

# **DTR Life Cycle Management System Mobile Application**

## Software Modules:

Following are the main modules designed in DTLMS Mobile Application:

1. Register
2. Login
3. Dash Board
4. Failure
5. Enhancement
6. Approval Inbox
7. Stock Status

### 1. Register

- Register page is mainly used to register the mobile device using valid User Name and Password as shown in the below Fig (1)

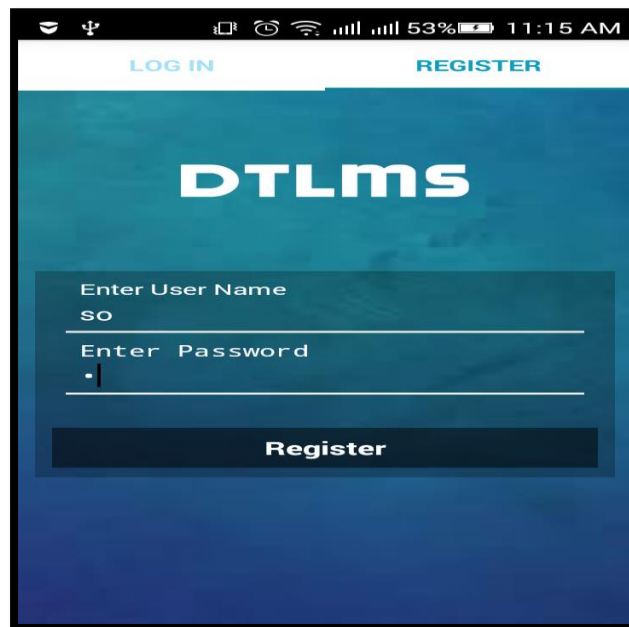


Fig (1): Register Page

- Mobile Device register will be approved by authorized person through DTLMS web application until then user not able to login to the application as it shows error message as shown in the below Fig (2)

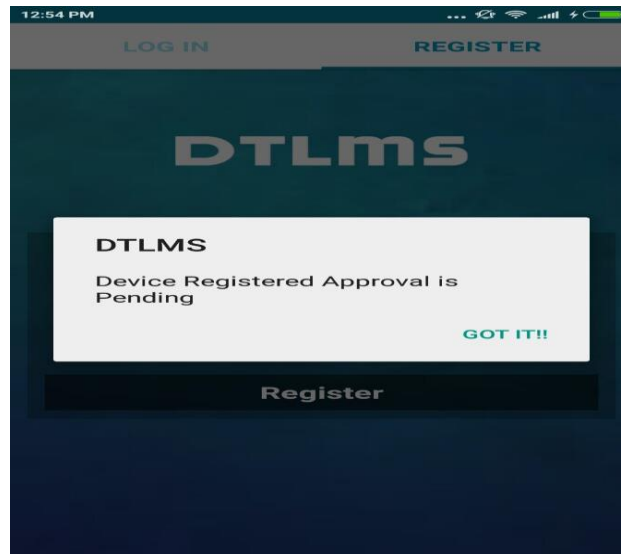


Fig (2): Register Approval Pending

## 2. Login

- Login page is mainly used to login into the particular application using valid User Name and Password as shown in the below Fig (3)

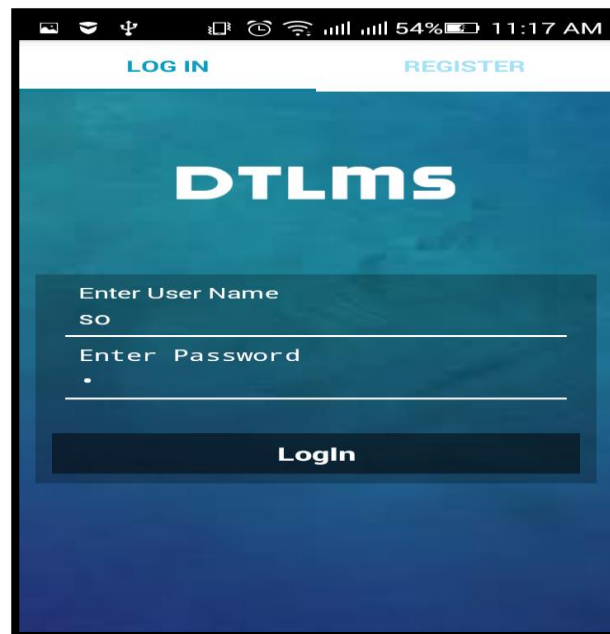


Fig (3): Login Page

- User Name and Password can be created by administrator through DTLMS web application.

### 3. Dash Board

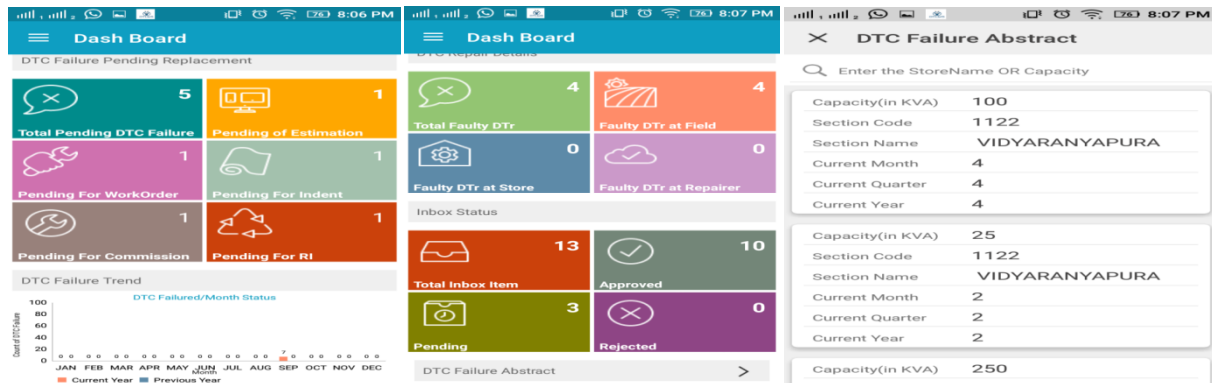


Fig (4): Dash Board

- As soon as a user logs into DTLMS, dash board screen will be displayed which shows all the transaction count with respect to the modules (4)
- Graphical representation for failed DTC with respect to particular month and also represents failed DTC details(4)

### 4. Failure Entry

- This Failure module is used to declare the failure for transformers.
- User is provided with Search page as he can search for particular transformer or group of transformer under same feeder to be declared using DTC Code or DTC Name as shown in the below Fig (5) & (6)

Failure Entry

4334

dte

Submit

Fig (5): Search Page

**Failure Entry**

Filter By DTC Code,DTC Name

☒ New Failure Entry ☐ Show Failure Entry

DTC Name	dct56
DTr Code	2322
Make Name	ABC
DTr Capacity	63
Failure Entry	NO

**Action Declare Failure**

DTC Code	433489
DTC Name	dct89
DTr Code	43546456
Make Name	MAKE NAME
DTr Capacity	25
Failure Entry	NO

**Action Declare Failure**

Fig (6): New Failure Entry

- User is also provided with the Filter option as shown in the below Fig (7), as user can filter the records according to his DTC Code/DTC Name among several records.

**Failure Entry**

Filter 4444

☒ New Failure Entry ☐ Show Failure Entry

DTC Code	444410
DTC Name	aa
DTr Code	555
Make Name	MAKE NAME 1
DTr Capacity	25
Failure Entry	NO

Fig (7): Filter Page

- On clicking the “Declare Failure” link “Declare Failure” page will open as shown below Fig (8). On entering all the required fields and saving the record then transformer will be declared as failed.

DTC Reading	
H.T.Bushing★	Good
L.T.Bushing★	Good
Drain Valve★	No
H.T.Bushing Rod&Nut★	Good
L.T.Bushing Rod&Nut★	Good
Oil Level Gauge★	Yes
Quantity Of Oil(in Ltr)	6
Condition of Tank★	Good
Explosion Vent Valve★	Yes
Breather★	No

**Save**

Fig (8): Declare Failure Page

- After failure declaration and approval all the declared transformers details will be displayed in the “Show Failure Entry” page so that user can view the details of already failure declared transformers as shown in the below Fig (9)

**Failure Entry**

Filter By DTC Code,DTC Name

☐ New Failure Entry ☒ Show Failure Entry

DTr Code	23334
Make Name	MAKE NAME 1
DTr Capacity	25
Failure Entry	YES
<b>Action</b>	<b>View</b>

DTC Code	434310
DTC Name	CC
DTr Code	23334
Make Name	MAKE NAME 1
DTr Capacity	25
Failure Entry	YES
<b>Action</b>	<b>View</b>

Fig (9): Failure Entry View Page

## 5. Enhancement Entry:

- User can search for transformers to be enhanced using search option as shown in the above Fig (5) and below Fig (10)
- Enhancement Entry page is used when the existing transformer has to be replaced by a higher capacity transformer.

Enhancement

Filter DTC Code,DTC Name

☒ New Enhancement Entry ☐ Show Enhancement Entry

DTC Code	433456
DTC Name	dct56
DTr Code	2322
Make Name	ABC
DTr Capacity	63
Enhancement Entry	NO

Action Declare

Fig (10): Enhancement Entry Page

- On clicking “Declare Enhancement” link “Declare Enhancement” page will open as shown below Fig (10).

DTC Code	433456
DTC Name	dtc56
Service Date	22/07/2016
Load KW	344
Load Hp	434
Commission Date	22/07/2016
Capacity	63
Section	ALUR
DTr Code	2322
DTr Make	ABC
Enhancement Date	
Reason	
DTC Reading	

Fig (11): Declare Enhancement Page

- On entering all the required fields and saving the record then DTC is declared for enhancement.
- After enhancement declaration all the declared transformers details will be displayed in the “Already Created” page so that user can view the details of already enhancement declared transformers as shown in the below Fig (12)

DTC Code	433456
DTC Name	dtc56
DTr Code	2322
Make Name	ABC
DTr Capacity	63
Enhancement Entry	YES

Fig (12): Enhancement Entry View Page



## 6. Approval Inbox

- After declaration of Failure/Enhancement, these declared records should get approved by authorized persons like Sub Division Officer.
- After Failure/Enhancement getting approved then Work Order, Indent and Decommissioning actions will get performed by various authorized persons.
- All the above mentioned actions will get performed in this “Approval Inbox” module as shown in the below Fig (13).
- As shown in the below Fig (13), Approval Inbox Dash Board shows the number of counts of records that each page consist of.

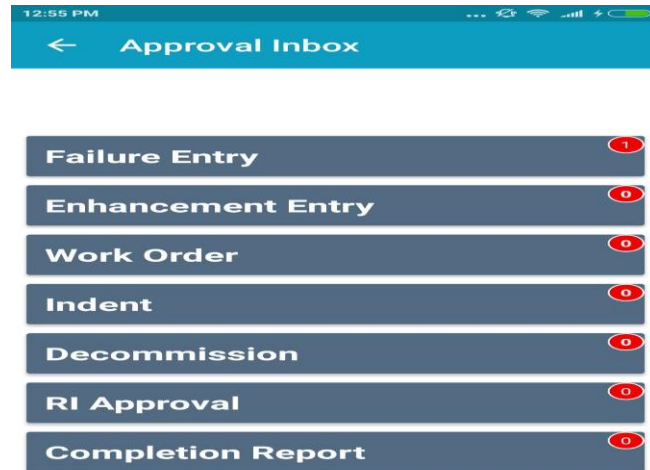


Fig (13): Approval Inbox Dash Board

### 5.1: Failure/Enhancement

- Pending for Approval page shows records to be approved along with Approve/Modify/Reject buttons as shown in the below Fig (14).
- For declared Failure/Enhancement, clicking on “Approve” button authorized person can approve the record without doing any modification as shown in the below Fig (15).

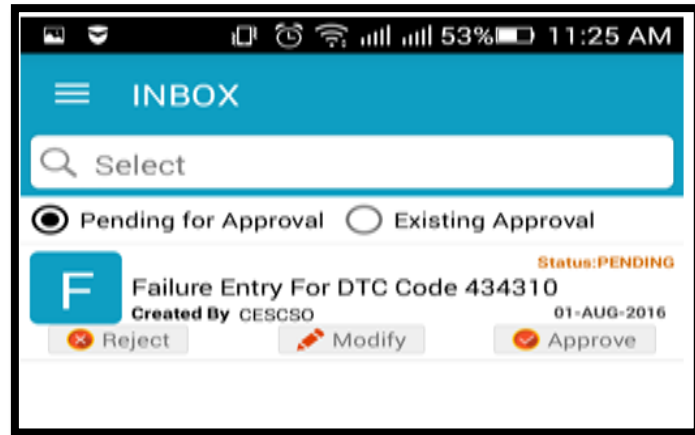


Fig (14): Pending for Approval Page

L.T.Bushing★	Good
Drain Valve★	Yes
H.T.Bushing Rod&Nut★	Good
L.T.Bushing Rod&Nut★	Good
Oil Level Gauge★	Yes
Quantity Of Oil(in Ltr)	
Condition of Tank★	Good
Explosion Vent Valve★	Yes
Breather★	Yes
Comment★	

Approve

Fig (15): Approval Page of Failure Record

- Approver can modify the record if needed and approve the same by using “Modify and Approve” button which displays Modify and Approve page shown in the below Fig (15).

The screenshot shows a mobile application interface for declaring failure. The title bar is blue with a back arrow and the text 'Declare Failure'. Below the title bar, there is a list of components with their status. The components are: L.T.Bushing (Good), Drain Valve (Yes), H.T.Bushing Rod&Nut (Good), L.T.Bushing Rod&Nut (Good), Oil Level Gauge (Yes), Quantity Of Oil(in Ltr), Condition of Tank (Good), Explosion Vent Valve (Yes), and Breather (Yes). At the bottom, there is a 'Comment' field with the text 'cesc qws' and a blue button labeled 'Modify And Approve'.

Component	Status
L.T.Bushing	Good
Drain Valve	Yes
H.T.Bushing Rod&Nut	Good
L.T.Bushing Rod&Nut	Good
Oil Level Gauge	Yes
Quantity Of Oil(in Ltr)	
Condition of Tank	Good
Explosion Vent Valve	Yes
Breather	Yes

Comment: cesc qws

**Modify And Approve**

Fig (16): Modify and Approve page

- Approver can also reject the record by using “Reject” button and rejected record will be displayed in the initiator inbox. So initiator can correct the record details and send for the approval again.
- After every action of Approval/Modify/Rejection records will get displayed in the “Existing Approval” page for existing record view as shown in the below Fig (17).

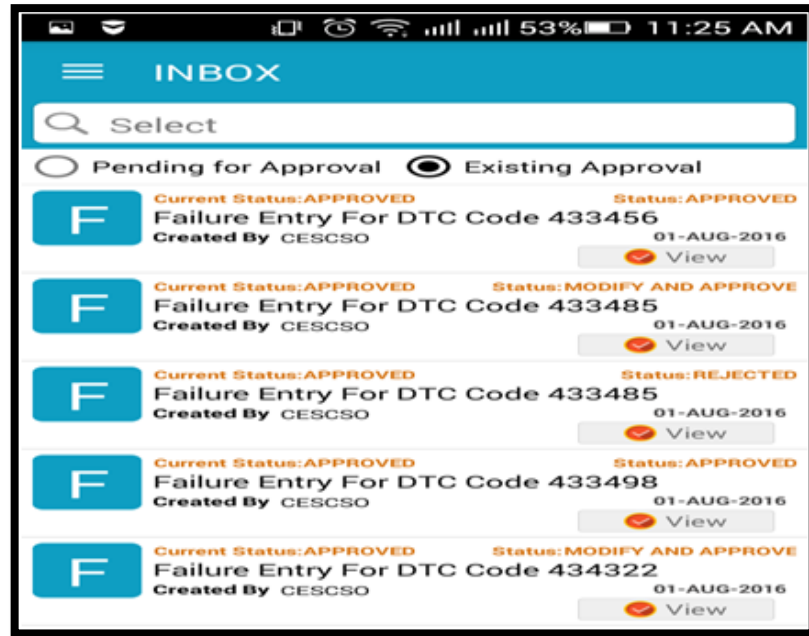


Fig (167): Modify and Approve page

## 5.2: Work Order

- Once after Failure/Enhancement records get approved then approved record will get displayed in the Work Order's Pending for Approval page
- Work Order page is mainly used to declare the Work Order by initiator on entering required Commissioning and Decommissioning fields as shown in the below Fig (18).
- Once after Work Order getting declared by initiator it will get approved by various authorized persons like Store Officer, Accounts Officer and Division Officer.
- At every level of approval approved/modified/rejected records details will get updated in the Existing Approval page.

← Work Order

Issued By EE

Capacity ★ 25

**Commissioning**

Work Order No ★ aaaaa | bbbbbb | 584897

Date ★ 02/08/2016

Amount ★ 2397.00

A/C Code ★ 25/1234

**DeCommissioning**

Work Order No ★

Date ★

Amount ★ 1009.80

A/C Code ★ 25/1234

Save

Fig (18): Work Order Creation Page

### 5.3: Indent

- After declaring and approval of Work Order then approved record will get displayed in the Indent's Pending for Approval page.
- Indent of the particular record can be created on entering require fields as shown in the below Fig (19)

← Indent Creation

DTC Code 434310

WO Date 02/08/2016

Failure ID 11

WO Issued By CESCAET

DTr Code 23334

Requested Capacity 25

**Indent Creation**

Indent No ★ 41401600003

Store Name ★ Malleshwaram

Indent Date ★ 02/08/2016

Indent Description

☒ Alert me once stock available in store

★ 1 Number of 25 KVA Capacity Transformers Available in the Store

Save

Fig (19): Indent Creation Page

- Alert Me Once Stock Available in Store: As shown in the above Fig (19) when the requested capacity transformer is not available in the store this alert me checkbox is mainly provided to get the alert message once the requested transformer get available.
- Once after Indent getting declared by initiator it will get approved by authorized person like Sub Division Officer.
- As mentioned above for Work Order, for Indent also approved/modified/rejected records details will get updated in the Existing Approval page.

#### 5.4: Decommissioning

- After declaration and approval of Indent then Invoice process will get performed through DTLMS web application by authorized persons like Store Officer and Store Keeper respectively.
- Once after declaration and approval of Invoice then approved records will get displayed in the Decommissioning Pending for Approval page.
- Decommissioning for the particular record can be created by initiator like Section Officer on entering required field as shown in the below Fig (20).

Decommissioning View	
Failure ID	11
DTC Name	CC
Failure Date	02/08/2016
DTr Code	23334
Make Name	MAKE NAME 1
Decommissioning	
Decomm Date *	02/08/2016
RI Number *	41401600004
RI Date *	
DTr Reading	97498
Store Name *	Malleshwaram
Oil Quaty(in Litre) *	6449
Remarks *	vzvzvsb
<b>Submit</b>	

Fig (20): Decommissioning Page

- Once after Decommissioning getting declared by initiator it will get approved by authorized person like Sub Division Officer.
- As mentioned above for other modules, for Indent also approved/modified/rejected records details will get updated in the Existing Approval page.

## 5.4: RI Approval



The screenshot shows the 'RI Acknowledgement' form. It includes fields for DTr Code (383), DTr SIno (S23092), DTr Make (SVR), Oil Quantity (22), Ack Number (121600001), Ack Date (29/09/2016), and Remarks (dfgdfg). There is a 'Comment' field with a red star icon and an 'Approve' button at the bottom.

DTr Code	383
DTr SIno	S23092
DTr Make	SVR
Oil Quantity(in litre) Entered By So	22
Oil Quantity(in litre)★	22
Ack Number	121600001
Ack Date	29/09/2016
Remarks★	dfgdfg
Comment★	<input type="text"/>

Approve

Fig (21): RI Approval

- This form will be Approved by particular authorized person like store keeper in order to ensure that the failed DTR can be received from field to store.

## 5.4: Completion Report



The screenshot shows the 'Completion Report' form. It includes fields for Failure DTr Code (1396), Replaced DTr Code (8811), RI Number (1122160000), RI Date (27-SEP-201), Remarks From Store Keeper (hgfh), Oil capacity (666), Acceptance Date (27/09/2016), Remarks from Store Officer (jhghgh), and Inventory Quantity. There is a 'Comment' field with a red star icon and an 'Approve' button at the bottom.

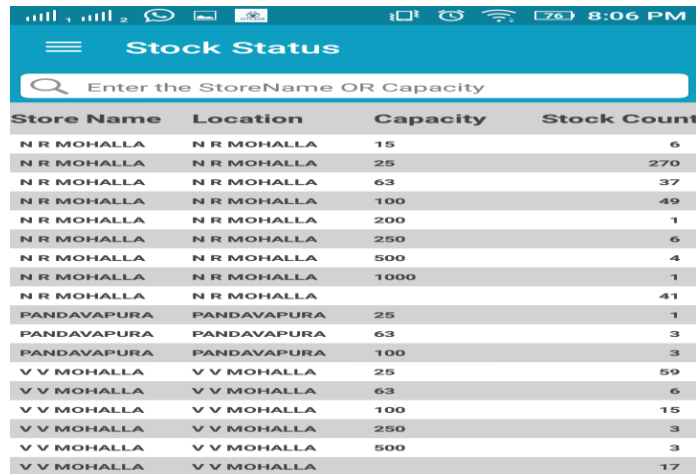
Failure DTr Code	1396
Replaced DTr Code	8811
RI Number	1122160000
RI Date	27-SEP-201
Remarks From Store Keeper	hgfh
Oil capacity(in Litre)	666
Acceptance Date	27/09/2016
Remarks from Store Officer	jhghgh
Inventory Quantity	
Comment★	<input type="text"/>

Approve

Fig (22): Completion Report

- Completion report represents complete details of failed/enhanced DTR

## 5.4: Stock Status



Store Name	Location	Capacity	Stock Count
N R MOHALLA	N R MOHALLA	15	6
N R MOHALLA	N R MOHALLA	25	270
N R MOHALLA	N R MOHALLA	63	37
N R MOHALLA	N R MOHALLA	100	49
N R MOHALLA	N R MOHALLA	200	1
N R MOHALLA	N R MOHALLA	250	6
N R MOHALLA	N R MOHALLA	500	4
N R MOHALLA	N R MOHALLA	1000	1
N R MOHALLA	N R MOHALLA		41
PANDAVAPURA	PANDAVAPURA	25	1
PANDAVAPURA	PANDAVAPURA	63	3
PANDAVAPURA	PANDAVAPURA	100	3
V V MOHALLA	V V MOHALLA	25	59
V V MOHALLA	V V MOHALLA	63	6
V V MOHALLA	V V MOHALLA	100	15
V V MOHALLA	V V MOHALLA	250	3
V V MOHALLA	V V MOHALLA	500	3
V V MOHALLA	V V MOHALLA		17

Fig (23): Stock Status

- This form represents the details of store stock with respect to store name and store location.