Registration Smart Contract

1. Original Smart Contract Security Analysis

```
Compiled with solc
Number of lines: 247 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 3 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 0
Number of informational issues: 17
Number of low issues: 1
Number of medium issues: 0
Number of high issues: 0
```

Name	# functions	ERCS	ERC20 info	Complex code	Features
Registration	16			No	

```
Registration.sol analyzed (3 contracts)

Registration.accreditCAB(address,bool) (Registration.sol#227-232) uses timestamp for comparisons
        Dangerous comparisons:
        - require(bool,string)(bytes(registeredCABDetails[_CAB].ipfsHash).length == 46,CAB details not updated) (Registration.sol#229)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Different versions of Solidity are used:
        - Version used: ['^0.8.0', '^0.8.20']
        - ^0.8.20 (Registration.sol#12)
        - ^0.8.20 (Registration.sol#43)
        - ^0.8.0 (Registration.sol#144)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

Context._contextSuffixLength() (Registration.sol#33-35) is never used and should be removed
Context._msgData() (Registration.sol#29-31) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.20 (Registration.sol#12) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
Pragma version^0.8.0 (Registration.sol#144) allows old versions
solc-0.8.26 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Parameter Registration.registerManufacturer(address)._manufacturer (Registration.sol#193) is not in mixedCase
Parameter Registration.registerCAB(string,address)._name (Registration.sol#199) is not in mixedCase
Parameter Registration.registerCAB(string,address)._CAB (Registration.sol#199) is not in mixedCase
Parameter Registration.updateCABDetails(string)._ipfsHash (Registration.sol#208) is not in mixedCase
Parameter Registration.registerEquipment(Registration.EquipmentType,string)._equipmentType (Registration.sol#219) is not in mixedCase
Parameter Registration.registerEquipment(Registration.EquipmentType,string)._ipfsHash (Registration.sol#219) is not in mixedCase
Parameter Registration.accreditCAB(address,bool)._CAB (Registration.sol#227) is not in mixedCase
Parameter Registration.accreditCAB(address,bool)._accredited (Registration.sol#227) is not in mixedCase
Parameter Registration.getEquipmentDetails(uint256)._id (Registration.sol#235) is not in mixedCase
Parameter Registration.getCABDetails(address)._EA (Registration.sol#242) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
Registration.sol analyzed (3 contracts with 81 detectors), 18 result(s) found
```

2. Fixed Smart Contract

```
Compiled with solc
Number of lines: 215 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 3 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 0
Number of informational issues: 1
Number of low issues: 1
Number of medium issues: 0
Number of high issues: 0


+--------------+-------------+------+------------+--------------+----------+
|     Name     | # functions | ERCS | ERC20 info | Complex code | Features |
+--------------+-------------+------+------------+--------------+----------+
| Registration |      14     |      |            |      No      |          |
+--------------+-------------+------+------------+--------------+----------+
Registration2.sol analyzed (3 contracts)
```

```
Registration.accreditCAB(address,bool) (Registration2.sol#195-200) uses timestamp for comparisons
        Dangerous comparisons:
        - require(bool,string)(bytes(registeredCABDetails[cab].ipfsHash).length == 46,CAB details not updated) (Registration2.sol#197)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

solc-0.8.26 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
Registration2.sol analyzed (3 contracts with 81 detectors), 2 result(s) found
```

Bidding Smart Contract

1. Original smart contract

```
Compiled with solc
Number of lines: 380 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 4 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 0
Number of informational issues: 27
Number of low issues: 1
Number of medium issues: 0
Number of high issues: 0


+-----------------+-------------+------+------------+--------------+-------------+
|       Name      | # functions | ERCS | ERC20 info | Complex code |   Features  |
+-----------------+-------------+------+------------+--------------+-------------+
|   Registration  |      16     |      |            |      No      |             |
| BiddingContract |      16     |      |            |      No      | Receive ETH |
|                 |             |      |            |              |   Send ETH  |
+-----------------+-------------+------+------------+--------------+-------------+
Bidding.sol analyzed (4 contracts)
```

```
Registration.accreditCAB(address,bool) (Bidding.sol#227-232) uses timestamp for comparisons
        Dangerous comparisons:
        - require(bool,string)(bytes(registeredCABDetails[_CAB].ipfsHash).length == 46,CAB details not updated) (Bidding.sol#229)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Different versions of Solidity are used:
        - Version used: ['^0.8.0', '^0.8.20']
        - ^0.8.20 (Bidding.sol#12)
        - ^0.8.20 (Bidding.sol#43)
        - ^0.8.0 (Bidding.sol#144)
        - ^0.8.0 (Bidding.sol#253)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

Context._contextSuffixLength() (Bidding.sol#33-35) is never used and should be removed
Context._msgData() (Bidding.sol#29-31) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.20 (Bidding.sol#12) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
Pragma version^0.8.20 (Bidding.sol#43) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
Pragma version^0.8.0 (Bidding.sol#144) allows old versions
Pragma version^0.8.0 (Bidding.sol#253) allows old versions
solc-0.8.26 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Parameter Registration.registerManufacturer(address)._manufacturer (Bidding.sol#193) is not in mixedCase
Parameter Registration.registerCAB(string,address)._name (Bidding.sol#199) is not in mixedCase
Parameter Registration.registerCAB(string,address)._CAB (Bidding.sol#199) is not in mixedCase
Parameter Registration.updateCABDetails(string)._ipfsHash (Bidding.sol#208) is not in mixedCase
Parameter Registration.registerEquipment(Registration.EquipmentType,string)._equipmentType (Bidding.sol#219) is not in mixedCase
Parameter Registration.registerEquipment(Registration.EquipmentType,string)._ipfsHash (Bidding.sol#219) is not in mixedCase
Parameter Registration.accreditCAB(address,bool)._CAB (Bidding.sol#227) is not in mixedCase
Parameter Registration.accreditCAB(address,bool)._accredited (Bidding.sol#227) is not in mixedCase
Parameter Registration.getEquipmentDetails(uint256)._id (Bidding.sol#235) is not in mixedCase
Parameter Registration.getCABDetails(address)._EA (Bidding.sol#242) is not in mixedCase
Parameter BiddingContract.createAuction(uint256)._equipmentId (Bidding.sol#308) is not in mixedCase
Parameter BiddingContract.submitBid(uint256,uint256)._auctionId (Bidding.sol#323) is not in mixedCase
Parameter BiddingContract.submitBid(uint256,uint256)._amount (Bidding.sol#323) is not in mixedCase
Parameter BiddingContract.selectBestBid(uint256)._auctionId (Bidding.sol#340) is not in mixedCase
Parameter BiddingContract.getBidDetails(uint256,uint256)._auctionId (Bidding.sol#362) is not in mixedCase
Parameter BiddingContract.getBidDetails(uint256,uint256)._bidId (Bidding.sol#362) is not in mixedCase
Parameter BiddingContract.getAuctionDetails(uint256)._auctionId (Bidding.sol#369) is not in mixedCase
Parameter BiddingContract.getWinningCAB(uint256)._equipmentId (Bidding.sol#375) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Reentrancy in BiddingContract.selectBestBid(uint256) (Bidding.sol#340-359):
        External calls:
        - address(bestBid.CAB).transfer(bestBid.amount) (Bidding.sol#356)
        Event emitted after the call(s):
        - BestBidSelected(_auctionId,selectedBidId,auction.bids[selectedBidId].CAB,auction.bids[selectedBidId].amount) (Bidding.sol#358)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-4
```

2. Fixed Smart Contract

```
Compiled with solc
Number of lines: 349 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 4 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 0
Number of informational issues: 2
Number of low issues: 1
Number of medium issues: 0
Number of high issues: 0


+-----------------+-------------+------+------------+--------------+-------------+
|       Name      | # functions | ERCS | ERC20 info | Complex code |   Features  |
+-----------------+-------------+------+------------+--------------+-------------+
|   Registration  |      14     |      |            |      No      |             |
| BiddingContract |      14     |      |            |      No      | Receive ETH |
|                 |             |      |            |              |   Send ETH  |
+-----------------+-------------+------+------------+--------------+-------------+
Bidding2.sol analyzed (4 contracts)

Registration.accreditCAB(address,bool) (Bidding2.sol#203-208) uses timestamp for comparisons
        Dangerous comparisons:
        - require(bool,string)(bytes(registeredCABDetails[cab].ipfsHash).length == 46,CAB details not updated) (Bidding2.sol#205)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

solc-0.8.26 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Reentrancy in BiddingContract.selectBestBid(uint256) (Bidding2.sol#309-328):
        External calls:
        - address(bestBid.cab).transfer(bestBid.amount) (Bidding2.sol#325)
        Event emitted after the call(s):
        - BestBidSelected(auctionId,selectedBidId,auction.bids[selectedBidId].cab,auction.bids[selectedBidId].amount) (Bidding2.sol#327)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-4
Bidding2.sol analyzed (4 contracts with 81 detectors), 3 result(s) found
```

Equipment Accreditation Smart Contract

1. Original Smart Contract

```
Compiled with solc
Number of lines: 466 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 6 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 0
Number of informational issues: 33
Number of low issues: 1
Number of medium issues: 0
Number of high issues: 0
```

Name	# functions	ERCS	ERC20 info	Complex code	Features
Registration	16			No	
BiddingContract	16			No	Receive ETH Send ETH
CommonsLibrary	0			No	
EquipmentAccreditation	13			No	

EquipmentAccreditation.sol analyzed (6 contracts)

```
Registration.accreditCAB(address,bool) (EquipmentAccreditation.sol#227-232) uses timestamp for comparisons
        Dangerous comparisons:
        - require(bool,string)(bytes(registeredCABDetails[_CAB].ipfsHash).length == 46,CAB details not updated) (EquipmentAccreditation.sol#229)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Different versions of Solidity are used:
        - Version used: ['^0.8.0', '^0.8.20']
        - ^0.8.20 (EquipmentAccreditation.sol#12)
        - ^0.8.20 (EquipmentAccreditation.sol#43)
        - ^0.8.0 (EquipmentAccreditation.sol#144)
        - ^0.8.0 (EquipmentAccreditation.sol#253)
        - ^0.8.0 (EquipmentAccreditation.sol#385)
        - ^0.8.0 (EquipmentAccreditation.sol#396)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

Context._contextSuffixLength() (EquipmentAccreditation.sol#33-35) is never used and should be removed
Context._msgData() (EquipmentAccreditation.sol#29-31) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.20 (EquipmentAccreditation.sol#12) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
Pragma version^0.8.20 (EquipmentAccreditation.sol#43) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
Pragma version^0.8.0 (EquipmentAccreditation.sol#144) allows old versions
Pragma version^0.8.0 (EquipmentAccreditation.sol#253) allows old versions
Pragma version^0.8.0 (EquipmentAccreditation.sol#385) allows old versions
Pragma version^0.8.0 (EquipmentAccreditation.sol#396) allows old versions
solc-0.8.26 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
```

```
Parameter Registration.registerManufacturer(address)._manufacturer (EquipmentAccreditation.sol#193) is not in mixedCase
Parameter Registration.registerCAB(string,address)._name (EquipmentAccreditation.sol#199) is not in mixedCase
Parameter Registration.registerCAB(string,address)._CAB (EquipmentAccreditation.sol#199) is not in mixedCase
Parameter Registration.updateCABDetails(string)._ipfsHash (EquipmentAccreditation.sol#208) is not in mixedCase
Parameter Registration.registerEquipment(Registration.EquipmentType,string)._equipmentType (EquipmentAccreditation.sol#219) is not in mixedCase
Parameter Registration.registerEquipment(Registration.EquipmentType,string)._ipfsHash (EquipmentAccreditation.sol#219) is not in mixedCase
Parameter Registration.accreditCAB(address,bool)._CAB (EquipmentAccreditation.sol#227) is not in mixedCase
Parameter Registration.accreditCAB(address,bool)._accredited (EquipmentAccreditation.sol#227) is not in mixedCase
Parameter Registration.getEquipmentDetails(uint256)._id (EquipmentAccreditation.sol#235) is not in mixedCase
Parameter Registration.getCABDetails(address)._EA (EquipmentAccreditation.sol#242) is not in mixedCase
Parameter BiddingContract.createAuction(uint256)._equipmentId (EquipmentAccreditation.sol#308) is not in mixedCase
Parameter BiddingContract.submitBid(uint256,uint256)._auctionId (EquipmentAccreditation.sol#323) is not in mixedCase
Parameter BiddingContract.submitBid(uint256,uint256)._amount (EquipmentAccreditation.sol#323) is not in mixedCase
Parameter BiddingContract.selectBestBid(uint256)._auctionId (EquipmentAccreditation.sol#340) is not in mixedCase
Parameter BiddingContract.getBidDetails(uint256,uint256)._auctionId (EquipmentAccreditation.sol#362) is not in mixedCase
Parameter BiddingContract.getBidDetails(uint256,uint256)._bidId (EquipmentAccreditation.sol#362) is not in mixedCase
Parameter BiddingContract.getAuctionDetails(uint256)._auctionId (EquipmentAccreditation.sol#369) is not in mixedCase
Parameter BiddingContract.getWinningCAB(uint256)._equipmentId (EquipmentAccreditation.sol#375) is not in mixedCase
Parameter EquipmentAccreditation.submitTestResults(uint256,string)._equipmentId (EquipmentAccreditation.sol#430) is not in mixedCase
Parameter EquipmentAccreditation.submitTestResults(uint256,string)._ipfsHash (EquipmentAccreditation.sol#430) is not in mixedCase
Parameter EquipmentAccreditation.makeAccreditationDecision(uint256,CommonsLibrary.Status)._equipmentId (EquipmentAccreditation.sol#449) is not in mixedCase
Parameter EquipmentAccreditation.getTestResultDetails(uint256)._equipmentId (EquipmentAccreditation.sol#460) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Reentrancy in BiddingContract.selectBestBid(uint256) (EquipmentAccreditation.sol#340-359):
        External calls:
        - address(bestBid.CAB).transfer(bestBid.amount) (EquipmentAccreditation.sol#356)
        Event emitted after the call(s):
        - BestBidSelected(_auctionId,selectedBidId,auction.bids[selectedBidId].CAB,auction.bids[selectedBidId].amount) (EquipmentAccreditation.sol#358)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-4
EquipmentAccreditation.sol analyzed (6 contracts with 81 detectors), 34 result(s) found
```

2. Fixed Smart Contract

```
Compiled with solc
Number of lines: 427 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 6 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 0
Number of informational issues: 2
Number of low issues: 2
Number of medium issues: 0
Number of high issues: 0
```

Name	# functions	ERCS	ERC20 info	Complex code	Features
Registration	14			No	
BiddingContract	14			No	Receive ETH Send ETH
CommonsLibrary	0			No	
EquipmentAccreditation	11			No	

EquipmentAccreditation2.sol analyzed (6 contracts)

```
Reentrancy in BiddingContract.selectBestBid(uint256) (EquipmentAccreditation2.sol#309-329):
        External calls:
        - (success) = bestBid.cab.call{value: bestBid.amount}() (EquipmentAccreditation2.sol#325)
        Event emitted after the call(s):
        - BestBidSelected(auctionId,selectedBidId,auction.bids[selectedBidId].cab,auction.bids[selectedBidId].amount) (EquipmentAccreditation2.sol#328)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-3

Registration.accreditCAB(address,bool) (EquipmentAccreditation2.sol#203-208) uses timestamp for comparisons
        Dangerous comparisons:
        - require(bool,string)(bytes(registeredCABDetails[cab].ipfsHash).length == 46,CAB details not updated) (EquipmentAccreditation2.sol#205)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

solc-0.8.26 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in BiddingContract.selectBestBid(uint256) (EquipmentAccreditation2.sol#309-329):
        - (success) = bestBid.cab.call{value: bestBid.amount}() (EquipmentAccreditation2.sol#325)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls
EquipmentAccreditation2.sol analyzed (6 contracts with 81 detectors), 4 result(s) found
```

Equipment Certification Smart Contract

1. Original Smart Contract

```
Compiled with solc
Number of lines: 567 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 7 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 0
Number of informational issues: 39
Number of low issues: 1
Number of medium issues: 0
Number of high issues: 0
```

Name	# functions	ERCS	ERC20 info	Complex code	Features
Registration	16			No	
BiddingContract	16			No	Receive ETH Send ETH
CommonsLibrary	0			No	
EquipmentAccreditation	13			No	
EquipmentCertification	13			No	

EquipmentCertification.sol analyzed (7 contracts)

```
Registration.accreditCAB(address,bool) (EquipmentCertification.sol#227-232) uses timestamp for comparisons
        Dangerous comparisons:
        - require(bool,string)(bytes(registeredCABDetails[_CAB].ipfsHash).length == 46,CAB details not updated) (EquipmentCertification.sol#229)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Different versions of Solidity are used:
        - Version used: ['^0.8.0', '^0.8.20']
        - ^0.8.20 (EquipmentCertification.sol#12)
        - ^0.8.20 (EquipmentCertification.sol#43)
        - ^0.8.0 (EquipmentCertification.sol#144)
        - ^0.8.0 (EquipmentCertification.sol#253)
        - ^0.8.0 (EquipmentCertification.sol#385)
        - ^0.8.0 (EquipmentCertification.sol#396)
        - ^0.8.0 (EquipmentCertification.sol#472)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

Context._contextSuffixLength() (EquipmentCertification.sol#33-35) is never used and should be removed
Context._msgData() (EquipmentCertification.sol#29-31) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version^0.8.20 (EquipmentCertification.sol#12) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
Pragma version^0.8.20 (EquipmentCertification.sol#43) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
Pragma version^0.8.0 (EquipmentCertification.sol#144) allows old versions
Pragma version^0.8.0 (EquipmentCertification.sol#253) allows old versions
Pragma version^0.8.0 (EquipmentCertification.sol#385) allows old versions
Pragma version^0.8.0 (EquipmentCertification.sol#396) allows old versions
Pragma version^0.8.0 (EquipmentCertification.sol#472) allows old versions
solc-0.8.26 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity
```

```
Parameter Registration.registerManufacturer(address)._manufacturer (EquipmentCertification.sol#193) is not in mixedCase
Parameter Registration.registerCAB(string,address)._name (EquipmentCertification.sol#199) is not in mixedCase
Parameter Registration.registerCAB(string,address)._CAB (EquipmentCertification.sol#199) is not in mixedCase
Parameter Registration.updateCABDetails(string)._ipfsHash (EquipmentCertification.sol#208) is not in mixedCase
Parameter Registration.registerEquipment(Registration.EquipmentType,string)._equipmentType (EquipmentCertification.sol#219) is not in mixedCase
Parameter Registration.registerEquipment(Registration.EquipmentType,string)._ipfsHash (EquipmentCertification.sol#219) is not in mixedCase
Parameter Registration.accreditCAB(address,bool)._CAB (EquipmentCertification.sol#227) is not in mixedCase
Parameter Registration.accreditCAB(address,bool)._accredited (EquipmentCertification.sol#227) is not in mixedCase
Parameter Registration.getEquipmentDetails(uint256)._id (EquipmentCertification.sol#235) is not in mixedCase
Parameter Registration.getCABDetails(address)._EA (EquipmentCertification.sol#242) is not in mixedCase
Parameter BiddingContract.createAuction(uint256)._equipmentId (EquipmentCertification.sol#308) is not in mixedCase
Parameter BiddingContract.submitBid(uint256,uint256)._auctionId (EquipmentCertification.sol#323) is not in mixedCase
Parameter BiddingContract.submitBid(uint256,uint256)._amount (EquipmentCertification.sol#323) is not in mixedCase
Parameter BiddingContract.selectBestBid(uint256)._auctionId (EquipmentCertification.sol#340) is not in mixedCase
Parameter BiddingContract.getBidDetails(uint256,uint256)._auctionId (EquipmentCertification.sol#362) is not in mixedCase
Parameter BiddingContract.getBidDetails(uint256,uint256)._bidId (EquipmentCertification.sol#362) is not in mixedCase
Parameter BiddingContract.getAuctionDetails(uint256)._auctionId (EquipmentCertification.sol#369) is not in mixedCase
Parameter BiddingContract.getWinningCAB(uint256)._equipmentId (EquipmentCertification.sol#375) is not in mixedCase
Parameter EquipmentAccreditation.submitTestResults(uint256,string)._equipmentId (EquipmentCertification.sol#430) is not in mixedCase
Parameter EquipmentAccreditation.submitTestResults(uint256,string)._ipfsHash (EquipmentCertification.sol#430) is not in mixedCase
Parameter EquipmentAccreditation.makeAccreditationDecision(uint256,CommonsLibrary.Status)._equipmentId (EquipmentCertification.sol#449) is not in mixedCase
Parameter EquipmentAccreditation.getTestResultDetails(uint256)._equipmentId (EquipmentCertification.sol#460) is not in mixedCase
Parameter EquipmentCertification.requestCertification(uint256,address,string)._equipmentId (EquipmentCertification.sol#520) is not in mixedCase
Parameter EquipmentCertification.requestCertification(uint256,address,string)._cab (EquipmentCertification.sol#520) is not in mixedCase
Parameter EquipmentCertification.requestCertification(uint256,address,string)._ipfsHash (EquipmentCertification.sol#520) is not in mixedCase
Parameter EquipmentCertification.makeCertificationDecision(uint256,CommonsLibrary.Status)._equipmentId (EquipmentCertification.sol#542) is not in mixedCase
Parameter EquipmentCertification.getCertificationRequestDetails(uint256)._equipmentId (EquipmentCertification.sol#555) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

Reentrancy in BiddingContract.selectBestBid(uint256) (EquipmentCertification.sol#340-359):
        External calls:
        - address(bestBid.CAB).transfer(bestBid.amount) (EquipmentCertification.sol#356)
        Event emitted after the call(s):
        - BestBidSelected(_auctionId,selectedBidId,auction.bids[selectedBidId].CAB,auction.bids[selectedBidId].amount) (EquipmentCertification.sol#358)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-4
EquipmentCertification.sol analyzed (7 contracts with 81 detectors), 40 result(s) found
```

2. Fixed Smart Contract

```
Compiled with solc
Number of lines: 521 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 7 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 0
Number of informational issues: 2
Number of low issues: 2
Number of medium issues: 0
Number of high issues: 0
```

Name	# functions	ERCS	ERC20 info	Complex code	Features
Registration	14			No	
BiddingContract	14			No	Receive ETH Send ETH
CommonsLibrary	0			No	
EquipmentAccreditation	11			No	
EquipmentCertification	11			No	

```
EquipmentCertification2.sol analyzed (7 contracts)
```

```
Reentrancy in BiddingContract.selectBestBid(uint256) (EquipmentCertification2.sol#309-329):
        External calls:
        - (success) = bestBid.cab.call{value: bestBid.amount}() (EquipmentCertification2.sol#325)
        Event emitted after the call(s):
        - BestBidSelected(auctionId,selectedBidId,auction.bids[selectedBidId].cab,auction.bids[selectedBidId].amount) (EquipmentCertification2.sol#328)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-3

Registration.accreditCAB(address,bool) (EquipmentCertification2.sol#203-208) uses timestamp for comparisons
        Dangerous comparisons:
        - require(bool,string)(bytes(registeredCABDetails[cab].ipfsHash).length == 46,CAB details not updated) (EquipmentCertification2.sol#205)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

solc-0.8.26 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in BiddingContract.selectBestBid(uint256) (EquipmentCertification2.sol#309-329):
        - (success) = bestBid.cab.call{value: bestBid.amount}() (EquipmentCertification2.sol#325)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls
EquipmentCertification2.sol analyzed (7 contracts with 81 detectors), 4 result(s) found
```