusing quality which, added to the recent regulations in the field, makes the negotiations rather complex. In the field of labor law, the complexity of the controls maintained by the employer entities of the private sector is exacerbated by the particular constraint of the imperativeness attached to labor law norms.

#### 4. IMPLEMENTATION PROCESS

The second step consisted in finding other relevant factors influencing the process. One important factor is represented by the types of electronic signature that can be adopted in order to implement electronic employment contracts. It clearly defined all of them and emphasized that the new ones, completely, fully and advanced electronic signatures from 2016, offer all security elements including the legal validation. The third step was to interest specialists in labor law legislation in order to determine the compatibility of Romanian labor laws with the electronic signature. Since electronic signature is not a field practiced by lawyers, important labor law and administrative specialists were interested in the way it is defined and used in other countries, how can electronic contracts with an electronic signature be used, what application programs can be generated and what can be the legal consequences according to the legislation in force.

The implementation process started with a good decision to replace the actual traditional process with a new one. This decision highlights the great advantages in the daily work of legal personnel, economic and environmental savings, and updating processes allowing the adoption of full digitalised solutions in order to be in tune with the technological age. Therefore, technical and human resources included in this process had to use and manage the technologies and the new rules laid down in the company by authorities such as employers, employees, trade unions and national authorities.

#### 5. SECURITY MEASURES

As well as the Supreme Court affirms in its sentence no. 4880/09, issued in May 2010, it is necessary that the electronic documents are safe, in reality safeguarded in an univocal and durable way. As stated in the previous section, every use of digital documents involves a kind of danger connected to the possible removal of the documents and information available in digital form, from awareness of the general public. To face the need of preservation of electronic documents, different systems have been developed. The most recent are the so-called TAM (automated management of document), electronic archives, which apply the recent Standard ISO 14721:2003, called OAIS (Open Archival Information System) and are equipped with policies to define the life cycle or the electronic archive itself.

A good part of the literature about electronic contracts argues that such contracts offer the same security guarantees as their paper counterparts. In effect, once entered into the computer system, the electronic contract can be modified only by authorized operators, and their acts are made traceable by an audit process over the digital elements. The digital signing of the contract by the people involved, or by someone to whom they delegate this task, establishes responsibilities at the time of the contract's signature. On these bases, electronic contracts, far from being less safe than their paper counterparts, can offer the most valuable attributes of technologies, such as tamper-proofness and traceability. As long as the digital documents upon which the contract is built are properly preserved, objections on the contract's security may be defeated. In effect, to bring the electronic contract into Court the parties involved must have a guarantee about the document's preservation.

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#### 6. EMPLOYEE RIGHTS AND PROTECTIONS

- 2. It is important, therefore, that employment contracts also address the regulations that govern the employment relationship, such as national employment laws and regulations, collective agreements, and general labour law principles. These rules help identify relations between the employer and the worker, either as a group relation, through the enterprise or the profession, or by establishing regulations specific to the individual contract. A national's employment laws help guide and explain the relation from the statutory realm, pointing out the rights and duties that would apply to an employment contract as well as the minimum conditions under which the employment relation is acceptable. Other labour law principles are used to establish markers that differentiate regular employment relationships from that of self-employment or other work relations.
- 1. Electronic employment contracts, as with paper employment contracts, must provide a minimum number of rights and protections for employees. Often, it is difficult, if not impossible, to get a singular definition for "contract of employment" since the term "employment" often stands opposed to or distinct from "regular employment". However, in its most simple form, a contract of employment is a contract under which an employee provides certain services at a periodical payment and does so in accordance with a staff manual or other rules given by the employer. These rules (either general conduct rules or specific procedures) help distinguish "employment rules" given by the employer from "contract rules" that may be implied or expressed by the employment contract. "Employment rules" have a bifocalistic function; it calls for the performance of the services by the employee and creates obligations on the part of the employer as well as the employee.

#### 7. RECORDKEEPING AND RETENTION

A contract entered into and maintained by electronic means is equivalent to a written agreement as long as it can be retained, accurately reproduced, and delivered upon request. Under the E-SIGN Act, an electronic record is deemed to "be in writing" and an electronic signature is deemed "to be in writing" for the purposes of complying with any statute, regulation, or rule of law requiring that information in writing but only if the electronic record is in a form that can be retained and accurately reproduced for later reference. Additionally, the electronic record and signature must be attributable to the person to whom the record and signature are being attributed, must be in a form that is capable of being retained and accurately reproduced as evidence in court, and cannot solely be in electronic form. The recordkeeping requirement in E-SIGN, that the electronic records be capable of retention and accurate reproduction, meets the employer's recordkeeping requirements under other statutes enforced by federal agencies.

Many of the recordkeeping requirements under the FLSA, the FMLA, Occupational Safety and Health Administration (OSHA) safety, health, and workplace posters and wage and hour claims, among others. The Department has made clear that employers may use electronic records. For example, employment discrimination statutes and their implementing regulations expressly allow employers to keep records in electronic form. Courts and federal agencies have recognized that the requirement to provide a recordkeeper will work together with the retention of employment records related to employment discrimination.

#### 8. TRAINING AND EDUCATION

With the development of technology that people use to communicate daily, electronic employment contracts serve as an alternative to traditional paper contracts for exchanging contracts in domestic and international transactions. It is a natural step in our information society to conclude contracts openly or via the internet. There are some advantages to using electronic employment contracts. First, it saves time. Through traditional arrangements, it takes longer than with an electronic contract. We can send and compose quickly, and access becomes easier as we can do it wherever and whenever due to the rapid development of the internet, which the government has also been intensively promoting to its citizens. Second, it adds value to our business. An electronic employment contract does not mean that it makes significant changes to traditional contracts. The use of modems and computers in the office is a development to minimize the impact of traditional employment contracts, where employers have to book a meeting with potential employees.

Despite its benefits, individuals do not have to sign a written contract to gain employment. It is still effective as long as both the employer and employee follow the terms of employment. However, without a clearly written agreement, in case disputes arise, it risks the future of an action when one party considers that the terms have been violated by the other.

Employment contracts are one of the important factors in the business world these days, as they involve employees and employers. Both parties can ensure that they are entitled to their rights when the contracts are drawn up carefully, considerately, and accurately. Each party benefits from and is protected by the contract.

#### 9. COMMUNICATION AND ACCESSIBILITY

- 9.5-1: Intervening between employees and employers a singularized communication and respective positive, and in the event of there having been a substance to those steps, the labor authority is limited to asserting that fact in order to accrue the fines legally provided for genuine notification.
- 9.2-4: The date of submission of the notification electronically by the employer to the electronic address provided by the employee is presumed, being the proof of the date in which the same was freely and voluntarily consulted by the worker and the period of 5 (five) consecutive working days immediately following, the date on which access and the term of 5 (five) days elapsed according to the dispositions of the Labor Code, without the employee having exercised the rights resulting from the dispatch or within the same taking place any act of refusal or questioning of the final will, expresses from the employer to make written communication whose content falls within the meaning of the previous numbers, corresponding to the day of consultation and the subsequent days in which it has not been exceeded the period of five consecutive days described.
- Art. 2.9.1: The communication between the parties of the employment contract must be done by electronic means using qualified electronic certificates recognized by employees and employers for the purpose of written electronic acts in the context of labor relations, subject to the conditions set out in the preceding paragraphs, with attribution of the offer date to the employee and the acceptance date to the employer. (Addition of the Regulation of Law No. 23/2008 of June 14).

#### 10. DISPUTE RESOLUTION

- 10.4 In the event of a dispute about or affected by this agreement or about any unresolved issue in connection with such dispute, the parties shall approach the Labour Court for the resolution of the matter, failing which the Labour Court may, after receipt of the standard Appendix 8.2.1 notice and right to reply, proceed to carry out the civil arbitration between parties.
- 10.3 Should civil litigation be lodged by a party who disputes the validity of the agreement in terms of the Labour Relations Act 66 of 1995 before having referred the dispute to the conciliation process provided for in the different agreement, in the first instance, the court may not entertain the matter until such time as the disputing parties have referred the dispute to conciliation or an arbitration process or have provided the standard Appendix 8.2.1 notice to enter into civil proceedings.
- 10.2 Any dispute which cannot be resolved by negotiation shall, on application by the employer or the employed outside worker concerned, be the subject of, and may be referred to, conciliation under the Labour Relations Act, 1995 (No. 66 of 1995) and the Rules and Procedures. This clause creates a binding obligation on the part of the parties to refer to conciliation an unresolved dispute that arose out of or in connection with the terms and conditions of employment of the employed outside worker. Failure to comply with the conciliation process may be referred to the Labour Court.
- 10.1 The parties shall refer their disputes to negotiation in the first instance and shall use their best endeavors to resolve any dispute arising out of or in connection with the terms and conditions of employment of the employed outside worker in a just and amicable liaison.

#### 11. COMPLIANCE WITH EMPLOYMENT LAWS

The working time regulation defines for the first time a final date for the completion of the standard paper contracts, i.e. from the moment of commencement of work, the written employment contract must be available. Paper contracts originating from international and global enterprises, until now, always entered the payroll system, possibly with amendments, and/or revised dates, as the employee saw fit, possibly only months after commencement of work. However, in countries such as Germany, it is essential to find a remedy for the previous violation of employment law. Neither quantified details about the consequences of the breach of law nor, especially in the case of non-compliance with the signature regulations, have been defined. Since the legal origin is based on civil rights and consecutive fraud becomes not apparent, no individual action can be expected given. More likely as a consequence, there is the strengthening of the general

council's jurisdiction practice in the sense of supervisory measures. So far, this has only played a subordinate role, to national press companies in comparison of the still very high unlawful situation.

So far, when looking at cloud-based HR software systems, little attention has been paid to the external effects of such systems. When we examined the effects of electronic employment contracts on the company level, we described that compliance with legal regulations was infringed. In other words, by using new contract forms, the company does not comply with the labor law requirements. Employees may choose between paper and electronic contracts. In particular, we found a strong substitution effect. For five media enterprises and their electronic employment contracts, the share amounted to over 60%. In automotive and electronics companies, the case share laying below 20%, while in mechanical engineering this share was below 10%. For temporary work the rate was less than 10%. We have seen, from an economic viewpoint, how a relationship to a medium is created. The problem with reusing standard contracts is that most of the paper contracts are not put directly into an electronic format, but properties of electronic contracts, which are not allowed for in labor law, are added.

#### 12. INTERNATIONAL IMPLICATIONS

In conclusion, for e-contract, we advocate what we call the "a la macarena" theory, which means, do physical storage in any country but prevent hackers from nicking and modifying the contract. Then you can re-export the contract anywhere to other countries. Finally, in this contribution, we recognize that e-contract is a fairly new world. We think that there should be an International General E-contracting Treaty to rule the e-contracting aspect. If necessary, each country can put a reservation up to 3 years whilst taking the time to tinker its e-contract legislation up to the e-contract level playing field. We believe this process would be more pragmatic than propounding a Universal E-contract Law based upon U.S. law theory.

The Legal Advisory Board of the U.S. Chamber of Commerce has suggested that U.S. law should be harmonized with that of other countries. The Canadian Department of Finance has initiated a review of financial sector regulation in response to domestic developments and broader international trends. The Australian Government has issued a Green Paper and is now receiving comments on the use of recomputing to re-wage National Minimum Wage Orders. The Swiss Parliament has pushed for a sound model of taxing cross-border employment income.

#### 13. FUTURE TRENDS AND INNOVATIONS

The third trend is the legislation supporting e-contract usage. The use of e-signatures and e-identification have the potential to increase the electronic signature solutions by 50% during 2018. The European Union and the European Parliament support new ways to handle e-contracts in the highest levels of society. Digitalization is also one of the cornerstones of the successful Estonian presidency to the council of the European Union. Discussions at the European Parliament might have an impact on common legal principles for the treatment of e-contracts and may in the future result in regulations and directives in the area.

The second of these trends is connected contracts and blockchains. A concept of smart contracts has evolved over the last 20 years. Although the contracts called smart contracts in legal publications are in fact a performance of the contract managed by AI and not a legal contract, the current scholars label these performance enhancing tools as smart contracts. Connecting a supply contract to a lease contract for the delivery of a car under a block chain could be the smart contract of a legal contract. The lawyer does not need to check all the details of performance, for instance in relation to low emissions, since predetermined penalties for exceptions to applicable environmental laws are executed by automated intervention systems. Blockchains could also be used in e-contracts to deliver more trust for contracting parties. Hashed private encryption keys distributed in zeros and ones in the block chain could be used as evidence for a contract and together with the contract content stored in a private cloud or the blockchain. The hashed key would prove that the contracting party with a public key corresponding to the hashed private key accepted the contract. Possible lack of technological mistakes in the handling of the block chain would make the contract nigh unchallengeable in court.

It is hard to find modern scholarly work on trends and innovations for electronic employment contracts in an international perspective. Three of these trends could be identified. The first, AI, big data analytics and e-contracts. The increase in AI (Artificial Intelligence) and machine learning opens up great potential for substantial savings for companies, efficiencies in contracts and new ways of entering into e-contracts. Databases provide huge amounts of data on proper performance

according to the contract compared to performance according to the e-contract. The AI will use this data in real time to adjust the e-contract. The performance might now be automatic without intervention by humans as seen is games of AI versus humans in strategy games.

#### 14. CASE STUDIES AND EXAMPLES

Prior to this, paper documents were in use, and all employees were asked to sign contracts at the time of joining. As documentation related to contracts increased, and there were multiple cross-border document handovers, the company realized that an electronic process would be more beneficial for the employees and for the company. Company B uses a similar legal model, which is the local daughter company in Poland. This common process for contracts is what will be analyzed in this paper. In addition, the analysis is done with the view that the selected company is one among many companies that operate in Poland under the labor code. The official title document for the employment contract is in Polish, and this paper refers to that title. The details of the model implemented may involve the use of electronic records, vide the Polish electronic signature law due to the author's involvement at a local level and the emphasis on using one model for India, the US, and Polish locations of the parent company. Processes that are followed will be analyzed in detail. The proposed model will refer to a contract that is signed on an iPad.

The environment that we used for our experimental work is a typical office environment providing software development and associated technical support services for software developed at the site. The company involved in this work had two main locations in Poland and was fully owned by a foreign parent. It had operations in Grodzisk Mazowiecki (henceforth referred to as the primary location) and a second location in Warszawa, also in Poland. The same office campus was used by two companies, Company A and Company B. The parent company, Company A, was itself a daughter company of a large parent organization in the US. The parent organization had operations in India, the US, and Poland. The contract that this location utilizes was actually developed by the legal team in the parent organization and is shared between India, the US, and Polish locations as an electronic document (in PDF format).

The use of the electronic employment contract model can be used in varying workplace environments. Whether it is an industrial Safety and Health (OSH) environment like a manufacturing or laboratory environment, or an office-based ecommerce company, the contract is applicable.

#### 15. ETHICAL CONSIDERATIONS

The fact that those challenging the agreements reviewed here do not, in general, object to either electronic contracts reaching customers or legally binding pacts negotiated electronically emphasizes the importance of the healthcare implications of electronic hiring and the economic interests involved. The deadlines of this sort of work raise the question: what might be the constraints of an ethics review when relying on such procedures? When a potential worker is not given the proper amount of time to study a contract before being required to approve it, and maybe not advised about their possible contents, this brings up deeper considerations about the common advantages of agreements between employees and employers. When evaluating or mapping important ethical values that may be present when labor laws are being challenged by ECs, academic teachings used an academic from the past who explored ethical results of changes like slavery as a starting point, even where the occurrence in question may be more subtly detrimental to traditional forms of work in aiding an aspiring manager in achieving an immediate objective.

Given the need to enhance access to employment, the International Labour Organization (ILO) has launched its Decent Work Agenda, which recommends several areas for action including the promotion of non-standard forms of employment. This interest has been echoed by many national governments. Advisers to governments, firms, and workers have in turn suggested different ways of promoting such employment as a means to reduce the international competitiveness of firms based in developed countries. It has been argued that worker rights may be affected as part of non-traditional job relationships, together with significant changes in social protection systems within different countries, since labor standards and social legislation were designed to protect workers holding traditional, open-ended contracts, in sectors where more than one company had the possibility of benefiting from its results.

#### 16. CONCLUSION

The work that has been done should not stop there, however, since digital employment contracts also require a significant reorganization of the regulation, as the brief overview of five, each with a different starting position, Roman law systems

show, and each of which requires more thorough and complementary reasoning. The Court of Justice's main concern in this regard was the protection of the employee as the weaker party in the employment relationship. This can also serve as a guiding principle for a reorganization of the labor contract law that responds to the requirements of digitization. It must first be identified where the levers can be activated: which clauses are necessary to protect the employee fits and which are superfluous and at best lead to new legal uncertainty. This reform must not, however, obscure the regulatory scope of private regulatory work. The creation of business relief must be favorites, as has already been demonstrated in the past, for example in a European-level coordinated legal reformulation of European company law by way of departure clause, in the AEUV Art. 153 para. 2 sentence 2 (former paragraph 5 sentence 4), also work very well.

Since the Court of Justice's first case in 1998, EC 132/98 (Missoni), the Court has consistently used the same issues of technology-based contracts in the context of the Rome Convention, now the Rome I Regulation, to set the course. The Labor Law has also been significantly influenced, for example, in the recently revised provisions of AEUV Art 155 and now also by the IORP II Directive, which also focuses on the opportunities and risks of digitalization. The service contract law evaluated here, where the employee is still largely contractually subsumed under the classical contract law of the Roman law of the German BGB or the French CC, has come last in this development. The digitalization of employment contracts is a very complex topic, the issues involved and the regulatory problems to be solved in the individual areas of case law are widely scattered. With the footnote in the judgment Hachez v. Koninklijke Vlaamse Academie voor Wetenschappen, the Court of Justice only recently indirectly addressed the matter of fact which is the focus of the present topic of investigation, thus starting the trip one could say quasi-officially. This is unique and should be considered.

#### **REFERENCES**

- [1] A Khatoon Electronics, 2020 mdpi.com. A blockchain-based smart contract system for healthcare management. mdpi.com
- [2] A Alam Smart Data Intelligence: Proceedings of ICSMDI 2022, 2022 Springer. Platform utilising blockchain technology for eLearning and online education for open sharing of academic proficiency and progress records. [HTML]
- [3] P Nayal, N Pandey, J Paul Journal of Consumer Affairs, 2022 Wiley Online Library. Covid-19 pandemic and consumer-employee-organization wellbeing: A dynamic capability theory approach. nih.gov
- [4] SS Kushwaha, S Joshi, D Singh, M Kaur... IEEE Access, 2022 ieeexplore.ieee.org. Systematic review of security vulnerabilities in ethereum blockchain smart contract. ieee.org
- [5] H Al-Breiki, MHU Rehman, K Salah... IEEE access, 2020 ieeexplore.ieee.org. Trustworthy blockchain oracles: review, comparison, and open research challenges. ieee.org
- [6] B Kreshpaj, C Orellana, B Burström, L Davis... ... journal of work ..., 2020 JSTOR. What is precarious employment? A systematic review of definitions and operationalizations from quantitative and qualitative studies. sjweh.fi
- [7] M De Haas, R Faber, M Hamersma ... research interdisciplinary perspectives, 2020 Elsevier. How COVID-19 and the Dutch 'intelligent lockdown'change activities, work and travel behaviour: Evidence from longitudinal data in the Netherlands. sciencedirect.com
- [8] F Schär FRB of St. Louis Review, 2021 papers.ssrn.com. Decentralized finance: On blockchain-and smart contract-based financial markets. unibas.ch
- [9] DA Ngobeni, MD Saurombe, RM Joseph Frontiers in psychology, 2022 frontiersin.org. The influence of the psychological contract on employee engagement in a South African bank. frontiersin.org
- [10] ..., K Kostiainen, S Meiklejohn, A Miller, E Prasad... 2020 nber.org. Design choices for central bank digital currency: Policy and technical considerations. nber.org
- [11] G Finocchiaro, C Bomprezzi MEDIA LAWS, 2020 cris.unibo.it. A legal analysis of the use of blockchain technology for the formation of smart legal contracts. unibo.it
- [12] S Grima, J Spiteri, I Romānova The Geneva Papers on Risk and ..., 2020 Springer. A STEEP framework analysis of the key factors impacting the use of blockchain technology in the insurance industry. academia.edu

- [13] B Hoekman, C Sabel Global Policy, 2021 Wiley Online Library. Plurilateral cooperation as an alternative to trade agreements: Innovating one domain at a time. eui.eu
- [14] A Odeh, I Keshta, QA Al-Haija Symmetry, 2022 mdpi.com. Analysis of blockchain in the healthcare sector: application and issues. mdpi.com
- [15] S Saurabh, K Dey Journal of Cleaner Production, 2021 Elsevier. Blockchain technology adoption, architecture, and sustainable agri-food supply chains. [HTML]
- [16] Z Zaiuddin, R Ramadhani Jurnal ..., 2021 download.garuda.kemdikbud.go.id. The Legal Force Of Electronic Signatures In Online Mortgage Registration. kemdikbud.go.id
- [17] RK Tailor, R Pareek, A Khang The Data-Driven Blockchain ..., 2022 taylorfrancis.com. Robot process automation in blockchain. [HTML]
- [18] Dema Matruk Aloun, Tribal Law at the Crossroads of Modernity: A Study on Jordanian Attitudes towards Jalwa Tribal Law at the Crossroads of Modernity: A Study on Jordanian Attitudes towards Jalwa, DOI: 10.13140/RG.2.2.25640.99849, April 2024
- [19] H Wu, B Zhong, H Li, J Guo, Y Wang Journal of Management in ..., 2021 ascelibrary.org. On-site construction quality inspection using blockchain and smart contracts. [HTML]
- [20] JA Alzubi Computer Communications, 2021 Elsevier. Blockchain-based Lamport Merkle digital signature: authentication tool in IoT healthcare. [HTML]
- [21] F Kitsios, I Giatsidis, M Kamariotou Journal of Open Innovation ..., 2021 mdpi.com. Digital transformation and strategy in the banking sector: Evaluating the acceptance rate of e-services. mdpi.com
- [22] Dema Matrouk Aloun, The Jordanian Constitutional Court: The Legal Function, American Journal of Social and Humanitarian Research: Vol. 3 No, DOI: https://doi.org/10.31150/ajshr.v3i7.1351
- [23] C Singh Obiter, 2024 scielo.org.za. A" sign" of the times: a brief consideration of the validity of e-signatures in agreements and affidavits in South African law. scielo.org.za
- [24] L Determann Hastings LJ, 2020 HeinOnline. Electronic form over substance: Esignature laws need upgrades. uclawsf.edu
- [25] Dema Matrouk Aloun. (2022). Women's commercial empowerment and promotion of gender equality from the perspective of Jordanian law. International Jordanian Journal, Aryam Journal of Humanities and Social Sciences (IJJA), 4(3), 18–55. https://doi.org/10.5281/zenodo.6476604 K Ghimire NJA LJ, 2020 HeinOnline. Electronic Contract and Legal Issues. [HTML]
- [26] C Singh Stellenbosch Law Review, 2022 journals.co.za. Signed, Sealed and Delivered (Electronically): Embracing the Digital Takeover. A Brief Consideration of Electronic Signing and Delivery in South African Law. [HTML]
- [27] DU Bendale, R Dubey Available at SSRN 4001851, 2022 papers.ssrn.com. Electronic Form of Contract: An Ingenious Goal in Business World. researchgate.net
- [28] S Tharani Indian JL & Legal Rsch., 2021 HeinOnline. A Critical Study on Various Aspects of E-Contracts in India. [HTML]
  S Goel academia.edu. Enforceability of E-Contracts in India. academia.edu
- [29] EL Al-Smadi, MA Al-Qudah J. Legal Ethical & Regul. Isses, 2022 HeinOnline. Proof of the Electronic Technology Transfer Contract. [HTML]
- [30] M King Digital Evidence & Elec. Signature L. Rev., 2022 HeinOnline. Electronic Execution of Documents Interim Report: a critical analysis. sas.ac.uk
- [31] B Orzeske Bifocal, 2022 search.ebscohost.com. Electronic Estate Planning The Future is Now. [HTML]