

## The Electronic Signature and the Problems of Its Practical Applicable

**Dr. Ali Al-Zubi**

Al-Balqa Applied University

**Dr. Bassam Al-Trawneh**

Philadelphia University

### Abstract

*This research mention the subject of electronic signature in the Jordanian electronic transaction No 15 for year 2015 so it consider on the concept of electronic signature , characteristics and the conditions of the electronic signature as a gateway to the research , then it talks about the authentic legal of electronic signature in the Jordanian law, and legal provision in this area, also the research mentioned the division which was depend by the Jordanian legislator in the authentic electronic record in which the legislator based on the quality of electronic signature which facilities to the electronic record. Then the subject of legal and technical problems that raised the practical application of the law of the Jordanian electronic transactions in general and electronic signature in particular, and at the end of the research, the researcher signs to the recommendations on expanding the results of application of electronic contracts and transactions and the need to make appropriate adjustments rather than electronic transactions law, but the system Jordanian laws related to this subject.*

**Key words:** electronic signature, electronic commerce, electronic transaction

### Introduction

As a result of accelerating technology evolve which has changed the traditional writing that necessary to develop the suitable signature with the new style in writing which called ( electronic signature), which installed with writing to show the contractors intention to conclude the legal act and the trend of his will that have the legal impact of this act , national laws have proceeded to put the legal frameworks and find the necessary legal coverage that save the contractors of these signatures ,inspire of difficulties which faced this technique in the beginning , the reason behind that is the fear of countries from confess of the electronic signature in the beginning and the increasing of cheating, fraud and manipulation in the content of these messages , transfers and the electronic signature because it is a store data and not invisible 1 and it could be changed easily in case of it accessed during the period of transition between the parties of the contract, and non one can confirm that the received message to the receiver ( contractor) is the same message that sent to him with no change in the content during transition because the message could faced a risks like (computer hacking) 2 or manipulating or changing the content of the message . Therefore it is necessary to know the method of dealing of this style which become a base in the modern time to save the rights of the parties of the contractors'

We have mentioned in this research the electronic signature and the practical problem of this new type of signatures, and the resource of this research is the Jordanian electronic law transaction No 15, year 2015 (4) and the current empirical application for the electronic transaction , Jordanian law texts on the electronic record , the electronic contract and the electronic signature and define it in the article two from the law by explaining the legal provision which related to it by adding the necessary legal authority under certain conditions, this study came in three sections: the first one is talk about the definition of the electronic signature ,types and their features, second section is to talk about the conditions of the authorized electronic signature and the third topic is the problem of practical electronic of this type in the Hashemite king dome of Jordan and the electronic transaction in general.

The first topic: the concept of electronic signature The first requirement: the definition and the importance of the electronic signature is known generally is a depicted form which used to document a writing and give it the legal validity (5), also it known as a written mark which is distinctive and it signed on the declaration document(6).

The signing became a very important element of the elements of the written guide, which means that the absence of the signature is loses the authority and evidence, because the signature is attributed conduct to the impact of it even if the written line for other, so the signature is uses for two senses: first the signature process itself and it comes on the incident of the document and the second is the meaning of signature in the scope of signature over any evidence or proof 7. Signature is the one who determines the identity of the signer and it express his will to commit to the act of the signing, so if the document has no signature means that there is no legal effect because the signature expresses of the satisfaction of the contractor because it is a part of the commitment. If the signature was found in the correct description, it will lead in the full function as follows: the definition of the owner and the verification of his identity and the express of his satisfaction and his ratification of this document and the granting of document the original copy. 8

Article 221 of the Jordanian trade stipulate that the calling of signature in the book is the signing and sealing and finger print and it must be a attested by two witness on his seal or signature that he signed and he know of what he signed on, based on the text before it is clear that the pictures of normal signing which belong to the signer it should be by sealing or fingerprint , if the signature by signing 9 it could be enough and not required to ratify on it , but if the signing was by sealing or finger print it must have two witnesses and their signing on the ratifying of the fingerprint and the sealing too. And they have to witness that the signature and the sealing belong to the owner and he sign on it and he has to know of what he signed on. So the correct signing should include the following conditions:

1 the signature should be written not verbal

2 the signature should have a private features which belong to the personal owner without any confusion and it should not be ambiguity.

This is for the normal signature , according to the electronic signature , the beginning of it was when they confess of it in the Jordanian legislation by confessing of the output of the computer and fax by considering it as a legal data 10 then the recognition of the Jordanian legislator of the signing which used by the modern electronic means 11 and give him the evidential as a normal signing and in the electronic transaction signing No 85 for the year 2001 which was canceled and replaced by law No. 15 for the year 2015 12. Jordanian legislator has been identify the electronic signature in the second article of the electronic transaction law is the data in the form of letters, numbers, symbols or signals or other and it could be listed electronically or any other mean in the electronic record. Or it could be added or associated with it in order to identify his signature and distinguish it of other. 13

According to the UNICITRAL model electronic law for the electronic signatures for the year 2001, it came in the second material that the electronic signature is a data in electronic form which included in the data message or added to it in a logical way. We use to identify the signer card according to the data message and show the agreement of the signer on the information which comes on the data message 14. The electronic signature becomes based in different laws and it has a full authority as it on the papers or the documents, so it was possible to replace a huge store of papers to a computer not larger on several books. 15. the importance of electronic transaction law is to control the transaction and electronically signing, organize it and providing the legal frameworks until establishing the legal basis which are documented for the usage of the transaction of electronic signatures 16 to facilitate the different legal transaction specially which used to remove the obstacles which faced the usage of this modern techniques so the legal trend 17 in the world go to take of this signings. 18

### ***Types of signature***

The process of determining the types of electronic signature is a purely artistic process, therefore the type of electronic signature as follows:

1 (pen fln) system , this types of signature based on the electronic pen to monitor movements of network connector and send it to a special program to be analyzed and installed as electronic signing to the contractor

2 (pen np) system and it is based on the customer who wants to buy something , so he take a special pen and signing on the computerized pad which has a special nature and then picks up the signing then press on the button (nk) then the signature will appear in the bottom of the page 19

3 The most important electronic signatures is the digital signature 20 (digital signature) and it operated on a special system which called (random testing) 21 which works through calculation logarithmic data so the data turn out to be complex compressed code and it can be retrieved to its original form by the person who hold the key of the code 22 and the importance of this type as follows:

A to approve the identity of the person who signed the document

B to determine the document which was signed with no change 23

4 some of the government and private organizations have worked to create a number of signing which supporting by strong effective and protection such as the model number ( IDSS) 24 and it was developed by the US national institute of models and technology(nint) in 1994 25

The properties of electronic signature

Electronic signature has a number of features:

1. electronic signature is used through electronic means that the parties will exchange all of information by saving the verification contract which was stored in a document in electronic signature with that nature of it , so the electronic signature would be different on the normal signature on the papers 26
2. the legislator does not require to use a form of any picture of the electronic signature but it leave it to the progress of this technical issue of this new technology 27
3. electronic signature is characterized as not easily forger zing it because it is based on the complex protection system which need a lot of experience and knowledge 28 also it required a third part to document the signature 29 but the normal signature on the papers is more susceptible to fraud and this is what we found in the decisions of the private courts in the rigging of signing papers and documents.
4. add to this is the difference in the way of signing and the way of signing. 31

### ***The Second Topic***

The conditions of electronic signature and the legal evidence of it

Jordanian lawmaker has decided that the electronic signature meets the requirements of the legislation and the result of the legal implication of documents of documents linear and linear signature decided that this authentic electronic record<sup>32</sup> , article 6 of the law cam in of the act that subject of the provision of paragraph 1 (b) article 3of this act if its necessary to present the legislation to provide any limitation, contract or document in writing or written submission so , the present electronic record of any of it is a result of the legal impact under the following condition:

A to access on the electronic record, b the possibility of storing electronic record and go back to it again without making any change of it 33, as stated in article 7 if the condition of the legislation needs to provide the original copy of the contract or document, it should be deemed to the electronic records depending on the following:

A save the form in which was created or sending ore receiving it with not change on the content of it

B storing it in the way that you can access it again and uses the data inside it and go back to it again in any time

C to be able to identify the origin and receiver and the date of the message and the time of the message, in article 8 if the required to save any document for any reason on the form of electronically is a producer of their impacts but the conditions should be stipulated in article 7 of the law.

The law makes that the electronic record 34 have the legal effect according to article 17 from the law as follows:

1. If the electronic record is linked to the protective electronic signature, so it could have their evidence to the normal document and the parties of the electronic transaction and objective of it. In this case, the situation is related to the protection electronic signature without documentation because the objection is going to be for the parties only.
2. if the electronic record linked to the document electronic signing in this case it has the authority to the normal document and the parties of the transaction have the right to object on this transaction , in this case it belong to the documenter and the electronic signature and it can be objected.
3. In other cases, namely the protective electronic signing or documented, the electronic signing has the evidence on the normal document in the face of the parties of the electronic transaction and in the case of denial the burden of proof on those who protested on the electronic record.
4. The electronic record which was not link to the electronic signing, it has the authoritative papers which unexpected in the proof. 35.

### **First demand**

The condition of electronic signature

There are rules to make the electronic signature 36 and make it as the normal electronic signing 37 in general but with some important conditions:

- 1 the formal side of the signing by presenting symbol , drawing, or numbers or any particular form 38 and it make by using electronic means
- 2 the intention of the signer to make this signing special to him and define the character of the signer
- 3 there is a particular feature should be available in the signing and It could be enough to distinguish the signer and linked to him (definition number) and the signature should be related to the signer and there is no modification on any record after signing 39
- 4 approving that there is no change on the signing or not been altered on the form since the beginning of the issuance of the signing and till the moment of receiving it and the ability to approve that the signature is not fake and issued by the owner of the signing
- 5 doing the necessary steps – manual and visa bile –and it makes the other understanding the computational procedures which have made to signing a document and these measures are approved in accordance to the provisions of law especially which belong to the signing from especial parties to issue validity signatures (authority documentation) 40and be signed during the period of validity of the certificate of documentation.

Based on the definition of the electronic signature from the article two of the electronic transaction (the data in the form of letter, number or symbols, or signs that listed electronically or in any other same mean in the electronic record. Or adding it to identify the owner of the signing depending on the following condition:

- 1 the data takes the form of letters, numbers, signs or symbols or other
  - 2 these data comes electronically or any other same mean in the electronic record or adding it too
  - 3 to include the identification of the owner of the signature and to distinguish it from the other
  - 4 the electronic signing should be documented and associated with the documenting certificate which issued depending on the law of transaction in the time of establishing the electronic signature according to the text of article 16 of the law , and it act that the electronic signing is documented if it achieved the previous condition in the article 15 of the law and it was associated with a certificate of documenting the mail which is issued accordance to the provision of the act and the law and the regulation and instruction which have issued too , in the same time of creating of the electronic time for any of the following :
- A Authorized electronic documenting in the kingdom
- B approval electronic party
- C any government sector whether ministry or official public institution or public EST or municipality that the councils of ministers agrees and provide the telecommunication regulatory commission of the requirements of it.
- D the ministry of communication and the technological information
- E the Jordanian central bank that belong to the banking services or electronic finance 41

Referring to the article 15 of the law, the electronic signature is protected if the following conditions are available in it:

- 1 if the owner of the signing is the only one sign on it
- 2 if it determines the identity of the owner
- 3 if the private key was controlled by the owner of signing in the time of signature
- 4 if the electronic record is connected in a way which not allows to make any amendment to the electronic record after signing it.

Jordanian legislator has linked between the documentation of the electronic signature and the strength of the legal authentic in the previous detail which we mentioned earlier in the electronic record, ,so the Jordanian legislator has issued the license system and adopting the electronic authentication No11 for year 2014 which included fifteen materials related to the statement in the body that hold the issuance of the license or the reliance to any part which like to issue the document certificate. And presenting any service related to these certificates in the kingdom such as: telecommunication regulatory commission which established under the communication and requirements for license and monitoring on the other and other conditions and requirements 43

## Second requirement

The legal authentic for the electronic signature

The overall electronic transaction are closely linked to three basic points; the editor, writing and signature, therefore the editor is included a certain type, and this material is the mainstay which has been written on it , in the law there is no marks specifying that the mainstay should be from papers or clothes ,woods or stones, or

whatever, but this mainstay is carried to the writing on it and it could back again to it in any time. Infect writing is appearing impact and this impact is known, because the existing of this impact is the physical appearance of it. And without it this effect is lacking and not existing, as somebody tries to control the letters and words in the air or on the face of water. Or any person tries to record his words on the (cassette) 44, depending on this Dr faik al shama defined the writing as fixed physical depiction for the spelling of letters in the picture of controlling letter and collect them in the paper and try to know them so in this way writing is the way of express the person character 45. it is noted the legislator stipulated the existence of writing but he doesn't specify the nature of writing, according to the style of writing its not restricted of any certain condition and it could be use pencil or dry ink or any other material leave a certain impact, the tool of the writing could be from wood or plastic, or any other material , as well as the color of the material which used for writing, 46 and its not required to write by used hand writing or printer machine or by using the modern electronic styles , and there is no lesson of the person who has the writing because it could be used by hand written or by another person even if he is not adult , but the signature should be from the obligor 47 and the writing in the electronic ways is a legal writing but in a different type 48

The signature is the manual signing, seal or fingerprint, from this signature the author has his authentic evidence on the two parts, the required signature should be guide clearly on the owner and the direction of his will to bring the legal effect and restriction of it so any means which make a signing is signature.

Based on the data above, the electronic signature has a legal impact as same to the manual signature and the legal effect of it as follows: 49

1 the electronic signature is binding to his owner as a normal signature as it texted in article 8 of the Jordanian electronic transaction law

2 the validity of electronic signature in proving, because the electronic signature has to prove it in the in the transaction which made by electronic means but the electronic signature should be consistent with the provision of the law as documentation and other condition which required by the law to make the electronic signature is valid depending on material 16.17.18) from the Jordanian electronic transaction.

Third topic : the problematic application of the electronic transaction law The electronic transaction is a civil or business contracts which carried out through the electronic network" online" and these transactions have the authentic evidence and the power of the normal contracts which have made on the normal editors, that has the electronic signature which is the basis of the transaction , so the electronic trade has opened the local and international markets front the investors from different places in the world and the size of electronic commerce in the world has reached nearly 1.4\$ trillion 51.

The electronic commerce has raised a legal issues and the most important of it is the information security and the intellectual property and the means of electronic payment and contracting and electronic signing 52, the united nation has succeed in developing an advance regulation for the electronic transaction through the united nation for international trading UNCITRAL which issued a model law in this regard and this law is the main reference for all the legislation in the field of electronic transaction , it is worth mentioning that the most if the Arab laws have been formulated in many cases based on the UNICTRAL model law on electronic commerce and it is the law which has made by the united nation commission on the international trade law , which established of the general association in its decision 2205(d21) which fated in 17/12/1966 and based on the recommendation that adopted by the committee at eighteen session in 1985 , on the legal value of the computer records and it adopted by the general assembly in the decision No 85 in 16/12/1996 and this model consists of 17 article which included the judgment of electronic commerce generally and the application of legal requirements on the data messages and reporting provision messages and e commerce in the field of transportation in the field of goods .

### **The first requirements:**

The problematic application of electronic transaction,

1The application of electronic transaction law has raised a number of legal and technical disputes the work of the law and these problematic as follows:

1. the legal problematic, electronic writing and electronic signing according to the law and the scope of both are limited so it cannot be used in many cases including the civil issues like divorce and marriage, will, or dispose of movable and immovable, securities and other which no significant electronic signature in these cases 53 , where the law still rely on the traditional guide in these matters. 54

2. the Jordanian legislator said that the electronic signing has included the whole types which are used in the electronic transaction and not mentioned the digital signature which is specific type of electronic signatures , so the Jordanian legislator has defined the electronic signing and not define the digital signature but it is cited in article two , the definition of documenting certificate and its issuance just only for the digital signature as the documenting which was mentioned by the legislator is only for the digital signature , which led to confusion in the perception of the legal authentic electronic signature of electronic signature in the Jordanian law, 55 moreover the Jordanian legislator hasn't issued any license of authentication and granting the documentation parties the documenting certificates just in 2015 after the issuance of the new electronic transaction 56
3. the Jordanian electronic transaction law in the scope of its current applying and taking in to account the exceptions in article 3 from the law that it didn't address the distinction between the civil and commercial contracts so the text was important because it includes the both fields , civil and trades , due to the civil law includes the general rules for all legal matters including the proof and this is clear in paragraph A of article 3 of law, ( the provision of this act on the transaction which is made by electronic means without specifying these transaction and the first is to be appointed to the inclusion of the law for all kinds of contracts whether civil or commercial.

***Second: the technical problematic:***

1. the progressive of electronic writing and usability of retrieving and reading , so its written by signals, symbol or numbers and it will not understood or read till unzip these symbols and retrieve the original text by computer and some software, is the electronic written is characterized by stability? The fact that the matter had been envisaged the considerable of technological process and the existence of technology which was able to keep the stored information for a long time but it should be noted that the mainstay of the electronic is sensitive and can be damaged leading to lose information on them add to this that the written signature maybe subject to modification or switch vandalism it or maybe manipulated by electronic means by accessing on it in illegal and tampering with it content , and this situation had happened in the light of emergence of what it called , electronic war, in which an electronic attack on a sites in the virtual world , and it became a space for hypothetical war which result a big losses , especially with stores documentation and banks data and the general government sites and the private and public institutions and the proofs on this are very much 57, so lots of companies ,private and public institutions have made a photocopy of their stockpiles of information on a daily basis for this case. Furthermore the electronic written exposed to a risk of change and distortion , which making it necessary to rely on a protected system and reliable and we believe that the matter of this situation raises a lot of financial cost for the use of this technology, especially for the developing countries and poor one such as Jordan which cannot afford the high cost of electronic signature techniques and the subsequent this new technology and in particular the selling the picture of electronic signing as a biometric signature and all what we have said about the electronic written and what is applied on the electronic signature and what is documented on the electronic written and give it the legal evident in approval therefore its not in safe from penetration and manipulation , the electronic signature is exposed to forgery especially from people have a good knowledge about the usage of computer , so they can access to the electronic systems.
2. the adoption of the electronic transaction law requires the basic IT infrastructure of the neutral technical as well as minimalist restriction in the law , therefore it is necessary to provide infrastructure as well as to give sufficient flexibility in the formulation of the law for the conduct of electronic transaction.
3. there is another problem in applying the legal texts of the technical aspects namely is the use of electronic transaction in a limited scope , where it is not use in the level of banks, and strong institution because that barely required technology is available , in addition of that the fear of using it in a large scope, and the lack of documenting electronic protection , which save effectively a protection to the electronic means in contracting , , that demand to exist a multi legal roles and very complicated , and this matter is not available in Jordan , so for the virtual internet world needs a legal system which can treat these evolving in addition to exist competencies skills 58 and adequate financial support.
4. for most business especially the banking business and according to some people<sup>59</sup> it should be noted that the electronic technical is additional burden to the work on the traditional papers, that hinders the work on two different mechanism to control the world and documenting it, one of them use the modern electronic techniques

while the other one depend the traditional work means which increase the material cost and burden of the work too.

And led to useless of the reality of modern techniques so it is supposed to build a technical systems which able to have the trust and safety and preserve the confidentiality and privacy 60 as well as the rehabilitation of the appropriate competencies for this business.

### **Conclusion:**

At the end of this research it sum up a number of results and recommendations that we provided it to the Jordanian legislator and we hope that the lawmaker taking in to account to get them to the real activation for the text of the law of the electronic business and entered this technical to the government and private business speedily because the world is progress quickly in a huge steps in the field of this technique and slow in the pursuit of technological development and pass their legislation which led to a gap and it couldn't avoid it. So we recommend the following:

1. Working in getting the required technical for the electronic business with whole details from the international organization and progress countries and cooperation with them in this filed and encourage working in this area of this technique and provide adequate of financial support and appropriate training to carry out this business.
2. supporting the effective technical protection systems to accommodate development in the field of electronic business and electronic signature and taking with the most recent evolving in this field to be able to withstand a long time which reduce the cost of this technique, because moving from system to another makes a big loses because of pursuing the development and improvement constantly 61
3. entering the multi legal application for the electronic business in the field of business for testing and utilization and acceptance of work under reasonable margin of the risk and urged large institution to engage it strongly in this area and begins of the government procedures as example of encouragement in this experience, so the electronic application to this business is not limited and it has a fertile environment for innovation and creation that maybe have a great benefit.
- 4.the importance of holding legislative amendment in the existing law it give it flexibility to accept the introduction and enter of what's new in the electronic field in both credit and approved and the legal authentic jurisdiction, and applicable law and double taxations and custom system 62 and work on the coverage the law to the all electronic business without exception ,if there is some reservations about it, it can be treated by giving the judiciary and the court a wide margin for the consideration of judicial disputes that arising the occasion of electronic business and give them the opportunity to consolidate the legal rules and judicial interpretation , judgment s that are a commensurate with these actions 63 perhaps the best the legislator make an integrated package of legislation in the field of information technology 64
- 5 putting a studying plans for the phase out of all traditional business whether if it trade or other and replace it by a new approaches in the work and consolidation of these new methods and disseminating the culture of continuous updating , especially in business.

(1) - See: Shawa. Mohammad Sami "information revolution and its impact on the sanctions," Arab Renaissance Publishing House 1994 p. 154 Act. And also noted the text of Article 102 of the Jordanian Civil Law No. 43 of 1976, which authorizes contracting by telephone or any similar method for contractors who do not comprising the Council held one.

(2) - This phenomenon has spread recently remarkably because there are a lot of computer professionals who robbed and stolen electronic financial transfers, as well as sabotage of banks, financial, commercial and destruction and theft of information, images and other institutions and systems.

(3) - See: Hobeika. Louis "electronic commerce," an article published in the Jordanian Al-Rai newspaper. Number 10,667 Twenty-ninth Year Tuesday, 11.23.1999 as well: al-Maliki. Mejbel necessary. "E-journals," an article published in the Jordanian newspaper opinion number 10615 Twenty-ninth Year 02/10/1999

(4) - published in the Official Gazette No. 5341 on page 5292 date 05.17.2015 This law replaced the temporary electronic transactions Act No. 85 of 2001

(6) - See: Mohamed Morsi, a flower, a research entitled (over Authentic electronic signature in the proof in civil and commercial matters) research published in Research First Kuwait Conference on Law and Computer Group. Kuwait Foundation for Advancement of Science. Kuwait University, 1994, p. 436.

Known signature also that (each sign handwritten distinctive and personal help to identify its author without doubt translate his will to accept this act) which defined the French-Faqih \* referred to in "The extent Authentic modern technological means to prove commercial contracts" \* Rashid. PhD thesis submitted to the Faculty of Law, Cairo University, p. 77.

(7) - See: zahra. Mohamed Morsi, the extent of Authentic electronic signature in the proof. Former source. 435 p.

(8) - See: Samadi. Hazem Naim. Responsibility in the electronic banking operations. Dar Wael for publication. The first edition 2003, p 187

(9) - Signature is best images signature for being closely humans and carries with it the personal features.

(10) - See: "The concept of electronic signature," a report published in the Jordanian newspaper opinion number 10877 Thirty year Tuesday, 20/06/2000 See also articles 13-26 of the Jordanian data law

(11) - in one case, the US Supreme Court ruled \* that (use No. My Account "an endorsement" on the check is considered a signature) and explained the court so that (in this era - the PC era - Become a use numbers as a means of identification to diffuse effectively and figures more easily in the definition of signatures). \*\*\* Issue referred to in the explanatory Law Illinois electronic signature to explain Article 203 note.

(12) - has adopted the United Nations and relevant international trade law "Aleonctral" Model Law on Electronic Commerce presented to the United Nations General Assembly on 12.16.1996 and approved a component of the seventeen material on various topics such as the concept of writing and signature and Authentic e-mails in evidence see: Hussein. Hussein Shehadeh. "The bank's position on the offending documents in the documentary credit," PhD thesis submitted to the Faculty of Law at Ain Shams University, 2000, p. 35, as well as see: Marri. Ai \* Rashid. Former source p 355 et seq.

(13) See Article (2) of the Electronic Transactions Act of Jordan

(14) See: "the law of Florida electronic signature (Article 4) where he knew that he: (a message or letters or symbols were organized electronically or similar means by someone ratification of the structure or electronic writing documentation to the effect that this signature is compatible with this writing)

(15) See: "electronic signatures" a published report in the Jordanian Al-Rai newspaper. Thirty year number 10888 Saturday, 07/01/2000

(16) Azzam. Magdi Ahmed. Legal authentic electronic signature and electronic transactions in the Arab laws "Comparative Study" published on the site

<http://www.mnhamnnn.cnm / mnntadaa / deafault.anpx? actinn>

(17) And refers to the legal systems of the world which are divided into three sections with respect to the recognition of electronic signature and give legal authentic, namely: Section I: give the electronic signature the same force normal signature, including Canada, the US and Japan. Section II gives the electronic signature strength of proof, but not as strong as normal signature, including France, China and Russia. Section III: It states that do not have practice or a clear policy in this area including Germany, Denmark and Indonesia

(18) See: smelts. Huda Hammad. "Computer-mail crimes in comparative legislation" Arab Renaissance Publishing House. Cairo 1992, p 121, as well as: Abdul Hamid. Mr. Reza. The new Trade Act No. 17 of 1999. part One . Dar Arab renaissance. Cairo 2001, p 234, as well as: Radwan. Faiz Naim. Fulfilling cards. Jalaa Library in Mansoura. Egypt edition \* for the year 1990 as well as 129 years: Shawa.

(19) Mohamed Sami . The information revolution and its impact on the Penal Code. Dar Arab renaissance. 1994. P. 149, as well as: Qasim. Mr. Business Law . Dar Arab renaissance. Cairo . The second edition. 2000. P 378

(20) There is a difference between the electronic signature and digital signature signing of mail may be in any form, including drawing photosynthesis, either digital signature Faisnah special program conveys the message is encrypted and decrypted seen from the validity or non-validity of the signature look: Ahamberga. Dreams. "Authentic electronic signature in Jordan" Free Zones Corporation 2008, p. 8

(21) See: Momani. Omar Hassan . Electronic signature and e-commerce law. Dar Wael for Publishing and Distribution. Jordan. The first edition. 2003. P. 54 et seq.

(22) referred to by the Illinois State Act 1999 in Article V of it and this kind involves the use of public and private key through which the message is encrypted and the signature and decryption code their own See: Electronic Signature and related provisions. Ali bin Abdullah al-Shehri. Posted on the site

(23) See: Ahamberga ahlam . Authentic electronic signature. Former source .s 9

(24) Mahrok. Mohammed . The peculiarities of electronic signature and the authority was in the proof. Cadi Ayyad University. Marrakesh



(25) See Article (3) of the electronic Jordanian Transactions Act which stated that he (a- aims of this law to facilitate the use of electronic means to conduct transactions, subject to the provisions of any other laws and without amendment or cancellation of any of these provisions. B - taken into account when the application of the provisions of this law, the rules of international commercial practice related to electronic transactions and the degree of progress in the exchange) technology.

(26) See the kinds of electronic signatures and degrees of their own safety. \*\*

(27) See: Mahrok. Mohammed . The peculiarities of electronic signature and the authority was in the proof. Former source

(28) See: al-Rubaie. Ibrahim Ismail. And Nala. Alaa Abdul Amir. Electronic authentication and electronic signature arbitration decisions. A comparative study . Research published in the Journal of the investigator ornaments legal and political science. The first issue. Sixth year. P 165

(29) See: al-Rubaie. Ibrahim Ismail. Electronic authentication and electronic signature awards ibid. P. 159

(30) the electronic record is defined as: a message containing information

(31) See Hijazi. Bayoumi Abdel-Fattah. Introduction to e-commerce. The second book. Dar university thought. Alexandria . 2003. p. 160 et seq.

(32) fifth paragraph of Article 17, indicated he may issue any formal support and ratification by electronic means, provided the private electronic record link its electronic signature notarized

(33) See detailed discussion of these conditions: Eboumarah Ali. Electronic signature and how powerful it is in the proof. Research published in the Journal of Hebron University Research Volume 5 Issue 22 010 p. 117 et seq.

(34) See satisfaction. Ali . Study in the electronic signature Posted on site

<http://www.f-law.net/law/threads/9681>

(35) Look at these conditions: 38 Mahrok. Mohammed. Search the peculiarities of electronic signature and 39 the authority was in the proof. 40 Cadi Ayyad University .mrakesh

(36) It is noted that there is a relationship between the amount of risk in the electronic signature and the degree of complexity of the private encryption sign where these risks are less than the greater complexity of the private cryptographic signing<sup>42</sup>

(37) The signing of the complete data for the owner of an electronic signature and a statement encrypted and Sri public and private<sup>44</sup> Bamuftahin to sign a certificate with a certificate and have a period of time and get a certificate instead be compared with an annual physical or as agreed. <sup>45</sup> See Azzam Majdi. Legal authentic electronic signature and electronic transactions in the Arab laws comparative study. Posted on the website

<http://www.mnhamnnn.cnm/mnntada/default.aspx?actinn>

(38) See: Zuhair Karim Abbas, the legal system of the check / doctrinal study compared the House of Culture .alardn first edition 1997, p 48, and that indicates a writing essential for successful and therefore not credible about it oral issued by telephone to the drawee if it can not be considered this matter oral and written paper

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