

UNIVERSITY OF GONDAR



INSTITUTE OF TECHNOLOGY DEPARTMENT OF CoTM

Section-03

Construction law semester project



Group Members

Name	ID No
1. Nebiyu Mekdes-----	00915/09
2. Abubeker Abedulmenane-----	00072/09
3. Ashagre Debebe-----	00179/09
4. Endalkachew Tessema-----	07835/10
5. Kindinehe Shariew-----	01250/10
6. Meron Chalachew-----	07627/09
7. Fetene Melese-----	4451/08
8. Natnail elias-----	00905/09
9. Mulugeta Gualu-----	00668/09
10. Yohannes Hailu-----	01269/09

SUBMISSION DATE: 16/03/2012 E.C

SUBMITTED TO: INS. **EMEBITE**

GONDAR, ETHIOPA

ACKNOWLEDGEMENTS

*Above all, we thank the **ALMIGHTY GOD** and **ALLAH** for what we have done for our until today, blessing our life and giving our patience and strength to finish this project.*

*We would like to express our humble and deepest gratitude to instructor **EMEBIT** for providing as with the chance of exploring is about difference and similarities of PPA, FIDIC, MoWUD in different case. Including case study.*

Since the ideas in these topics will be much practicable in our profession, once again we truly appreciate to our construction law instructor for her continuous support in our educational endeavors.

ABSTRACT

Construction contract general condition clauses have a major influence on the likelihood and degree of project success. This paper is about comparison between FIDIC, PPA and MoWUD Conditions of Contract. To achieve the objective of the study a desk study has been conducted to identify the similarity and differences of the clauses in Harmonized FIDIC, PPA and MoWUD conditions of contracts in different content and due to different limitations the study focuses on few of the clauses.

Finally, we emphasize that because of the limitations faced during the study the conclusion given on this paper are not binding and it is used for educational purpose only.

ABBREVIATIONS

PPA =Public Procurement Agency

FIDIC = Federation International Designers Ingenieurs - Conseils (consultants)

MDB = Multilateral Development Bank

LD = Liquidated Damage

DLP = Defects Liability Period

GCC= general condition of contract

DD= delay damage

MoWUD= ministry of work and urban development

SBD=standard bidding document

ICB=international competitive bidding

SCC =specific condition of contract

Table of Content

Contents	Page
ACKNOWLEDGEMENTS	ii
ABSTRACT	iii
ABBREVIATIONS	iv
Table of Content.....	v
INTRODUCTION	1
1. LIQUIDATED DAMAGE ON FIDIC AND MoWUD.....	2
1.1. Definition of Liquidated damage	2
1.2. Similarities between FIDIC and MoWUD.....	2
1.3. The difference between FIDIC and MoWUD.....	3
2. Difference and similarities between MDB-FIDIC 2006, PPA & MoWUD.....	4
2.1. Similarities between PPA,FIDIC,MoWUD	4
3. Selected and nominated sub contractor.....	11
3.1. Selected sub-contractor	11
3.2. Nominated sub-contractors	12
3.3. Detailed difference between them.....	13
3.3.1. Contractual arrangements	13
3.3.2. Payment.....	14
3.3.3. Allocation of preliminaries	14
4. Case study	15
4.1. Extension of time.....	15
4.2. Delayed payment.....	18
4.3. Unjustified delay	19
Conclusions	21
Recommendations.....	22
Reference.....	23

INTRODUCTION

The Construction industry involves the participation of significant numbers of people and sectors of the economy. There are varieties of factors that affect the relationships of the participants. These include the length of the project, its nature of outside organization, its size and the fact that the price agreed and the amount of work done may change as it proceeds and it is risk associated. Due to these factors the participants in the industry goes to their benefits

This PROJECT is about compare and contrast of PPA, FIDIC and MoWUD condition of contract in different condition, this project contains four chapters.

The first topic or chapter is about compare and contrast of MoWUD (Ministry of work and urban development and FIDIC (international federation designers – consultants) conditions of contract with respect to liquidated damage.

The second topic or chapter is about compare and contrast of MoWUD (Ministry of work and urban development, FIDIC (international federation designers – consultants) and PPA (Public Procurement Agency) with respect to

- Dispute settlement mechanism
- Variations and
- Quality regulations

The third topic or chapter is about detail difference between selected and nominated sub-contractor.

The fourth topic or chapter is about different specific clause in listed case.

1. LIQUIDATED DAMAGE ON FIDIC AND MoWUD

When we compare and contrast Ministry of work and urban development general condition of contract (MoWUD) with FIDIC Condition of contract with respect to **LIQUIDATED DAMAGE**

1.1. Definition of Liquidated damage

Liquidated damage means: Liquidated damages are the amount of money that both parties in a contract agree upon if a breach of contract occurs or legal action arises as a result of the contract breach. If one of the parties breaches the contract, it agrees to pay the liquidated damages to the other party. Liquidated damages are generally only applicable to contractual an agreement, which separates them from punitive and actual damages.

1.2. Similarities between FIDIC and MoWUD based on liquidated damage

- The Employer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him. Compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.
- These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination.*[Termination by Employer]* prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or, from any other duties, obligations or responsibilities which he may have under the Contract
- Liquidated damage higher than the minimum limit provided herein above may be fixed in the contract. The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies in his hands, due or which may become due to the Contractor.
- The payment or deduction of such damages shall not relieve the Contractor from any other of his obligations and liabilities under the Contract

1.3. The difference between FIDIC and MoWUD

Table: the difference b/n MoWUD & FIDIC based on liquidated damage.

MoWUD Clause 47	FIDIC Clause 8.7
1) Liquidated Damages for Delay If the Contractor shall fail to achieve completion of the Works within the time prescribed by Clause 43 hereof, then the Contractor shall pay to the Employer 1/1000 of the contract price per day as liquidated damages for such default and not as a penalty for every day or part of a day which shall elapse between the time prescribed by Clause 43 hereof and the date of certified completion of the works. Depending on the nature of the works, Liquidated damage higher than the minimum limit provided herein above may be fixed in the contract. The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies in his hands, due or which may become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from any other of his obligations and liabilities under the Contract.	1. Delay damage If the contractor fails to comply with sub-clause 8.2 (time for completion) the contractor shall subject to notice under sub-clause 2.5(employer's claims) pay delay damages to the employer for this default these delay damages shall be the sum stated in the contract data which shall be paid for every day which shall elapse between the relevant time for completion and the date stated in the taking over certificate .However, the total amount due under the sub-clause shall not exceed the maximum amount of delay damages (if any) stated in the contract data. These delay damages shall be the only damages due from the contractor for such default other than in the event of termination under sub clause 15.2(termination by employee) prior to completion of the work . These damages shall not relieve the contractor from his obligations or responsibilities which he have under the contract.
2) Reduction of Liquidated Damages If, before the completion of the whole of the Works any part or section of the Works has been certified by the Engineer as completed, pursuant to Clause 48 hereof, and occupied or used by the Employer, the liquidated damages for delay shall, for any period of delay after such certificate and in the absence of alternative provisions in the Contract be reduced in the proportion which the value of the part or section so certified bears to the value of the whole of the Works.	Clause 16.2 (g) 2. Termination by contractor The employer becomes bankrupt or insolvent goes into liquidation has a receiving or administration order made against him compounds with his creditors or if any act done or event occurs which (under applicable laws) has a similar effect to any of these acts or events.

2. Difference and similarities between MDB-FIDIC 2006, PPA & MoWUD

With respect to the following terms

- ❖ Dispute settlement mechanism
- ❖ Variations
- ❖ Quality regulations

2.1. Similarities between PPA, FIDIC, MoWUD

- ✚ Any notice, information or communication given to or made by an Engineer shall be deemed to have been given or made by the Public Body.
- ✚ The Performance Security shall be discharged by the Public Body and returned to the Contractor not later than twenty-eight (28) days following the date of issuing of the signed Final Statement of Account referred to in GCC
- ✚ For its total amount except for amounts which are the subject of amicable settlement of disputes, unless specified otherwise in the SCC.
- ✚ the Engineer shall, after consultation with the Public Body and the Contractor determine any reduction from the contract price as a consequence of the application of GCC
- ✚ The sum so determined shall be based on the amount by which the increase or decrease in value of the works exceeds 25%. The sum shall be notified by the Engineer to the Public Body and the Contractor and the contract price adjusted accordingly.
- ✚ Provided further that if the Contractor shall within seven days confirm in writing to the Engineer and such confirmation shall not be contradicted in writing within fourteen days by the Engineer, it shall be deemed to be an order in writing by the Engineer.

3. Selected and nominated sub contractor

Definition of sub contractor: Sub-contractors are appointed by main contractors to carry out part of the works on their behalf. As construction has become more complicated and more specialist construction techniques have been developed, it has become increasingly common for contractors to sub-contract others rather than employing a large workforce themselves.

Sub-contractors can be classified as:

-  Domestic sub-contractors.
-  Preferred sub-contractors.
-  Nominated sub-contractors...

3.1. Selected sub-contractor

A Selected Subcontractor is one that is employed at the discretion of the Contractor. The Contractor is liable for any default of a selected subcontractor save that where the default of the nominated subcontractor delays the Contractor in the completion of his contract he is entitled to an extension of time, and where the agreement with the subcontractor is cancelled due to the default or insolvency of the subcontractor or the default of the Employer or his agents, any additional cost incurred in the completion of the subcontract works shall be to the account of the Employer

A selected subcontractor is effectively the same as a domestic subcontractor; subcontractors who contracts with the main contractor to supply or fix any materials or goods or execute work forming part of the main contract. A named subcontractor is essentially employed by the main contractor

Selected sub-contractors allow the client to influence the main contractor's selection of sub-contractors, whilst leaving responsibility for their performance with the main contractor. It can

be seen as an alternative to nominating sub-contractors as the contractual relationship is less complicated, and indeed, some forms of contract (such as Joint Contracts Tribunal (JCT) contracts) no longer include provision for the nomination of sub-contractors.

Once the main contractor has selected and appointed a sub-contractor the provisional sum is replaced with the actual price agreed.

Preferred (selected) sub-contractor and nominated subcontractor are differentiated by the following terms

- ✓ **Contractual arrangements**
- ✓ **Payment**
- ✓ **Allocation of preliminaries**

3.2. Nominated sub-contractors

According to FIDIC Clause 5 sub clause 5.1 nominated sub contractors means:

- a) Who is stated in the contract as being a nominated subcontractor
- b) Whom the engineer under FIDIC clause 13(variations and adjustment) instructs the contractor to employ as a subcontractor subject to sub clause 5.2 (objection to notification)

A Nominated Subcontractor on the other hand is nominated by the Employer, usually to complete a specialized part of the works. There is no contract between the Employer and the Nominated Subcontractor. This distinction is important to determine who is responsible for any delays in the works and in determining where liability lies if things go wrong.

A nominated sub-contractor is one that is selected by the client to carry out an element of the works. Nominated sub-contractors are imposed on the main contractor after the main contractor has been appointed.

The mechanism for nominating is an instruction in relation to a prime cost sum to which the main contractor is entitled to add mark up and attendance costs. It allows the client to have direct separate negotiations with major suppliers of goods or services and feed their appointment and design input into the contract after works by the main contractor have commenced.

There are mutual benefits to the client and sub-contractor using the nomination route. The client can select the specialist contractor it wants, obtain design and value engineering input and have direct access during the progress of works. The sub-contractor benefits by having much greater certainty of payment.

Sub-contractors might be nominated could include:

- Long delivery items where ordering is necessary before the appointment of a main contractor. For example, lifts, switchgear or refrigeration plant.
- Where specialist design input is required in the early stages of design development. For example, for a cladding system
- Where the client directly orders a preferred item on which design is to be based. For example complex or specialist industrial plant or equipment.
- Essential quality is that the Employer reserves the right to nominate as Subcontractors particular persons to perform specified parts of the overall works.
- Essential feature is that the Contractor is obliged to accept the nomination, subject to a limited, but nonetheless important, right of challenge.
- The Contractor must enter into a subcontract with the person nominated, usually one containing the same terms, particularly as to performance, as those contained in the main contract.
- That there is no privacy of contract between the Employer and the Subcontractor.

3.3. Detailed difference between them

3.3.1. Contractual arrangements

The contractual arrangements allowing nomination are very complicated, attempting to cover all possible eventualities both between the client and the main contractor and also between the main contractor and the nominated sub-contractor. This may include; objections by the main contractor to the nomination, insolvency of the nominated sub-contractor, the need for re-nomination, and so on.

The contractor may or may not be held responsible for failure of the nominated sub-contractor to perform, depending on the exact wording of the specific contract used. However, as the subcontractor is being imposed on them, the contractor will generally be allowed the right to

object to the subcontractor under certain conditions. If the client still wishes to use the subcontractor, some contracts allow them to indemnify the main contractor against the possible consequences of this.

In addition, as the contract for the nominated sub-contractor is with the main contractor, not with the client, the client may wish to ensure that they have a direct warranty with the nominated sub-contractor to guarantee performance and to indemnify them against any possible losses.

Nomination is still common on international projects, but some forms of contract (such as Joint Contracts Tribunal (JCT) contracts) no longer include provision for nomination because of the complexities involved. The use of named sub-contractors, or named specialists is generally considered to be a simpler alternative.

3.3.2. Payment

The cost consultant values the work of the nominated sub-contractor separately and the amount due is shown on interim certificates and is notified to the nominated sub-contractor. The contract may allow the client to pay the nominated sub-contractor directly if the main contractor fails to do so.

3.3.3. Allocation of preliminaries

The allocation of preliminaries between the main contractor and sub-contractor depends on whether the nominated sub-contractor is appointed before or after the main contractor.

Normally the main contractor is appointed first. In this case it is wise to get the main contractor to specify the general preliminaries available to the sub-contractor, such as welfare buildings, craneage, site security, hoists, water, power and lighting and general scaffolding, etc., but also to set out specific items of preliminaries to be provided by the sub-contractor, such as site offices and stores, special scaffolding or cranes and waste disposal to a certain point.

Before any order is placed the main contractor should be consulted as to whether the sub-contractor's proposals are acceptable including matters relating to preliminaries.

If the sub-contractor is appointed before the main contractor, it is wise to send them the proposed preliminaries requirements to be imposed on the main contractor and request that

the sub-contractor clearly states in their tender what preliminaries are included in their bid and what preliminaries they anticipate will be provided by the main contractor.

4. Case study

Related causes are:

- ✓ extension of time
- ✓ Delayed payment
- ✓ Unjustified delay

For the above cause clause of the condition of contract in PPA, FIDIC or MoWUD

4.1. Extension of time

Under FIDIC (clause 8.4) Extension of Time for Completion

 The Contractor shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [*Taking Over of the Works and Sections*] is or will be delayed by any of the following causes:

- a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [*Variation Procedure*]),
- b) a cause of delay giving an entitlement to extension of time under a Sub Clause of these Conditions, or
- c) Any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site.

 If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Employer in accordance with Sub Clause 20.1 [*Contractor's Claims*]. When determining each extension of time under Sub-Clause 20.1, the Employer shall review previous determinations and may increase, but shall not decrease, the total extension of time.

Under PPA (Clause 28) Extension of the Intended Completion Date

✚ The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost. **(Clause 28.1)**

✚ The Engineer shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date. **(Clause 28.2)**

Under MoWUD (Clause 44) Extension of Time for Completion

✚ Should the amount of extra or additional work of any kind or any cause of delay referred to in these Conditions, or exceptional adverse climatic conditions, or other special circumstances of any kind whatsoever which may occur, other than through a default of the Contractor, be such as fairly to entitle the Contractor to an extension of time for the completion of the Works, the Engineer, after due consultation with the Employer, determine the amount of such extension and shall notify the Employer and the Contractor accordingly. Provided that the Engineer is not bound to take into account any extra or additional work or other special circumstances unless the Contractor has within twenty-eight days after such work has been commenced, or such circumstances have arisen, or as soon thereafter as is practicable, submitted to the Engineer's Representative full and detailed particulars of any extension of time to which he may consider himself entitled in order that such submission may be investigated at the time.

○ *As consultant*

Time extension requests may be considered valid under several different circumstances, but not all reasons for delays are approved for an extension. In any case, it is very important to keep records of all changes, documents, emails, and scheduling that can justify your request.

- ✓ And try to negotiate the two parties (contractor and consultant)
- ✓ Give advice for two parties according to different direction.
- ✓ For an EOT to be granted, it is not necessary for the Employer Risk Event already to have begun to affect the Contractor's progress with the works, or for the effect of the Employer Risk Event to have ended.

○ *As employer*

The EOT should be granted to the extent that the Employer Risk Event is reasonably predicted to prevent the works being completed by the then prevailing contract completion date.....The goal of the EOT procedure is the ascertainment of the appropriate contractual entitlement to an EOT; the procedure is not to be based on whether or not the Contractor needs an EOT in order not to be liable for liquidated damages.

- ✓ Where there has been Employer Delay, this may prevent the Employer charging the Contractor with LDs for failure to achieve a contract completion date

○ *As regulatory body*

- ✓ If there is an Employer's delay, which is beyond the Contractor's control, and if this delay impacts the Completion Date of the Works, the Contractor should be entitled to receive an Extension of Time (EOT).
- ✓ If as a result of an Employer Delay, the Contractor is prevented from completing the works by the Contractor's planned completion date (being a date earlier than the contract completion date), the Contractor should in principle be entitled to be paid the costs directly caused by the Employer Delay, notwithstanding that there is no delay to the contract completion date

(and therefore no entitlement to an EOT), provided also that at the time they enter into the contract, the Employer is aware of the Contractor's intention to complete the works prior to the contract completion date, and that intention is realistic and achievable.

4.2. Delayed payment

Under FIDIC (sub clause 8.4) Delayed Payment

- If the discount rate of the central bank in the country of the currency of payment is not a reasonable basis for assessing the Contractor's financing costs, a new rate may have to be defined. Alternatively, the actual financing Costs could be paid, taking account of local financing arrangements.

➤ *As consultant*

- ✓ Manage the cause of delayed payment
- ✓ The Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate.
- ✓ Give warning notification if it is necessary

➤ *As employer*

While specific penalties may apply if your employer fails to pay you wages at all or pays you less than what you are owed, the state may not have specific penalties in place for late wage payments. Further, federal law and some states do not require employers to reimburse employees for bank fees incurred as a result of bounced paychecks or overdrawn accounts due to wage non-payment. Exceptions may apply, such as if the fees caused the employee's pay to drop below the required minimum wage.

In the absence of a specific penalty related to payments that were made late, the state may set a practical restriction. For example, if an employer in Texas pays employees late too often, the Texas Workforce Commission may take action by requiring the employer to post a bond in order to continue hiring employees or doing business in the state

➤ ***As regulatory body***

If the Parties fail to resolve such a dispute or difference amicably within twenty-eight (28) days from the commencement of such procedure, either party may require that the dispute be referred for resolution through the courts in accordance with Ethiopian Law. But most of the time, in our country it becomes time taking and costly.

4.3. Unjustified delay

Under FIDIC (sub clause 8.4)

Under MoWUD (Clause 6 sub clause 4) Delays and Cost of Delay of Drawings

- If, by reason of any failure or inability of the Engineer to issue within a time reasonable in all the circumstances any drawing or order requested by the Contractor in accordance with sub-clause (3) of this Clause, the Contractor suffers delay and/or incurs costs then the Engineer shall take such delay into account in determining any extension of time to which the Contractor is entitled under Clause 44 hereof and the Contractor shall be paid the amount of such cost as shall be reasonable.

 As consultant

- ✓ The Contractor suffers delay and/or incurs costs then the Engineer shall take such delay into account in determining any extension of time to which the Contractor is entitled
- ✓ The Engineer's Representative shall, without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such work or of examining such foundations.

 As employer

- ✓ the Contractor on the Site and the same shall at all reasonable times be available for inspection and use by the Engineer and the Engineer's Representative and by any other person authorized by the Engineer in writing.

 As regulatory body

- ✓ The Contract shall in all respects be construed and operate as an Ethiopian Contract and in conformity with the laws of Ethiopia. The Courts of Ethiopia shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.
- ✓ If any dispute or difference of any kind whatsoever shall arise between the Employer and the Contractor in connection with or arising out of the Contract, or the execution of the Works whether during the progress of the work or after their completion and whether before or after the termination, abandonment or breach of the Contract, it shall, in the first place, be referred to and settled by the Engineer who shall, within a period of ninety days after being requested by either party to do so give written notice of his decision to the Employer and the Contractor.

Conclusions

From this work we conclude the following:

- ✚ Most of our respondents confirmed that FIDIC provisions are the one which clearly indicate the rights, obligations, and remedial rights of each contracting party and also clearly indicates Duties and Authority of the Engineer. It also considers the basis of contract such as having a separate clause for instruction in writing for proper record keeping to use it as a proper referencing during case of disagreement, dispute or any claim arises
- ✚ Most of our respondents agreed that our local Conditions of Contract are adapted from international conditions of contract in such a way to keep government, public interests and also to substantiate control of the government financed projects.
- ✚ PPA Conditions of Contract partially tries to improve the gap that has been observed in the previous provisions, such as lack of provisions of Adjudicator for dispute resolutions, etc. Also, the new Conditions of Contract have some shortcomings such as pre-mobilization obligation, Design related obligation etc.

Recommendations

From this work we recommend the following:

- ✓ Our first recommendation is that, it is better to use or adopt FIDIC condition of contracts because it clearly states the relationship among the parties, obligations of the parties, liabilities of the parties and also it is internationally recognized and acceptable condition of contract.
- ✓ FIDIC Conditions of Contract is recommended for general use in works subject to international tender. It has to be accepted, while preparing local Conditions of Contract that some Clauses shall be implemented generally and some should be modified depending on the features of the Work and location. The Clauses that shall be applied generally in the general Conditions of Contract, have been issued as facilitating as to be included and drawn up to the texts of Construction Contracts.
- ✓ It is clear that for a contract to be formal and valid proper record keeping of documents are important especially in the case of claim and dispute it will serve as evidence. Therefore conditions of contract has to have provisions that state instruction to be in writing clearly and for the case of urgent condition it has to allow some oral instruction to be confirmed later by the Engineer with definite time limit. Even if in our country doesn't have the trained to have site book on site.
- ✓ The strength of PPA is that it is more elaborating each clause so that it may not be confusing in interpretation and comparing from the previous local condition of contracts it is better so by reforming the clauses.
- ✓ The Strength of harmonized FIDIC is that provides in international meaningful clause, its clarity and simply understandable so it's better to adopt this condition of contract.
- ✓ Our final recommendation is that, further detailed study has to be conducted on the topic to clearly conduct holistic conclusions that all could explore a positive output.

Reference

1. PPA Public Procurement Agency
2. FIDIC = international federation designers -consulters (consultants)
3. MoWUD = ministry of work and urban development
4. A.A.Kwakye, 1997, Construction Project Administration In Practice, England, Addison Wesley Longman Limited.
5. Bell, J. (2010). Doing Your Research Project: A Guide For First-Time Researchers In Education, Health And Social Science. 5. Ed. Berkshire: Open University Press.
6. Jaeger, A. V. And Hok, G. S. 2009. FIDIC - A Guide For Practitioners, Springer Science & Business Media, 2009; page 446
7. FIDIC (1999). Conditions Of Contract For Construction: For Building And Engineering Works Designed By The Employer: General Conditions: Guidance For The Preparation Of Particular Conditions: Forms Of Letter Of Tender, Contract Agreement And Dispute Adjudication Agreement. Lausanne: Federation Internationale Des Ingenieurs-Conseils.